



Beijing

Chicago

Hong Kong

# Singapore Exchange

London

Mumbai

Shanghai

Tokyo

Annual Report 2018

July 2017 – June 2018



# Corporate Information

## Board of Directors

### Chairman

Mr Kwa Chong Seng

### Chief Executive Officer

Mr Loh Boon Chye

### Members

Mr Thaddeus Beczak  
Ms Chew Gek Khim  
Ms Jane Diplock AO  
Mr Kevin Kwok  
Mr Liew Mun Leong  
Mr Lim Chin Hu

*Appointed on 21 September 2017*

Ms Lim Sok Hui (Mrs Chng Sok Hui)  
Mr Ng Kok Song

## Company Secretaries

Ms Ding Hui Yun  
Mr Seah Kim Ming Glenn

## Share Registrar

Boardroom Corporate & Advisory Services Pte. Ltd.  
50 Raffles Place #32-01  
Singapore Land Tower  
Singapore 048623

**t** (65) 6536 5355  
**f** (65) 6438 8710  
**e** SRS.TeamB@boardroomlimited.com  
**w** www.boardroomlimited.com

## Auditor

PricewaterhouseCoopers LLP  
7 Straits View  
Marina One East Tower  
Level 12  
Singapore 018936

**t** (65) 6236 3388  
**f** (65) 6236 3300  
**w** www.pwc.com/sg

## Partner-in-Charge

Ms Deborah Tan Yang Sock  
(Mrs Deborah Ong)  
*Appointed on 1 July 2014*

## Board Committees

### Audit Committee

#### Chairman

Mr Kevin Kwok

#### Members

Ms Jane Diplock AO  
Mr Liew Mun Leong

### Nominating & Governance Committee

#### Chairman

Mr Kwa Chong Seng

#### Members

Ms Chew Gek Khim  
Mr Kevin Kwok  
Mr Liew Mun Leong  
Mr Ng Kok Song

### Regulatory Conflicts Committee

*Last meeting was held on 24 October 2017 and dissolved thereafter.*

#### Chairman

Ms Jane Diplock AO

#### Members

Mr Thaddeus Beczak  
Mr Kevin Kwok

### Remuneration & Staff Development Committee

#### Chairman

Mr Kwa Chong Seng

#### Members

Ms Chew Gek Khim  
Mr Liew Mun Leong

### Risk Management Committee

#### Chairman

Ms Lim Sok Hui (Mrs Chng Sok Hui)

#### Members

Mr Thaddeus Beczak  
Ms Jane Diplock AO  
Mr Kevin Kwok

*Appointed on 21 September 2017*

Mr Lim Chin Hu

*Appointed on 21 September 2017*

## Registered Office

Singapore Exchange Limited  
2 Shenton Way #02-02  
SGX Centre 1  
Singapore 068804

**t** (65) 6236 8888

**f** (65) 6535 6994

**w** www.sgx.com

## Place of Incorporation

Singapore

## Company Registration No.

199904940D

## Date of Incorporation

21 August 1999

## Investor Relations

For enquiries on SGX's business performance, contact the Investor Relations team at email: ir@sgx.com

## Sustainability

Email: sustainability@sgx.com

# Asia's Most International Exchange

Headquartered in AAA-rated Singapore, with seven offices around the world, SGX is a global multi-asset exchange operating equity, fixed income and derivatives markets to the highest regulatory standards.

## Letter from the Chairman and the CEO

FY2018 was a milestone year by many measures.

For more information on Letter from the Chairman and the CEO, go to: pages 12–15

## Financial Highlights & Performance Review

### Equities and Fixed Income

 Issuer Services **\$86.2m**

 Securities Trading and Clearing **\$221.1m**

 Post Trade Services **\$99.3m**

### Derivatives

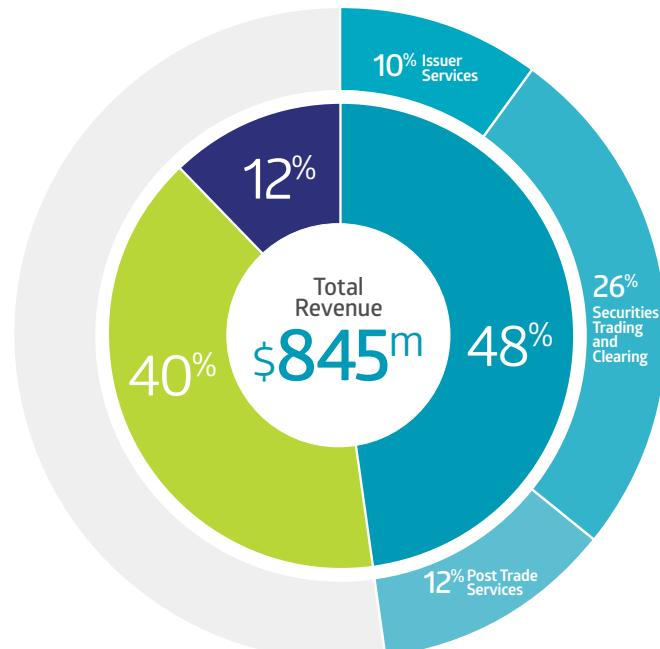
 **\$339.8m**

### Market Data and Connectivity

 **\$98.3m**

For more information on Financial Highlights & Performance Review, go to: pages 8–9

## FY2018 Revenue



- Equities and Fixed Income
- Derivatives
- Market Data and Connectivity

For more information on Business at a Glance, go to: page 6

## Sustainability

Sustainability remains core to the long-term viability of our organisation. We have identified 4 material factors that are important to the sustainability of our organisation.

For more information on Sustainability, go to: pages 40–51

### Key Trends



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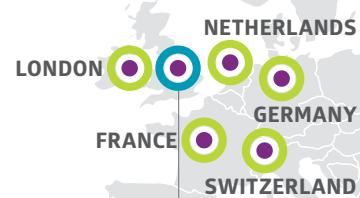
**ONLINE ANNUAL REPORT**  
<http://investorrelations.sgx.com/>  
financial-information/annual-reports

## Our International Network



### Chicago

200 South Wacker Drive  
Suite 3100, Chicago,  
IL 60606, USA



### London

38 St Mary Axe  
London EC3A 8BH



#### Legend



SGX Offices



SGX Members



SGX is Asia's most international and connected exchange, with established linkages across the world. We will continue to cement our position as a multi-asset exchange, while growing our international presence and widening our partnerships and networks.





# Business at a Glance

## Revenue

 5% from \$801m

# \$845<sup>m</sup>

## Operating Profit

 6% from \$402m

# \$425<sup>m</sup>

## Net Profit

 7% from \$340m

# \$363<sup>m</sup>

## Earnings per Share

 7% from 31.7¢

# 33.9¢

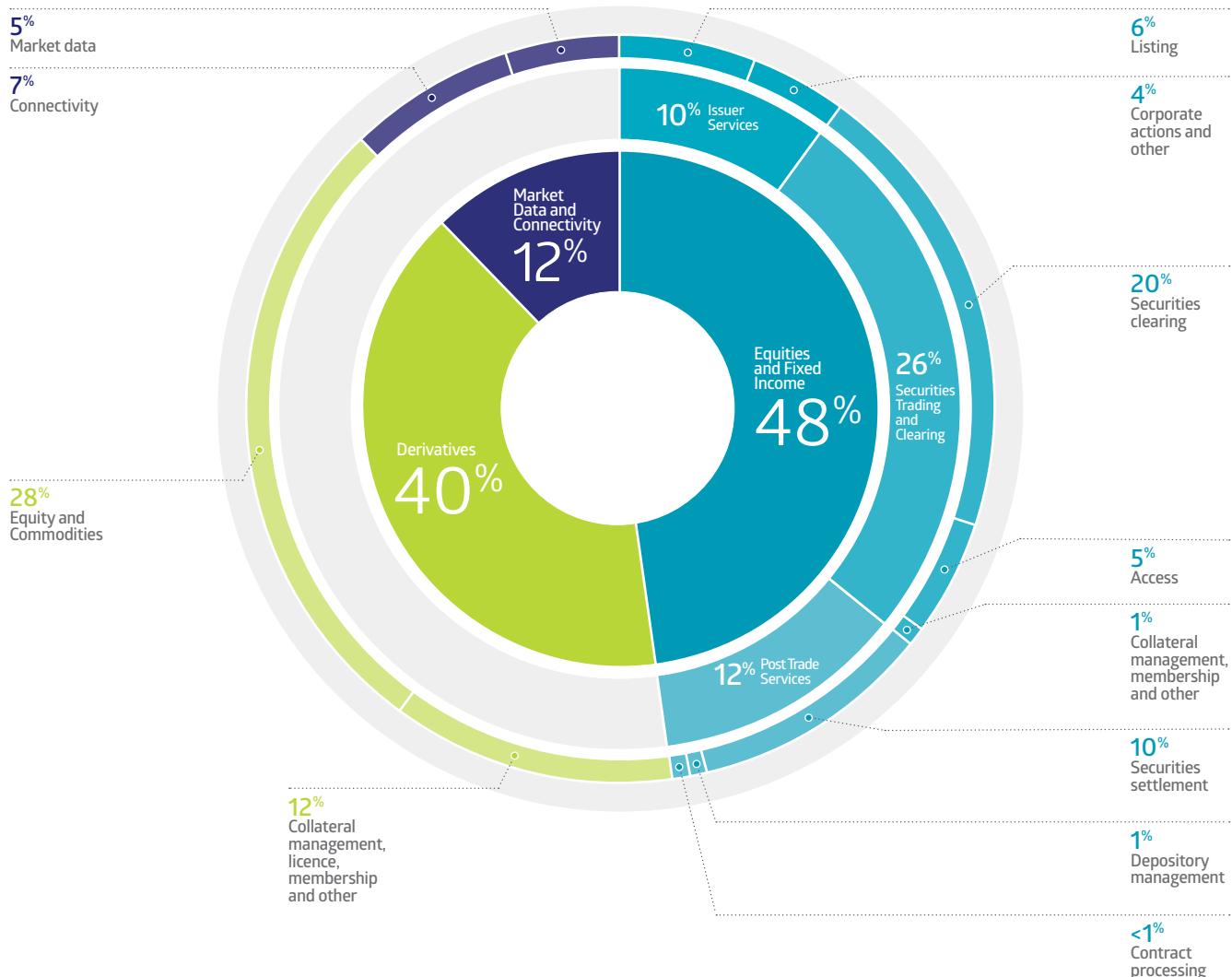
## Dividend per Share

 2¢ from 28¢

# 30¢

## Return on Equity

 34%



All comparatives are for the year earlier.

# Financial Performance Summary

(\$million)	FY2014	FY2015	FY2016	FY2017	<b>FY2018</b>
<b>Statement of Income</b>					
Revenue	686	779	818	801	<b>845</b>
Expenses	315	377	409	399	<b>420</b>
Operating profit	371	402	409	402	<b>425</b>
Profit before tax and share of results of associated companies	377	410	416	409	<b>436</b>
Net profit attributable to equity holders	320	349	349	340	<b>363</b>
<b>Statement of Cash Flows</b>					
Cash flows from operating activities	359	429	423	378	<b>427</b>
<b>Statement of Financial Position</b>					
Total assets	1,641	1,801	2,105	2,041	<b>2,115</b>
– Unrestricted cash and cash equivalents	607	633	598	520	<b>550</b>
– Committed for derivatives clearing fund	150	150	200	200	<b>200</b>
– Committed for securities clearing fund	60	60	60	60	<b>60</b>
– Committed for National Electricity Market of Singapore	NIL	7	8	16	<b>22</b>
Total liabilities	719	825	1,115	1,009	<b>1,019</b>
Total equity	922	976	990	1,032	<b>1,096</b>
– Includes proposed final dividend of	171	171	139	139	<b>161</b>
Capital expenditure	83	76	75	67	<b>65</b>
No. of shares issued (million)	1,072	1,072	1,072	1,072	<b>1,072</b>
No. of shares held as treasury shares (million)	2	1	2	2	<b>2</b>
<b>Financial Indicators</b>					
Revenue growth (%)	(4.0)	13.5	5.1	(2.1)	<b>5.5</b>
Operating profit margin (%)	54.1	51.6	50.0	50.2	<b>50.3</b>
Cost-to-income ratio (%)	45.9	48.4	50.0	49.8	<b>49.7</b>
Net gearing	NIL	NIL	NIL	NIL	<b>NIL</b>
Operating cash flow per share (cents)	33.5	40.1	39.6	35.3	<b>39.9</b>
Net asset value per ordinary share as at 30 June (dollars)	0.86	0.91	0.93	0.96	<b>1.02</b>
Based on net profit attributable to equity holders					
Net profit margin (%)	46.3	44.3	42.1	41.9	<b>42.4</b>
Return on equity (%)	35.4	36.7	35.5	33.6	<b>34.1</b>
Dividend payout ratio (%)	93.4	86.0	85.9	88.2	<b>88.4</b>
Basic earnings per share (cents)	30.0	32.6	32.6	31.7	<b>33.9</b>

# Financial Highlights & Performance Review

SGX recorded operating profit of \$424.9 million (\$401.8 million) and a net profit of \$363.2 million (\$339.7 million) in FY2018, with earnings per share of 33.9 cents (31.7 cents).

## Equities and Fixed Income

### Issuer Services



Revenue increased \$2.4 million or 3% to \$86.2 million (\$83.8 million), accounting for 10% (10%) of total revenue.



Contribution to total revenue:  
**10%**

Revenue

3% from \$83.8m

# \$86.2<sup>m</sup>



● Listing	60%
● Corporate actions and other	40%

Type of Revenue	\$m	% change
Listing	<b>51.6</b>	+5%
Corporate actions and other	<b>34.6</b>	-

Listing revenue increased 5% mainly due to higher number of new bond listings. There were 1,154 bond listings raising \$481.9 billion, compared to 819 listings raising \$384.7 billion a year earlier. There were 22 new equity listings which raised \$6.2 billion, compared to 23 new listings raising \$1.3 billion a year earlier. Secondary equity funds raised were \$6.4 billion (\$10.9 billion).

## Equities and Fixed Income revenue increased \$2.1 million or 1% to \$406.6 million (\$404.5 million), accounting for 48% (51%) of total revenue.

### Securities Trading and Clearing



Revenue increased \$16.1 million or 8% to \$221.1 million (\$205.0 million), accounting for 26% (26%) of total revenue.



Contribution to total revenue:  
**26%**

Revenue

8% from \$205.0m

# \$221.1<sup>m</sup>



● Securities clearing	77%
● Access	19%
● Collateral management, membership and other	4%

Type of Revenue	\$m	% change
Securities Clearing	<b>170.9</b>	+8%
Access	<b>40.7</b>	+9%
Collateral management, membership and other	<b>9.6</b>	+4%

Securities daily average traded value (SDAV) increased 12% to \$1.26 billion (\$1.12 billion) and total traded value increased 12% to \$314.0 billion (\$280.7 billion). This was made up of Equities<sup>1</sup>, where traded value increased by 10% to \$291.3 billion (\$265.0 billion), and Other<sup>2</sup> products where traded value increased 44% to \$22.6 billion (\$15.7 billion). There were 250 (251) trading days in the year.

Average clearing fee for Equities was 2.88 basis points (2.94 basis points), a decrease from a year earlier due to a higher proportion of trading by market makers and liquidity providers. The average clearing fee for Other products was 0.58 basis points (0.72 basis points), a decrease from a year ago due to a higher proportion of lower-yielding structured warrants and daily leveraged certificates traded. Overall turnover velocity for the year was 40% (39%).

<sup>1</sup> Equities include ordinary shares, real estate investment trusts and business trusts

<sup>2</sup> Other products include structured warrants, company warrants, exchange-traded funds, daily leverage certificates, debt securities and American depository receipts

### Post Trade Services



Revenue decreased \$16.4 million or 14% to \$99.3 million (\$115.7 million), accounting for 12% (14%) of total revenue.



Contribution to total revenue:  
**12%**

Revenue

14% from \$115.7m

# \$99.3<sup>m</sup>



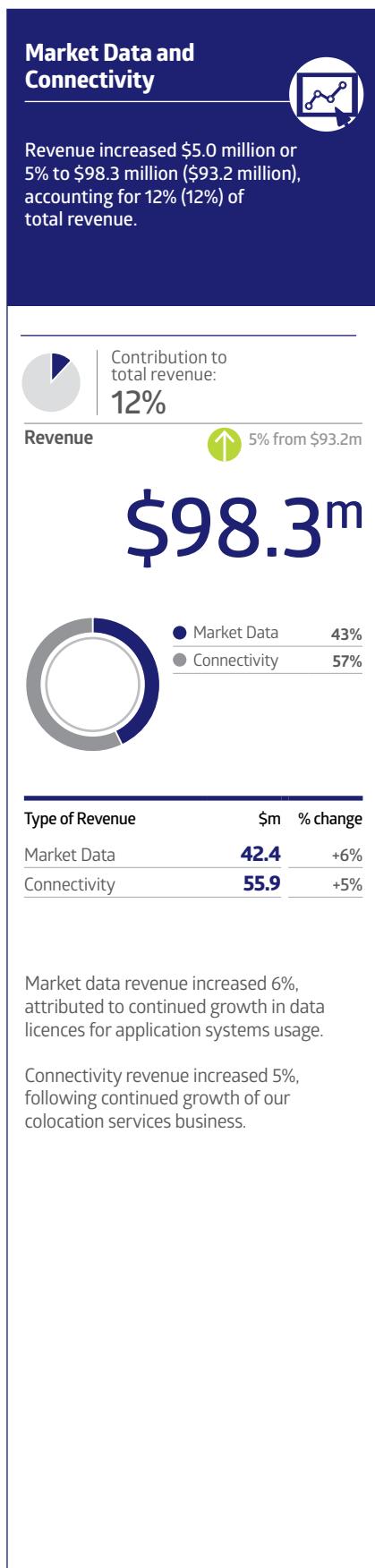
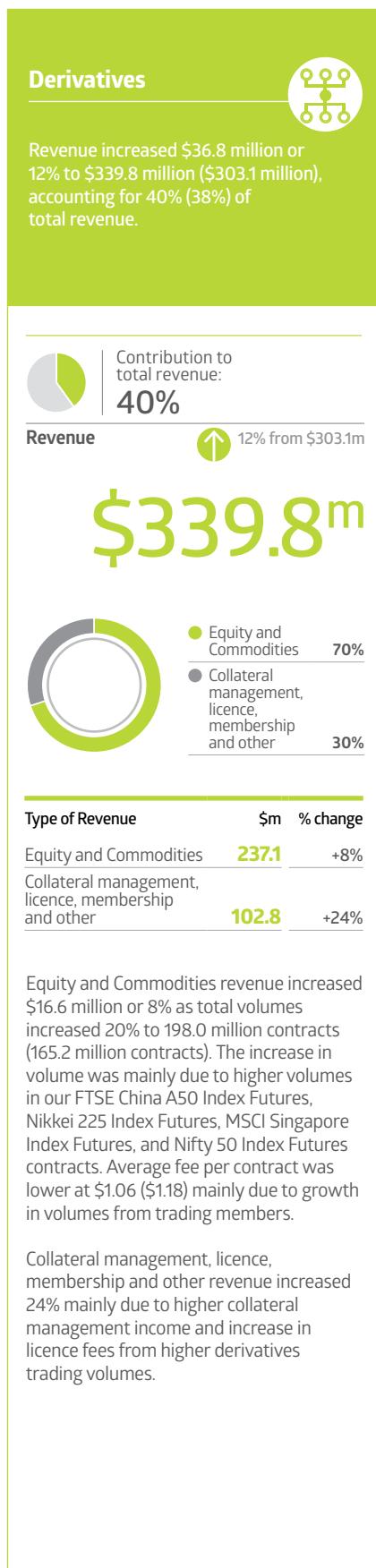
● Securities settlement	88%
● Contract processing	3%
● Depository management	9%

Type of Revenue	\$m	% change
Securities Settlement	<b>87.6</b>	-8%
Contract processing	<b>3.4</b>	-71%
Depository management	<b>8.3</b>	-1%

Securities settlement revenue decreased 8% due mainly to a change in mix of subsequent settlement instructions.

Contract processing revenue decreased \$8.2 million or 71% to \$3.4 million (\$11.6 million) due to lower number of contracts processed as all brokers migrated to their own back office systems in February 2018.

The Board of Directors has proposed a final dividend of 15 cents (13 cents) per share, payable on 5 October 2018. This brings total dividend for the year to 30 cents (28 cents) per share, up 2 cents.



All comparatives and figures in brackets are for the year earlier, unless otherwise stated.

# Group Overview





## Letter from the Chairman and the CEO

We have made significant progress in the execution of our strategy to grow our asset classes and markets, advance our securities market and optimise resources – all of which contributed to our strong performance and brought us closer to our goal of becoming a global multi-asset exchange.

### Net Profit

 7% from FY2017

**\$363<sup>m</sup>**

### Total Revenue

 5% from FY2017

**\$845<sup>m</sup>**

### Our FY2019 Strategic Priorities

#### Build a Multi-Asset Exchange

Widen our product offering and increase our trading and clearing activities



#### Grow International Presence

Build up our overseas offices and capabilities to acquire new clients and deepen client engagement



#### Expand Network and Partnerships

Strengthen cross-border flows through collaboration with other markets



 For further details on Strategic Priorities, go to: pages 34–35



**Mr Kwa Chong Seng**  
Chairman

**Mr Loh Boon Chye**  
Chief Executive Officer

## Dear Shareholders

FY2018 was a milestone year by many measures. We delivered one of the best years in our history, with our highest revenue of S\$844.7 million since listing in 2000 and a 10-year high profit of S\$363.2 million.

We have made significant progress in the execution of our strategy to grow our asset classes and markets, advance our securities market and optimise resources – all of which contributed to our strong performance and brought us closer to our goal of becoming a global multi-asset exchange.

### Strengthening Our Securities Markets

During the year, funds raised from new equity listings amounted to S\$6.2 billion, the highest in five years. We maintained our reputation as the most international exchange in Asia, achieving 45% cross-border listings from overseas markets including China, Europe, Malaysia, Myanmar, Taiwan and the US.

The positive momentum was seen in our securities daily average traded value (SDAV) hitting a five-year high, as we broadened our outreach to institutional investors, market makers and liquidity providers. Our leveraged products recorded significant growth, following the launch of our first-in-Asia Daily Leverage Certificates which generated over S\$3 billion in turnover in FY2018.

As the fundraising landscape undergoes disruptive changes, it is imperative for SGX to collaborate in order to compete. With this in mind, we entered into a strategic collaboration with Nasdaq to create an East-West corridor that gives both exchanges a distinct advantage in attracting listings in our respective parts of the world. We also established a partnership with The Tel-Aviv Stock Exchange focused on growing capital raising opportunities for companies, particularly in the technology sector. To increase funding options for companies in different stages of growth, we deepened our partnership with CapBridge which is leveraging blockchain technology to develop a private exchange.

Underpinning our equities business strategy are regular enhancements to our market structure to ensure we remain relevant in evolving markets, whilst ensuring a forward-looking regulatory environment complementary to our business objectives. In this regard, Singapore Exchange Regulation Pte. Ltd. (SGX RegCo), the independent

regulatory subsidiary of SGX which started operations in the first quarter of FY2018, worked together with market participants to introduce new rules including widening the minimum bid size and implementing a mid-day break.

The most significant regulatory development in the past year would be the introduction of our dual-class shares rules as Singapore gears up for the New Economy. Like global exchanges in Canada, Europe and the US, entrepreneurs who require funding for a rapid ramp-up of their businesses while being able to execute their long-term strategies, can now list in Singapore. Ultimately, it is about providing more choices for both issuers and investors who understand and agree with the business model and management of dual-class share companies.

### Fixed Income Business Gaining Traction

Beyond IPOs, we have further entrenched ourselves as Asia's largest and most international debt securities listing hub, with more than 3,100 bonds from 47 countries, and over US\$1 trillion outstanding amount in 19 different currencies. In FY2018, we hit another record year in our bond listings, with 41% more listings compared to the last financial year. Issuers successfully raised about S\$480 billion in funds, 25% higher than a year ago. Our bond listings now contribute over 20% of our overall listing revenues.

**We delivered one of the best years in our history, with our highest revenue of S\$844.7 million since listing in 2000 and a 10-year high profit of S\$363.2 million.**

We are also encouraged by the growing institutional participation, volume growth and transaction sizes on our SGX Bond Pro secondary trading platform. We are seeing active participants across Singapore, Hong Kong, Taiwan, Philippines, Korea, Malaysia and Indonesia, along with the UK and Switzerland, and are working hard to increase connectivity and overall market liquidity. We recently took over the General Counterparty and principal settlement role for Bond Pro, underscoring our commitment and execution in securities post-trade services and better positioning ourselves to serve clients.

### Robust Performance Across Derivatives Products

FY2018 marked a strong year for our derivatives business, as we played to our strengths as Asia's most liquid international market for pan-Asian listed

## Letter from the Chairman and the CEO

derivatives, providing exposure to 90% of Asia's GDP and offering the longest trading hours in Asia.

With the opening of our new office in Chicago last year, we made further inroads in growing liquidity and expanding international participation as reflected in increasing trading volumes during our Asia evening session.

In response to strong investment inflows into Asian emerging markets and the resulting risk-management demand from institutional clients, SGX successfully launched the OTC equity clearing of Net Total Return (NTR) derivatives from the MSCI family – the first in Asia to launch MSCI EM and EM Asia futures. Since its inception in June 2017, our SGX MSCI NTR futures complex has exceeded US\$65 billion in total notional trade.

— //

In FY2018, we also witnessed a remarkable uptake in our foreign exchange (FX) futures, establishing SGX as Asia's largest, most diverse and fastest-growing exchange for FX futures.

// —

In February this year, India's domestic exchanges terminated market data access to international market participants. SGX responded quickly to identify continuity solutions, and remains committed to addressing the needs of global investors. At the time of writing this letter, SGX has been granted a licence extension to continue the listing and trading of SGX Nifty contracts, pending the outcome of the arbitration between SGX and the National Stock Exchange of India (NSE). At the same time, SGX and NSE have resumed discussions on a potential collaboration in Gujarat International Finance Tec-City International Financial Services Centre (GIFT IFSC). SGX and NSE are jointly engaging and consulting relevant stakeholders on the proposed collaboration, and will provide updates in due course.

In FY2018, we also witnessed a remarkable uptake in our foreign exchange (FX) futures, establishing SGX as Asia's largest, most diverse and fastest-growing exchange for FX futures. The total notional traded for our FX futures suite grew 131% to US\$658 billion during the financial year. The strong momentum led to several records broken during the year; as at end of June 2018, the calendar year-to-date trading volume of our FX futures suite had already reached close to 90% of 2017 full calendar year volume. We expect our FX derivatives business to contribute positively to net profit in the next few years.

On the commodities front, we continued to extend our value proposition of offering capital efficiencies across all components of the steel value chain – iron ore, coking coal and freight. Against record volumes cleared for our coking coal futures, we launched coking coal options in September 2017, another important step in building out our steel franchise. With close to 100% international market share in iron ore and coking coal, as well as 50% market share for dry-bulk forward freight agreements (FFAs), we are solidifying our leadership position in the commodities space.

### Record Revenue For Market Data and Connectivity

Our Market Data and Connectivity business is growing steadily, achieving a record revenue of S\$98 million in FY2018. Revenue from our Index Edge business doubled from a year ago, on the back of various initiatives to enhance visibility of this relatively new business. We are increasingly turning towards unique datasets to offer well-defined index portfolios for product issuers, and partnered with FactSet last year to launch a series of co-branded thematic indices. To capitalise on the opportunities in our data and index business, we are ramping up resources including expanding our team in the UK and developing a proprietary custom index calculation engine.

### Continuing Our Innovation

We are excited about the transformations that technology will exponentially bring, both in the way we work and the way we deliver products, services and experiences to the marketplace. We are working with the industry to bring greater efficiency to securities settlement through blockchain and distributed ledger technology. To better tailor risk management solutions for our clients, we are utilising data to power

analytics and insights into market and customer behaviour. Work is also underway to unify our multiple consumer touchpoints into a cohesive and meaningful customer experience, starting with a faster and more intuitive sgx.com across devices in 2019.

With platform innovation continuing to be a key part of our strategy, we plan to roll out Titan OTC Pro later this year. This will be a platform that digitalises a large part of the over-the-counter (OTC) trading workflow to help the OTC community achieve greater efficiencies across the entire trade cycle.

In addition, to ride on the favourable tailwind for exchange-traded FX products in the region, we will be launching SGX FlexC FX Futures solution in 1Q FY2019. This is an innovative solution developed in consultation with market participants, and will bring together the best of both worlds – the flexibility of OTC FX products together with the capital efficiency and resiliency of centrally cleared FX futures.

We also see an opportunity to develop a digital marketplace in the global freight industry, building on the strengths of the Baltic Exchange and our commodity franchise. Global freight is fast emerging as a new multi-modal asset class comprising air, sea and land. Global freight is also on the cusp of digitalisation. Data and risk management capabilities have become more critical, and the challenge is using data to bring about new efficiencies to old businesses and enhance risk management.

As part of the building blocks to position SGX as a digital marketplace for freight, we announced a tie up between the Baltic Exchange and Freightos, a digital platform for container freight, to develop the FBX Container Index in April this year. The index is a weighted average of 12 underlying shipping routes that carries much of global trade. Moving forward, we intend to make more investments in this area and look forward to sharing more in the coming year.

## Refreshing Our Dividend Policy

In view of our strong performance in FY2018, the Board of Directors has proposed a final dividend of 15 cents per share, payable on 5 October 2018. This brings the total dividend for FY2018 to 30 cents per share. If approved, this will be the highest annual dividend in 10 years.

From FY2019, SGX will revise its dividend policy from one based on a percentage of net profit, to one based on an absolute amount. The new policy aims to pay a sustainable and growing dividend over time, consistent with the company's long-term growth prospects. This will provide flexibility for SGX to balance its dividend payments with the need to retain earnings to support growth. SGX will pay a higher dividend of 7.5 cents per share per quarter, starting from the first quarter of FY2019. This is an increase of 2.5 cents per share and shareholders will receive their dividends earlier in the financial year, compared to previous years. Dividends will be paid quarterly and will be decided by the Board.

## Board Renewal

We are pleased to welcome Mr Lim Chin Hu as our Non-Executive and Non-Independent Director, following his election by shareholders at our Annual General Meeting (AGM) last September. Mr Lim has been a valuable addition to the Board, given his 30 years of experience in the technology industry.

We would also like to express our appreciation to Mr Ng Kok Song, who will be retiring at the coming AGM and has decided not to offer himself for re-election. Mr Ng was elected to the Board in 2013 and has been an instrumental member given the depth and breadth of his experience as well as his insightful advice and guidance.

## In Closing

We are grateful for the privilege of working alongside a dedicated Board and over 800 talented employees around the world. As we enter into the new financial year, our strategy will focus on cementing our position as a multi-asset exchange, while growing our international presence and widening our partnerships and networks. We are optimistic of the journey ahead of us and thank all our clients, members, partners and shareholders in advance for your support and confidence in us.

### Mr Kwa Chong Seng

Chairman

### Mr Loh Boon Chye

Chief Executive Officer

# Board of Directors



## Mr Kwa Chong Seng

*Chairman  
Non-Executive and Independent Director*

**Date of first appointment as a director**  
20 September 2012

**Date of appointment as Chairman**  
22 September 2016

**Date of last re-election as a director**  
21 September 2017

**Length of service as a director  
(as at 30 June 2018)**  
5 years 9 months

**SGX Board Committee Membership**  
**NGC** (Chairman) **RSDC** (Chairman)

**Academic & Professional Qualification**  
▪ Bachelor of Engineering (Mechanical),  
National University of Singapore

**Present Directorship other than SGX  
(as at 30 June 2018)**

*Listed company*  
▪ Singapore Technologies Engineering Ltd  
(Chairman)

*Others (Non-Listed company)*  
▪ Seatown Holdings Pte Ltd

**Major Appointment (other than Directorship)**

- Advisory Committee of Dymon Asia Capital Ltd  
(Chairman)
- Defence Science and Technology Agency  
(Director)
- Public Service Commission (Deputy Chairman)

**Past Directorship other than SGX held over the preceding three years  
(from 30 June 2015 to 29 June 2018)**

- APL Logistics Ltd (Chairman)
- Delta Topco Limited
- Fullerton Fund Management Company Ltd.  
(Chairman)
- Neptune Orient Lines Limited<sup>1</sup> (Chairman)
- Olam International Limited (Chairman)
- Singapore Technologies Holdings Pte Ltd

## Mr Loh Boon Chye

*Chief Executive Officer  
Executive and Non-Independent Director*

**Date of first appointment as a director**  
20 July 2015

**Date of next re-election as a director**  
20 September 2018

**Length of service as a director  
(as at 30 June 2018)**  
2 years 11 months

**SGX Board Committee Membership**  
Nil

**Academic & Professional Qualification**

- Bachelor of Engineering (Mechanical),  
National University of Singapore

**Present Directorship other than SGX**

*(as at 30 June 2018)*

*Listed company*  
Nil

*Others (Non-Listed company)*

- BC Capital Ltd
- BC Capital Properties, LLC
- BC Capital Properties Holdings LLC
- GIC Private Limited
- Gym & Sports Pte. Ltd.
- SBF Holdings Pte. Ltd.
- SGX Bond Trading Pte. Ltd.
- Singapore Exchange Derivatives Clearing Limited
- Singapore Exchange Derivatives Trading Limited
- Singapore Exchange Securities Trading Limited
- The Central Depository (Pte) Limited

**Major Appointment (other than Directorship)**

- Economic Development Board (Board Member)
- Economic Development Board Finance Committee (Chairman)
- MAS Financial Centre Advisory Panel (Member)
- MAS Securities Industry Council (Member)
- Sim Kee Boon Institute for Financial Economics Advisory Board at Singapore Management University (Member)
- Singapore Business Federation Council (Member & Honorary Secretary)
- Singapore Business Federation Appointments and Remuneration Committee (Member)
- Singapore Business Federation Nomination Committee (Member)
- The Institute of Banking and Finance (Council Member)
- World Federation of Exchanges (Board Member)

**Past Directorship other than SGX held over the preceding three years**

*(from 30 June 2015 to 29 June 2018)*  
Nil

## Committee Membership Key

<b>AC</b>	<b>RSDC</b>
Audit	Remuneration & Staff Development
<b>NGC</b>	<b>RMC</b>
Nominating & Governance	Risk Management

<b>RCC</b>
Regulatory Conflicts

<sup>1</sup> Including its subsidiaries, namely APL (Bermuda) Ltd (Chairman), APL Co. Pte Ltd (Chairman), APL Limited (Chairman), Automar (Bermuda) Ltd. (Chairman) and NOL Liner (Pte) Ltd. (Chairman)



### Mr Thaddeus Beczak

*Non-Executive and Independent Director*

**Date of first appointment as a director**  
7 October 2010

**Date of last re-election as a director**  
21 September 2017

**Length of service as a director  
(as at 30 June 2018)**  
7 years 9 months

**SGX Board Committee Membership<sup>1</sup>**  
**RMC** (Member)

#### Academic & Professional Qualification

- Bachelor of Science (Foreign Service International Affairs), Georgetown University
- Master of Business Administration, Columbia University

#### Present Directorship other than SGX (as at 30 June 2018)

##### *Listed company*

- Pacific Online Limited
  - Phoenix Satellite Television Holdings Limited
- Others (Non-Listed company)*
- Arnhold (B.V.I.) Limited
  - Chumleigh Limited<sup>2</sup>
  - Derbyshire Limited<sup>2</sup>
  - MUFG Securities Asia Limited
  - MUFG Securities Asia (Singapore) Limited
  - Old Peak Investments Limited<sup>2</sup>
  - Value Scale Investments Limited<sup>2</sup>
  - White Tiger Group Limited<sup>2</sup>

#### Major Appointment (other than Directorship)

- Georgetown University School of Foreign Service (Board of Advisors)
- Hong Kong University of Science and Technology (Adjunct Professor, MBA degree programme)
- Huaxing Capital Partners (Investment Committee Member)
- International Advisory Committee of the China Securities Regulatory Commission (Member)
- The Association of Hong Kong Forum Limited (Board Member)

#### Past Directorship other than SGX held over the preceding three years (from 30 June 2015 to 29 June 2018)

- ACR Capital Holdings Pte Limited (Non-Executive Chairman)
- Arnhold Holdings Limited
- Artisan Du Luxe Holding Limited (Non-Executive Chairman)
- China Minsheng Financial Holding Corporation Limited
- China Renaissance Holdings Limited (Vice Chairman)
- China Renaissance Securities (Hong Kong) Limited (Chairman)
- e-Kong Group Limited
- Goldic Limited<sup>2</sup>
- Jade China International Limited<sup>2</sup>

<sup>1</sup> Was a member of Regulatory Conflicts Committee which held its last meeting on 24 October 2017.

<sup>2</sup> Personal family related investment holding companies held by Mr Beczak's wife.

### Ms Chew Gek Khim

*Non-Executive and Independent Director*

**Date of first appointment as a director**  
1 December 2013

**Date of last re-election as a director**  
22 September 2016

**Length of service as a director  
(as at 30 June 2018)**  
4 years 7 months

**SGX Board Committee Membership**  
**NGC** (Member) **RSDC** (Member)

#### Academic & Professional Qualification

- LL.B (Honours), National University of Singapore

#### Present Directorship other than SGX (as at 30 June 2018)

##### *Listed company*

- ARA Trust Management (Suntec) Limited (Non-Executive Chairman)
- Malaysia Smelting Corporation Berhad (Non-Independent and Non-Executive Chairman)
- The Straits Trading Company Limited (Executive Chairman)

##### *Others (Non-Listed company)*

- ARA Asset Management Holdings Pte. Ltd.
- Rahman Hydraulic Tin Sdn Bhd
- Straits Real Estate Pte. Ltd.
- Tan Chin Tuan Pte. Ltd<sup>1</sup> (Deputy Executive Chairman)
- Tacity Pte Ltd<sup>2</sup> (Executive Chairman)

#### Major Appointment (other than Directorship)

- RSIS Board of Governors (Member)
- MAS Securities Industry Council (Member)
- SSO Council (Member)
- The Tan Chin Tuan Foundation (Deputy Executive Chairman)
- The Tan Sri Tan Foundation (undergoing liquidation) (Chairman)

#### Past Directorship other than SGX held over the preceding three years (from 30 June 2015 to 29 June 2018)

- ARA Asset Management Limited (Non-Executive Deputy Chairman)
- Cairnhill Rock Pte. Ltd.
- Morriston Pte. Ltd.
- Selected Properties Pte. Ltd.  
(company was struck off on 6 February 2017)

<sup>1</sup> Including its subsidiaries & associates, namely Consultants Services (Private) Limited, Tacity Management Pte. Ltd. (Executive Chairman), Grange Investments Holdings Private Limited, Kambau Pte. Ltd. (Executive Chairman), Tiong Cheng Pte Ltd (Deputy Executive Chairman), Amalgamated Holdings Private Limited, Amberlight Limited, Siong Lim Private Limited (Executive Chairman), Choice Equities Pte Ltd, Integrated Holdings Private Limited (Executive Chairman), Neford Holdings Pte Ltd, Aequitas Pte. Ltd., Raffles Investments Limited, Raffles Investments (1993) Pte Ltd and Sigford Pte. Ltd.

<sup>2</sup> Including its subsidiaries & associates, namely Ho Peng Holdings Private Limited, Selected Holdings Private Limited, Mellford Pte. Ltd. and The Cairns Pte. Ltd.

## Board of Directors



### Ms Jane Diplock AO

*Non-Executive and Independent Director*

**Date of first appointment as a director**  
25 July 2011

**Date of last re-election as a director**  
22 September 2016

**Length of service as a director  
(as at 30 June 2018)**  
6 years 11 months

**SGX Board Committee Membership<sup>1</sup>**  
**AC** (Member) **RMC** (Member)

#### Academic & Professional Qualification

- Bachelor of Arts (Honours), LL.B, Dip Ed., Sydney University
- Dip. Int. Law, Australian National University
- Chartered Fellow of the New Zealand Institute of Directors
- Fellow of the Australian Institute of Company Directors

#### Present Directorship other than SGX (as at 30 June 2018)

##### *Listed company*

Nil

##### *Others (Non-Listed company)*

- Australian Financial Services Group Pty Limited
- Singapore Exchange Regulation Pte. Ltd.

#### Major Appointment (other than Directorship)

- Abu Dhabi Global Market Regulatory Committee (Chairman)
- International Advisory Board of the Securities and Exchange Board of India (Member)
- International Advisory Committee of the China Securities Regulatory Commission (Member)
- International Integrated Reporting Council (Chairman Governance and Nominations Committee)
- Public Interest Oversight Board (Member)

#### Past Directorship other than SGX held over the preceding three years (from 30 June 2015 to 29 June 2018)

- International Integrated Reporting Council Board (Deputy Chairman & Lead Independent Director)

### Mr Kevin Kwok

*Non-Executive and Independent Director*

**Date of first appointment as a director**  
20 September 2012

**Date of next re-election as a director**  
20 September 2018

**Length of service as a director  
(as at 30 June 2018)**  
5 years 9 months

**SGX Board Committee Membership<sup>1</sup>**  
**AC** (Chairman) **NGC** (Member)  
**RMC** (Member)

#### Academic & Professional Qualification

- Bachelor of Arts (Honours), University of Sheffield
- ACA - Associate, Institute of Chartered Accountants in England & Wales
- FCA - Fellow, Institute of Singapore Chartered Accountants
- FSID - Fellow, Singapore Institute of Directors

#### Present Directorship other than SGX (as at 30 June 2018)

##### *Listed company*

- Mapletree North Asia Commercial Trust Management Ltd
- Wheelock Properties (Singapore) Limited

##### *Others (Non-Listed company)*

- Keppel Offshore & Marine Ltd

#### Major Appointment (other than Directorship)

- Accounting Standards Council (Chairman)

#### Past Directorship other than SGX held over the preceding three years (from 30 June 2015 to 29 June 2018)

- Singapore Institute of Directors

<sup>1</sup> Was the Chairman of Regulatory Conflicts Committee which held its last meeting on 24 October 2017.

<sup>1</sup> Was a Member of Regulatory Conflicts Committee which held its last meeting on 24 October 2017.



## Mr Liew Mun Leong

*Non-Executive and Independent Director*

**Date of first appointment as a director**  
1 July 2009

**Date of last re-election as a director**  
21 September 2017

**Length of service as a director  
(as at 30 June 2018)**  
8 years 11 months

**SGX Board Committee Membership**  
**AC** (Member) **NGC** (Member)  
**RSDC** (Member)

**Academic & Professional Qualification**

- Bachelor of Engineering (Civil), University of Singapore
- Registered Professional Engineer

**Present Directorship other than SGX  
(as at 30 June 2018)**

*Listed company*

Nil

*Others (Non-Listed company)*

- Changi Airport Group (Singapore) Pte Ltd (Chairman)
- China Club Investment Pte Ltd (Chairman)
- Singapore-China Foundation Ltd
- Sembcorp Industries Private Limited (Chairman)
- Temasek Foundation Nurtures CLG Limited (Chairman)

**Major Appointment (other than Directorship)**

- Chinese Development Assistance Council (Member, Board of Trustees)
- Lee Kuan Yew School of Public Policy (Provost's Chair Professor (Practice) Pro Bono)
- NUS Business School (Chairman, Management Advisory Board)
- NUS Business School (Provost's Chair Professor (Practice) Pro Bono)
- NUS Faculty of Engineering (Provost's Chair Professor (Practice) Pro Bono)
- NUS Ridge View Residential College (Rector)

**Past Directorship other than SGX held over the preceding three years  
(from 30 June 2015 to 29 June 2018)**

- CapitaLand Hope Foundation
- Dymon Asia Real Estate Limited (Chairman)
- Human Capital Leadership Institute
- Lotus Mentoring Leadership Pte. Ltd

## Mr Lim Chin Hu

*Non-Executive and Non-Independent Director*

**Date of first appointment as a director**  
21 September 2017

**Length of service as a director  
(as at 30 June 2018)**  
1 year

**SGX Board Committee Membership**  
**RMC** (Member)

**Academic & Professional Qualification**

- Bachelor of Applied Science, La Trobe University, Australia

**Present Directorship other than SGX  
(as at 30 June 2018)**

*Listed company*

- Kulicke & Soffa Incorporated (Listed on Nasdaq)

*Others (Non-Listed company)*

- Citibank Singapore Limited
- G-Able Thailand Ltd
- Heliconia Capital Management Pte Ltd
- Integrated Health Information Systems Pte. Ltd.
- Singapore Health Services Pte Ltd
- SP Telecommunications Pte Ltd (Deputy Chairman)
- Vanda 1 Investments Pte. Ltd.

**Major Appointment (other than Directorship)**

- Personal Data Protection Commission (IMDA) (Advisor)
- Stream Global Pte Ltd (Managing Partner)

**Past Directorship other than SGX held over the preceding three years  
(from 30 June 2015 to 29 June 2018)**

- Changi General Hospital Pte Ltd
- Eastern Health Alliance Pte. Ltd.
- Keppel DC REIT Management Pte. Ltd.
- Telstra Ltd (Listed on ASX)

## Board of Directors



### Ms Lim Sok Hui (Mrs Chng Sok Hui)

*Non-Executive and Non-Independent Director*

**Date of first appointment as a director**  
1 December 2015

**Date of last re-election as a director**  
22 September 2016

**Length of service as a director  
(as at 30 June 2018)**  
2 years 7 months

**SGX Board Committee Membership**  
**RMC** (Chairman)

**Academic & Professional Qualification**

- Bachelor of Accountancy (Honours), National University of Singapore
- Chartered Financial Analyst (CFA)
- Certified Financial Risk Manager (FRM)
- Fellow Chartered Accountant of Singapore
- IBF Distinguished Fellow

**Present Directorship other than SGX**

*(as at 30 June 2018)*

*Listed company*

Nil

*Others (Non-Listed company)*

- Inland Revenue Authority of Singapore

**Major Appointment (other than Directorship)**

- Asian Financial Cooperation Association (Vice Chairman)
- DBS Bank Ltd (Chief Financial Officer)
- DBS China Ltd (Supervisor)
- Industry Advisory Board, NUS Centre for Future-Ready Graduates (Member)
- International Integrated Reporting Council (Member)
- International Women's Forum (Singapore) (ExCo Member)

**Past Directorship other than SGX held over the preceding three years**

*(from 30 June 2015 to 29 June 2018)*

- Accounting Standards Council (Council Member)
- Housing & Development Board (Director)

### Mr Ng Kok Song

*Non-Executive and Independent Director*

**Date of first appointment as a director**  
19 September 2013

**Date of last re-election as a director**  
23 September 2015

**Length of service as a director  
(as at 30 June 2018)**  
4 years 9 months

**SGX Board Committee Membership<sup>1</sup>**  
**NGC** (Member)

**Academic & Professional Qualification**

- Physics, National University of Singapore
- Management, Stanford University

**Present Directorship other than SGX**

*(as at 30 June 2018)*

*Listed company*

Nil

*Others (Non-Listed company)*

- Avanda Investment Management Pte Ltd (Chairman)

**Major Appointment (other than Directorship)**

- Asia School of Business (Member of the Board of Governors)
- Avanda LLP (Partner)
- Lee Kuan Yew School of Public Policy (Member, Governing Board)
- Makena Capital Management LLC (Director)
- Pacific Investment Management Company LLC (Advisor)

**Past Directorship other than SGX held over the preceding three years**

*(from 30 June 2015 to 29 June 2018)*

- Wealth Management Institute Pte. Ltd.



### Mr Ng Wai King

*Proposed Non-Executive and Independent Director*

**Proposed date of appointment as a director**  
20 September 2018

**Academic & Professional Qualification**

- LL.M., Columbia University School of Law, New York
- LL.B. (Honours), National University of Singapore

**Present Directorship other than SGX  
(as at 30 June 2018)**

Listed company

- Capitaland Commercial Trust Management Limited

Others (Non-Listed company)

- National University of Singapore (Member of Board of Trustees)
- Singapore Institute of Directors (Member of Governing Council)
- Tricor WP Corporate Services Pte. Ltd.
- Wah Hin and Company Private Limited
- WongPartnership Myanmar Limited
- WPGrowth Ventures Pte. Ltd.

**Major Appointment (other than Directorship)**

- Home Nursing Foundation (Board Member)
- Lakeside Family Centre (Vice-Chairman)
- Member of Companies Act Working Group, established by ACRA
- Member of Monetary Authority of Singapore Financial Centre Advisory Panel
- WongPartnership LLP (Managing Partner)

**Past Directorship other than SGX held over the preceding three years**

*(from 30 June 2015 to 29 June 2018)*

- 89 Holdings Pte. Ltd.

### Mr Subra Suresh

*Proposed Non-Executive and Independent Director*

**Proposed date of appointment as a director**  
20 September 2018

**Academic & Professional Qualification**

- Doctor of Science (Sc.D.), M.I.T., Cambridge, MA, USA
- Master of Science (M.S.), Iowa State University, Ames, IA, USA
- Bachelor of Technology (B.Tech.), Indian Institute of Technology, Madras

**Present Directorship other than SGX**

*(as at 30 June 2018)*

Listed company

Nil

Others (Non-Listed company)

- HP Inc., Palo Alto, CA, USA

**Major Appointment (other than Directorship)**

- Science, Technology and Innovation Council, Siemens AG, Munich, Germany (Member)
- Temasek International Pte Ltd., Singapore (Senior Advisor)

**Past Directorship other than SGX held over the preceding three years**

*(from 30 June 2015 to 29 June 2018)*

- Battelle Memorial Institute, Columbus, OH, USA
- The Dietrich Foundation, Pittsburgh, PA, USA

## Executive Management Committee



## 1. Mr Loh Boon Chye

Chief Executive Officer

Mr Loh Boon Chye joined SGX as CEO on 14 July 2015. He is also an Executive and Non-Independent Director on the SGX Board.

With a career in the financial industry that spans close to 30 years, Mr Loh was most recently 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.

Mr Loh began his career as an Investment Officer with the Monetary Authority of Singapore in 1989. He joined the Singapore branch of Morgan Guaranty Trust Co. of New York in 1992, managing its Southeast Asia fixed-income and derivatives business. From 1995 to 2012, he 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.

Over the years, Mr Loh has played a key role in the development of Southeast Asia's capital markets, having held a number of 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, Economic Development Board Singapore since February 2017 and the World Federation of Exchanges since September 2017.

He was also previously Chairman of the Singapore Foreign Exchange Market Committee, as well as Deputy President of ACI Singapore.

Mr Loh is a council member and Distinguished Fellow at the Institute of Banking & Finance Singapore and was awarded for Outstanding Contribution to Financial Markets in Asia in the Euromoney Awards for Excellence in 2010. He was also presented the International Financial Law Review (IFLR) Market Reform Award 2017.

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

## 2. Mr Muthukrishnan Ramaswami

President

As President, Mr Muthukrishnan Ramaswami (Ramu) is responsible for operational aspects of SGX. He directly oversees SGX's Membership & International Coverage including all of SGX's overseas offices, Market Data & Connectivity and Operations & Technology functions. These units support SGX's Derivatives and Equities and Fixed Income businesses. Immediately prior to this, he oversaw all the product groups covering Securities, Fixed Income, Derivatives and Market Data & Access.

Mr Ramaswami joined SGX as Senior Executive Vice President and Chief Operations Officer on 1 July 2007, and was appointed Co-President in July 2010 and President in May 2012.

Mr Ramaswami joined SGX from Citigroup where he held senior positions across Operations, Technology and Transaction Banking in various locations including Mumbai, Singapore, Hong Kong, London and New York. He was most recently Chief Information Officer with the International Consumer Business of Citigroup's Global Consumer Bank, based in New York and over the years, held progressively senior executive positions in Citigroup's international and regional offices.

Mr Ramaswami serves on the board of GovTech Singapore and is Chairman of its Audit and Risk Committee. He is also on the board of the Energy Market Company, a wholly-owned subsidiary of SGX.

Mr Ramaswami holds a Master's Degree in Mathematics (Honours) from Birla Institute of Technology and Sciences, and a Post Graduate Diploma in Management Studies (Masters in Business Administration) from the Indian Institute of Management, Ahmedabad.

### From left:

Mr Chew Sutat  
Ms Tinku Gupta  
Mr Tan Boon Gin  
Mr Muthukrishnan Ramaswami  
Mr Loh Boon Chye  
Mr Chng Lay Chew  
Mr Michael Syn  
Ms Agnes Koh  
Mr Arulraj Devadoss

## Executive Management Committee

### 3. Mr Chng Lay Chew

Chief Financial Officer

Mr Chng Lay Chew is Chief Financial Officer of SGX where he oversees Finance, Treasury, and Investor Relations. In his role, he also manages the Facilities Management unit.

Mr Chng has more than 30 years of experience in accounting and financial management, including leadership positions in leading local and international banks. In his previous role, he was responsible for the finance functions of DBS Group's operations in all countries outside Singapore. He was also previously CFO of the bank's Greater China business, supporting the integration and growth of its Hong Kong operations and the expansion into China. His earlier roles include senior finance positions in JP Morgan's Singapore, Tokyo and New York offices.

Mr Chng serves on the board of Energy Market Company (EMC), the operator of Singapore's wholesale electricity market. EMC is a wholly-owned subsidiary of SGX. He is also a member of the Advisory Board of the School of Accountancy at the Singapore Management University, and is a director of the Philippine Dealing System Holdings Corp, a private corporation that provides financial market infrastructure services in the Philippines.

Mr Chng is a member of the Chartered Accountants Australia and New Zealand and the Institute of Singapore Chartered Accountants. He holds a Bachelor of Commerce and Administration degree from New Zealand's Victoria University.

### 4. Ms Agnes Koh

Executive Vice President  
Chief Risk Officer

Ms Agnes Koh was appointed Chief Risk Officer of SGX from January 2014. She is responsible for championing and leading enterprise risk management activities across the organisation, formulating the risk framework and assessments for new products and business strategies, and managing the clearing risk of

SGX's securities and derivatives clearing houses. Since September 2015, Ms Koh oversees the business continuity management of SGX. She is also an Executive Committee member 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 joined SGX on 1 December 2005 as Vice President in Risk Management and has worked through various roles within risk management in her 12 years with SGX. 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 Institute of Banking and Finance Singapore (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 a Bachelor of Accountancy (Hons) from National University of Singapore.

### 5. Mr Tan Boon Gin

Chief Executive Officer  
Singapore Exchange Regulation

Mr Tan Boon Gin joined SGX as Chief Regulatory Officer on 15 June 2015. He now heads Singapore Exchange Regulation, 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 the Monetary Authority of Singapore (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 on the Board of the Inland Revenue Authority of Singapore.

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.

### 6. Mr Chew Sutat

Executive Vice President

Mr Chew Sutat, Head of Equities & Fixed Income, is responsible for the listing, trading and post-trade businesses for SGX. Mr Chew joined SGX in June 2007 and was appointed to the Executive Management Committee in May 2008. He is also the Chairman of SGX's Bull Charge CSR initiatives.

Prior to SGX, he was Group Head, Investment & Treasury Products at Standard Chartered Bank, responsible for the strategy and development of the bank's Wealth Management business globally.

Before Standard Chartered Bank, Mr Chew was with OCBC Securities, heading the development of non-traditional investment products and services, and the proprietary trading team. He began his career with DBS Bank in the Custody function, and held varying portfolios in strategic planning and business development for institutional banking and private clients.

Outside of SGX, he is a Fellow of the Institute of Banking and Finance Singapore (IBF) and Chairman of IBF's Sub-Committee for Corporate Finance, Securities & Futures. He sits on the President's Advancement Advisory Council at the National University of Singapore and serves as industry advisor for the Government Parliamentary Committee for Finance, Trade & Industry. In addition, he serves as Chairman of Caregivers Alliance Limited (Charity), Chairman of Kaki Bukit Citizens' Consultative Committee, and Chairman of the Board of Trustees for the Center for Domestic Employees.

Mr Chew graduated with a Bachelor of Arts (1st Class Honours) degree in Philosophy Politics & Economics (PPE) from Oxford University, Keble College in 1996. He also holds a Master of Arts degree from Oxford.

## **7. Mr Arulraj Devadoss**

**Executive Vice President**

Mr Arulraj Devadoss joined SGX on 1 December 2011 as Head of Human Resources and was appointed to the Executive Management Committee in May 2012.

Mr Devadoss is an industry veteran with more than 30 years in human resources management, and comes with a rich global experience from the banking and financial industry.

In his 20 years with Standard Chartered Bank, he worked in roles across several businesses and spanning various aspects of human resources. In his last role, he was the Global Human Resources Head for the Client Relationship Business of Standard Chartered Bank.

Mr Devadoss graduated with a Bachelor of Arts Degree in Economics from University of Madras, India in 1982. He also holds a Honours Diploma in Personnel Management and Industrial Relations from Xavier Labour Relations Institute, Jamshedpur.

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## **8. Mr Michael Syn**

**Executive Vice President**

Mr Michael Syn is Head of Derivatives at SGX.

Mr Syn has management responsibility for SGX's award-winning derivatives trading and clearing business, offering a full suite of derivatives products across Asian equity indices, commodities and foreign exchange. He oversees Energy Market Company (EMC), a wholly owned subsidiary of SGX which operates Singapore's wholesale electricity market, as well as the Baltic Exchange based in London.

Mr Syn joined SGX on 1 March 2011 with a background in investment banking and investment management, having worked in both London and Singapore. Prior to SGX, he was Chief Operating Officer of DBS Asset Management, a subsidiary of DBS Bank.

Mr Syn serves on the boards of EMC and the Baltic Exchange. He also serves on the advisory board of The Centre for Asset Management Research & Investments (CAMRI) at the National University of Singapore, and the council of the Economic Society of Singapore.

Mr Syn graduated with MA and PhD degrees from Gonville & Caius College in Cambridge University and attended the Harvard Advanced Management Program (AMP).

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## **9. Ms Tinku Gupta**

**Executive Vice President**

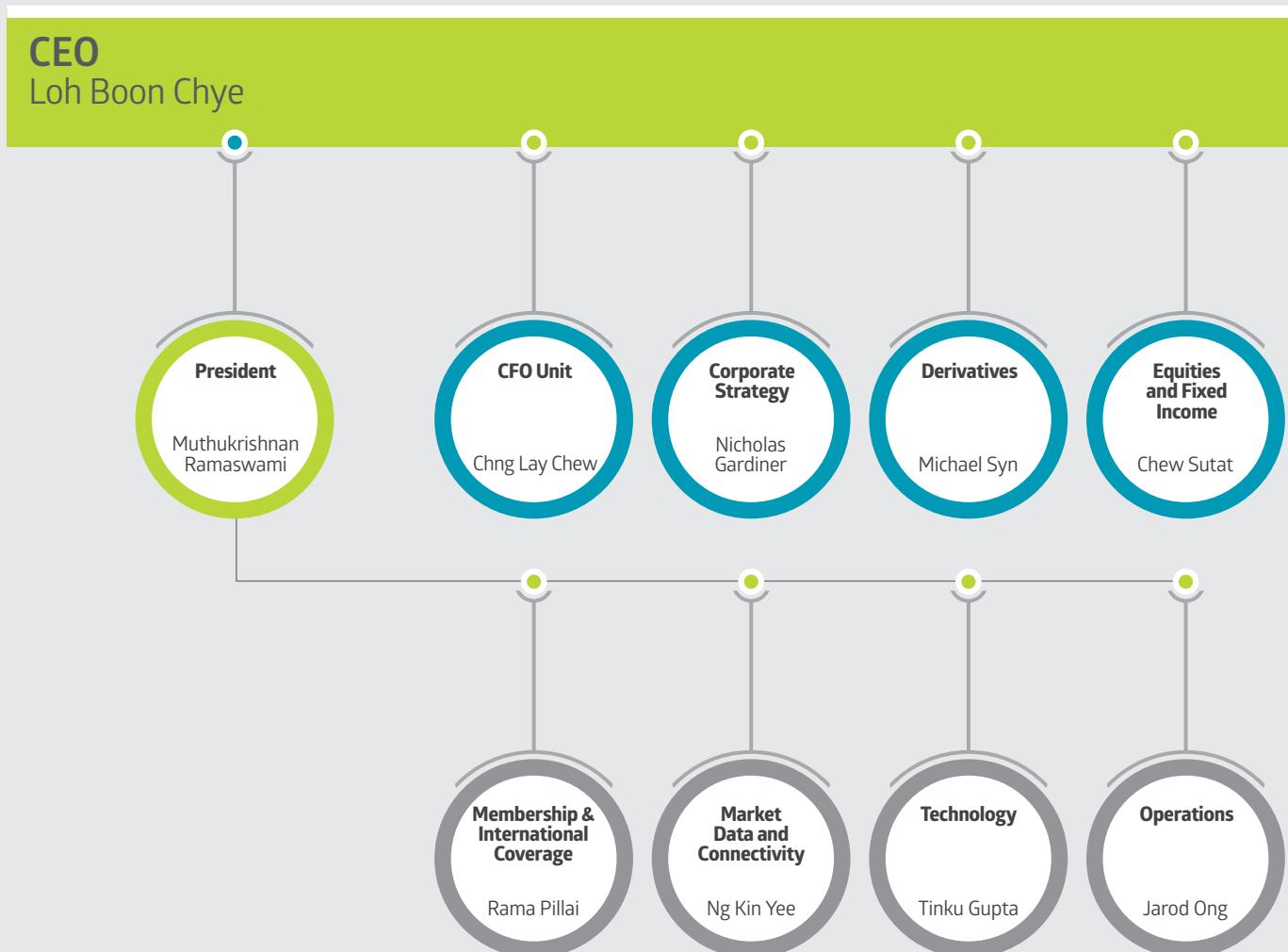
Ms Tinku Gupta is the Head of Technology, where she is responsible for the overall planning, development and implementation of the company's technology-related strategies and initiatives, as well as operations of SGX Technology environment. She was appointed as a member of the SGX Executive Management Committee on 1 May 2017.

Ms Gupta joined SGX in October 1996, in what was then SIMEX, as part of the Technology team. Over the past 20 years, she has worked in a variety of roles, gaining exposure to and experience in many aspects of SGX's business and Technology functions. She started her career as a Senior Associate, in software development in SIMEX and worked in the Technology function till April 2006. Between 2006 and 2007, she did stints in Corporate Strategy and Business Development and as the Staff Assistant to the CEO.

Post these assignments, she successfully led the Business Integration and Programme Management function through a period of significant change and worked on implementing the current Securities and Derivatives platforms on NASDAQ applications. Ms Gupta moved to business management in July 2010 and headed the Market Data and Connectivity business, where she successfully established the co-location services business and launched the index business, before returning to head the Technology unit in November 2015.

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

# Organisation



Number  
of employees<sup>1</sup>

806

Average  
length of service

8 yrs

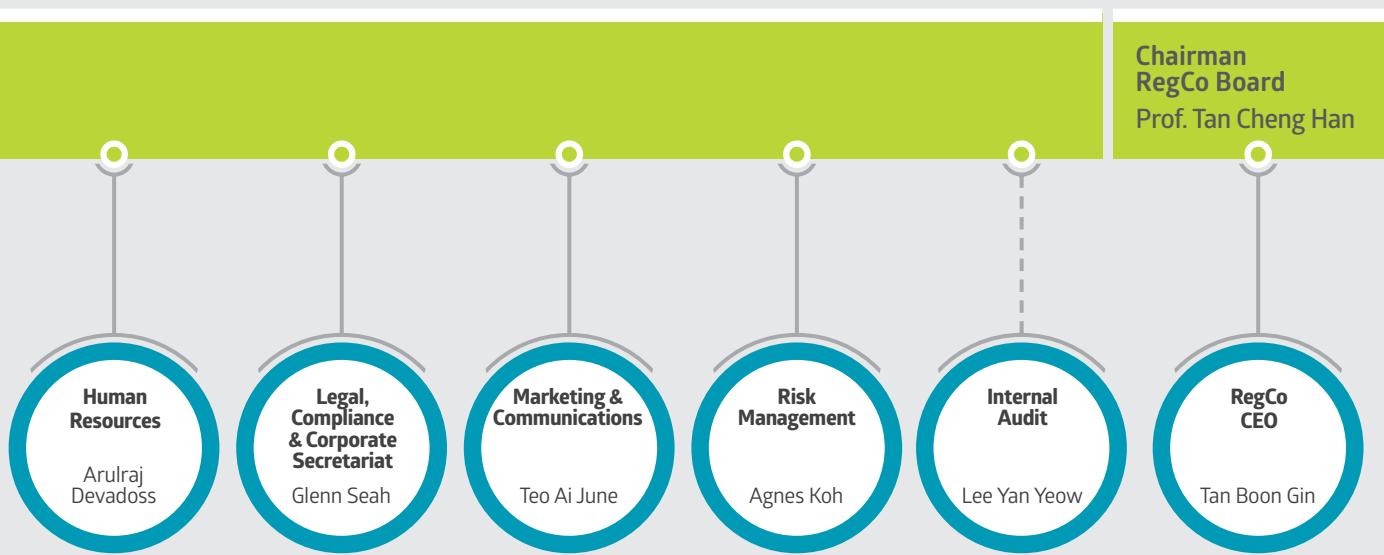
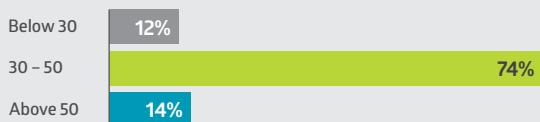
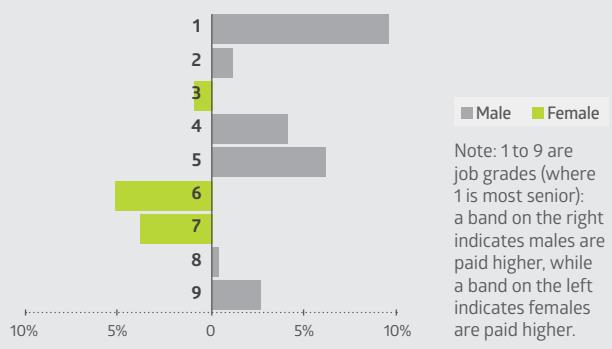
Employees  
retention

85%

Average  
training hours  
per employee

44 hrs

<sup>1</sup> Permanent headcount including EMC and Baltic but excluding employees on No Pay leave.

**Gender Diversity****Age Diversity****Gender Pay Gap (across employment categories)**

# Value Creation & Sustainability





# Value Creation

This is our fourth Integrated Report which describes how Singapore Exchange (SGX) maintains a sustainable business and generates long-term value for our stakeholders. It covers how we build a sustainable business model using our 4 forms of capital. It also lists and describes the key trends and risks that impact our business, and how we respond to them. These key trends and risks, together with the identified factors that are material to maintaining organisational sustainability, influence the way we manage our business and set our strategic priorities. The report also describes how SGX continues to invest to ensure our relevance as a centre for capital raising, risk management and price discovery.

## Forms of Capital

Our ability to create shareholder value is highly dependent upon the efficient allocation and effective deployment of our financial, human, intellectual and social capital.

### 01 Financial Capital

Comes from our share capital and retained profits; this is used to recruit and retain staff, invest in best-in-class technology and infrastructure, capitalise our two clearinghouses and acquire assets in support of our growth strategy.

### 02 Human Capital

Refers to the expertise and potential of our staff; as the operator of key financial market infrastructure, we rely on our highly skilled and motivated staff to ensure operational resilience, innovative product and business development, and the successful navigation of global regulatory changes.

### 03 Intellectual Capital

Our institutionalised knowledge base is made up of our policies, procedures and processes, knowledge-based intangible assets, software, proprietary rights to our market data, indices, and our brand. Our technological flexibility also positions us to embrace latest developments in Financial Technology.

### 04 Social Capital

Takes the form of collaborative relationships with our various stakeholders, including but not limited to our partners, investors, regulators, market participants and the communities in which we operate; we also leverage our position as the Exchange of Singapore, the only Asian economy rated AAA by all three major credit rating agencies.



For further details on Key Trends: Go to pages 32 to 33

For further details on Sustainability: Go to pages 40 to 51

For further details on Self-Regulatory Organisation: Go to pages 82 to 87

For further details on Corporate Governance: Go to pages 54 to 75

SGX is a global multi-asset exchange operating equity, fixed income and derivatives markets. In the securities market, our products and services cover the entire value chain from listing to depository. We offer products and services across all major asset classes.

We operate the Singapore stock market, a platform for businesses to gain access to capital, and for investors to participate in Asia's economic growth. International customers also participate in our Derivatives market which is the world's only pan-Asian

derivatives exchange offering single point access into major Asian markets.

As a self-regulatory organisation (SRO), SGX has dual and equally important roles as a front-line market regulator and a commercial organisation. We ensure that listed companies meet their ongoing obligations to investors, and that participation in our markets is carried out in a fair, orderly and transparent manner.



Competition



Technology Developments



Build a Multi-Asset Exchange



Grow International Presence



Expand Network and Partnerships

Credit &amp; Liquidity Risk



ESG Risks



For further details on Strategic Priorities:  
Go to pages 34 to 35

For further details on Environmental, Social and Governance (ESG) Risks:  
Go to page 41

For further details on Risk Management:  
Go to pages 36 to 39

## Long-Term Value for Stakeholders

### 01 The largest stock market in Southeast Asia and listing venue for bonds in Asia Pacific

With a market capitalisation of almost S\$1 trillion, we are an international listing venue with half of our equity market capitalisation from global companies. We are also the largest exchange in Asia Pacific for the listing of international bonds with over 3,000 debt securities listed, including Masala, Komodo, Green bonds and securitised products.

### 02 A pan-Asian multi-asset derivatives exchange

We are the world's most liquid offshore market for equity index derivatives covering major Asian economies, and a global commodities risk management and price discovery centre. Through our innovative approach to the Asia-centric steel value chain, we lead the way in risk and pricing solutions for iron ore, coking coal, steel and freight. We also offer a growing portfolio of FX futures contracts for investors to manage Asian currency exposure.

### 03 The premier risk management venue in Asia

We have robust risk management systems and processes that are aligned with global standards, and we continue to be recognised by global regulators such as the Commodity Futures Trading Commission (CFTC) and the European Securities and Markets Authority (ESMA).

For further details: Go to page 32

### 04 A systemically important financial infrastructure

We meet the highest governance and regulatory standards in support of Singapore's status as a global financial centre.

# Key Trends

**SGX's continued success in creating sustainable shareholder value is largely influenced by a number of key trends. Management has reviewed and identified 4 key trends. They encompass the global macroeconomic environment, global regulatory landscape, competition, and technology. Each key trend brings unique risks and opportunities to the organisation, and is a major consideration in our approach to the formulation of our strategic priorities. We regularly review these key trends to assess their impact on our business model over the near, medium and long term future.**

## Global Macroeconomic Conditions



A key factor influencing our business performance is the level of market activity.

Our securities and derivatives markets are primarily influenced by volatility in the Asian financial markets. Volatility is in turn influenced by geopolitical and global economic developments. Higher market volatility often leads to increased demand for trading and hedging, and may create additional opportunities for arbitrage and speculation. Conversely, sustained periods of low volatility, especially in bearish conditions, may result in lower levels of market activity.

Demand for capital raising and the growth potential of our listed companies are key to generating market activity, particularly in our securities market. These factors are mainly driven not only by Singapore's economic growth, but also by the condition of regional economies since a large number of our listed companies have businesses operating outside Singapore.

In the past year, our businesses were significantly influenced by the manner in which market participants adjusted to expected policy changes in benchmark interest rates and synchronised growth in the global economy. Global trade negotiations took centre stage as the US reviewed their trade arrangements with major economies. Geopolitical changes led to tensions in the South China Sea and the Korean Peninsula. Amidst these economic and geopolitical developments, our multi-asset business, offering a broad range of products, has established us as an ideal marketplace to meet the increased need for financial risk management and hedging in the region.

## Changes in Global Regulatory Landscape



Exchanges and financial institutions globally have been subjected to increasing levels of regulation since the global financial crisis of 2008.

Whilst stringent regulations will result in a more robust global financial system, increased regulatory requirements may lead to higher costs of business and impact the pace of industry development. Our continued ability to strike a balance between the highest global regulatory standards and meeting the development needs of businesses, both in the immediate future and over the longer term, is a competitive advantage that will enable us to achieve our growth objectives.

International regulatory bodies have introduced many regulations after the 2008 crisis. An important cornerstone is to incentivise trading on exchanges and clearing by central counterparties (CCPs) while imposing higher capital requirements on non-centrally cleared contracts. The implementation of these rules continue to be phased in over the coming years, including for uncleared margin rules, capital requirements and recovery and resolution requirements. In the near term, SGX is well placed to navigate these new regulatory trends. We adopted the Principles for Financial Market Infrastructure introduced by CPSS-IOSCO, were certified as a Qualifying Counterparty under the Basel III framework, and have attained from the US Commodity Futures Trading Commission (CFTC) the status of a Derivatives Clearing Organization (DCO) and Foreign Board of Trade (FBOT). We were also recognised by the European Securities and Markets Authority (ESMA) as a third-country central counterparty. SGX has continued to operate under the regulatory standards needed to offer clearing services to US and European customers.

Reviews of global regulations in the last few years and emerging risks that have systemic impact would also impact global rulemaking that affects SGX. In particular, the potential fallout from cyber-attacks has led cyber resilience to the top of the regulatory agenda. Regulators are also casting an eye on risks arising from product issuance, including suitability as products become more complex for retail investors, and market impact as the size of product classes, namely ETFs, grows. SGX and its participants may be impacted by foreign regulation through extra-territorial application or the influence of such rules on domestic laws. The flow of political events, not least the withdrawal of the UK from the EU, and worsening trade relations amongst the large economies may also shape the applicability and scope of certain regulations. It is imperative that SGX keeps abreast of these developments and adapts accordingly to enable continuity of service to our participants.

In the long run, SGX will have to continuously navigate increased regulatory complexities and adapt to how members, participants and competitors position themselves in the evolving global regulatory landscape.

## Competition



SGX faces competition in both our securities and derivatives markets from regional and global exchanges.

Increased competition may lead to slower growth, lower volumes or lower margins, all of which will negatively impact our business performance. In the near to medium term, we remain confident that we can compete favourably against existing and potential competitors, on our strengths as a diversified business, a reliable platform for capital raising, and our unique value proposition as the only exchange offering single-point access into key Asian markets. Our well-capitalised clearinghouses meet the highest global regulatory standards, which provide a competitive advantage.

A potential competitive threat could be the gradual opening up of Asian emerging markets. Our advantage of being an efficient and liquid offshore derivatives market will diminish as offshore customers have easier access to onshore markets. Conversely, this may also lead to greater awareness of these contracts and opportunities for arbitrage trading, resulting in increased participation from international customers in both the offshore contracts traded on SGX and the respective onshore contracts. To further mitigate the potential effects of competition, SGX is continuing its efforts in building a multi-asset exchange. As part of our strategy, we will continue to enhance our platforms to develop customer stickiness, launch products that will widen our Asian product suite and support delivery of cross-margining benefits, as well as acquire more customers through growing our international presence.

The landscape for global exchanges is evolving rapidly. In recent years, we have seen exchanges expanding into adjacent businesses like indices and electronic trading platforms. This trend will shape our strategic positioning over the long term as we differentiate ourselves from diversified global exchanges and national exchanges that are becoming more internationalised.

We will continue to explore inorganic opportunities that will offer synergies and growth potential. At the same time, we will expand our partnerships and networks to develop mutual commercial benefit. For example, SGX partnered with Nasdaq and the Tel-Aviv Stock Exchange to explore growing listing opportunities.

## Technology Developments



Technology continues to be both a key enabler as well as a potential source of significant disruption to our business model in the long run.

We rely on technology across all aspects of business and operations, including our regulatory and risk management functions. We focus on enhancing operational resilience, while simultaneously seeking to future-proof our core systems and infrastructure for the longer term by making appropriate investments in emerging technologies. We have also embarked on a digitalisation journey with a series of customer-focused, data-centric and innovation initiatives. This is crucial to our long-term success as a systemically important financial infrastructure of Singapore.

As a critical infrastructure provider of the Singapore financial system, we contribute to the industry development of security standards and practices to address global cyber security risks. We are also progressively investing in new technology capabilities to improve our ability to anticipate, assess and manage these risks as they evolve over time.

The long-term trend is for exchanges to become integrated platforms where a broad range of products are easily listed and traded, including products traditionally traded over the counter. SGX is progressing along this trajectory, supported by innovations in trading platforms, connectivity, as well as the continued enhancements of features and functionalities to cater to the expectations of industry participants.

Disruptive technologies are poised to change the landscape of our industry over time. To remain relevant and competitive as a centre for capital raising, risk management and price discovery, we actively engage the FinTech community and participate in the development of such technologies.

# Strategic Priorities

Our long-term priority is to work towards being a global multi-asset class exchange both horizontally and vertically integrated, covering all major asset classes in the Asian time zone. In FY2019, we will continue our effort to build a multi-asset exchange, grow our international presence, and expand our network and partnerships.



## Build a Multi-Asset Exchange

Widen our product offering and increase our trading and clearing activities

- Commodities**  
Increase our futures volume with a focus on our bulk commodity offering.
- FX Futures**  
Strengthen our market position in Asian FX futures by capitalising on Singapore's position as the largest FX centre in Asia-Pacific.
- Fixed Income**  
Grow our bond listings and establish SGX Bond Pro as a leading offshore G3 Asian bond trading platform.



## Grow International Presence

Build up our overseas offices and capabilities to acquire new clients and deepen client engagement

- Equity and Fixed Income Listings**  
Grow the number of listings, and develop Technology as a key equity listing sector.
- Market Participation**  
Increase international trading and clearing activity and grow our subscription and licensing services.
- Members and Clients**  
Acquire new members to enhance our distribution channels, and expand our client base across all segments.



## Expand Network and Partnerships

Strengthen cross-border flows through collaboration with other markets

- Market Infrastructures**  
Collaborate with market infrastructures and market operators to grow cross border flows.
- Platforms**  
Develop platform partnerships to enhance service capabilities.



## Business Unit Priorities

### Equities and Fixed Income

#### Issuer Services

In FY2019, we aim to grow our Equity and Fixed Income listings through broadening our geographical coverage and deepen sectorial focus to win higher share of international listings. Leveraging on our position as the listing venue with the largest Asia REITs and Business Trusts portfolio ex-Japan, we aim to drive REITs listings from USA and Europe. In line with the Singapore Smart Nation initiative, we will continue to grow our Technology sector and eco-system. We entered into collaborative listing agreements with Nasdaq and Tel Aviv Stock Exchange, and enhanced our Listings framework with the introduction of dual class share listings structures. We will also further collaborate with other exchanges and intermediaries to expand the international dimension of our listing business including HK, China, Australia and South Korea. Post-listings, we also actively support listed companies in their communication with investors and shareholders with our range of services and corporate access activities.

#### Securities Trading

We will continue to improve the quality and tradability of our market. We remain committed to expanding our pool of market makers and liquidity providers to increase and deepen participation in our market. Through active engagement of our members and other market participants, we will continue to seek feedback on our ongoing efforts to create a vibrant and robust market. SGX will also continue to educate and grow the retail investor base, and attract greater international participation across institutional and retail segments. We will continuously innovate and expand our suite of products to encourage liquidity and market participation through increasing the number of available Structured Warrants, Funds and Daily Leverage Certificates (DLC).

#### Post Trade Services

The implementation of the second phase of the New Post Trade System will be our focus in the coming financial year. The new system offers a broader range of securities services and global custody functions for multi-asset, multi-currency securities and the implementation of a new settlement framework that is aligned with international standards and best practices, including shortening the securities settlement cycle from T+3 days to T+2 days.

#### Fixed Income

In the coming year, we plan to enhance trade matching and post-trade capabilities of our fixed income platform. We will focus on improving the functionalities of SGX Bond Pro, enhance the product offering on the platform and content as well as offer General Counterparty services.

The fixed income business will continue to target new geographies to maintain our position as the leading listing venue and grow participation on SGX Bond Pro. In building an eco-system of users, we aim to provide issuers with greater access to wholesale fund raising and price discovery.

### Derivatives

Our focus will continue to be on the development of a pan-Asian suite of products and services covering all major Asian economies. We will continue our efforts on enhancing our platform and distribution. Our key areas of development are:

1. Enhancing the capabilities of our SGX TITAN platform for derivatives trading, clearing and collateral management, with the objective of providing comprehensive self-help technology for the increasingly international profile of our Derivatives market participants. To complement our product offerings, we will be launching our new "TITAN OTC Pro" platform to allow brokers and traders to transact with greater ease and transparency.

2. Increasing international distribution of SGX's unique offering as a one-stop pan-Asian equity and commodities hub. We will focus on growing our market share and volume of seaborne commodities and Asian currency futures, while anchoring our position as a leading Asian equity derivatives risk management venue.

3. Incubating Asian market opportunities for the future remains a key focus. We will continue to build on the fast-growing FX futures franchise; nurture single stock futures as a product class for more precise risk management; develop clearing of OTC Asian equities block futures; expand our suite of maritime indices and ASEAN futures.

### Market Data and Connectivity

Our priority is to drive continued growth for our market data, connectivity and index business. In June, we launched a new SGX Reference Data Feed that provides the market with detailed and timely machine-readable reference data on securities instruments. We continue to offer ultra-low latency connectivity and general hosting services in our expanded co-location facility. Our bespoke index calculation service continues to grow in the region and we have expanded support in London to respond to demands from leading investment banks. We will continue to expand our suite of SGX proprietary indices, enhance our index calculation capabilities, and increase our efforts in promoting Index Edge to international clients.

# Risk Management

Business opportunities come with taking risks. SGX aims to pursue business opportunities and execute strategies within its risk appetite. The business and strategic risks are addressed in section “Key Trends”. In addition, the risks arising from operating a financial market infrastructure are described in the following pages. In this regard, SGX fully meets the PFMI<sup>1</sup> on global best practices for risk management.

## Key Risks Faced by SGX

### Credit & Liquidity Risks:

Our risk control is performed to the highest standards to address risks of default of a member or participant.

### Operational Risks:

We are fully committed to operational resilience against technology risks, cyber risks and risks to business continuity.

### Regulatory and Reputation Risks:

We have zero tolerance towards events that could impact the operation of a fair, orderly, transparent and efficient marketplace.



<sup>1</sup> Principles for Financial Market Infrastructures (PFMI) as recommended by the Committee on Payments and Market Infrastructures-International Organization of Securities Commissions (CPMI-IOSCO).

Types of risks	What are we doing about it?
<h2>1. Credit Risks</h2> <p><b>Risks arising from potential default of a participant</b>  SGX is a financial market infrastructure and its business model is different from that of most financial institutions. As an exchange, SGX matches buyers with sellers. As a clearing house, SGX removes counterparty risk by serving as the central counterparty in every trade – SGX becomes a buyer to every seller and a seller to every buyer. In so doing, SGX plays the vital role as the risk management hub, and limits contagion and the transfer of credit risk across the financial eco-system.</p> <p>Investors access SGX through our members, who are required to meet payment obligations in a timely manner. SGX collects margin from its members multiple times daily to reduce credit risk.</p> <p>In this business model, SGX is put at risk only in the rare instance that a member defaults. Should this happen, our clearing house will need to manage, transfer and close-out the open positions of the defaulted firm. SGX and other members may need to absorb the losses from the resulting market risk.</p>	<p>SGX has established layers of defences to safeguard its clearing house against members' credit risk.</p> <p>Good-quality members are screened at admission. Their credit standing and internal risk management capability are reviewed regularly as part of ongoing supervision.</p> <p>Active monitoring of members' positions and acute awareness of market conditions and political events enable pre-emptive mitigating actions to be taken by SGX. This ensures that risk does not concentrate on any particular member and remains manageable. Margin requirements for trade exposures are regularly reviewed for adequacy and margins are collected promptly. The increased use of data analytics and process automation have improved our agility and responsiveness to changing market conditions.</p> <p>A robust default management protocol is set up to ensure that in the rare event of a member default, SGX can preserve market continuity and limit any market risk fallout. Furthermore, to protect investors in a default, customer monies are segregated and held in trust.</p> <p>SGX and its members contribute resources to a default fund that is strong enough to withstand multiple member defaults. The resources to manage a potential credit event have been stress tested to cover multiple extreme and plausible scenarios. SGX contributes at least 25% of the default fund using its own capital, one of the highest "skin in the game" among global clearing houses.</p>
<h2>2. Liquidity Risks</h2> <p><b>Risks arising from potential default of a participant</b>  In the rare event of a member default, SGX may need liquidity in honoring payment obligations to other members. This is because it will no longer receive payments from the defaulted member.</p> <p>In addition, in facilitating day-to-day settlement of payments and safekeeping of customer monies, the clearing house uses commercial banks. A counterparty default of such a commercial bank, though highly unlikely, will expose SGX to liquidity risks.</p>	<p>SGX sets aside resources to cover liquidity risks. To provide sufficient headroom, we perform a "liquidity stress test" 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.</p> <p>SGX actively manages counterparty risk exposure to commercial banks by using only financially strong banks and limiting the amount of exposure to each bank.</p> <p>Significant changes to the clearing and settlement process in the Securities market is in progress. This will reduce reliance on commercial banks and shorten settlement cycle, thereby reducing settlement and liquidity risks in the market.</p>

# Risk Management

Types of risks	What are we doing about it?
<p><b>3. Operational Risks</b></p> <p><b>Operational resilience is paramount to our business success</b>  SGX is a financial infrastructure that is heavily reliant on technology. We are committed to ensuring that our trading, clearing and depository systems adhere to high standards of latency, volume capacity, and service availability. Any service interruption could lead to reputational risk and potential loss of revenue.</p> <p>Operational resilience also extends to our human resources. SGX needs to protect its staff from a wide range of threats to ensure market continuity in the event of civil crises such as terrorism or pandemic.</p> <p>SGX regularly runs enterprise business continuity exercises across technology, financial, physical security and pandemic scenarios to raise risk awareness and vigilance across the organisation.</p> <p><b>Increasing threat of cyber-attacks</b>  Singapore's financial centre is a target for cyber criminals, with increasing cyber-attacks experienced by the various financial institutions. Similar to other financial institutions, SGX has experienced a rise in such activities compared to previous years.</p>	<p>Our systems are constantly monitored and required to meet specific performance criteria such as predictable response times for critical business transactions, latency, capacity and expected current, future and peak load. SGX technology and operations personnel work from two locations supported by dual data centres as a fail-safe design. The backup systems are designed to be running all the time in active or fault tolerant conditions and have recovery time objectives (RTO) in line with PFMI standards.</p> <p>SGX has a thorough process for self-assessment of our capabilities, using both past experiences and experiences of our global peers to drive continuous improvements that will provide greater operational resiliency.</p> <p>There is recognition that operational resilience is required across the entire eco-system. SGX has actively engaged industry participants to improve their preparedness and readiness to deal with potential business disruptions. During the year, we successfully tested SGX and participants' recovery process to market disruptions.</p> <p>SGX monitors the cyber threat environment on an ongoing basis to ensure that cyber risk is managed and the regulatory requirements are met. We assess our cyber security maturity on a yearly basis to continually rectify identified gaps.</p> <p>In addition, SGX RegCo has embarked on reviews to enhance members' cybersecurity culture and controls, and to share best practices with the industry.</p>

Types of risks	What are we doing about it?
<h2>4. Regulatory Risks &amp; Reputation Risks</h2> <p><b>Risk of not maintaining the highest regulatory standards</b>  As a regulator of the Singapore marketplace and public companies, SGX has to maintain the highest reputation for supervision and for adherence to regulation. A loss in confidence in the quality of our marketplace could have serious impact on SGX's competitiveness.</p>	<p>SGX strives for high regulatory standards in the oversight of listed companies and member firms to enable the operation of a fair, orderly, transparent and efficient marketplace.</p> <p>SGX admission and listing requirements are benchmarked to be comparable with established jurisdiction standards and to address risks arising from changes in the business landscape and global environment.</p> <p>Our market surveillance system detects trading irregularities. Where appropriate, SGX issues public alerts to investors.</p> <p>In operating a disclosure-based regime, transparency is crucial to maintaining trust in our markets. This includes transparency on the part of the regulator. SGX therefore seeks to provide a high level of transparency regarding its regulatory philosophy and actions. Market participants are similarly subject to high levels of transparency. This promotes a well-educated and informed market.</p>
<h2>5. Market Risks</h2> <p><b>No direct market risk</b>  As a financial infrastructure, SGX follows strict regulatory requirements in managing its resources and maintaining capital adequacy. The company maintains a strong balance sheet. Our assets are primarily cash resources and not investments in risky securities. Hence, SGX is not directly affected by market risk except in the rare event of a member default, as explained above.</p>	<p>Under our investment framework, our monies are prudently placed as term deposits across multiple commercial banks in Singapore. SGX has also entered into reverse repurchase arrangements that are secured against high-quality and liquid government securities. This ensures SGX's resources are liquid and of the highest quality.</p>

# Sustainability

## Board Statement

The Board is committed to building a sustainable business to ensure long-term value for its stakeholders. As Asia's leading and trusted market infrastructure which operates to the highest regulatory standards, we reinforce SGX's position as a recognised securities and derivatives exchange by adopting sustainable business practices and advocating sustainability reporting. We identify and manage our business' Environmental, Social and Governance (ESG) material factors, and support our listed companies as they move towards best practices in sustainability reporting. We believe this will lead to long-term value creation for us and our stakeholders.

We continued to advance our sustainable practices in FY2018, and remained a constituent stock of major sustainability indices.

As a Partner Exchange of the United Nations Sustainable Stock Exchange (UN SSE) Initiative, SGX remains committed to promoting sustainability in our markets and long-term sustainable investment through dialogues with our investors, issuers, and regulators.

Acknowledging that the continued success of our business hinges on our ability to manage our key forms of capital, SGX focused on the following during the year:

- Continued development of a holistic talent strategy with an emphasis on career growth and development planning, to build our human capital;
- Enhanced operational resilience of our technology infrastructure and processes to ensure sustained market continuity;
- Built our product and platform capabilities to maintain our position as a premier risk management venue;
- Engaged regularly with stakeholders to foster collaborative social relationships that are integral in identifying, prioritising and addressing material issues;
- Promoted financial literacy, sustainable development and responsible investment amongst others through

- ongoing investor and stakeholder educational programmes; and
- Implemented initiatives to minimise our environmental footprint.

The Executive Management Committee (EMCO) drives sustainability efforts at SGX. The EMCO reports directly to the Board, which has considered sustainability issues as part of its strategic formulation, determined the material ESG factors and oversaw the management and monitoring of these factors.

SGX will continue to drive our sustainability agenda by advocating transparency and accountability. These continue to be the fundamental aspects required to build trust with our stakeholders.

## Report at a Glance

This report summarises our approach towards sustainability and our progress to date, with a focus on addressing SGX's material ESG issues.

## Report Scope

The report covers the performance of our consolidated entities from 1 July 2017 to 30 June 2018 (FY2018). We have included the historical data for the previous two years of FY2016 and FY2017 for comparison, where available. There has not been any restatement of figures for data disclosed in previous years.

## Reliability and Methodology

Similar to FY2017, we have elected to produce our FY2018 report in accordance with Global Reporting Initiative (GRI) Standards (2016) – "Core". We have chosen the GRI Standards due to its longstanding universal application and robust guidance, which allows for comparability of our performance against peers. The report is also prepared in accordance with SGX-ST Listing Rules (711A and 711B) – Sustainability Reporting. Our data is reported in good faith and to the best of our knowledge.

We welcome feedback on this report and any aspect of our sustainability performance. Comments or feedback can be sent to [sustainability@sgx.com](mailto:sustainability@sgx.com).

## Integrating Sustainability within SGX

Sustainability remains core to the long-term viability of our organisation. We have identified 4 material factors that are important to the sustainability of our organisation. They are Economic Performance, Socio-Economic Impacts, Governance, and People. Our business practices, developed with these material factors as a foundation, will enable us to deliver long-term value to our stakeholders. At the same time, we remain vigilant in mitigating the risks that may come with changes in our external environment.

At SGX, we integrate sustainability within our business strategy through efficient allocation and deployment of our 4 forms of capital, namely Financial Capital, Human Capital, Intellectual Capital, and Social Capital. Our holistic talent management strategy seeks to develop our human capital. By recognising and addressing the risks and opportunities that arise from changes in global economic, regulatory, competitive, and technological trends, we are able to continually generate business value for SGX and our stakeholders. These risks and opportunities have been elaborated in the Integrated Report (pages 32 to 33 and pages 36 to 39).

In line with our approach of integrating sustainability in our operations, we leverage on our stakeholder engagements and materiality assessment processes to identify sustainability risks and opportunities. We also take reference from our robust enterprise risk management system to identify and assess ESG risks. This approach ensures that material ESG risks are considered in the context of SGX's overall risk environment, and undergo a structured process of management and monitoring by our EMCO. More information on our risk management framework can be found under our Risk Management Report (pages 36 to 39).

## Our ESG Risks and Opportunities

Where we have assessed the impact of our ESG risks and opportunities to be material, we have addressed them below:



### Human Resource Risks

People are our key asset. Talent attraction and retention are crucial in Singapore's highly competitive financial market. Our talent strategy ensures SGX remains an attractive place to work in.



### Technology Risks

Providing reliable technological platforms is critical to business continuity as technology-related service disruptions have the potential to cripple our operations. To address this, we will continue to enhance our recovery capabilities, processes and communications to effectively manage crisis situations.



### Climate Change Risks

As a small island state, Singapore is vulnerable to rising sea levels and other features of climate change. The Singapore government's Public Sector Sustainability Plan and Climate Action Plan have laid out the nation's strategy to reduce emission levels, increase energy efficiency, and address climate change. Although SGX's environmental footprint is small, we manage it prudently in the light of national policy actions, guided by our Environmental Policy.



### Sustainability-related Products & Services

Non-financial risks and governance are becoming increasingly important among investors. This represents an opportunity for us. Our SGX Sustainability Indices, which comprise liquid SGX-listed stocks screened in accordance with ESG criteria, provide a transparent way for investors to assess the sustainability practices of our listed companies.

### Diversity of Our Workforce

The gender, age, ethnic and nationality diversity of our workforce are part and parcel of our corporate culture, which embraces varied and unique perspectives. In this way, our workforce diversity represents an opportunity for us to lead by example.

## Sustainability

### Stakeholder Engagement

At SGX, we recognise that stakeholder engagement is important in helping us make informed commercial and policy decisions. Our role as a front-line regulator further reinforces this importance as the implementation of our policy decisions may have significant influence on shaping the Singapore capital markets. We engage our key stakeholders through various platforms and channels, and their feedback is carefully considered to ensure decisions contribute to the overall good of our stakeholders.

The table below summarises our approach to stakeholder engagement:

Key Stakeholder	Forms of Engagement	Key Topics
<b>Employees</b>	Town-halls, focus group discussions, employee survey, workshops, trainings and seminars, corporate events and the Connects intranet platform.	<ul style="list-style-type: none"> <li>• Opportunities for career growth and development</li> <li>• Employee engagement, wellness and work environment</li> <li>• Operational efficiency</li> <li>• Market structure and policies</li> <li>• Corporate governance</li> <li>• Infrastructure updates and business continuity planning</li> <li>• Regulatory policies and practices</li> <li>• Financial literacy and investment education</li> <li>• Corporate social responsibility initiatives</li> </ul>
<b>Regulators and Government</b>	Dialogue, feedback sessions and jointly organised events.	
<b>Issuers</b>	Dialogue, workshops, promotional roadshows and seminars.	
<b>Intermediaries</b>	Dialogue, feedback sessions, training, and jointly organised exercises and events.	
<b>Investors</b>	Investor Perception Study, education and advocacy programmes via the SGX Academy, and various roadshows.	
<b>Public and Communities</b>	Public consultations, educational workshops, seminars and programmes, scholarship and internship programmes, fundraising and corporate activities.	

We highlight some engagements with stakeholders during the year below:

#### Annual Institutional Investor Perception Study 2018

Since FY2015, SGX has engaged an independent third-party service provider to conduct a perception study to understand the investment community's sentiment on our strategy, management team, investment case, capital allocation, investor communications and corporate governance. In-depth interviews were conducted with past, current and potential shareholders, followed by a comprehensive analysis of the results.

#### Key findings from the Investor Perception Study

- Corporate governance practices
  - SGX's corporate governance practices are in line or above-average when compared to its peers.
  - Investors continue to view SGX as a trusted exchange with robust corporate governance practices. They appreciate SGX's transparency, disclosure, accessibility, and communication with the investment community.
- Quality of SGX's Market
  - Investors agree that SGX's market is above-average in terms of being fair, orderly, and transparent compared to its peers.
  - Participants see SGX as a regulator with stringent listing criteria, and that Singapore has high levels of transparency and a sound governance track record.
  - Investors also expressed concerns on the lack of future growth opportunities in the market, and low trading volumes of lower-priced stocks.

### Community Involvement Initiatives

SGX continues to be actively involved in corporate philanthropy and corporate giving as a means of engaging our employees and contributing to the community. A key highlight of the SGX corporate giving initiative is the 14<sup>th</sup> annual SGX Bull Charge 2017. Launched in 2004, SGX Bull Charge is the only corporate charity initiative that brings together Singapore's financial community and listed companies to support the needs of underprivileged children and families, persons with disabilities, as well as the elderly. It has raised more than \$30 million for over 50 charities.

A total of 150 corporate sponsors supported the SGX Bull Charge 2017, raising over \$2.7 million in proceeds for five adopted beneficiaries: AWWA Ltd, Autism Association of Singapore, Fei Yue Community Services and Shared Services for Charities. Proceeds from the event have enabled our beneficiaries to deliver better care and assistance to those in need, specifically underprivileged children and youth, families, the disabled and the elderly.

## Public Consultations

In FY2018, SGX held 8 public consultations to obtain feedback regarding possible changes to the structure of the securities market. Recognising the value of public input, SGX consulted the public on the potential introduction of a dual-class share structure, adjustments to the securities settlement framework, and changes to quarterly reporting for listed companies.

## Materiality Assessment

Our materiality definition is guided by the GRI Standards (2016). Material sustainability factors are defined as those that:

1. Reflect the reporting organisation's significant economic, environmental, and social impacts; or
2. Substantively influence the assessments and decisions of stakeholders

We review our selected material sustainability factors regularly. For FY2018, the EMCO and Board reviewed and endorsed our existing material factors:

Material Factors	GRI Disclosures	Read more in our:	
<b>Economic</b> 	Our financial performance, value creation, distribution, and retention for shareholders.	Economic performance	<ul style="list-style-type: none"> <li>▪ Financial Statements, Annual Report, pages 93 to 168.</li> </ul>
<b>Socio-Economic Impacts</b> 	Our external impacts through our role as a market operator and regulator.	Indirect economic performance	<ul style="list-style-type: none"> <li>▪ Socio-Economic Impacts, Sustainability Report, pages 44 to 45.</li> </ul>
<b>Governance</b> 	Our governance structure, ethics and integrity, anti-corruption and compliance policies.	Anti-corruption Socio-economic Compliance	<ul style="list-style-type: none"> <li>▪ Governance, Sustainability Report, page 46;</li> <li>▪ Corporate Governance Report, pages 54 to 75;</li> <li>▪ Self-Regulatory Organisation Governance Report, pages 82 to 87; and</li> <li>▪ Sustainability Website – Anti-corruption, Gifts and Entertainment Policy Statement</li> </ul>
<b>People</b> 	Our talent management and responsible employment practices.	Employment Labour Relations Training and Education Diversity and equal opportunity Non-discrimination	<ul style="list-style-type: none"> <li>▪ People, Sustainability Report, pages 47 to 49; and</li> <li>▪ Sustainability Website – Employee Recruitment Statement.</li> </ul>
Non-Material Factor	GRI Disclosures	Read more in our:	
<b>Environment</b> 	Our role in mitigating climate change.	Energy	<ul style="list-style-type: none"> <li>▪ Environment, Sustainability Report, pages 50 to 51;</li> <li>▪ Sustainability Website – Environmental Policy.</li> </ul>

## Sustainability

### Socio-Economic Impacts

SGX contributes to the development of Singapore's financial market by providing a platform for issuers to raise capital whilst enabling investors to participate in Asia's economic growth and manage their Asian portfolio risks. As a front-line regulator, we ensure that issuers meet their ongoing obligations to investors, and participation in our markets is carried out in a fair, orderly and transparent manner. SGX is also a provider of connectivity solutions and is a trusted and secure counterparty for trade settlement.

In FY2018, SGX was involved in two areas that impact the broad socio-economic environment. They are:

- Stakeholders' Education: Initiatives within the realms of investor education and sustainability reporting; and
- Operational Resilience: Resiliency of our trading & clearing infrastructure, and our recovery processes.

### Stakeholders' Education

The SGX Academy oversees education and training efforts for investors and traders on investment knowledge. Our programmes have been specially designed to educate, engage and enable our stakeholders to make informed and responsible investment decisions.

In this financial year, over 258,000 investors of different age groups and investment aptitude have accessed our education assets and content through the face-to-face seminars, training courses, e-tutorials and digital platforms to aid them in their investment decisions. Through our interaction with our stakeholders, the SGX Academy is able to contribute to SGX's overall responsiveness to market needs.

Furthering our agenda to promote responsible investing, SGX organised the 'My First Stock Carnival' to engage new investors, particularly the millennial segment, on the importance of investing early. The event adopted a hybrid format

with a two-day weekend carnival where an estimated 5,000 visitors showed up to learn investment concepts and how to get started. This was followed by a week of curated investment workshops by SGX, brokers, and prominent financial bloggers, to help investors deepen their understanding on specific investment topics to get started.

In FY2018, we accelerated our digital education efforts from e-tutorials to also encompass webinars and webcasts to extend our outreach to the overseas investors. Over 30 investment webinars were conducted which reached out to more than 3,000 retail investors, covering topics from investment techniques such as deep value investing to profiling by listed companies on their business, outlook and strategies. We also introduced live streaming of our large-scale seminars to allow investors the ease of access to our content wherever they are. On average, a webcast session registered over 1,000 unique viewers.

SGX also partnered Channel News Asia to host the Money Mind Stock Challenge to educate and inspire investors. The event featured 10 contestants competing for the best performing portfolio over a period of 2 months. 10 TV episodes were aired weekly over 9 weeks. Viewers had the opportunity to go behind the scenes to understand the contestants' thought processes and strategies, and to gain insights by an expert panel of investors.

To support World Investors Week (WIW), an initiative led by International Organization of Securities Commissions (IOSCO) as a coordinated campaign by securities regulators to raise public awareness about the importance of investor education, SGX co-hosted WIW Singapore in October 2017. During WIW Singapore, several investor education forums were held in partnership with MoneySENSE, Securities Investors Association (Singapore) (SIAS) and the Institute for Financial Literacy to benefit Singapore's investing public.

### Operational Resilience

As a market operator, operational resilience of our infrastructure is critical in ensuring business continuity. In FY2018, SGX conducted Disaster Recovery and Business Continuity tests with participants to test industry-wide preparedness in the event of a crisis.

Demonstrating the resolve to minimise adverse impact from a market disruption, SGX has to-date implemented three out of the six recommendations proposed by the Securities Industry Working Group (IWG):

1. Data Corruption and Restoration – A Master Record as the authoritative source of data in the event of a complex malfunction.
2. Market Closure and Resumption – The timing and principles for market closure and resumption during a market-wide incident.
3. Trade Assumption – A clear protocol for trade assumption.

The implementation of the remaining 3 recommendations is in progress and we expect to complete them in FY2019, as follows:

4. Market Recovery Procedures – Attestation from members that they have appropriate recovery plans in place, is in progress.
5. Incident communication – A centralised communication portal for coordinated distribution of information during an incident has been implemented and will be used in our upcoming Disaster Recovery and Business Continuity tests.
6. Business continuity testing and support – Going forward SGX will also conduct industry-wide data recovery exercises to test data loss and reconciliation capabilities along with the market participants.

We will continue to leverage the Enterprise Command Centre to improve monitoring and provide a better line of sight into the health, status and availability of our infrastructure.

## Save and Invest Portfolio Series

Riding on the success of the 'Save and Invest Portfolio Series' on The Sunday Times, SGX extended the collaboration with CFA Society Singapore and MoneySENSE by launching a similar series on Lianhe Zaobao to encourage Chinese investors to save and invest for their future.

The campaign involves reaching out to an extensive readership base through a monthly 'Save and Invest Portfolio Series' column on Lianhe Zaobao, featuring simulated savings and investment portfolios of 3 Singaporean individuals and families at different life stages. The 3 simulated portfolios are tracked and guided by a panel of 4 CFA Society Singapore volunteers who are CFA charterholders with a wealth of financial and investment experience. As part of this series, quarterly investor conferences were also organised and widely attended by retail investors.

### Targets and Performance Scoreboard:

Socio-Economic Targets for FY2018	
Target	Performance Update
<b>Stakeholder Education</b> Number of retail investor participation at educational or developmental programmes	 <ul style="list-style-type: none"> <li>We reached out to over 258,000 retail investors through our various education and developmental programmes (see page 44 for details).</li> </ul>
<b>Operational Resilience</b> Number of BCP and IT DR exercises conducted	 <ul style="list-style-type: none"> <li>We conducted 14 BCP and IT DR exercises in FY2018 of which 8 exercises involved industry participants.</li> </ul>
<b>Effective Regulation</b> To help listed companies improve their Singapore Governance and Transparency Index (SGTI) scores by: <ul style="list-style-type: none"> <li>Developing regulatory initiatives and processes that support good governance practices; and</li> <li>Continuing our ongoing stakeholders' engagement efforts</li> </ul>	 <ul style="list-style-type: none"> <li>SGX RegCo formed a joint committee with Singapore Institute of Surveyors and Valuers (SISV) in August 2017 to review valuation practices and reporting carried out by real estate valuers for listed issuers. The aim is to improve the standards of disclosures and reporting of valuation by listed issuers. Following discussions at committee meetings, SISV issued a Guide on Valuation Reporting for REITs, listed companies and IPOs in June 2018 to meet investors' need for clarity and completeness of information.</li> <li>We organised a workshop with the United Nations Principles for Responsible Investment (UN PRI) and the CFA Institute to study how institutional investors and asset managers in Singapore incorporate sustainability into their investment decisions as well as sharing of investment practices.</li> <li>We conducted several roundtable sessions for directors of Catalist issuers to guide them on SGX's sustainability reporting requirements, which came into effect for all issuers whose financial years end on or after 31 December 2017.</li> <li>Together with the FSB's Task Force on Climate-related Financial Disclosures (TCFD), we organised an ASEAN Conference on the TCFD Recommendations to discuss reporting and use of climate-related information for financial and investment purposes in the ASEAN Markets.</li> </ul>
<b>Effective Risk Management</b> Observance of all relevant Principles for Financial Market Infrastructures (PFMI) principles	 <ul style="list-style-type: none"> <li>Our two clearing houses Central Depository (CDP) and SGX Derivatives Clearing (SGX-DC) observed all the relevant principles of the Principles for Financial Market Infrastructures (PFMI).</li> </ul>

### Socio-Economic Targets for FY2019

Target
<b>Stakeholder Education</b> Number of retail investor participation at educational or development programmes
<b>Operational Resilience</b> Number of Business Continuity Planning and IT Disaster Recovery exercises conducted
<b>Effective Regulation</b> To help listed companies improve their Singapore Governance and Transparency Index (SGTI) scores by: <ul style="list-style-type: none"> <li>Developing regulatory initiatives and processes that support good governance practices; and</li> <li>Continuing our ongoing stakeholders' engagement efforts</li> </ul>
<b>Effective Risk Management</b> Observance of all relevant Principles for Financial Market Infrastructures (PFMI) principles

# Sustainability

## Governance

SGX prides itself as being a leader in corporate governance so as to cultivate trust and confidence in our markets and in the services we provide. We therefore set high standards of corporate governance and business ethics for companies listed on our exchange to support the building of an enduring and sustainable marketplace.

At SGX, we lead by example and adhere to the highest standards of corporate governance practices as guided by the Code of Corporate Governance. Further information can be found in our Corporate Governance Report and our SRO Governance Report.

## Sustainability Governance

The Executive Management Committee (EMCO) oversees sustainability at SGX. The EMCO is chaired by the Chief Executive Officer and comprises senior leadership across the organisation. It is therefore well placed to set the tone-at-the-top and allows for an integrated

business and sustainability strategy. The EMCO approves sustainability strategies and reviews sustainability performance. It also regularly reviews and evaluates their sustainability approach, management policies and practices, sets targets, and measures performance against the targets.

## Our Code of Conduct and Ethics Policy

At SGX, we advocate the highest level of conduct and ethical standards to maintain high standards of governance. The SGX Conduct and Ethics Policy, the Code of Dealing and the SRO Conflicts Handbook are essential in guiding the behaviour of our employees. All employees are required to undergo rigorous training to familiarise themselves with these policies which provide guidance on appropriate conduct for common ethical issues, such as conflicts of interest, bribery and corruption, confidential information, and compliance among others. We also educate all our employees on our

whistle-blowing policy, which is publicly posted on our website, to facilitate the reporting of suspected and actual cases of improper, unethical or fraudulent conduct. The Board and EMCO take a firm stance on the ethics and integrity of employees at SGX and a serious view towards non-compliance. In line with internal policies, all employees have to undergo annual compliance and independence training.

In FY2018, 18 whistle-blowing cases were filed through our whistleblowing channel. 16 cases were related to companies listed on SGX, while 2 were related to trading matters. These cases were referred to SGX RegCo for investigation. There were no whistle-blowing reports concerning SGX.

There were no cases of bribery or corruption, anti-competitive behaviour and no fines for non-compliance with the law during the year. We continue to strive to uphold the highest standards of corporate governance with respect to our stringent governance framework.

## Targets and Performance Scoreboard:

Governance Targets for FY2018		
Target	Performance Update	
Disclosure on the number of incidents of corruption and actions taken	 ▪ There were no incidents of corruption and actions taken in FY2018.	
Disclosure on the number of material non-compliance with laws and regulations in the social and economic area	 ▪ There were no material non-compliance with laws and regulation in the social and economic areas in FY2018.	

Governance Targets for FY2019		
Target		
Disclosure on the number of incidents of corruption and actions taken		
Disclosure on the number of material non-compliance with laws and regulations in the social and economic area		

## People

SGX recognises that our ability to remain commercially viable and competitive hinges on our continued success in attracting and retaining talent. At SGX, we care for our employees' growth and career development. We are committed to maintaining a positive workplace that values integrity, diversity, collaboration and communication whilst taking care of the well-being of our employees.

### Talent Management

Our Head of Human Resources oversees our labour practices, talent strategy and human resource policies and processes, and also cares for the 806 employed in SGX during the year. During the year, there were 136 new hires and 117 resignations. As a specialised industry, we are keenly aware that the talent and expertise we need are not readily transferrable from the wider financial services industry. We have thus taken steps to actively manage this.

At SGX, we continually invest in a holistic talent strategy to build our internal capabilities and talent pool. Through regular employee engagement activities, SGX strives to foster employee commitment by improving employee benefits and overall welfare in the organisation. We support our employees in balancing their professional life with domestic responsibilities by introducing initiatives such as flexible working schemes for female employees after childbirth.

In FY2018, a new and more robust performance management framework was implemented to promote a clear

line of sight to organisational goals and strategy and strengthen performance measurement and its link to reward and staff development. The annual performance management cycle was enhanced to emphasise target-setting, performance feedback and career development discussions. This initiative seeks to maximise employees' full potential and enhance their career development prospects which would in turn improve SGX's organisational performance.

Additionally, in FY2018, SGX was officially recognized as a Human Capital Partner (HCPartner) by the Ministry of Manpower. It is a recognition of our continued efforts to invest in human capital and adopt fair and progressive workplace practices.

### Staff Development

A highly skilled talent pool is essential to maintaining SGX's position as a leading securities and derivatives exchange. We rely heavily on the skills and capabilities of our employees to ensure the quality of our product and service offerings. At SGX, we subscribe to the policy of lifelong learning, to encourage our employees to further their potential, while equipping them with skills and knowledge that go beyond the required expertise of their current roles.

We strive to cultivate a learning culture by providing structured programmes to support learning and development. To achieve this, we provide employees with a variety of training, professional memberships, continuing education scheme, study leave, and internal job

rotation opportunities. Our employees' professional learning and development is also supplemented by programmes that seek to nurture soft skills and other transferrable expertise. These holistic initiatives serve to develop highly skilled and well-rounded employees who would be an asset to any organisation.

Given that SGX operates in a highly specialised industry, we maintain a line of sight for high potential internal candidates, proactively providing them with development opportunities to raise their level of readiness.

Leadership development is an area of focus where we continue to develop and enhance our line managers' leadership capabilities from first-level line managers up to our senior leaders, in partnerships with reputable and established best-in-class training programme providers.

Recognising that digital disruption is happening all around us and to equip our employees with the digital competencies necessary to thrive in this new environment, we rolled out our Digital Learner series of curriculum in FY2018, aimed at providing greater accessibility to learning opportunities for our employees via notable market-leading digital platforms.

In addition, the SGX Growth Xcelerator series was introduced to inculcate a stronger learning culture within SGX. The range of topics covered during these lunchtime talks include leadership, professional development, digital competencies and employee well-being.

## Sustainability

### Diversity and Inclusion

SGX embraces diversity within our workforce. We recognise that diversity in the workplace broadens the depth and breadth of our collective skills and perspectives. Cultivating a diverse and collaborative environment that drives innovation is thus a priority at SGX. We hire based on merit, and provide a competitive and fair

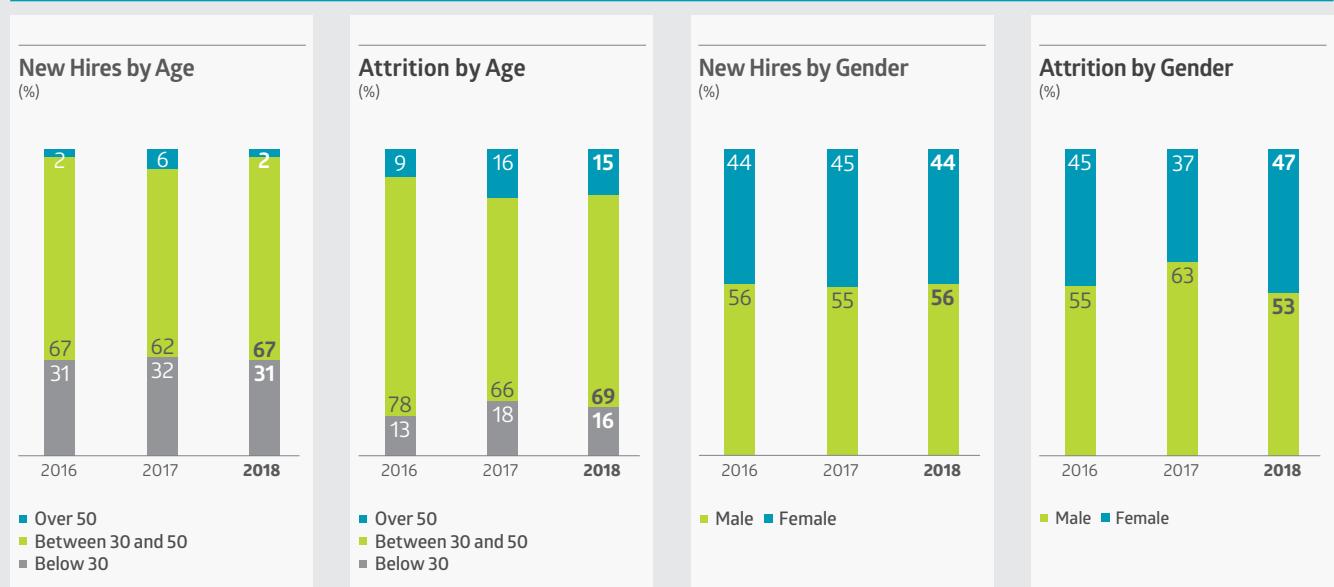
compensation and benefits package with “equal pay for equal work”, engendered by our Non-discrimination Policy. This allows us to leverage on our gender, age, and cultural diversity to drive growth and maximise SGX’s full potential. The talent strategy also emphasises equal opportunity in a non-discriminatory work environment.

In FY2018, the new hires we welcomed comprised an almost equal ratio of females and males, ranging across all age groups from below 30 to above 50 years of age. 30% of our Board is represented by female directors, which contributes to the diversity of views and perspectives at senior levels. We have had zero reported incidents of discrimination at SGX.

### Targets and Performance Scoreboard:

People Targets for FY2018		
Target	Performance Update	
Implement programmes for upgrading employee skills & transition assistance programmes	 <ul style="list-style-type: none"> <li>■ We introduced a digital learning platform to encourage employees to adopt continuous learning practices.</li> <li>■ We implemented innovation-benchmarking workshops for employees to create awareness of disruptive socio-economic trends.</li> <li>■ We ran leadership development programmes for senior managers to build on our leadership capabilities.</li> </ul>	
Achieve 35 training hours per employee per year	 <ul style="list-style-type: none"> <li>■ Employees engaged in an average of 44 hours of training during the year.</li> </ul>	
People Targets for FY2019		
Target		
Implement programmes for upgrading employee skills & transition assistance programmes		
Achieve 35 training hours per employee per year		

## Employment



## Diversity and Inclusion



## Training and Education



## Sustainability

### Environment (non-material factor)

SGX is keen to do our part to minimise our environmental footprint whilst managing our commercial needs.

Since the formalisation of the Environmental Policy in FY2016, which encompasses both our direct and indirect impacts on energy consumption and other natural resources, SGX has continually undertaken initiatives to promote environmental responsibility and reduce our environmental footprint.

In FY2018, SGX embarked on an environmental awareness campaign to encourage staff to care for the environment. The Earth Hour movement was observed as a symbol of commitment to lower energy consumption. A 'Plant-A-Tree' programme was also organised to encourage staff to do their part for the environment. To minimise energy wastage, motion-activated light sensors were installed in all meeting rooms.

SGX continued to encourage shareholders to subscribe to electronic transmission of shareholder documents. This was in response to positive feedback received from public consultation regarding e-communication.

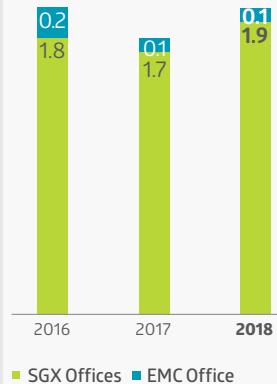
SGX has also ceased mailing out CDs for our annual report and will write to shareholders to explain that the same information is available on our website. Physical copies of our annual report will be made available only upon request.

Our primary data centre was awarded the Standard 564 (SS564) certification for Green Data Centre – Energy & Environmental Management Systems. SS564 was developed by the IDA in partnership with various government agencies to set a Singapore Standard for Green Data Centres. Our secondary data centre was awarded the BCA Green Mark Platinum certification for excellence in Energy and Environmental Design of the Building.

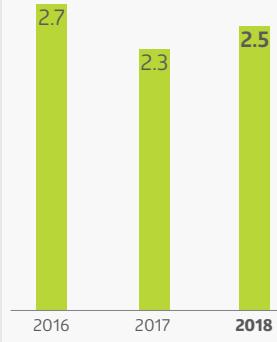
We continue to measure our progress against targets, and drive improvements for environmentally-friendly resource usage.

SGX also encourages and supports the development of sustainable financing. In line with our efforts in promoting green financing, we listed the Green Masala bond of Indian Renewable Energy Development Agency Limited (IREDA) in October 2017.

**Energy Consumption  
in Offices  
(GWh)**



**Energy Intensity in Offices  
(MWh/employee)**



Note: Energy consumption and intensity only reflect operations in Singapore (SGX and EMC).

## Targets and Performance Scoreboard:

Environment Targets for FY2018	
Target	Performance Update
Undertake further initiatives to promote environmental responsibility	 <ul style="list-style-type: none"> <li>■ Continue to encourage shareholders to opt for the use of electronic transmission of shareholder documents.</li> <li>■ Encourage employees to care for the environment through various initiatives (see page 50 for details).</li> <li>■ SGX promoted awareness and discussion of the Task Force on Climate-related Financial Disclosures (TCFD) recommendations in the ASEAN region. In March 2018, we jointly organised a conference in Singapore with the TCFD focused on the ASEAN market. The Chairman of the ASEAN Capital Markets Forum gave the keynote speech.</li> <li>■ Implemented motion-activated light sensors to reduce electricity consumption in all meeting rooms.</li> </ul>
Analyse and monitor energy usage	 <ul style="list-style-type: none"> <li>■ Electricity consumption at SGX offices increased by 10% from FY2017 partly due to the set up of our new Enterprise Command Centres (ECC), which operate 24 hours daily.</li> </ul>
Environment Targets for FY2019	
Target	
Undertake further initiatives to promote environmental responsibility	
Analyse and monitor energy usage	

## Sustainability Development

SGX remains committed to our sustainability agenda, and will continue to seek opportunities to improve organisational sustainability to create value for our stakeholders. We also strive to continually improve our sustainability reporting initiatives by enhancing our non-financial disclosures to provide our stakeholders with deeper insights into SGX's sustainability practices. We will continue to engage and support our listed companies in deriving value from their sustainability reporting process.

Global Reporting Initiative (GRI) Standards (2016) – “Core” Content Index can be found at: <http://investorrelations.sgx.com/> sustainability

# Governance





# Corporate Governance Report

## Corporate Governance

Singapore Exchange Limited (SGX) is fully committed to upholding the highest standards of corporate governance, business integrity and professionalism in all activities in the Group. This report sets out SGX's key corporate governance practices with reference to the Code of Corporate Governance 2012 (CCG 2012), as well as the Securities and Futures (Corporate Governance of Approved Exchanges, Approved Clearing Houses and Approved Holding Companies) Regulations 2005 (SFR 2005). For the financial year ended 30 June 2018, unless

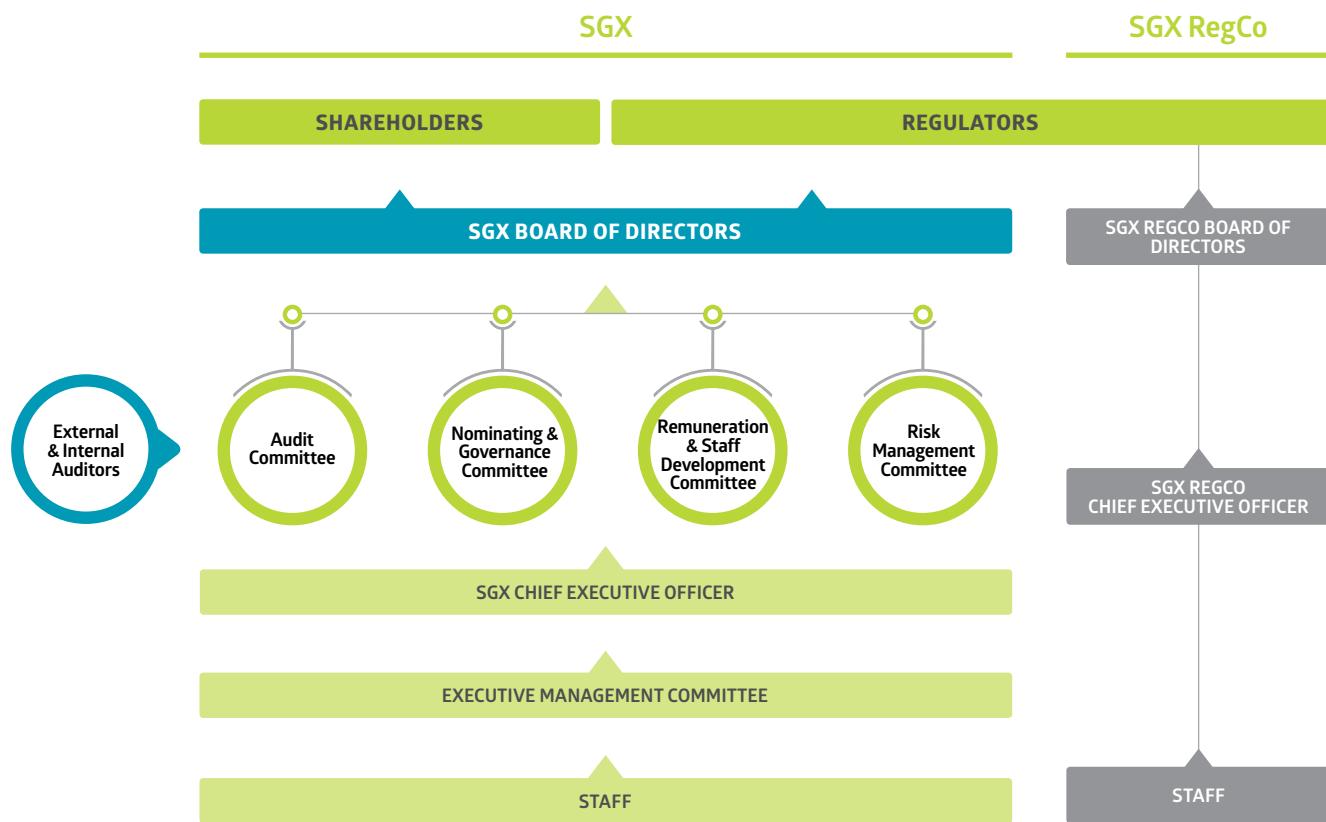
otherwise stated, SGX has complied in all material aspects with the principles laid down by the guidelines in the CCG 2012 and SFR 2005. We provide a summary disclosure on our compliance with the CCG 2012 on page 81 of this Annual Report.

## Self-Regulatory Organisation Governance

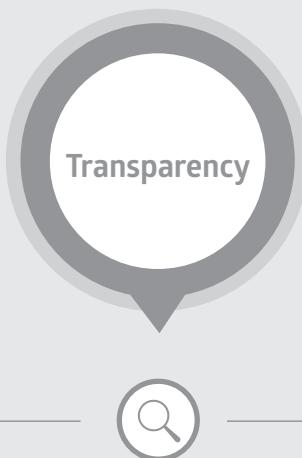
Singapore Exchange Regulation Pte. Ltd. ("SGX RegCo") was established by SGX as an independently governed subsidiary to undertake all regulatory functions for SGX and its regulated subsidiaries.

This move aims to further enhance the governance of SGX as a self-regulatory organisation (SRO) by making more explicit the segregation of SGX's regulatory functions from its commercial and operating activities. The Regulatory Conflicts Committee ("RCC") was dissolved in October 2017 and the duties undertaken by the RCC have been taken over by SGX RegCo. This Corporate Governance Report is to be read in conjunction with the SRO Governance Report, which sets out SGX's corporate governance as a self-regulatory organisation.

## Corporate Governance Framework



## Highlights



Ranked 3<sup>rd</sup> in the Singapore Governance & Transparency Index 2018

Ranked 4<sup>th</sup> in the ASEAN Corporate Governance Scorecard 2018

Runner-up for Board Diversity Award and Merit for Corporate Governance Award in the Big Cap category in the SIAS Investors' Choice Awards 2017

Derivatives Exchange of the Year at Asia Risk Awards 2017

Exchange of the Year, Asia at Energy Risk Asia Awards 2017

Asia-Pacific Derivatives Exchange of the Year at GlobalCapital Global Derivatives Awards 2017

Financial Metals Service Provider of the Year at Platts Global Metals Awards 2017

Asia Exchange of the Year at Structured Products Awards 2017

Best Index Provider, Asia Pacific at SRP's Asia-Pacific Awards 2018

Daily updates on SGX's website of volumes and values of securities and derivatives traded or cleared by SGX

Monthly publications on volumes and values of key products traded

Quarterly financial reports

Quarterly briefings to analysts and media webcasts

Board-endorsed risk appetite statement, driving balanced approach to strategy development, within defined risk boundaries. Please refer to section on "Risk Management Report"

# Corporate Governance Report

## Board Matters

### The Board's Conduct of its Affairs

#### PRINCIPLE 1

##### Principal Duties of the Board

The Board oversees the conduct of the SGX Group's affairs and is accountable to shareholders for the long-term performance and financial soundness of the Group. This aligns the interests of the Board and Management with that of the shareholders, whilst balancing the interest of all stakeholders. The Board also sets the tone for the SGX Group where ethics and values are concerned.

In addition to its statutory duties, the Board reserves the following key matters for its decision:

- (a) the appointment of the SGX Chief Executive Officer (CEO) and Directors, appointments on Board committees and Board succession and appointments on the board of SGX RegCo;
- (b) the appointment of key Management personnel and succession planning as an ongoing process;
- (c) approving broad policies, strategies and objectives. The SGX Board provides guidance and leadership to Management and ensures that adequate resources are available to meet its objectives;
- (d) approving annual budgets, major funding proposals, investment and divestment proposals, material acquisition and disposal of assets, corporate or financial restructuring, and any investments or expenditures exceeding S\$15 million in total;
- (e) the adequacy of internal controls, risk management, financial reporting and compliance;
- (f) the assessment of Management performance;
- (g) the assumption of corporate governance responsibilities;
- (h) matters involving a conflict of interest for a substantial shareholder or a director;
- (i) share issuances, interim dividends and

other returns to shareholders; and  
(j) matters which require the SGX Board's approval as specified under SGX's interested person transaction policy.

##### Independent Judgement

All directors exercise due diligence and independent judgement and make decisions objectively in the best interests of SGX. SGX adheres to the requirements under the CCG 2012 and SFR 2005. In determining the independence of its directors, please refer to "Board Independence" under Principle 2 in this Corporate Governance Report.

Unless specified otherwise, references to independence of directors are references to independence as defined under the CCG 2012 and SFR 2005.

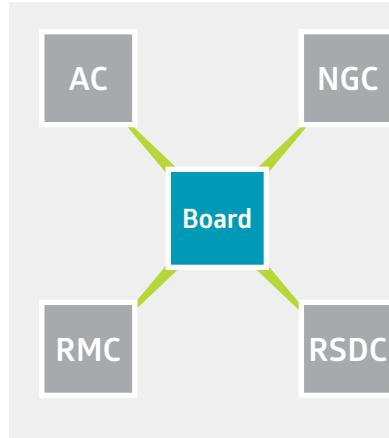
##### Delegation by the Board

Board committees, namely the Audit Committee (AC), Nominating & Governance Committee (NGC), Remuneration & Staff Development Committee (RSDC) and Risk Management Committee (RMC), have been constituted to assist the Board in the discharge of specific responsibilities. Clear terms of reference (TOR) set out the duties, authority and accountabilities of each Board committee as well as qualifications for Board committee membership, in line with the CCG 2012 and SFR 2005, where applicable. The TORs are reviewed on a regular basis, along with the Board committee structures and membership, to ensure their continued relevance. The detailed TORs of the Board committees are available on SGX's website.

Please refer to the Principles in this Corporate Governance Report, for further information on the activities of the NGC, RSDC, RMC and AC.

##### Key Features of Board Processes

The Board meets regularly and sets aside time at each scheduled meeting to meet without the presence of Management.



Board meetings may include presentations by senior executives and/or external advisers/consultants/experts on strategic issues, the developing business and regulatory landscape or risk management issues.

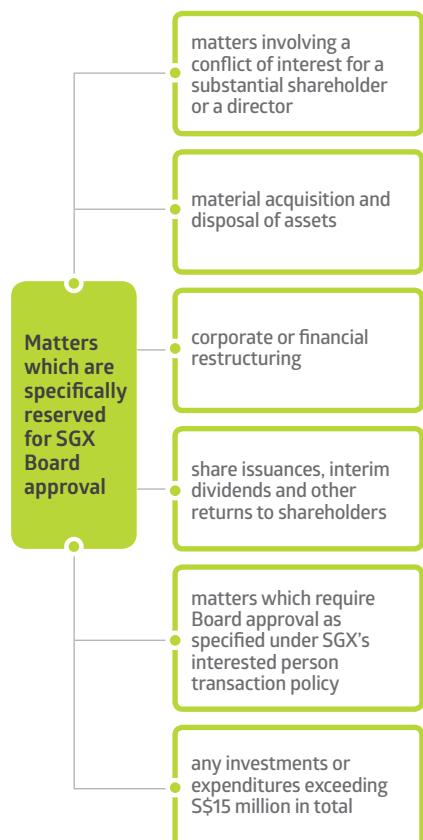
The schedule of all Board and Board committee meetings and the Annual General Meeting (AGM) for the next 3 calendar years is planned in advance, in consultation with the Board. The Board meets at least 4 times a year at regular intervals. Besides the scheduled Board meetings, the Board meets on an ad-hoc basis as warranted by particular circumstances. Participation by telephone and video conference at Board and Board committee meetings is allowed under the SGX's Constitution. The Board and Board committees may also make decisions by way of circulating resolutions. There were 4 scheduled Board meetings in FY2018. Key matters discussed at these meetings included financial performance, annual budget, corporate and risk strategy, business plans, regulation, significant operational matters, capital-related matters and organic and inorganic strategic opportunities. In the interest of allocating more time for the Board to deliberate on issues of a strategic nature, and to focus on particular themes for each Board meeting, submissions which are straight forward in content as well as

those that are for information only, will be compiled and circulated in between Board meetings. The Board holds an annual strategy meeting and also dedicates time at each quarterly Board meeting, to interact with senior management executives and have in-depth discussions on SGX's strategic direction. The last annual strategy meeting was held on 19 January 2018. Periodic information papers and Board briefings on the latest market developments and trends, and key business initiatives are also provided to the Board.

A record of the Directors' attendance at Board and Board committee meetings during the financial year ended 30 June 2018 is set out on page 58 of this Annual Report.

### Board Approval

SGX has documented internal guidelines for matters that require Board approval.



For expenditures of S\$15 million and below, SGX has internal guidelines which set out the authorisation limits granted to management for approval of capital and operating expenditures, specified financial transactions and supplementary budgets.

While matters relating to SGX's objectives, strategies and policies require the Board's direction and approval, the Executive Management Committee (EMCO) comprising key management personnel and senior management executives is responsible for overseeing the management of the SGX Group and implementing the Board-approved strategic policies.

Pursuant to the Directors' Conflicts of Interest Policy, Directors must avoid situations in which their own personal or business interests directly or indirectly conflict or potentially conflict, with the interest of SGX Group. Where a Director has a conflict or potential conflict of interest in relation to any matter, he/she will immediately declare his/her interest at the meeting of the Directors or send a written notice to the Chairman and/or Company Secretaries, setting out the details of his/her interest and the conflict and recuse himself/herself from any discussions on the matter and abstain from participating in any Board decision.

### Directors' Orientation and Training

A formal letter of appointment is provided to every new Director. The formal letter of appointment indicates the time commitment required and the Director's role and responsibilities. The new Director will also receive a manual containing Board and SGX policies relating to the disclosure of interests in securities, disclosure of conflicts of interest in transactions involving SGX, restrictions on dealings in SGX's securities and the disclosure of price-sensitive information.

SGX conducts a comprehensive orientation programme to familiarise new directors with its business and governance practices. The orientation programmes are conducted by the CEO and senior management executives and provide directors an understanding of SGX's businesses, operations and regulatory environment, to enable them to assimilate into their new roles. The programmes also allow the new director to get acquainted with senior management executives, thereby facilitating board interaction and independent access to senior management executives.

During the financial year, Directors attended the following:-

- The external auditor, PricewaterhouseCoopers LLP, regularly briefs AC members on developments in accounting and governance standards.
- The CEO updates the Board at each meeting on business and strategic developments in the global exchange and clearing house industry.
- The Board was briefed on cyber security resilience.
- The Board and senior management executives met in an annual strategy meeting and each quarterly Board meeting for in-depth discussions on the strategic issues and direction of SGX.

Directors can request for further information on any aspect of SGX Group's operations or business from Management.

# Corporate Governance Report

Directors' Details			Directors' Independence Status					Directors' Meeting Attendance Report										
Names	Independent (I)/ Non -Independent (NI)	Executive (E)/ Non-Executive (NE)	Assessment of Independence of Individual Directors					Chair of the Board/ Board committee Member of the Board/ Board committee By Invitation										
			Independence status under the CCG 2012	Independence status under the SFR 2005	Reg 3(1)(a) Independent from management relationship	Reg 3(1)(b) Independent from business relationship	Reg 4 Independent from substantial shareholder	AGM	Board	AC	NGC	RSDC	RCC <sup>5</sup>	RMC				
No. of meeting held in FY2018												1	4	4	2	2	2	5
Mr Kwa Chong Seng	I	NE	Yes	Yes	Yes	Yes	Yes	● 1/1	● 4/4	● 4/4	● 2/2	● 2/2	● 2/2	● 2/2	● 5/5			
Mr Loh Boon Chye <sup>1</sup>	NI	E	No	No	No	Yes	Yes	● 1/1	● 4/4	● 4/4	● 2/2	● 2/2	● 2/2	● 2/2	● 5/5			
Mr Thaddeus Beczak	I	NE	Yes	Yes	Yes	Yes	Yes	● 1/1	● 4/4	-	-	-	● 2/2	● 5/5				
Ms Chew Gek Khim	I	NE	Yes	Yes	Yes	Yes	Yes	● 1/1	● 4/4	-	● 2/2	● 2/2	-	-	-			
Ms Jane Diplock AO	I	NE	Yes	Yes	Yes	Yes	Yes	● 1/1	● 4/4	● 4/4	-	-	● 2/2	● 4/5				
Mr Kevin Kwok <sup>2</sup>	I	NE	Yes	Yes	Yes	Yes	Yes	● 1/1	● 4/4	● 4/4	● 2/2	● 2/2	● 2/2	● 4/4				
Mr Liew Mun Leong	I	NE	Yes	Yes	Yes	Yes	Yes	● 1/1	● 4/4	● 3/4	● 2/2	● 2/2	-	-				
Mr Lim Chin Hu <sup>3</sup>	NI	NE	No	Yes	Yes	Yes	Yes	● 1/1	● 3/4	-	-	-	-	● 4/4				
Ms Lim Sok Hui (Mrs Chng Sok Hui) <sup>4</sup>	NI	NE	Yes	No	Yes	No <sup>4</sup>	Yes	● 1/1	● 4/4	-	-	-	-	● 5/5				
Mr Ng Kok Song	I	NE	Yes	Yes	Yes	Yes	Yes	● 1/1	● 4/4	-	● 2/2	-	-	-				

1 As CEO of SGX, Mr Loh Boon Chye is considered employed by SGX and deemed non-independent by virtue of Guideline 2.3(a) and Regulation 3(1)a.

2 Mr Kevin Kwok was appointed to RMC on 21 September 2017.

3 Mr Lim Chin Hu is considered a non-independent director until the start of the financial year ending 30 June 2020 due to his previous directorship on Keppel DC REIT Management Pte. Ltd., which effectively controls the negotiations and payments for certain services rendered to SGX. He was appointed to RMC on 21 September 2017.

4 As chief financial officer of DBS Bank Limited (DBS Ltd) and on account that DBS Ltd is a trading member of SGX-DC (OTCF) and DBS Vickers Securities (Singapore) Pte Ltd is a trading and clearing member of SGX-ST, CDP, SGX-DT and SGX-DC, Ms Lim Sok Hui is deemed non-independent by virtue of Regulation 3(3)(d).

5 RCC was dissolved in 24 October 2017 as the duties undertaken by the RCC have been taken over by SGX RegCo.

## Board Matters

### Board Composition and Guidance

#### PRINCIPLE 2

##### Board Independence

The SFR 2005 provides that an independent director is one who is independent from any management and business relationship with SGX and independent from any substantial shareholder of SGX. 7 out of 10 SGX directors are considered independent.

The Board, taking into account the views of the NGC, the nature and scope of SGX's businesses and the number of Board committees, considers that a board with a majority of members being independent is necessary.

Over the course of the year, the NGC assessed the independence of Board members in compliance with the requirements of the SFR 2005 and took into consideration the relevant guidelines of the CCG 2012. With regard to Guideline 2.4 of the CCG 2012 which requires that the independence of any director, who has served on the Board beyond 9 years from the date of first appointment be subject to particularly rigorous review, the NGC decided that any independent director upon completing 9 consecutive years of service will thereafter be deemed a non-independent director, notwithstanding demonstrable independence of management, or business relationships with SGX or any substantial shareholder. The Board is in accord with the NGC's decision.

The Board, through the NGC, assessed the independence of each of the Directors in 2018. The declarations of independence provided by the Directors and took into account the guidance in the CC2012 and SFR2005. Ms Lim Sok Hui, Mr Lim Chin Hu and Mr Loh Boon Chye were determined to be the only non-independent Directors. Ms Lim is considered non-independent by virtue of her employment as chief

financial officer of DBS Bank Limited (DBS Ltd) and on account that DBS Ltd is a trading member of SGX-DC (OTCF) and DBS Vickers Securities (Singapore) Pte. Ltd. is a trading and clearing member of SGX-ST, CDP, SGX-DT and SGX-DC. Mr Lim is considered a non-independent Director until the start of the financial year ending 30 June 2020 due to his previous directorship on Keppel DC REIT Management Pte. Ltd., which effectively controls the negotiations and payments for certain services rendered to SGX. As the SGX Chief Executive Officer, Mr Loh is considered non-independent by virtue of his employment by SGX. Mr Kwa Chong Seng, Mr Thaddeus Beczak, Ms Chew Gek Khim, Ms Jane Diplock AO, Mr Kevin Kwok, Mr Liew Mun Leong and Mr Ng Kok Song are considered independent Directors. None of the Directors served more than 9 years in FY2018. In line with the Directors' Conflicts of Interest Policy, each member of the NGC and the Board recused himself or herself from the NGC's and the Board's deliberations respectively on his or her own independence.

##### Board Diversity

SGX has put in place a Board Diversity Policy, which endorses the principle that its Board should have a balance of skill, knowledge, experience and diversity of perspectives appropriate for SGX's business to promote the inclusion of different perspectives and ideas and mitigate against groupthink.

Each year, in order to achieve diversity among its Board members, the NGC reviews the composition and size of the Board and each Board committee and takes into careful consideration a combination of factors when reviewing appointments to the Board and the continuation of those appointments. These factors include skills, core competencies, knowledge, professional experience, educational background, gender, age and length of service. Core competencies, which are taken into

account in the selection and appointment of Directors, include 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 NGC also in its deliberations, takes into account gender and age diversity in relation to the composition of the Board. The Board, taking into account the views of the NGC, considers that its Directors possess the necessary competencies and knowledge to lead and govern SGX effectively. Details of the Board composition are as follows.

##### Board Independence (as at 30 June 2018)



##### Board Gender Diversity (as at 30 June 2018)



##### Director's Age Group (as at 30 June 2018)



##### Directors' Length of Service (as at 30 June 2018)



##### Director's Citizenship (as at 30 June 2018)



# Corporate Governance Report

## Board Guidance

An effective and robust Board, whose members engage in open and constructive debate and challenge Management on its assumptions and proposals, is fundamental to good corporate governance. A Board should also aid in the development of strategic proposals and oversee effective

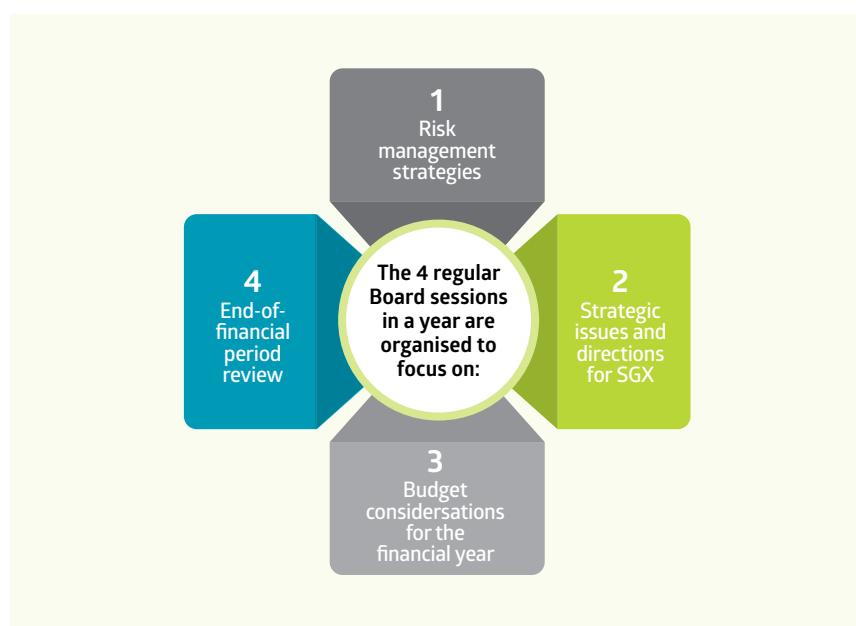
implementation by Management to achieve set objectives.

For this to happen, the Board, in particular its Non-Executive Directors (NEDs), must be kept well informed of SGX Group's businesses and be knowledgeable about the exchange industry. To ensure that NEDs are well

supported by accurate, complete and timely information, NEDs have unrestricted access to Management. NEDs also receive periodic information papers and Board briefings on the latest market developments and trends, and key business initiatives. Regular informal meetings are held for Management to brief directors on prospective deals and potential developments in the early stages, before formal Board approval is sought. Board papers are provided to directors not less than a week in advance of the meeting to afford the directors sufficient time to review the Board papers prior to the meeting. If a director is unable to attend a Board or Board committee meeting, the director may nevertheless provide his/her comments to the Chairman or relevant Board committee Chairman separately.

## Meeting of Directors without Management

Executive sessions are available for the NEDs to meet without the presence of Management or executive Directors at each Board meeting, where necessary.



## **Board Matters**

### **Chairman and Chief Executive Officer**

#### **PRINCIPLE 3**

##### **Separation of the Role of Chairman and the Chief Executive Officer (CEO)**

The roles of Chairman of the Board and CEO are separate to ensure a clear division of responsibilities, increased accountability and greater capacity of the Board for independent decision-making. The Chairman and the CEO are not related. The division of responsibilities and functions between the two has been demarcated with the concurrence of the Board.

The Chairman manages the business of the Board and monitors the translation of the Board's decisions and directions into executive action. He approves the agendas for the Board meetings and ensures sufficient allocation of time for thorough discussion of each agenda item. He promotes an open environment for debate, and ensures that NEDs are able to speak freely and contribute effectively. He exercises control over the quality and quantity of the information as well as the timeliness of the flow of information between the Board and Management. In addition, he provides close oversight, guidance, advice and leadership to the CEO and Management.

At AGMs and other shareholders' meetings, the Chairman plays a pivotal role in fostering constructive dialogue between shareholders, the Board and Management.

The CEO manages and develops the businesses of SGX and implements the Board's decisions. He chairs the EMCO, which comprises senior management

executives. EMCO meets regularly to oversee the management of the SGX Group and implement the Board's strategic policies.

Board interaction with, and independent access to Management is encouraged. EMCO members and key management personnel are invited to attend all Board meetings, and relevant Board committee meetings.

Given that the roles of the Chairman and CEO are separate and the Chairman is independent, no Lead Independent Director is required to be appointed.

## **Board Matters**

### **Board Membership**

#### **PRINCIPLE 4**

##### **Continuous Board Renewal**

The Board, in conjunction with the NGC, reviews the composition of the Board and Board committees annually, taking into account the performance and contribution of each individual director. Board composition is also evaluated to ensure that diversity of skills, knowledge and experience is maintained within the Board and Board committees.

Based on the NGC's assessment of the independence of each individual director and his/her relevant expertise, and with the aim of ensuring compliance with the requirements of the CCG 2012 and SFR 2005, the Board reviews, and reconstitutes as appropriate, the membership of the Board committees.

The Constitution provides that at each AGM, one-third of the Directors, including the CEO who also serves on the Board (or, if their number is not a multiple of three, the number nearest to but not less than one-third) shall

retire from office by rotation. Effectively, this results in all Directors having to retire at least once every 3 years or even earlier. Directors appointed by the Board during the financial year, to fill a casual vacancy or appointed as an additional director, may only hold office until the next AGM and thereafter be eligible for re-election by shareholders at the next AGM. Shareholders will be provided with relevant information on the candidates for election or re-election.

##### **Retiring by rotation at 2018 AGM**

Mr Kevin Kwok, Mr Loh Boon Chye and Mr Ng Kok Song will be retiring by rotation under Article 97 of the SGX Constitution. Mr Kwok and Mr Loh have respectively given their consent to stand for re-election at the AGM. Mr Kwok will, upon re-election, continue to serve as the Chairman of the Audit Committee, and a member of the Nominating & Governance Committee and Risk Management Committee. Mr Loh will, upon re-election, continue to serve as the Chief Executive Officer. Mr Ng has decided not to offer himself for re-election.

##### **Appointment of New Directors at 2018 AGM**

Shareholders' approval is sought for the appointment of Mr Ng Wai King and Mr Subra Suresh as additional directors pursuant to Article 103 of the SGX Constitution. Details may be found in the "Notice of AGM" and under "Board of Directors" in the Annual Report.

# Corporate Governance Report

## NGC Composition

The NGC comprises 5 directors namely:



The NGC is responsible for SGX's corporate governance framework, the Board's succession plan and reviewing relevant local and international developments in the area of corporate governance (including changes in applicable laws, regulations and listing rules).

## Nomination and Selection of Directors

SGX adopts a comprehensive and detailed process in the selection of new Directors. The NGC is responsible for identifying candidates and reviewing all nominations for the appointment, re-appointment or termination of Directors and Board committee members, taking into account the Monetary Authority of Singapore's (MAS) fit and proper criteria for such appointments, the Director's independence status, his/her participation and contributions during and outside Board meetings and other relevant factors as may be determined by the NGC. Where the need to appoint a new Director arises, the NGC will review the composition and range of

knowledge, expertise, skills and attributes of the Board and Board committees. The NGC identifies SGX's needs and prepares a shortlist of candidates with the appropriate profile for nomination before sourcing for candidates through an extensive network of contacts. Candidates are identified based on the needs of SGX and the relevant expertise required. After the NGC Chairman, the Chairman of the Board and the other NGC members have interviewed the candidates, the candidates are shortlisted for the NGC's formal consideration for appointment to the Board.

When reviewing a nomination for a proposed Board appointment, the NGC complies with SFR 2005 criteria as follows:

- a determination of the candidate's independence;
- whether his/her appointment will result in non-compliance with any of the SFR 2005 composition requirements for the Board and its Board committees; and
- whether the candidate fulfils the fit and proper criteria under the MAS' fit and proper guidelines which include, honesty, integrity, reputation, competence and capability, and financial soundness.

All Directors of SGX are approved by the MAS, based on its fit and proper criteria, before they are appointed by the Board or at the AGM (as the case may be).

## Continuous Review of Directors' Independence

The NGC conducts an annual review of each Director's independence in accordance with the SFR 2005 requirements and takes into consideration the relevant guidelines in the CCG 2012. SGX has procedures in

place to ensure continuous monitoring of SGX Directors' independence. The NGC has ascertained that save for Mr Lim Chin Hu, Ms Lim Sok Hui and Mr Loh Boon Chye, all Directors are considered independent according to these criteria. If at any time the MAS is not satisfied that a Director is independent, notwithstanding any determination by the NGC, MAS may direct SGX to rectify the composition of the Board or Board committees (as the case may be).

SGX has in place a policy whereby Directors must consult both the Chairmen of the Board and the NGC prior to accepting new Director appointments. Directors must also immediately report any changes in their external appointments, including any corporate developments relating to their external appointments, which may affect their independence. This ensures Directors continually meet the stringent requirements of independence under the SFR 2005.

## Directors' Time Commitments

The NGC assesses the effectiveness of the Board as a whole and takes into account each Director's contribution and devotion of time and attention to SGX. The NGC also assesses nominees identified for recommendation to the Board, on their individual credentials and their ability to devote appropriate time and attention to SGX.

The NGC is of the view that the effectiveness of each of the Directors is best assessed by a qualitative assessment of the Director's contributions as well as by taking into account each Director's listed company board directorships, and any other relevant time commitments. While having a numerical limit on the number of directorships may be considered by some other companies to be suitable for their circumstances, at present SGX

considers the assessment as described above to be more effective for its purposes. SGX also does not wish to omit from consideration outstanding individuals who, despite the demands on their time, have the capacity to participate and contribute as new members of the Board.

For now, the NGC believes that SGX's qualitative assessment and the existing practice, which requires each Director to confirm annually to the NGC, his/her ability to devote sufficient time and attention to SGX's affairs, having regard to his/her other commitments, are effective.

SGX will continue to disclose each Director's listed company board directorships and principal commitments which may be found in the 'Board of Directors' section in the Annual Report.

The Board is satisfied that all Directors have discharged their duties adequately for FY2018. The Board also expects that the Directors (including any directors who are newly appointed) will continue to (or will) discharge their duties adequately in FY2019.

#### **Alternate Directors**

SGX has no alternate directors on its Board.

#### **Succession Planning for the Board**

Succession planning is an important part of the governance process. The NGC will seek to refresh the Board membership progressively and in an orderly manner, to avoid losing institutional memory.

#### **Key Information on Directors**

The profile of the directors and key information are set out under "Board of Directors" section in this Annual Report. The Notice of AGM sets out

the Directors proposed for election, re-election and retirement at the AGM. Key information on Directors is also available on [SGX's website](#).

### **Board Matters**

#### **Board Performance**

#### **PRINCIPLE 5**

#### **Board Evaluation Policy**

The Board has implemented a process carried out by the NGC, for assessing the effectiveness of the Board as a whole and its Board committees, and for assessing the contribution by each individual director to the effectiveness of the Board. The Board Evaluation Policy is available on [SGX's website](#).

Annually, the NGC undertakes a process to assess the effectiveness of the Board as a whole and its Board committees. The NGC will ascertain the key areas for improvement and requisite follow-up actions. Once every 2 years, independent consultants will be appointed to assist in the evaluation process of the Board and Board committees. The Board believes that the use of an external independent consultant greatly enhances the quality and objectivity of the evaluation. This process includes a questionnaire designed to assess the performance of the Board and its Board committees and enhance the overall effectiveness of Directors and the Board and its Board committees' performance will be evaluated by each Director and each EMCO member.

During FY2018, an independent consultant, Aon Hewitt Singapore ("Aon Hewitt") was appointed to facilitate the evaluation of the effectiveness of the Board as a whole, and of each Board committee. Aon Hewitt has no connection with SGX or any of the Directors. Factors which were evaluated included board

composition, information management, board processes, corporate integrity and social responsibility, management of the Company's performance, board committee effectiveness, CEO performance and succession planning, director development and management, risk management, audit and internal controls and overall perception of the Board. A section on Chairman of the Board and his interactions with the Board was also introduced. The findings from this evaluation were presented to the NGC and the Board to facilitate improvements to the Board's practices.

#### **Board Performance Criteria**

The Board reviews its performance annually.

The Board oversees the affairs of the SGX Group and is accountable to shareholders for the long-term performance and financial soundness of the SGX Group. In this regard, the Board supervises the achievement of Management's performance targets namely (a) strategic and non-financial priorities; (b) earnings per share; and (c) a comparison of SGX's total shareholder return against selected peer exchanges and STI companies.

The Board is required to ensure that a proper balance is maintained between its commercial objectives and its regulatory responsibilities. Therefore, the Board performance criteria include a measure to capture the performance of SGX's regulatory responsibilities as a SRO.

#### **Individual Director Evaluation**

There is an individual assessment of each NED's contribution by the Chairman of the Board, and the results of the assessment are discussed with the NED. The factors

# Corporate Governance Report

considered in the individual review include Directors' attendance and participation in and outside meetings, the quality of Directors' interventions and special skills and contributions made by Directors. The performance of individual Directors is taken into account in their re-election. Specific needs which arise from time to time are taken into account in any appointment of new Directors.

The assessment of CEO's performance is undertaken by the Chairman of the Board together with the Chairmen of the NGC and the RSDC, and the results are reviewed by the Board. The NEDs assess the performance of the Chairman of the Board. The NEDs will choose one of their numbers to lead the assessment, who shall provide the feedback to the Chairman of the Board.

## **Board Matters** **Access to Information** **PRINCIPLE 6**

### **Complete, Adequate and Timely Information**

Management recognises that the flow of complete, adequate and timely information on an ongoing basis to the Board is essential to the Board's effective and efficient discharge of its duties. To allow Directors sufficient time to prepare for the meetings, all scheduled Board and Board committee papers are distributed to Directors not less than a week in advance of the meeting. This enables the discussion during the meeting to focus on questions that Directors may have. Any additional material or information requested by the Directors is promptly furnished. As part of its sustainability efforts, SGX has done away with hard copy Board and Board committee papers, and directors are provided with tablet

devices to enable them to access and read Board and Board committee papers prior to and at meetings.

Management's proposals to the Board for approval provide background and explanatory information such as facts, resources needed, risk analysis and mitigation strategies, financial impact, expected outcomes, conclusions and recommendations. Any material variance between any projections and the actual results of budgets is disclosed and explained to the Board. Employees who can provide additional insight into matters to be discussed, will be present at the relevant time during the Board and Board committee meetings.

To facilitate direct and independent access to key management personnel and senior management, Directors are also provided with their names and contact details. Draft agendas for Board and Board committee meetings are circulated to EMCO (including key management personnel) and Chairmen of the Board and Board committees, in advance, for them to suggest items for the agenda and/or review the usefulness of the items in the proposed agenda.

For the AC and the RMC to liaise closely and have a clear understanding of each other's work and plan their work on the same risk framework, the finalised minutes of the respective committees are promptly circulated to the other committee. Arrangements are also in place for the AC and the RMC to share information on a regular basis, which include having common directors on the AC and the RMC, and the Head, Internal Audit and Chief Risk Officer and Head of Legal, Compliance and Corporate Secretariat attending both the AC and the RMC meetings. These measures are in line

with the recommendations of the Guidebook for Audit Committees in Singapore.

In order to keep Directors abreast of sell-side analysts' views on SGX Group's performance, the Board is updated annually on the market view which includes a summary of analysts' feedback and recommendations following the full-year results. A monthly financial performance report is also provided to the Board. This report includes the financial and management accounts, accompanied by an analysis of SGX Group's performance and supporting data. It also contains operational metrics, audit findings, and a risk dashboard which provides an overview of SGX Group's key risks. These risks include clearing and settlement risks, regulatory and compliance risks, technology and operations service availability, and other strategic risks.

The quarterly and year-end financial statements are reviewed and recommended by the AC to the Board for approval.

### **Role of the Company Secretaries**

Directors have separate and independent access to the Company Secretaries at all times. The Company Secretaries are responsible for, among other things, ensuring that Board procedures are observed and that SGX's Constitution, relevant rules and regulations, including requirements of the Securities and Futures Act (SFA), Companies Act and Listing Manual, are complied with. The Company Secretaries also assist the Chairman and the Board to implement and strengthen corporate governance practices and processes, with a view to enhance long-term shareholder value.

The Company Secretaries assist the Chairman to ensure good information flows within the Board and its Board committees and between Management and NEDs, as well as facilitating orientation and assisting with professional development as required. The Company Secretaries are responsible for designing and implementing a framework for Management's compliance with the Listing Rules, including training and advising Management to ensure that material information is disclosed on a prompt basis. The Company Secretaries attend all Board meetings and assist to ensure coordination and liaison between the Board, the Board committees and Management. The Company Secretaries assist the Chairman, the Chairman of each Board committee and Management in the development of the agendas for the various Board and Board committee meetings.

The Company Secretaries are legally trained, with experience in legal matters and company secretarial practices. The appointment and the removal of the Company Secretaries are subject to the Board's approval.

**Independent Professional Advice**  
Directors, either individually or as a group, in the furtherance of their duties, may take independent professional advice, if necessary, at SGX's expense.

## Remuneration Matters

### Procedures for Developing Remuneration Policies

#### PRINCIPLE 7

#### Remuneration & Staff Development Committee

The RSDC comprises 3 directors namely:



The Board considers that Mr Kwa Chong Seng, who has many years of experience in senior management positions and on various boards dealing with remuneration issues, is well qualified to chair the RSDC and that the members of the RSDC collectively have strong management experience and expertise on remuneration issues.

The key responsibilities of the RSDC, as delegated by the Board, are to:

- Oversee the governance of the SGX Group's remuneration policy;
- Oversee the remuneration of the Board and key management personnel including reviewing the remuneration of the CEO upon recruitment or renewal (where applicable), set appropriate remuneration frameworks and policies, including long-term incentive schemes, to deliver annual and long-term performance of the SGX Group and to review the development and succession

plan for EMCO members;

- Reviews and recommends to the Board, the CEO's and key management personnel's annual increments, variable bonuses, long-term incentive awards and other incentive awards or benefits in kind, against the achievement of their prescribed goals and targets;
- Reviews the Company's obligations arising in the event of termination of the CEO's and key management personnel's contracts of service, to ensure that such contracts of service contain fair and reasonable termination clauses which are not overly generous;
- Approves the framework of remuneration for the entire organisation including the structure of short-term and long-term incentive schemes and policies. Each year, the RSDC also approves the salary increment pool and total incentive pool for distribution to staff of all grades;
- Reviews the succession and leadership development plans for senior management. As part of this annual review, the successors to key positions are identified, and development plans instituted for them.

The RSDC has access to the Head of Human Resources, who attends all RSDC meetings. The RSDC may also seek external professional advice on remuneration of directors and staff.

Whilst the RSDC reviews the fees payable to non-executive directors ("NEDs") to be recommended for shareholders' approval at the AGM, no member of the RSDC may by himself or herself decide on his or her own remuneration. In FY2018, RSDC engaged an external independent consultant to facilitate the review of NED fees.

# Corporate Governance Report

## Remuneration Matters

### Level and Mix of Remuneration

#### PRINCIPLE 8

The RSDC administers all the performance-related elements of remuneration for senior management. A significant proportion of senior management's remuneration is in the form of variable or "at risk" compensation, awarded in a combination of short-term and long-term incentives. The incentive schemes are designed to align the interests of the CEO, key management personnel and staff with those of shareholders and link rewards to corporate and individual performance. As a policy, up to half of the senior management's variable compensation may be deferred

in the form of long-term incentives which will vest over a period of time.

Details of SGX's compensation philosophy and the compensation framework including the long-term incentive awards made thereunder, and the performance conditions for the vesting of the awards, are found under 'Remuneration Report' in this Annual Report.

#### Non-Executive Directors' Remuneration

SGX's CEO is an executive Director and is, therefore, remunerated as part of senior management and in accordance with the terms of his contract. He does not receive directors' fees.

During FY2018, an external independent consultant was appointed to facilitate the review of NED fees. Comparing against Singapore-listed companies of similar size and industry and to a lesser extent, global bourses, and taking into account the scope and extent of a Director's responsibilities and obligations, market competitive compensation levels to attract and retain talent, market trends on a national level and best practices for corporate governance, the independent consultant had recommended an increase in NED base retainer fee and the alignment of RMC Board Committee fees with AC Board Committee fees, and the retention of Board Chairman fees of S\$750,000 and the current benefits of a car and driver,

#### Fee Structure for FY2018

	For Board	For Audit Committee	For Other Board Committees
Attendance S\$1,500 per meeting			
Committee Chairman	S\$ 750,000 per annum	S\$ 40,000 per annum	S\$ 30,000 per annum
Committee Member	S\$ 55,000 per annum	S\$ 30,000 per annum	S\$ 20,000 per annum

The gross remuneration paid to the non-executive directors for the financial year ended 30 June 2018 was S\$1,739,380.43 (details as set out in the table below):

#### SGX

Name of Director	Directors' fees	Name of Director	Directors' fees
Mr Kwa Chong Seng <sup>1</sup>	S\$ 825,000.00	Mr Liew Mun Leong	S\$ 144,500.00
Mr Thaddeus Beczak	S\$ 100,804.35	Mr Lim Chin Hu <sup>2</sup>	S\$ 71,380.43
Ms Chew Gek Khim	S\$ 110,000.00	Ms Lim Sok Hui (Mrs Chng Sok Hui)	S\$ 101,500.00
Ms Jane Diplock AO	S\$ 136,956.52	Mr Ng Kok Song	S\$ 85,500.00
Mr Kevin Kwok	S\$ 163,739.13		
<b>Total</b>			<b>S\$1,739,380.43</b>

<sup>1</sup> Excluding the provision of a car with a driver.

<sup>2</sup> Mr Lim Chin Hu was appointed to the Board on 21 September 2017.

#### Subsidiary

Name of Director	Director's fee
Ms Jane Diplock AO <sup>3</sup>	S\$ 79,106

<sup>3</sup> Ms Jane Diplock AO was appointed to the board of SGX Regulation Pte. Ltd. on 15 August 2017.

#### Revised Fee Structure for FY2019

	For Board	For Audit Committee & Risk Management Committee	For Other Board Committees
Committee Chairman	S\$ 930,000 per annum	S\$ 55,000 per annum	S\$ 40,000 per annum
Committee Member	S\$ 75,000 per annum	S\$ 40,000 per annum	S\$ 25,000 per annum

valued at S\$180,000. The independent consultant had also reviewed the proposal to introduce a compensation mix that includes shares and the appropriate equity award mechanisms.

The RSDC considered the recommendations of the independent consultant and recommended adoption of the proposed changes given that NED fees are objectively below market and that these have remained unchanged since FY2008. The Board concurs with the RSDC and recommends for the shareholders' approval at the AGM, the NED fees. The revised fee structure for FY2019 is set out on page 66 of this Annual Report.

The SGX Chairman receives fees for being the Chairman of the Board, together with the provision to him of a car with a driver, as approved by a separate resolution at each AGM. The fees paid to the SGX Chairman have remained unchanged since FY2010. The RSDC (with SGX Chairman recusing himself), recommended that the Board Chairman's current emoluments (car with driver) be converted into a cash equivalent, valued at S\$180,000, and added to the base retainer fee. With the concurrence of the Board, the total fee payable to SGX Chairman would be S\$930,000. The sum of S\$930,000 does not include any fees payable for serving as chairman or member of any Board Committee.

SGX seeks shareholders' approval at the AGM for the NED fees to be paid for the current financial year so that the NED fees can be paid on a quarterly basis in arrears. No Director decides his/her own fees. The NED fees which are paid on a current year basis, will be payable to the Director if he/she is in service at the end of the current quarter, or if the term of appointment ends within the quarter. Overseas Directors are reimbursed for out-of-

pocket travelling and accommodation expenses in Singapore.

SGX is proposing an equity mix compensation scheme to encourage NEDs to hold shares in the Company to better align the interests of the NEDs with the interests of shareholders. One-quarter of the chairman's fee of S\$930,000 and the NED base retainer fee will be paid in the form of share awards, provided that certain eligibility requirements are met, with the remaining three-quarters to be paid in cash. The awards will consist of the grant of fully paid shares, with no performance conditions attached and no vesting periods imposed.

No employee of SGX is an immediate family member of a Director who was paid remuneration that exceeded S\$50,000 during the financial year ended 30 June 2018.

### **Remuneration Matters**

#### **Disclosure of Remuneration**

#### **PRINCIPLE 9**

For disclosure of the remuneration of the CEO and the five top-earning executives, please refer to 'Remuneration Report' in the Annual Report. The 'Remuneration Report' further sets out the performance conditions used to determine EMCO's short-term and long-term incentives. SGX has also disclosed in the Remuneration Report, the remuneration of the five top-earning executives in actual figures, in line with best practices, with a breakdown in terms of fixed pay, variable bonus, ex-gratia payment (if any), long-term incentives and benefits-in-kind. The Remuneration Report also discloses the employee share schemes that SGX has in place and how remuneration paid is varied according to SGX's and the individual's performance.

None of the current employees are related to the Directors.

### **Accountability & Audit**

#### **Accountability**

#### **PRINCIPLE 10**

The Board provides shareholders with quarterly and annual financial reports. Results for the first three quarters are released to shareholders no later than 27 days from the end of the quarter. Annual results are released within 30 days from the financial year-end. In presenting the annual and quarterly financial statements to shareholders, the Board aims to provide shareholders with a balanced and clear assessment of SGX's financial results, position and prospects.

For the financial year under review, the CEO and the Chief Financial Officer (CFO) have provided assurance to the Board on the integrity of the financial statements for SGX and its subsidiaries. For interim financial statements, the Board provides a statement of negative assurance to shareholders, in line with the Listing Rules. For the full year financial statements, the Board with the concurrence of the AC provides an opinion that the financial statements give a true and fair view of the results of the SGX Group and that SGX will be able to pay its debts as and when they fall due. This, in turn, is supported by a negative assurance statement from the CEO and CFO. Management provides Directors with a monthly financial performance report either (a) within 10 business days from month-end close; or (b) on or prior to the day when the annual or quarterly financial results are released. SGX has also procured undertakings from all its Directors and executive officers in compliance with Listing Rule 720(1).

# Corporate Governance Report

SGX is accountable to MAS on how it discharges its responsibilities as a market operator, depository and clearing house, and as a regulator. In this respect, an annual self-assessment report and an annual report on the SGX RegCo activities in relation to SGX's SRO conflicts management are prepared and submitted to MAS. MAS also conducts an annual on-site inspection of SGX as part of its oversight of SGX.

## Accountability & Audit Risk Management and Internal Controls

### PRINCIPLE 11

The Board is responsible for overseeing risk management in SGX, amongst other matters. SGX recognises the importance of balancing risks and rewards to achieve the optimal level of risk that SGX can tolerate in its pursuit of its strategic priorities and business opportunities. In this regard, the Board, together with Management, has established a Risk Appetite Statement to identify the return objectives that are imperative to the organisation and the corresponding risk boundaries that are acceptable to support the achievement of these objectives. The risk appetite helps bring discipline, and reinforces SGX's risk culture through the establishment of a "tone from the top" regarding the nature and extent of risks that SGX is willing to accept.

To assist the Board, the Board has established the RMC, a dedicated board risk management committee. Its responsibilities include reviewing and recommending 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.

The RMC comprises 5 directors namely:



At the management level, the EMCO has also established a dedicated Enterprise Risk Committee, chaired by the Chief Risk Officer. This committee oversees and ensures that risks are being managed by appropriate units holistically across the organisation.

SGX has 3 lines of defence for risk management. The operating units are the first line of defence who, as risk owners, establish processes and controls to respond to risks. The second line of defence comprises the independent Compliance and Enterprise Risk Management functions. Compliance focuses on compliance risks; whilst Enterprise Risk Management oversees the completeness and accuracy of risk assessments, risk reporting and works with the operating units to mitigate these risks. Internal Audit, as the third line of defence, provides objective assurance to the AC. Together, these three lines of defence assure that there are adequate internal controls relating to processes, risk and control governance.

SGX has implemented an enterprise-wide risk management framework to facilitate the management of risks across the organisation. There are 3 programmes in place for the organisation to identify, assess and manage risks faced by SGX. 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 (KRI) are established to monitor the risks. These KRIs are approved by the RMC and the Board. The second programme, the unit-level "Risk Self Assessments" (RSA), adopts a bottom-up approach and allows individual units to continuously identify risks faced by their units. Similar to the top-down exercise, mitigating actions are formulated to manage the risks. The third programme is a "Control Self-Assessment" program which provides objective assurance to EMCO that key controls are operating effectively. The units perform self-testing to verify that key controls operate effectively throughout the year. Together, all these tools and exercises provide greater assurance that the SGX Group's risks identified are adequately managed. Where deficiencies in controls are identified, the operating units are able to address and rectify such deficiencies in a timely manner.

SGX has an active Business Continuity Management (BCM) programme to minimise the impact of a disruption on SGX's operations. As a major financial industry infrastructure provider, SGX has an obligation to ensure the continuity of its business as any operational disruption may cause adverse impact on the financial

industry. SGX's BCM Policy and Guidelines ensure business continuity planning and staff readiness by way of regular rehearsals, exercising and testing. SGX recognises that operational resilience is required across the entire eco-system and actively engages industry participants to improve their preparedness and readiness to deal with potential business disruptions. During the year, it successfully tested SGX and participants' recovery process to market disruptions.

SGX's system of internal controls and risk management provides reasonable assurance against foreseeable events that may adversely affect SGX's business objectives. The Board notes that no system of internal controls and risk management can provide absolute assurance in this regard, or against the occurrence of material errors, poor judgement in decision-making, human error, losses, fraud or other irregularities.

Based on the internal controls established and maintained by SGX, work performed by the internal and external auditors, and reviews performed by Management and various Board committees, the Board, with the concurrence of the AC, is of the opinion that SGX's internal controls and risk management systems, addressing financial, operational, compliance and information technology risks, are adequate and effective as of 30 June 2018.

## Accountability & Audit Audit Committee

### PRINCIPLE 12

The AC comprises 3 directors namely:



In compliance with the requirements of the SFR 2005 and taking into consideration the relevant guidelines in the CCG 2012, all members of the AC are independent non-executive Directors who do not have any management and business relationships with SGX or any substantial shareholder of SGX. None of the AC members were previous partners or directors of the Company's external auditor, PricewaterhouseCoopers LLP (PwC), within the last 12 months or hold any financial interest in PwC. The Board considers Mr Kevin Kwok, who has extensive and practical accounting and financial management knowledge and experience, well qualified to chair the AC. The members of the AC 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.

### Key Objectives

The key objectives of the AC are to assist the Board in discharging its statutory and other responsibilities relating to the integrity of the financial statements, monitoring of the system of internal controls and independence of the external auditor.

### Role and Responsibilities of the AC



### *Financial Reporting*

The AC meets on a quarterly basis to review the financial statements, including the relevance and consistency of the accounting principles adopted, and the significant financial reporting issues and judgments, so as to obtain reasonable assurance as to the integrity and fairness of the financial statements. The AC recommends the financial statements and corresponding SGXNet announcements to the Board for approval.

### *Internal Controls and Regulatory Compliance*

The AC reviews and assesses the adequacy and effectiveness of SGX's internal controls and regulatory compliance. In order to do this, the AC considers the reports, the processes and controls in place and carries out discussions with Management, the Head of Internal Audit, the Head of Legal, Compliance & Corporate Secretariat, the Chief Risk Officer and the external auditor, at its quarterly AC meetings.

# Corporate Governance Report

Taking into consideration the 3 lines of defence that SGX has for risk management (as described in Principle 11), the AC also considers the results of the Controls Self-Assessment Framework administered by the Enterprise Risk Management function in its assessment of SGX's internal controls.

Based on its reviews, the AC makes recommendations to the Board with regards to the adequacy and effectiveness of SGX's internal controls.

## *Internal Audit*

The AC reviews the scope and plans undertaken by the Internal Audit function, and considers the results, significant findings and recommendations together with Management's responses. The AC assesses the adequacy and effectiveness of the Internal Audit function and ensures that the internal auditor has direct and unrestricted access to the Chairman of the Board and the AC. The appointment, remuneration and resignation of the Head of Internal Audit are reviewed by the AC.

## *Compliance*

The AC reviews the compliance framework and workplan. The AC also reviews compliance matters that may have material impact on SGX's financials, internal controls or reputation.

## *External Auditor*

The AC oversees SGX's relationship with its external auditor. It reviews the selection of the external auditor and recommends to the Board the appointment, re-appointment and removal of the external auditor, as well as the remuneration and terms of engagement of the external auditor. The annual re-appointment of the external auditor is subject to shareholder approval at SGX's AGM.

In February 2014, SGX conducted a Request for Proposal exercise for provision of external audit services. Following the AC's evaluation, the AC recommended the re-appointment of PwC as they possess the relevant industry experience and knowledge as well as a deep understanding of SGX's business, operations, systems and risks. The Board accepted the AC's recommendation for PwC's re-appointment as the external auditor at the AGM held in September 2014.

On an annual basis, the AC evaluates the performance and effectiveness of the external auditor and recommends the re-appointment of the external auditor to the Board.

The AC reviews the scope and the audit plans as well as the results of audits undertaken by the external auditor and considers all significant findings, recommendations and Management's responses. It also reviews the independence and objectivity of the external auditor, and assesses the nature, extent and costs of non-audit services provided by the external auditor, seeking to balance the independence and objectivity of the external auditor with the business and operational needs of SGX.

## **Other Matters**

### **Whistleblowing Policy**

SGX has a whistleblowing policy which encourages employees and vendors to report malpractices and misconduct in the workplace. The policy establishes a confidential line of communication to report concerns about possible improprieties to the Head of Internal Audit, and ensures the independent investigation of, and follow-up of such matters. SGX will treat all information received confidentially and protect the identity of all whistle-blowers. Anonymous disclosures will be accepted and

anonymity honoured. Employees who have acted in good faith will be protected from reprisal. Reports can be lodged by calling the hotline at +65 6236 8585 or via email at [whistleblowing@sgx.com](mailto:whistleblowing@sgx.com). The AC reviews all whistleblowing complaints at its quarterly meetings to ensure independent, thorough investigation and appropriate follow-up actions. The outcome of each investigation is reported to the AC.

## **Interested Person**

### **Transactions Policy**

SGX has procedures in place to comply with the Listing Manual requirements relating to interested person transactions. All new Directors are briefed on the relevant provisions that they need to comply with. All interested person transactions, if any, are reported to and monitored by the Finance department, and reviewed by the AC.

## **Authority of the AC**

The Board has delegated to the AC the authority to investigate any matter within its terms of reference. The AC has full access to the internal and external auditors as well as to Management. It also has full discretion to invite any Director or officer, including director from any subsidiary board within the SGX Group, to attend its meetings and has access to various resources, including external consultants, to enable it to discharge its responsibilities properly.

## **Activities in FY2018**

The AC met 4 times during the financial year under review. The Chairman, CEO, President, CFO, Chief Risk Officer, Head of Technology, Head of Internal Audit, Head of Legal, Compliance & Corporate Secretariat and the external auditor were invited to attend these meetings. The following matters were reviewed during the meetings:

### **Financial matters**

In the review of the financial statements, the AC has discussed with Management the accounting principles that were applied and their judgment of items that might affect the integrity of the financial statements. The following significant matters impacting the financial statements were discussed with Management and the external auditor and were reviewed by the AC:

Significant Matters	How the AC reviewed these matters
<b>Impairment assessment of goodwill and intangible assets</b>	The AC has considered the approach and methodology applied to the valuation model in goodwill impairment assessment as well as the assessment for indicators of impairment of intangible assets. It has reviewed the reasonableness of business projections and cash flow forecasts, the long term growth rate and the discount rate. The AC is satisfied with the appropriateness of the methodology used and the reasonableness of the rates applied.
The impairment assessment of goodwill of Energy Market Company Pte Ltd ("EMC") and intangible assets of EMC and Baltic Exchange Limited were also an area of focus for the external auditor. The external auditor has included this item as a key audit matter in its audit report for the financial year ended 30 June 2018. Refer to page 105 of this Annual Report.	The AC received a report from Management on their evaluation of the performance and effectiveness of the external auditor. This report assessed the quality of the external auditor across a number of evaluation criteria, including measures of relevance and quality of its work as well as its level of independence. Management has referred to the <i>Checklist for Evaluation of External Auditors in the Guidebook for Audit Committees in Singapore</i> issued jointly by ACRA, MAS and SGX, <i>Guidance to Audit Committees on ACRA's Audit Quality Indicators Disclosure Framework</i> issued by ACRA and <i>Audit Committee Guide</i> issued by the Singapore Institute of Directors to set the evaluation criteria.

Following the review and discussions, the AC recommended to the Board to approve the full year financial statements.

### **Oversight of the external auditor**

The AC approved the scope and audit plans undertaken by the external auditor, reviewed the results of the audits, significant findings and recommendations as well as Management's responses.

The AC considered the independence and quality of the external auditor throughout the year and also met with the external auditor without the presence of Management. The external auditor provided regular updates to the AC on relevant changes to the accounting standards and the implications on the financial statements.

The AC received a report from Management on their evaluation of the performance and effectiveness of the external auditor. This report assessed the quality of the external auditor across a number of evaluation criteria, including measures of relevance and quality of its work as well as its level of independence. Management has referred to the *Checklist for Evaluation of External Auditors in the Guidebook for Audit Committees in Singapore* issued jointly by ACRA, MAS and SGX, *Guidance to Audit Committees on ACRA's Audit Quality Indicators Disclosure Framework* issued by ACRA and *Audit Committee Guide* issued by the Singapore Institute of Directors to set the evaluation criteria.

On the basis of their own interactions with PwC and with the report from Management, the AC assessed and concluded that PwC has fulfilled its responsibilities as external auditor. The Board concurred with the AC's endorsement. Accordingly, the Board recommends the re-appointment of PwC at the coming AGM.

SGX has complied with Listing Rules 712 and 715 in the appointment of PwC as its external auditor.

The AC has determined that SGX will conduct a Request for Proposal exercise for the appointment of an external auditor to provide audit services. SGX will seek shareholders' approval at the AGM to be held in 2019 for the appointment of the selected external auditor.

### **Non-audit services**

The AC reviewed the volume and nature of non-audit services provided by the external auditor during the financial year. Based on this and other information, the AC is satisfied that the financial, professional and business relationships between SGX and the external auditor will not prejudice their independence and objectivity.

The total fees paid to our external auditor, PwC, are disclosed in the table below:

External Auditor Fees for FY2018	S\$'000	% of total audit fees
Total Audit Fees	1,005	-
Total Non-Audit Fees <sup>1</sup>	452	45%
Total Fees Paid	1,457	-

Footnote<sup>1</sup>: \$324,000 of the non-audit fees were for financial and tax due diligence work where the external auditor was engaged on an expediency basis, to support investment transactions during the year. Excluding these fees, total non-audit fees would be \$128,000 or 13% of total audit fees

# Corporate Governance Report

## *Internal Controls and Regulatory Compliance*

The AC reviewed and assessed the effectiveness of SGX's internal controls and regulatory compliance. Taking into account the internal controls established and maintained by SGX, the work performed by the internal and external auditors as well as the Compliance function, and reviews performed by Management, including the results of the Controls Self-Assessment tests and various Board committees, the AC is of the opinion and recommended to the Board that SGX's internal controls addressing financial, operational, compliance and information technology risks were adequate as at 30 June 2018.

## *Oversight of Internal Audit*

The AC exercised its oversight over the Internal Audit function throughout the year. The AC reviewed the following:

- (a) scope of the annual internal audit plans to ensure that the plans provided a sufficiently robust review of the internal controls of SGX;
- (b) significant audit observations and Management's responses thereto;
- (c) approval of Internal Audit Charter;
- (d) adequacy and effectiveness of Internal Audit function; and
- (e) budget and staffing for Internal Audit function.

The AC Chairman met regularly with the Head of Internal Audit without the presence of Management, several times for the financial year under review. The Head of Internal Audit provided regular updates to the AC on the workings of the Internal Audit function.

The AC also reviewed Management's assessment of fraud risk and held discussions with the external auditor to obtain reasonable assurance that adequate measures were put in place to mitigate fraud risk exposure in SGX.

## *Oversight of Compliance*

The AC exercised its oversight over Compliance function throughout the year. The AC reviewed the following:

- (a) scope of annual compliance plans;
- (b) compliance activities, key compliance risks identified and compliance response thereto;
- (c) regulatory breaches and compliance response thereto;
- (d) approval of Compliance Charter; and
- (e) budget and staffing for Compliance function.

The Compliance function is independent of the business functions and reports directly to the CEO. The role of the Compliance function and its accountability to the CEO and the AC is described in the Compliance Charter, which is reviewed annually and approved by the AC. The Compliance function executes an annual risk-based compliance programme, focusing on regulatory risks arising from SGX's obligations to comply with applicable laws and regulations. The programme comprises a combination of regulatory risk assessments and responses, compliance training (including mandatory annual e-learning), independent compliance reviews, and regular reporting to senior management, the AC and regulators on breaches, significant compliance issues and relevant action plans. The AC receives regular quarterly and other relevant reports from the Head of Compliance for the financial year under review.

## **Interested Person Transactions and Material Contracts**

There were no Interested Person Transactions nor material contracts entered into by SGX or any of its subsidiaries involving interests of any Director or controlling shareholder during FY2018.

## **Accountability & Audit**

### **Internal Audit**

#### **PRINCIPLE 13**

## **Internal Audit**

Annually, Internal Audit prepares and executes a robust risk-based audit plan, which complements that of the external auditor, so as to review the adequacy and effectiveness of SGX's system of internal controls. These include operational, financial, compliance and information technology controls. In addition, the external auditor will highlight any material internal control weaknesses which have come to their attention in the course of their statutory audit. All audit findings and recommendations made by the internal and external auditors are reported to the AC. Significant issues are discussed at AC meetings. Internal Audit follows up on all recommendations by the internal and external auditors to ensure Management has implemented them in a timely and appropriate fashion and reports the results to the AC every quarter.

## **Line of Reporting and Activities**

Internal Audit is an in-house function within SGX. The Head of Internal Audit reports directly to the AC and administratively to the CEO. The AC approves matters relating to the Internal Audit Charter, risk assessment and related audit plans and results and follows up on internal audit activities. The AC approves the hiring, removal, performance evaluation and compensation of the Head of Internal Audit. Internal Audit has unfettered access to all of SGX's documents, records, properties and personnel.

Internal Audit operates within the framework stated in its Internal Audit Charter, which is approved by the AC. The primary role is to assist the Board and senior management to meet the strategic and operational objectives of

SGX, by providing an independent and objective evaluation of the adequacy and effectiveness of risk management, internal controls and governance processes.

All audit reports are circulated to the AC, Chairman, the CEO, the external auditor, the Monetary Authority of Singapore, and relevant senior management representatives. The progress of corrective actions on outstanding audit issues is monitored through company-wide issue management systems. Information on outstanding issues is categorised according to severity and quarterly reports are sent to senior management and the AC.

### Adequacy of the Internal Audit Function

Internal Audit's annual workplan is established in consultation with, but independent of Management and is aligned with the risk management framework of SGX. The plan is submitted to and approved by the AC. The AC is satisfied that the Internal Audit function has adequate resources to perform its functions, and has appropriate standing within SGX. The AC also reviews annually the adequacy and effectiveness of the Internal Audit function. As at 30 June 2018, there are 11 staff within the Internal Audit function.

### Professional Standards and Competency

Internal Audit is a member of The Institute of Internal Auditors (IIA) and has adopted the International Standards for the Professional Practice of Internal Auditing (IIA Standards) laid down in the International Professional Practices Framework issued by the IIA. Quality assessment reviews are carried out at least once in 3 years by external qualified professionals. The last review was completed in FY2018 and the next

review will be conducted in FY2021. The quality assessment review concluded that the Internal Audit function is adequate and generally conforms with the IIA Standards. Besides the IIA, the technology auditors in the Internal Audit function are members of the Information Systems Audit and Control Association.

The professional competence of the internal auditors is maintained or upgraded through training programmes, conferences and seminars that provide updates on auditing techniques, regulations, financial products and services. Internal Audit is staffed with suitably qualified and experienced professionals with a range of 4 to 20 years of diverse operational, technology and financial audit experience.

### Other Codes & Practices

#### Conduct & Ethics Policy

All employees are required to observe and maintain high standards of integrity, as well as comply with laws, regulations and company policies. SGX sets standards of ethical conduct for employees, which covers all aspects of the business operations of SGX such as work ethics, personal conflicts of interest, confidentiality of information, related party transactions, gifts and dealings in securities.

#### Anti-Corruption, Gifts and Entertainment

SGX has zero tolerance for bribery and corruption. SGX requires its employees to comply with the relevant anti-corruption legislation in Singapore and overseas, and to follow SGX's internal procedures when giving or receiving gifts, entertainment, sponsorships and charitable contributions. This requirement extends to all of SGX's business dealings in all countries in which it operates. SGX will always

forgo business rather than pay bribes and fully supports its employees when faced with losing business owing to SGX's refusal to pay bribes.

### Confidential Information

SGX deals with confidential information on a daily basis. Protecting confidential information is of paramount importance to establishing and maintaining a trusted marketplace. SGX provides clear guidance to its staff on the proper management, use and disclosure of confidential information. SGX's Confidentiality Policy and SGX's Personal Data Protection Policy set out SGX's framework and procedures for compliance with, among other things, the user confidentiality obligations under the SFA, and the personal data obligations under the Personal Data Protection Act.

### Securities Dealings

To guard against insider trading, SGX adopts a "black-out" policy that is consistent with what is prescribed under the Listing Manual. All Directors and staff and their "related persons" (e.g. spouses and financial dependents) are prohibited from dealing in SGX's securities for a period of 2 weeks before the release of the financial results for the first 3 quarters of SGX's financial year, and 1 month before the release of the full year results.

SGX issues a quarterly notice to its directors and staff informing them not to deal in SGX's securities during a black-out period and that they are prohibited at all times from trading in SGX securities if they are in possession of unpublished price-sensitive information. Directors and staff are also discouraged from dealing in SGX's securities on short term considerations.

# Corporate Governance Report

In addition to the black-out policy on SGX's securities, staff and their "related persons" who want to trade securities of any company listed on Singapore Exchange Securities Trading Limited must, subject to certain prescribed exceptions, seek prior approval from their managers. Staff are prohibited at all times from trading in the securities of any company if they are in possession of material non-public information concerning that company.

All SGX staff are required to complete an annual online refresher module on SGX's staff dealing requirements as part of SGX's mandatory compliance training.

All Directors are required to report their dealings in SGX's securities within 2 business days.

## Shareholder Rights and Responsibilities

### Shareholder Rights

#### PRINCIPLE 14

SGX is fully committed to treat all shareholders fairly and equitably. All shareholders enjoy specific rights under the Constitution and the relevant laws and regulations. SGX ensures that all material information is disclosed on a comprehensive, accurate and timely basis via SGXNet, and where appropriate, also posted on the SGX IR website. SGX recognises that the release of timely, regular and relevant information regarding the Group's performance, progress and prospects aid shareholders in their investment decisions.

Shareholders are entitled to attend the general meetings and are accorded the opportunity to participate effectively in and vote at general meetings (including through the appointment of up to 2 proxies, if they

are unable to attend in person or in the case of a corporate shareholder, through its appointed representative). Shareholders are also informed of the rules, including the voting procedures that govern the general meetings. Indirect investors who hold SGX shares through a nominee company or custodian bank or through a CPF agent bank may attend and vote at the AGM.

### Shareholder Rights and Responsibilities

#### Communication with Shareholders

#### PRINCIPLE 15

##### Disclosure of Information on a Timely Basis

SGX is committed to disclosing to its shareholders as much relevant information as is possible, in a timely, accurate, fair and transparent manner.

In addition to comprehensive, accurate and timely disclosure of information that is material or that may influence the price of SGX shares on SGXNet in compliance with the requirements of the Listing Manual, SGX adopts the practice of regularly communicating major developments in its businesses and operations through the appropriate media. Such channels include news releases, annual reports, shareholder circulars, shareholders' meetings, and direct announcements.

SGX notifies investors in advance of the date of release of its financial results, through an SGXNet announcement, and a media release. Results for the first three quarters are released to shareholders no later than 27 days from the end of the quarter. Annual results are released within 30 days from the financial year-end.

Briefings to present quarterly and full-year results are held for the media and analysts. "Live" video webcasts of briefings, accessible by the public, are available on SGX's website.

### Interaction with Shareholders

At each AGM, the CEO delivers a presentation to update shareholders on SGX's progress over the past year. The CFO will also deliver a presentation to shareholders on the financial performance for the year. The Directors (including the chairpersons of the respective Board committees), EMCO and senior management executives are in attendance to address queries and concerns about SGX. SGX's external auditor also attends to address shareholders' queries relating to the conduct of the audit and the preparation and content of the external auditor's report.

To give retail investors a better understanding of our business and operations, SGX held the Shareholder's Dialogue in August 2017. The event featured presentations from senior management and a question and answer session. The senior management of SGX also mingled with retail shareholders at the event.

### Dividend Policy

For FY2018, the Board aims to declare a base dividend of 5 cents per share every quarter. For each financial year, the Board aims to pay, as dividend, an amount which is no less than (a) 80% of the annual net profit after tax; or (b) 20 cents per share, whichever is higher. The difference between the targeted dividend and the interim base dividend will be declared and paid as final dividend of each financial year.

SGX will revise its dividend policy from FY2019. Under the new dividend policy, SGX aims to pay a sustainable and

growing dividend over time, consistent with long-term growth prospects. Dividend will be paid on a quarterly basis and will be at the discretion of the Board. The target dividend for FY2019 is 7.5 cents per share per quarter.

#### **Corporate Website**

SGX adopts transparent, accountable and effective communication practices as a key means to enhance standards of corporate governance. We aim to provide clear and continuous disclosure of our corporate governance practices through efficient use of technology. The following information is made available on our corporate website within 6 weeks from the date of events:

- (a) Board of Directors and EMCO profiles;
- (b) Minutes and Summary of Proceedings of general meetings of shareholders;
- (c) Annual Reports;
- (d) Letter/Circular to Shareholders;
- (e) Company announcements;
- (f) Press releases;
- (g) Financial Results; and
- (h) Calendar of Events.

The latest Annual Report, financial results (including webcasts of the quarterly and full-year results briefings for media and analysts and press releases) and company announcements are posted on the website following their release to the market, to ensure fair dissemination to shareholders. SGX also makes available speeches and presentations given by the Chairman, CEO, and senior management executives, and a range of other information considered to be of interest to investors.

SGX's website has a dedicated 'Investor Relations' link, which features the latest and past financial results and related information.

The contact details of the Investor Relations team are available on the dedicated link, as well as in the Annual Report, to enable shareholders to contact SGX easily. Investor Relations has procedures in place for addressing investors' queries or complaints as soon as possible.

#### **Shareholder Rights and Responsibilities**

#### **Conduct of Shareholder Meetings**

#### **PRINCIPLE 16**

Shareholders are informed of general meetings through notices sent to all shareholders or at the shareholder's election, made available electronically. Shareholders may download the Annual Report and Notice of the Annual General Meeting from the Company's website at <http://investorrelations.sgx.com/downloads.cfm>. The general meeting procedures provide shareholders the opportunity to raise questions relating to each resolution tabled for approval. Opportunities are given to shareholders to participate, engage, and openly communicate their views on matters relating to SGX to the directors.

Shareholders or their appointed proxies are given the opportunity to vote at the general meetings of shareholders. SGX has been conducting electronic poll voting for all the resolutions passed at the general meetings of shareholders for greater transparency in the voting process. An independent external consultant is also appointed as scrutineer for the electronic poll voting process. Prior to the commencement of the general meeting of shareholders, the scrutineer would review the proxies and the proxy process. A proxy verification process agreed upon with the scrutineer is also in place.

Votes cast for, or against, each resolution will be tallied and displayed live-on-screen to shareholders or their appointed proxies immediately after each poll conducted at the meeting. SGX maintains an audit trail of all votes cast at the general meeting of shareholders. The outcome of the general meeting of shareholders (including total numbers and percentage of votes cast for or against the resolutions) are also promptly disclosed on SGXNet on the same day after the general meeting. Each share is entitled to 1 vote. However, as the authentication of shareholder identity and other related security and integrity of the information still remain a concern, SGX has decided, for the time being, not to implement voting in absentia by mail, e-mail or fax.

All Directors, including the Chairman of each of the AC, NGC, RSDC and RMC, external auditor, senior management and legal advisors (where necessary), are present at general meetings to address queries from the meeting attendees.

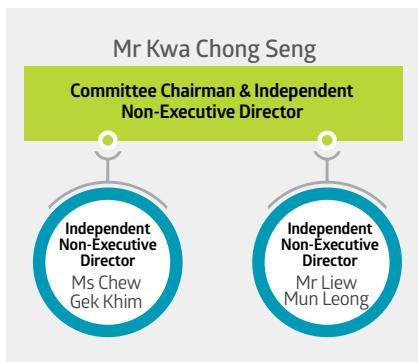
SGX provides for separate resolutions at general meetings of shareholders on each distinct issue. All the resolutions at the general meetings are single item resolutions. Detailed information on each resolution in the AGM agenda is in the explanatory notes to the AGM Notice in the Annual Report.

The Company Secretaries prepare minutes of the general meetings, which capture the essence of the comments or queries from meeting attendees and responses from the Board and Management. These minutes are available on SGX's website.

# Remuneration Report

The Remuneration & Staff Development Committee (RSDC) reviews and recommends to the Board for approval matters concerning management development, succession planning and remuneration of senior management and employees and the remuneration of the Board.

The RSDC comprises the following directors:



## Compensation Philosophy

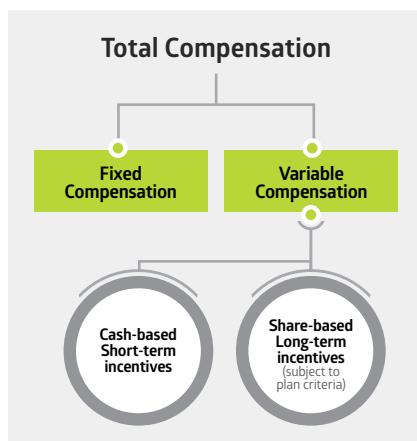
SGX adopts a compensation philosophy that is directed towards the attraction, retention and motivation of talent to achieve its business vision and create sustainable value for its shareholders. Pay-for-performance is emphasised by linking total compensation to the achievement of organisational and individual performance goals and objectives, taking into consideration relevant regulatory standards and comparative compensation in the market to maintain market competitiveness.

SGX benchmarks total compensation for employees against other local and regional financial institutions using the market data provided by McLagan (Singapore), a business unit of Aon Hewitt Singapore Pte Ltd. McLagan (Singapore) and its consultants are independent and not related to any of our directors.

In FY2018, SGX engaged Mercer (Singapore) Pte Ltd in the review of its SGX Performance Share Plan. Mercer (Singapore) and its consultants are independent and not related to any of our directors.

## Compensation Components and Mix

An employee's total compensation is made up of the following components:



The mix of fixed and variable compensation for employees is aligned with the remuneration mix in the financial services industry. Furthermore, in alignment with current regulatory standards, the mix of fixed and variable compensation for functions in Singapore Exchange Regulation (RegCo), Risk Management, CFO unit, Human Resources, Internal Audit and Legal, Compliance and Corporate Secretariat, collectively known as "control functions", is weighted towards fixed compensation. The proportion of variable or "at risk" compensation to the total compensation increases with job grade seniority. At the senior management level, up to 50% of variable compensation is deferred over a time period of three to four years in the form of share-based long-term incentives.

## Fixed Compensation

Fixed compensation comprises base salary, fixed allowances and an annual wage supplement. Base salary is pegged to the 50<sup>th</sup> percentile of market pay data in the Singapore banking and financial services industry.

The annual salary review is in July of each year. The RSDC approves the salary increment budget taking into account market trends and the profitability of SGX as a whole.

## Variable Compensation

Variable compensation comprises cash-based short-term incentives and share-based long-term incentives. The award of variable compensation is approved by the RSDC and Management through a process where due consideration is given to corporate and individual performance as well as relevant comparative remuneration in the market. In FY2018, SGX implemented a new performance management framework in line with best practices, to strengthen goal alignment and drive performance. Performance of goals in five categories namely, financial, products and services, stakeholders' trust, operational excellence, people and culture as well as SGX values, are measured. In line with the current regulatory standards, the control functions' performance is assessed principally on the achievement of goals and objectives for the functions, not directly linked to the company's financial performance.

Each year, the RSDC evaluates the extent to which each of the senior management has delivered on the corporate and individual goals and objectives (details are not disclosed for strategic and confidentiality reasons) and based on the evaluation, approves the compensation for senior management and proposes the compensation for the CEO for the Board's approval.

## Short-term Incentives

Short-term incentives take the form of an annual variable bonus for all employees excluding those participating in the sales incentive plan, who will receive sales incentive payment based on achievement of sales targets. Each year, the RSDC reviews and approves the variable bonus pool for distribution. The Management reviews and allocates variable bonus based on the individual performance of employees and their contributions towards SGX's performance. The sales incentive pool is generated by the achievement of sales targets and distributed to

employees based on the achievement of team and individual sales targets and corporate goals and objectives.

### Long-term Incentives

Long-term incentives (LTIs) create value for the company by aligning employees' long-term incentives to the achievement of SGX's long-term results. Furthermore, due to its time-based vesting characteristic, it carries a retention element that strengthens SGX's ability to reward and retain key employees.

In alignment with current regulatory standards, LTIs may be clawed back in the event of exceptional circumstances of misstatement of financial results or of misconduct resulting in financial or other losses to the company.

There are two types of LTIs – the SGX Performance Share Plan and the SGX Deferred Long-Term Incentives Scheme and the grants of which are made at the discretion of the RSDC. For the senior management, half of their deferred variable compensation is granted in performance shares under the SGX Performance Share Plan and the remaining half in deferred shares under the Deferred Long-Term Incentives Scheme. The number of shares awarded is determined using the valuation of the shares based on one-month volume-weighted average prices of SGX Shares before the approval of awards.

### Total Incentives Funding

The total incentives pool funds the annual variable bonus for all employees (excluding those in control functions and those on sales incentive plan) and the long-term incentive plans. It is computed using the following formula:

**Total Incentives (TI) Pool =** A percentage of [Profit before Variable Bonus less Corporate Tax less Cost of Equity]

The percentage is determined by the RSDC and takes into account SGX's overall performance.

### The SGX Performance Share Plan

The SGX Performance Share Plan ("SGX PSP") is a share-based incentive scheme established with the objective of rewarding, motivating, and retaining key senior executives to optimise their performance standards. Through the SGX PSP, SGX will be able to recognise and reward past contributions and services, and motivate the plan participants to continue to strive for SGX's long-term success. In relation to SGX's business, the effective execution of strategic business plans and growing scale and relevance amongst peer exchanges and companies, are key success factors and this is reflected in the SGX PSP performance targets.

The SGX PSP, after being in force for 10 years, expired on 21 September 2015. It was replaced by a new plan – the SGX Performance Share Plan 2015 ("SGX PSP 2015"), which was approved for adoption by the shareholders on 23 September 2015.

Under the SGX PSP 2015, performance targets have been revised and the vesting period is extended by a year, to four years.

### Restrictions

The total number of new SGX shares which may be issued pursuant to awards granted under the SGX PSP 2015 on any date, when added to the total number of new shares issued and issuable in respect of all awards granted under the SGX PSP 2015 (and/or any share schemes then in force), shall not exceed 10% of the total number of SGX's issued shares (excluding shares held by the company as treasury shares) on the day preceding the relevant date of award.

Participants of SGX PSP are required to retain 50% of the total number of shares that are released to them for at least one calendar year from the vesting date. The vesting period of SGX PSP 2015 has been extended to four years (instead of three years for SGX PSP) and with that any

shares that have been released by participants under SGX PSP 2015 are no longer subject to a retention period. Unless otherwise decided by the RSDC, the entitlement to this award is conditional on the plan participant remaining in service up to the specified vesting date.

### Eligibility

Selected members of senior management who have attained the rank of Vice President, job grade 2 and above are eligible to be considered for the award under the plan.

### FY2015 to FY2018 Grants

The performance share awards will vest upon the achievement of respective performance targets over the performance period. The performance targets were chosen as they are key success factors to SGX's business that also drive alignment with shareholders' interests.

# Remuneration Report

Details of the performance share grants for FY2015 to FY2018 are as follows:

## Summary of Grants

Grant	Performance Period	Vesting Date	Performance Targets
FY2015	1 July 2014 to 30 June 2017	1 September 2017	(1) ROE (2) Absolute TSR (3) Relative TSR against FTSE/MV TSR
FY2015 (A)*	1 July 2015 to 30 June 2018	1 June 2018	
			(Details in Table A)
FY2016	1 July 2015 to 30 June 2018	1 September 2019	(1) EPS growth (2) Relative TSR against selected peers
			(Details in Table B)
FY2017	1 July 2016 to 30 June 2019	1 September 2020	(1) EPS growth (2) Relative TSR against selected peers
			(Details in Table C)
FY2018	1 July 2017 to 30 June 2020	1 September 2021	(1) Strategic and Non-financial Priorities (2) EPS (3) Relative TSR against selected peer exchanges (4) Relative TSR against Straits Times Index peer companies
			(Details in Table D)

\* Grant awarded to the former CEO, Mr Magnus Bocker on 30 June 2015 as part of his rewards for performance in FY2015. The shares were vested to his estate on 1 June 2018 in accordance with RSDC's approval.

**Table A – FY2015 Grants**

Performance Level	ROE (Weight = 50%)		Absolute TSR* (Weight = 25%)		SGX TSR against FTSE/MV TSR (Weight = 25%)	
	Average over 3FYs	Payout (% of base allocation)	Average over 3FYs	Payout (% of base allocation)	Average over 3FYs	Payout (% of base allocation)
Above Target	≥ 45.0%	150%	≥ 17.0%	150%	≥ 7.0% points	150%
At Target	40.0%	100%	13.0%	100%	4.5% points	100%
Threshold	35.0%	50%	10.0%	50%	2.0% points	50%
Below Threshold	<35.0%	Nil	<10.0%	Nil	<2.0% points	Nil

\* Absolute TSR is benchmarked against the Cost of Equity of 10%.

**Table B – FY2016 Grant**

Performance Level	EPS Growth (Weight = 50%)		Relative TSR against selected peers (Weight = 50%)		Payout (% of base allocation)
	3 FY CAGR (%)	Payout (% of base allocation)	Average over 3FYs	Payout (% of base allocation)	
Above Target	≥ 9.1%	150%	≥ 75 <sup>th</sup> percentile of peers	150%	
At Target	5.7%	100%	50 <sup>th</sup> percentile of peers	100%	
Threshold	2.8%	50%	25 <sup>th</sup> percentile of peers	50%	
Below Threshold	<2.8%	Nil	<25 <sup>th</sup> percentile of peers	Nil	

**Table C – FY2017 Grant**

Performance Level	EPS Growth (Weight = 50%)		Relative TSR against selected peers (Weight = 50%)	
	3 FY CAGR (%)	Payout (% of base allocation)	Average over 3FYs	Payout (% of base allocation)
Above Target	≥9.9%	150%	≥75 <sup>th</sup> percentile of peers	150%
At Target	6.2%	100%	50 <sup>th</sup> percentile of peers	100%
Threshold	3.1%	50%	25 <sup>th</sup> percentile of peers	50%
Below Threshold	<3.1%	Nil	<25 <sup>th</sup> percentile of peers	Nil

**Table D – FY2018 Grant**

Strategic and Non-financial Priorities (Weight = 40%)		EPS (Weight = 30%)		Relative TSR against selected peer exchanges (Weight = 15%)		Relative TSR against Straits Times Index peer companies (Weight = 15%)		
Performance Level	Payout (% of base allocation)	Performance Level	Average over 3FYs	Payout (% of base allocation)	Average over 3FYs	Payout (% of base allocation)	Average over 3FYs	Payout (% of base allocation)
Exceeded	150%	Above Target	≥ 37 cents	150%	≥75 <sup>th</sup> percentile of peers	150%	≥75 <sup>th</sup> percentile of peers	150%
Met	100%	At Target	34 cents	100%	50 <sup>th</sup> percentile of peers	100%	50 <sup>th</sup> percentile of peers	100%
Partially Met	50%	Threshold	32 cents	50%	25 <sup>th</sup> percentile of peers	50%	25 <sup>th</sup> percentile of peers	50%
Not Met	Nil	Below Threshold	<32 cents	Nil	<25 <sup>th</sup> percentile of peers	Nil	<25 <sup>th</sup> percentile of peers	Nil

The extent to which the performance share awards will vest could range from 0% to 150%, depending on the achievement of performance targets in the respective performance periods. There shall be no award if the achievement falls below the threshold performance level. For an achievement between the Threshold/Partially met and Above Target/Exceeded performance levels, the payout percentage will be pro-rated on a straight-line basis.

### The SGX Deferred Long-Term Incentives Scheme

The SGX Deferred Long-Term Incentives Scheme (“DLTIS”) was approved by the RSDC in July 2006.

It recognises past contributions and services, and strengthens the Company's ability to reward and retain high-performing recipients whose contributions are essential to the long-term growth of SGX.

The RSDC may decide to grant an award, wholly or partly, in SGX shares or in cash (based on the market value of shares on vesting date) subject to a vesting schedule.

The shares are vested in three equal instalments over a period of three years with the first instalment vesting one year after grant date.

### Restrictions

Unless otherwise decided by the RSDC, the entitlement to the award is conditional on the recipient remaining in service up to the specified vesting date.

### Eligibility

Selected executives who have attained the rank of Assistant Vice President and above are eligible to be considered for the award under the scheme.

Please refer to the Directors' Statement on page 94 for the details of the share plans and grants to senior management and employees.

# Remuneration Report

## Disclosure on Directors' Remuneration

The table below shows the gross remuneration of the Executive Director of SGX for the financial year ended 30 June 2018.

Executive Director	Fixed pay <sup>1</sup>	Bonus for FY2018 <sup>1,2</sup>	Long-term incentives <sup>3</sup>	Benefits-in-kind	Total gross Remuneration
Mr Loh Boon Chye	1,212,253	2,205,100	327,421	30,642	3,775,416

<sup>1</sup> Includes Employer CPF Contribution.

<sup>2</sup> The bonus was determined by the Board after taking into account the achievement of specific quantitative and qualitative targets and objectives set for FY2018.

<sup>3</sup> Vesting of DLTIS award based on the fair value on grant date. The shares vested on 1 September 2017.

Please refer to the Corporate Governance Report on pages 54 to 75 for the details of the Non-Executive Directors' remuneration.

## Disclosure on Five Top-Earning Executives' Remuneration

The table below shows the gross remuneration of the five top-earning executives for the financial year ended 30 June 2018.

Executives	Fixed pay <sup>1</sup>	Bonus for FY2018 <sup>1,2</sup>	Long-term incentives <sup>3</sup>	Benefits-in-kind	Total gross Remuneration
Mr Muthukrishnan Ramaswami	506,724	902,700	515,473	4,012	1,928,909
Mr Chew Sutat	442,292	695,100	362,189	14,973	1,514,554
Mr Michael Syn	442,248	597,600	290,634	2,332	1,332,814
Mr Chng Lay Chew	581,448	425,200	250,608	4,954	1,262,210
Mr Tan Boon Gin	512,244	617,600	63,468	8,451	1,201,763

<sup>1</sup> Includes Employer CPF Contribution.

<sup>2</sup> The bonuses for SGX senior management were determined by the RSDC after taking into account the achievement of the specific individual and organisational targets and objectives set for FY2018.

<sup>3</sup> Vesting of FY2015 PSP and DLTIS awards based on the fair value on grant date. The shares vested on 1 September 2017.

There were no retirement plans, severance/termination and post-employment benefits granted to directors, the CEO and the top five key management personnel, save for the shares awarded and vested to Mr Magnus Bocker pursuant to his employment contract and to Mr Lawrence Wong as approved by the RSDC, as disclosed in pages 94 to 103 of the Directors' Statement.

## Benefits

Benefits provided for employees are comparable with local market practices. These include medical, dental, and group insurances.

# Summary of Disclosures

## Summary of Disclosures of Code of Corporate Governance 2012

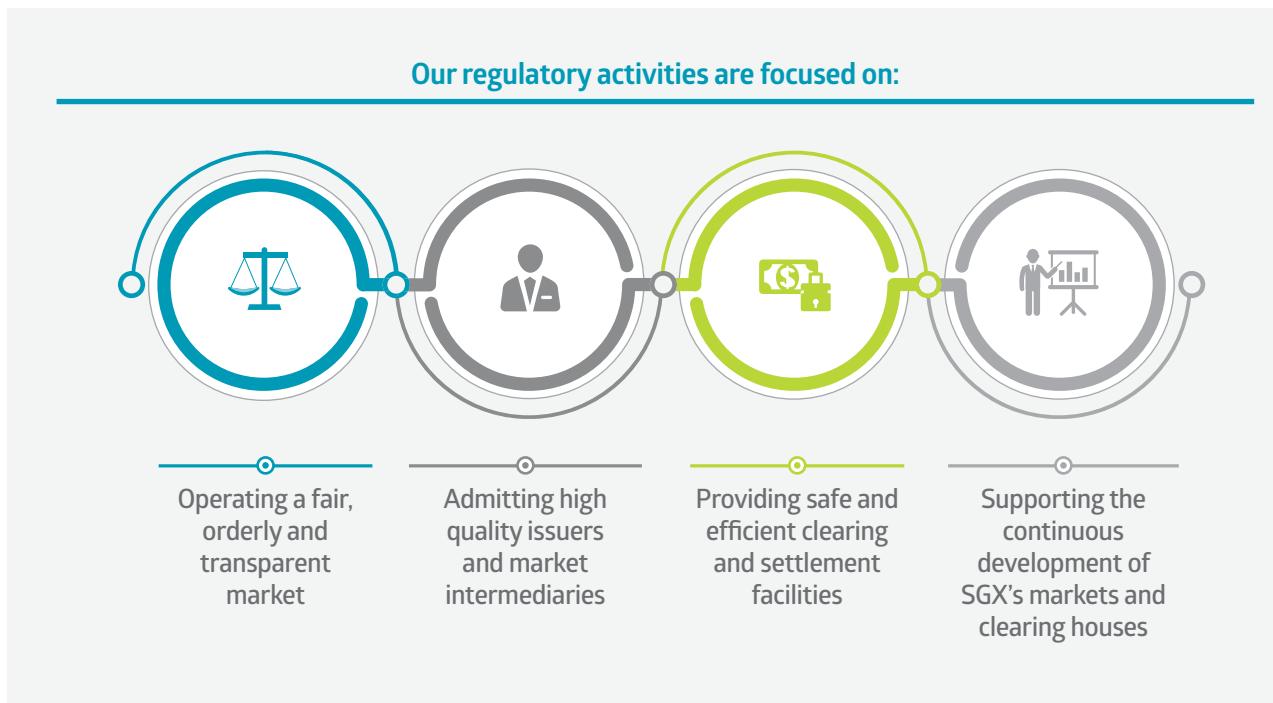
<b>Board Matters</b>	<b>Remuneration Matters</b>	<b>Accountability and Audit</b>	<b>Shareholder Rights and Responsibilities</b>
<b>The Board's Conduct of Affairs</b>	<b>Procedures for Developing Remuneration Policies</b>	<b>Accountability</b>	<b>Shareholder Rights</b>
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# Express disclosure requirements in Code of Corporate Governance 2012

# Self-Regulatory Organisation Governance Report

## Obligations

SGX is a front-line regulator, regulating market participants including listed companies, and trading and clearing members. SGX is also a listed, for-profit entity with a widely distributed ownership and shareholder base. This gives rise to Self-Regulatory obligations and potential for conflict between these two responsibilities. We employ the highest standards in carrying out our dual role and ensuring that any potential Self-Regulatory Organisation (SRO) conflicts between our responsibilities as a regulator and as a listed company are adequately addressed.



We achieve our objectives through stringent listing and trading rules. We apply strict admission criteria on our members, sponsors and their registered professionals and issuers to assure their quality and safeguard the integrity of the markets and clearing houses. Issuers must ensure the timely, accurate and adequate disclosure of material information. We also impose prudent financial requirements on our members

and have robust default management processes. To ensure compliance with our rules, we conduct comprehensive on-going supervision and surveillance and take enforcement action when necessary. We continually benchmark ourselves against developed jurisdictions and established international standards to improve our systems and processes.

## The Role of Singapore Exchange Regulation Pte Ltd (SGX RegCo) in Managing Regulatory Conflicts

The Monetary Authority of Singapore (MAS) regulates SGX in the discharge of our regulatory functions and our management of regulatory conflicts. We have a strong governance framework in place to manage any potential, perceived or actual regulatory conflicts.

SGX's regulatory conflicts governance framework was further enhanced in 2017 with the establishment of SGX RegCo, an independently-governed subsidiary of SGX that undertakes all regulatory functions on behalf of SGX and its regulated subsidiaries.

The SGX RegCo Board is responsible for ensuring that SGX RegCo, in the performance of its regulatory duties, exercises its judgment independently of SGX's business functions.

The SGX RegCo Board is an independent board from the SGX Board and a majority of the SGX RegCo Board, including its chairperson, are independent of management and business relationships with SGX. All members of the SGX RegCo Board are also independent of companies listed on SGX-ST and member firms of the SGX Group. Appointments to the SGX RegCo Board are subject to MAS approval.

The SGX RegCo Chief Executive Officer reports exclusively to the SGX RegCo Board in relation to the performance of the functions of SGX RegCo. This further strengthens the independence of SGX RegCo.

The formation of SGX RegCo and the nature of its board structure therefore demonstrably segregate SGX's regulatory functions from SGX's commercial and operating activities.

One of SGX RegCo's functions is to formulate and maintain arrangements and processes within the SGX Group for managing potential, perceived or actual regulatory conflicts. The board of SGX RegCo is directly responsible for reviewing the adequacy of such arrangements, and is accountable to MAS and the SGX Board in this regard.

The SGX RegCo Board decides on conflict cases as needed, reviews the regulatory implications of our strategic initiatives, and also ensures the adequacy of the plans, budget and resources of SGX RegCo. The SGX RegCo Board reports to MAS and the SGX Board on its activities annually.

With the establishment of SGX RegCo, the SGX RegCo Board has assumed the roles and responsibilities previously undertaken by the Regulatory Conflicts Committee (RCC). The RCC reported to MAS in October 2017 that they had fulfilled their statutory duties in overseeing SRO governance within SGX, and the adequacy of regulatory resources in addressing SRO conflicts. The RCC was consequently dissolved in October 2017 following the operation of the SGX RegCo Board.

# Self-Regulatory Organisation Governance Report

## Enhancing Trust in Regulation

Building and increasing the trust in our marketplace is one of two key objectives of SGX RegCo, the other being supporting the development of the market. In respect of enhancing trust in the market place, we are focused first, on actions that act as deterrence or which directly address key issues of concern to the market and the exchange, and second, on measures that are preventive and pre-emptive in nature. We do so with a collaborative and consultative stance and are committed to being as clear and transparent as possible on our approach, principles and processes.



<sup>1</sup> SGX RegCo may exercise its administrative powers by issuing a Notice of Compliance. The Notice contains requirements imposed on Relevant Persons that must be complied with. The requirements are definitive and calibrated to address the circumstances of each case. For more information, please refer to the Regulator's Column issued by RegCo on 13 April 2018.

## Active risk-based supervision of issuers

We adopt a risk-based approach in our oversight of listed issuers and product issuers. During the year, we actively exercised our administrative powers on listed companies and product issuers for major disclosure failings, and closely monitored issuers with suspected financial irregularities. In respect of the latter, we issued a Regulator's Column making clear administrative actions we will take in such circumstances and the significance of each of these actions. Our enforcement actions during the year were aimed at ensuring credible deterrent effect and securing market confidence.

While the exercise of our administrative powers and enforcement actions are aimed at dealing with malfeasance and wrong-doing, we also believe in supporting and encouraging good behaviour and quality governance. We issued eligibility-to-list letters ahead of the typical timelines for complete and good-quality listing application submissions. This approach was extended during the year to the launch of the SGX Fast Track programme for corporate actions submissions from quality issuers, based on their corporate governance rankings and compliance track record. SGX Fast Track issuers enjoy faster time-to-market for certain corporate actions.

## Improving disclosure requirements to address key concerns

We are constantly reviewing and improving our rules and practices as market conditions – both domestic and globally – change and in response to feedback from the market eco-system. We participated in the review and public consultation on changes to the Code of Corporate Governance in January 2018. As part of our work with the Corporate Governance Council to revise the CG Code, we consulted on the shifting of baseline requirements from the Code to our listing rules. We also separately sought market feedback on enhancements to our continuous disclosure rules primarily in areas of concern to both the market and the exchange including secondary fund-raising and significant transactions and loans. We also collaborated with the Singapore Institute of Surveyors and Valuers (SISV) to review valuation practices, with the aim of improving governance and disclosure for real estate valuations in order to safeguard investor interest and maintain trust in our REITs and business trusts. The SISV Guide was published in June 2018.

## Collaborating with the industry to pre-empt and combat misconduct

We took active steps to create a culture of vigilance against misconduct across various sectors of our eco-system. Initiatives in 2018 included the release of the second Trade Surveillance Handbook, which informed members on common manipulative practices in the derivatives markets, our assessment for recent manipulation cases and indicators members may incorporate in their surveillance programmes. Another initiative was the launch of the Guide on the Handling of Confidential Information and Dealings in Securities which was developed to address insider trading. The measures contained in the guide were drawn from best practices, which several industry bodies as well as listed companies and market professionals shared with us. The above tools help us activate and equip the industry to collectively prevent and control market abuse. Additionally, we have embarked on joint engagements with the relevant authorities on outreach efforts to raise awareness of market misconduct amongst our retail SGX-ST members.

## Greater transparency on our decision-making

As the front-line market regulator, we regularly deliberate and deliver decisions on a wide range of matters. Our decision-making on the suitability for listing of companies is arguably one of the matters that is of high interest. We also want to emphasise the need for thorough and comprehensive due diligence by market professionals when seeking to bring companies to SGX. In recognition of these factors, we launched in November 2017 case studies documenting our comments and decisions on issues that cropped up in certain listing applications.

# Self-Regulatory Organisation Governance Report

## Supporting the Development of our Markets

We set and enforce regulation that assures a fair, orderly and transparent marketplace, as well as supports the overall development of our markets. To achieve this, we regularly assess existing requirements including those deemed as fundamental pillars of the market with a view of either adopting new frameworks and structures, or refining existing requirements.



### Market reform initiatives

We consider the changing needs of our market as well as the protection of investor interest in our review, revision and formulation of regulations. We introduced several changes to the structure of the securities market in 2018. A mid-day break was introduced in November 2017 together with changes in the minimum bid size and forced order range of relevant securities in response to supportive market feedback. We also proposed to make securities settlement and clearing safer and aligned with global practices. Central to these proposals is the shortening of the securities settlement cycle to two days from three currently.

### Meeting the needs of an evolving market

Supporting the development of our markets has become increasingly important in recent years due to rapid changes in the global environment, which has had an impact on Singapore's economy and has raised concerns about relevance and competitiveness. We closed FY2018 with the introduction of our dual class shares (DCS) framework aimed at helping founder-entrepreneurs rapidly ramp up their businesses while retaining the ability to drive their companies over the long term in order to execute on their long-term vision and strategy. This dovetails with comments on DCS structures in the Singapore government's Committee on the Future Economy report on efforts to transition to the New Economy. Entrenchment and expropriation risks are recognised globally as specifically pertinent to DCS companies due to the difference in the voting power of the multiple voting (MV) shares compared with the ordinary voting (OV) shares. We have therefore required safeguards to be a key part of our DCS framework.

The market eco-system has increasingly identified rising compliance cost as a key concern in recent years. We recognise that such costs are especially relevant to smaller companies and consulted the market on two options: removing the requirement to report on first- and third-quarter results, or raising the market capitalisation of reporting companies such that fewer companies will have to do quarterly reporting (QR).

In the secondary markets, we are shifting towards a principles-based regime for the regulation of our members. After extensive engagements with our members, we consulted on wide-ranging changes to our SGX-ST rules. The revisions ensure relevance against current market practices and provide members with flexibility to increase efficiency and decrease compliance costs.

### **Enhancements to our surveillance capabilities**

We constantly review the robustness of our surveillance capabilities in step with market developments. We are also always cognisant of market feedback on the effectiveness of our activities. We enhanced in 2018 our SMARTS alerts leading up to changes in SGX-ST market structure and after conducting internal reviews against prevailing market conditions. New alerts were created ahead of novel product introductions, such as the daily leveraged certificates (DLCs).

We also refined our thresholds for issuance of trading queries to increase its effectiveness. The recalibration, which involved thorough back-testing on previous cases to ensure robustness, has resulted in a significant reduction of queries issued, thereby reducing the noise which had previously caused concern among investors and other market participants.

### **Increasing our members' cyber resiliency**

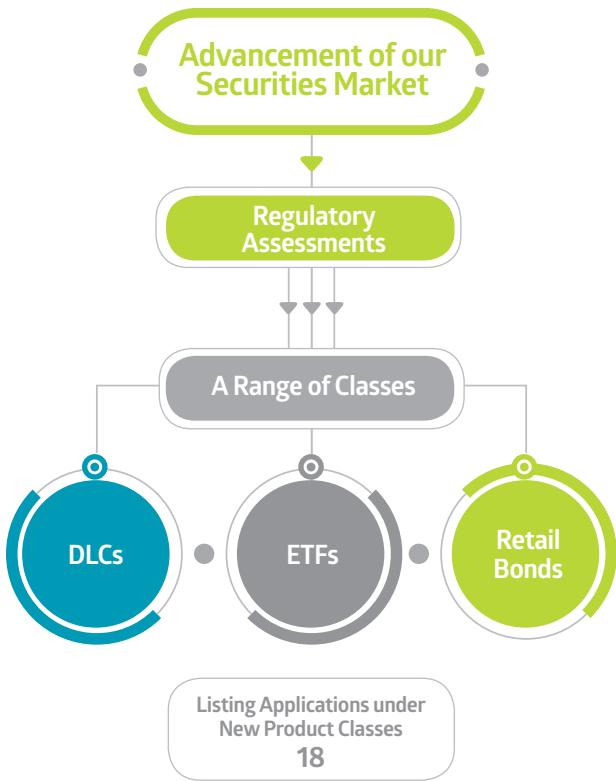
Our role as market regulator requires us to be alert to current as well as newly-emerging threats to market integrity. Cyber-security incidents gathered steam in 2018 globally. We have therefore focused much effort on helping our members to build their cyber resilience through our supervisory reviews and engagements. We nudged members to step up their cyber controls by releasing peer comparison studies, and providing them with suggested areas of improvement. We partnered with experts in the field to raise members' awareness on best practices. We also organised our inaugural SGX RegCo regulatory symposium, where cyber security was a major theme.

### **Promoting sustainability reporting**

Our regulatory role requires us to look at developments with a long-term perspective while keeping short-term activities in scope. Sustainability reporting was mandated for all listed companies in the previous year and our efforts in 2018 were focused on creating investor awareness and demand for sustainability as well as securing commitment from our issuers and ensuring they are ready to report. Following the subsidised workshops for listed companies that were run in 2017, we collaborated with international bodies and experts to raise awareness and create dialogue between issuers and investors on sustainability reporting. We will be launching over the next few months a revised investor guide on sustainability reporting as well as e-learning modules for companies.

### **New product classes**

We continue to support the advancement of our securities market with the launch of new structured products. Regulatory assessments were conducted for a range of new products under different classes, including DLCs, ETFs and Retail Bonds.



# Report of Independent Committees

## Overview

SGX's systems to deal with potential conflicts of interests arising from its dual role as a front-line regulator of the market and a listed for-profit entity include the setting up of independent committees comprising the Listings Advisory Committee, Disciplinary Committee and Appeals Committee. To ensure the impartial and independent administration of their powers and duties, the members of the independent committees are not directors, officers or employees of SGX or its related corporations.

The Listings Advisory Committee provides advice on SGX's listing policies and Main Board 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. The Listings Advisory Committee comprises members with legal, accounting, corporate finance and market experience as well as representatives of the investment community.

During FY2018, SGX submitted 11 listing applications for review by the Chairman and the Deputy Chairman, together with the Secretariat. 2 of these listing applications were referred by the Chairman and the Deputy Chairman to the Listings Advisory Committee on the ground that matters of public interest were involved.

The Disciplinary Committee and Appeals Committee provide independent and transparent adjudication of SGX rule breaches. The Disciplinary and Appeals Committees' members have legal, accounting, corporate finance, market experience, as well as directorship experience in SGX-listed issuers.

The Disciplinary Committee hears charges brought by SGX against relevant persons for breaches of SGX's rules. Under the SGX trading rules and clearing rules, the Disciplinary Committee is able to impose

a wide range of sanctions against trading or clearing members, their approved executive directors, trading representatives, approved traders and registered representatives including reprimands, fines, restrictions or conditions on activities, suspensions, expulsions, requiring directors to step down from day-to-day conduct of the business affairs of a member and appointing a manager to manage a member's business. Under the SGX listing rules, the Listings Disciplinary Committee (which members are drawn from the Disciplinary Committee) can impose sanctions including reprimands, fines against issuers, sponsors and registered professionals, prohibiting issuers from raising funds through SGX, requiring the resignation of directors or executive officers, prohibiting issue managers from participating in any specific listing application on SGX, revocation or cancellation of an issue manager's accreditation, sponsor's authorisation or registered professional's registration, suspending the trading of an issuer's securities and removal of an issuer from the Official List of the SGX-ST.

The Appeals Committee hears appeals by SGX or the party facing the charge, against the decisions of the Disciplinary Committee. The Listings Appeals Committee, apart from hearing appeals against decisions of the Listings Disciplinary Committee, additionally hears appeals against certain decisions of SGX made under the SGX listing rules. The decision of the Appeals Committee or Listings Appeals Committee is final.

The independent committees are supported by the Office of the Secretariat which manages the processes of the independent committees' meetings and hearings.

The operations of the independent committees and the Office of the Secretariat are funded separately by a Compliance Fund which is segregated from the rest of SGX's monies. In FY2018, the operating costs of the independent

committees and the Office of the Secretariat amounted to S\$690,785.

## Listings Advisory Committee Annual Report

### Note from the Listings Advisory Committee Chairman

This is the Listing Advisory Committee's ("LAC") third Annual Report and sets out our work done from 1 July 2017 to 30 June 2018.

During the financial year, SGX submitted 11 listing applications for review by the Deputy Chairman, Professor Hans Tjio, and me, together with the Secretariat. The Deputy Chairman and I referred 2 of these listing applications to the LAC.

## IPO Referral Cases

The first case reviewed by the LAC in November 2017 involved a listing applicant which had substantial operations in a foreign jurisdiction which was an emerging market. The listing applicant group's outlets were subject to foreign shareholding restrictions contained in a policy issued by a governmental ministry. The listing applicant group's operations which were subject to the foreign shareholding restrictions had accounted for between 25% and 30% of the listing applicant group's revenue in its last financial year. The Deputy Chairman and I were concerned about potential enforcement of the foreign shareholding restrictions which, if strictly enforced, could have potential material impact on the listing applicant group's business. If the policy was strictly enforced or enacted as law, these could result in (1) the listing applicant group not being able to acquire new outlets in the foreign jurisdiction unless the foreign shareholding restrictions were complied with, (2) the listing applicant group having to alter its corporate structure or adopt an alternative investment structure. We referred the listing application to the LAC as we were of the view that matters of public interest were involved.

The LAC noted that there was a similar foreign shareholding restriction issue in a

previous listing application reviewed by the LAC in FY2017. In the previous listing application, complex shareholding structures had been utilised to comply with the applicable foreign shareholding restrictions. The listing applicant was required to incorporate a health warning and provide clear prospectus disclosure. The LAC was concerned whether retail investors could fully grasp the nature and risks associated with the complex shareholding structure even with clear and detailed prospectus disclosure. The LAC distinguished the current case from the previous listing application as the foreign shareholding restrictions in the previous listing application were set out in law while the restrictions affecting the listing applicant in this case were set out in a ministerial policy; the previous listing applicant also had a significantly higher proportion of assets subject to the foreign shareholding restrictions compared to the listing applicant in this case.

Taking into account various factors, the LAC was of the view that prominent risk factor disclosure which SGX would be requiring from the listing applicant was sufficient mitigation from the risks arising from any possible strict enforcement of the foreign shareholding restrictions in the foreign jurisdiction. At the same time, the LAC recommended that future listing applications facing similar foreign shareholding restriction issues may not require a referral to the LAC if the listing applicant's revenue derived from the market in the relevant foreign jurisdiction was less than 20%.

The second referral case reviewed by the LAC in January 2018 involved a listing applicant and its operating subsidiaries, which operations were substantially subject to government regulation, in another foreign jurisdiction which was classified as a frontier market by an index provider. The listing applicant was the first Main Board listing applicant with its entire operations and operating subsidiaries based in that foreign jurisdiction. The Deputy Chairman and I were concerned about the challenging

business, political and legal environment in the foreign jurisdiction. In addition, entities which were listed on a state sanctions list and its related guidance note had indirect non-controlling shareholdings in the listing applicant. The Deputy Chairman and I referred the listing application to the LAC on the ground that matters of public interest were involved in view of the country risks associated with the foreign jurisdiction and the sanctions issue.

The LAC was asked to consider whether the listing applicant was suitable to list, and if so, the prospectus disclosure which should be made in connection with the risks associated with operating in the jurisdiction. When the listing suitability of the listing applicant was put to vote, the majority of members present voted in favour of, with a sizeable number of dissenting members voting against, the listing applicant's suitability for listing subject to clear prospectus disclosure of the relevant risks. The dissenting members were of the view that prospectus disclosure could not sufficiently address the relevant risks.

On the sanctions issue, after considering the representations of the issue managers and the prospectus disclosure which was proposed to be made, the LAC was satisfied with the proposed safeguards and prospectus disclosure.

The grounds of decisions of the LAC are available on the SGX Website.

### Non-Referral Cases

The remaining 9 listing applications were from companies, business trusts and REITs with operations in Singapore and overseas. After a review of these 9 listing applications, the Deputy Chairman and I, taking into consideration the Secretariat's recommendations, agreed with SGX's views that these listing applications did not fulfil any of the criteria for referral to the LAC. We had, where appropriate, recommended prospectus disclosure on certain issues.

### Acknowledgments

As the LAC members approach the close of their first 3-year term in October 2018, I would like to thank the Deputy Chairman, Professor Hans Tjio, and fellow distinguished LAC members for their dedication and their generosity in sharing their technical expertise on LAC matters.

During these 3 years, the then Deputy Chairman Professor Tan Cheng Han, Senior Counsel, the current Deputy Chairman and I reviewed a total of 27 listing applications and 2 listing policies, out of which 6 listing applications and 1 listing policy (relating to the listing framework for dual class share structures) were referred to and advised upon by the LAC. SGX has since rolled out the listing framework for dual class share structures. It has been a productive first term.

I would also like to express my appreciation to the Office of the Secretariat, headed by Ms Ng Ee San for the past 3 years, for providing thorough research and analysis on relevant issues and expounding clearly on the LAC's concerns and advice in the drafting of the grounds of decision.

### Mr Gautam Banerjee

Chairman

SGX Listings Advisory Committee

## Report of Independent Committees

### Listings Advisory Committee Members

During FY2018, Professor Tan Cheng Han, Senior Counsel and Mr Lim Chin Hu stepped down as the LAC Deputy Chairman and member respectively. Professor Hans Tjio was re-designated as the Deputy Chairman and Mr Goh Kian Hwee was appointed as a member of the LAC with effect from 5 July 2017.

No.	Name	Position	Title
1	Mr Gautam Banerjee	Chairman	Chairman, Blackstone Singapore Pte Ltd Former Executive Chairman, PricewaterhouseCoopers Singapore
2	Professor Hans Tjio	Deputy Chairman	Co-Director, Centre for Banking and Finance Law, National University of Singapore Member, Securities Industry Council
3	Mrs Fang Ai Lian	Member	Adviser, Far East Organization Former Managing Partner, Ernst & Young LLP
4	Mr David Gerald	Member	Founder, President and Chief Executive Officer, Securities Investors Association (Singapore)
5	Mr Goh Kian Hwee	Member	Joint Group Managing Director, QAF Limited Former Senior Partner, Rajah & Tann Singapore LLP
6	Mr Subramaniam Iyer	Member	Founder and Director, S2K2 Advisory (operating as SmartCapital)
7	Mr Lionel Lee	Member	Non-Executive Director, Ezra Holdings Limited
8	Mr Daryl Liew	Member	Co-Chairman, Advocacy Committee, CFA Society Singapore Head, Portfolio Management, Singapore, REYL Singapore Pte Ltd
9	Mrs Margaret Lui	Member	Chief Executive Officer, Azalea Investment Management Pte Ltd
10	Mr Mak Lye Mun	Member	Country Head and Chief Executive Officer, CIMB Bank Berhad, Singapore Branch Chief Executive Officer, Group Wholesale Banking, CIMB Bank Berhad
11	Mr Kabir Mathur	Member (till 27 August 2018)	Former Director, KKR Singapore Pte. Limited
12	Mr Ronald Ong	Member	Chairman and Chief Executive Officer, Southeast Asia, Morgan Stanley Asia (Singapore) Pte.
13	Mr Soon Tit Koon	Member	Independent Director, Great Eastern Holdings Limited Independent Director, SPH REIT Management Pte. Ltd.
14	Mr Toh Teng Peow David	Member	Director and Chief Technology Officer, Nanyang Technological University-NTUitive Pte. Ltd. Independent Director, iFAST Corporation Ltd.
15	Ms Tracey Woon	Member	Vice Chairman, Asia Pacific, Wealth Management, UBS AG

## Disciplinary and Appeals Committees Report

### Case Heard in FY2018

During FY2018, SGX initiated the first Listings Disciplinary Committee proceedings against an issuer and some of its directors for breaches of the SGX-ST's listing rules. The case was part-heard during FY2018 and has been adjourned.

There was no other disciplinary hearing in FY2018.

### Disciplinary Committee Members

The members of the Disciplinary Committee are:

No.	Name	Position	Title
1	Mr Eric Ang Teik Lim	Co-Chairman	Senior Executive Advisor, DBS Bank Ltd Former Head of Capital Markets, DBS Bank Ltd
2	Mr Cavinder Bull, Senior Counsel	Co-Chairman	Chief Executive Officer, Drew & Napier LLC
3	Mr Tan Chong Huat	Deputy Chairman	Senior Partner and Managing Partner, RHTLaw TaylorWessing LLP
4	Mr Hemant Bhatt	Member	Chief Executive Officer – Downstream & Commercial, Golden Agri-Resources Ltd
5	Ms Cheng Ai Phing	Member	Director, GIG Consulting Pte Ltd Council Member, Accounting Standards Council Independent Director and Chairman of Audit Committee, ARA Asset Management (Fortune) Limited, as manager of Fortune Real Estate Investment Trust Member, Board of Trustees, NTUC-Education and Training Fund Former Senior Partner, Deloitte & Touche LLP
6	Mr Paul Davies	Member	Owner, Yahava Koffeworks Wholesale (WA) Pty Ltd Former Managing Director, Goldman Sachs Futures Pte.
7	Mr George Lee	Member	Independent Director, Bumitama Agri Ltd. Independent Director, RE&S Holdings Limited Former Adviser, OCBC Bank (Malaysia) Berhad Former Head of Global Corporate Banking and former Head of Global Investment Banking, OCBC Bank Ltd
8	Mr Francis Mok Lip Wee	Member	Partner, Allen & Gledhill/ LLP
9	Mr Colin Ng Teck Sim	Member	Chairman, Colin Ng & Partners LLP
10	Mr Soh Gim Teik	Member	Partner, Finix Corporate Advisory LLP
11	Dr Tommy Tan	Member	Chief Executive Officer, Co-Founder, TC Capital Pte Ltd
12	Mr Teyu Che Chern	Member	Chief Executive Officer, Phillip Futures Pte Ltd Executive Director, Phillip Securities Pte Ltd
13	Mr Lucas Tran	Member	Partner, KPMG LLP
14	Ms Yeoh Choo Guan	Member	Managing Director, UBS AG and Chief Executive Officer, UBS Securities Pte. Ltd.

## Report of Independent Committees

### Appeals Committee Members

There was no appeal hearing in FY2018.

The members of the Appeals Committee are:

No.	Name	Position	Title
1	Mr Francis Xavier, Senior Counsel, PBM	Chairman	Regional Head, Dispute Resolution, Rajah & Tann Singapore LLP
2	Mr Chan Leng Sun, Senior Counsel	Deputy Chairman	Global Head, International Arbitration, Baker McKenzie
3	Mr Kan Yut Keong, Benjamin	Member	Managing Director, Cornerstone Advisors Pte. Ltd. Audit Committee Chairman, Competition & Consumer Commission of Singapore Member, Securities Industry Council Independent Director, Nam Cheong Limited Former Managing Director, PricewaterhouseCoopers Corporate Finance Pte Ltd Former Partner, PricewaterhouseCoopers Singapore
4	Mr Lim How Teck	Member	Chairman, Redwood International Pte Ltd Chairman, Heliconia Capital Management Pte. Ltd. Chairman, ARA-CWT Trust Management (Cache) Limited Chairman, NauticAWT Limited
5	Mr Quek Suan Kiat	Member	Director, Singapore Accountancy Commission Director, National Environment Agency Former Vice Chairman, Barclays Bank Plc Singapore Branch
6	Mr Michael Smith	Member	Regional Chief Executive Officer, Europe and USA, Mapletree Investments Pte Ltd

# Financials

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# Directors' Statement

For the financial year ended 30 June 2018

The directors present their statement to the shareholders together with the audited financial statements of Singapore Exchange Limited ("the Company" or "SGX") and its subsidiaries ("the Group") for the financial year ended 30 June 2018.

In the opinion of the directors,

- (a) the financial statements set out on pages 108 to 168 are drawn up so as to give a true and fair view of the financial position of the Group and of the Company as at 30 June 2018 and the financial performance, changes in equity of the Group and of the Company, and the cash flows of the Group for the financial year ended on that date; and
- (b) at the date of this statement, there are reasonable grounds to believe that the Company will be able to pay its debts as and when they fall due.

## Directors

The directors of the Company in office at the date of this statement are as follows:

<b>Mr Kwa Chong Seng</b>	(Chairman)
<b>Mr Loh Boon Chye</b>	(Chief Executive Officer)
<b>Mr Thaddeus Beczak</b>	
<b>Ms Chew Gek Khim</b>	
<b>Ms Jane Diplock AO</b>	
<b>Mr Kevin Kwok</b>	
<b>Mr Liew Mun Leong</b>	
<b>Mr Lim Chin Hu</b>	(Appointed on 21 September 2017)
<b>Ms Lim Sok Hui (Mrs Chng Sok Hui)</b>	
<b>Mr Ng Kok Song</b>	

## Arrangements to enable directors to acquire shares and debentures

Neither at the end of nor at any time during the financial year was the Company a party to any arrangement whose object was to enable the directors of the Company to acquire benefits by means of an acquisition of shares in, or debentures of, the Company or any other body corporate, other than as disclosed under "Share plans" in this statement.

## Directors' interests in shares or debentures

- (a) According to the register of directors' shareholdings, none of the directors holding office at the end of the financial year had any interest in the shares or debentures of the Company or its related corporations, except as follows:

	Number of ordinary shares registered in name of director or nominee		Number of ordinary shares in which director is deemed to have an interest	
	At 30.06.2018	At 01.07.2017 or date of appointment	At 30.06.2018	At 01.07.2017 or date of appointment
<u>Singapore Exchange Limited</u>				
Mr Kwa Chong Seng	<b>20,000</b>	20,000	—	—
Mr Kevin Kwok	<b>70,000</b>	70,000	<b>70,000</b>	70,000
Mr Lim Chin Hu	<b>20,000</b>	10,000	—	—

- (b) According to the register of directors' shareholdings, one director holding office at the end of the financial year had interests in the shares of the Company granted pursuant to SGX Performance Share Plan and SGX Deferred Long-Term Incentives Scheme as set out below:

Subject to the terms and conditions of the SGX Performance Share Plan and SGX Deferred Long-Term Incentives Scheme, 493,634 shares granted to Loh Boon Chye will vest between 1 September 2018 and 1 September 2021.

- (c) There was no change in any of the abovementioned interests in the Company or in related corporations between the end of the financial year and 21 July 2018.

## Share plans

The Company offers the following share plans to its employees:

- (a) SGX Performance Share Plan
- (b) SGX Deferred Long-Term Incentives Scheme

All share plans are administered by the Remuneration & Staff Development Committee (“RSDC”).

### **(a) SGX Performance Share Plan**

The SGX Performance Share Plan was adopted at an extraordinary general meeting of the Company held on 22 September 2005. The share plan known as SGX PSP commenced on the date of adoption and had expired on 21 September 2015. On 23 September 2015, the new share plan, SGX PSP 2015, was adopted to replace SGX PSP.

The SGX Performance Share Plan recognises and rewards past contributions and services, and motivates key senior management to ensure the long-term success of the Company.

#### Eligibility

Selected senior management who have attained the rank of Vice President, job grade 2 and above are eligible to participate in the SGX Performance Share Plan.

The RSDC may determine to grant a reward, wholly or partly, in the form of SGX shares, which will be free of charge, or in the form of cash. The amount released, if in the form of cash, is based on the market value of such shares on vesting date.

Unless otherwise decided by the RSDC, the entitlement to this award is conditional on the participant remaining in service up to the specified vesting date.

#### Restrictions

The total number of new SGX shares which may be issued pursuant to awards granted under SGX PSP or SGX PSP 2015 on any date, when added to the total number of new shares issued and issuable in respect of all awards granted under SGX PSP or SGX PSP 2015, shall not exceed 10% of SGX's issued share capital on the day preceding the relevant date of award.

For grants under SGX PSP, participants are required to retain 50% of the total number of shares that are released to them for at least one calendar year from the vesting date. As for grants under SGX PSP 2015, the vesting period has been extended to four years (instead of three years) and with that, any shares that have been released to the participants are no longer subject to a retention period.

#### Share grant and vesting

The RSDC approves all grants relating to SGX PSP and SGX PSP 2015, and has absolute discretion in the granting and award of performance shares.

##### *(i) FY2015 Grants under SGX PSP*

There were two grants in FY2015 under SGX PSP. The number of SGX shares to be awarded to each participant will be based on the achievement of prescribed performance targets over a three-year performance period. The first grant of 687,300 SGX shares granted on 15 August 2014 is based on achievement of prescribed performance targets from 1 July 2014 to 30 June 2017. The second grant of 124,300 SGX shares granted to Mr Magnus Böcker on 30 June 2015 is based on achievement of prescribed performance targets from 1 July 2015 to 30 June 2018. The performance shares for the first grant vested on 1 September 2017 and the second grant vested to the estate of Mr Magnus Böcker on 1 June 2018 in accordance with RSDC's approval. Both grants were fulfilled by the delivery of shares previously purchased from market.

## Directors' Statement

For the financial year ended 30 June 2018

### Share plans (continued)

#### (a) SGX Performance Share Plan (continued)

##### Share grant and vesting (continued)

###### (i) FY2015 Grants under SGX PSP (continued)

The details of shares granted to the participants are as follows:

Participants (as defined under SGX Performance Share Plan)	Shares granted at grant date	Balance as at 01.07.2017	Shares lapsed during financial year	Shares vested during financial year <sup>(1)</sup>	Balance as at 30.06.2018
<b>Executive Management Committee (EMCO) members</b>					
Mr Muthukrishnan Ramaswami <sup>(3)</sup>	61,200	61,200	(43,800)	(17,400)	–
Mr Chew Sutat <sup>(3)</sup>	43,200	43,200	(30,900)	(12,300)	–
Mr Chng Lay Chew	34,200	34,200	(24,500)	(9,700)	–
Mr Syn Hsien-Min Michael	27,400	27,400	(19,600)	(7,800)	–
Mr Arulraj Maria Devadoss	21,600	21,600	(15,400)	(6,200)	–
Ms Agnes Koh	15,300	15,300	(10,900)	(4,400)	–
Ms Tinku Gupta	14,400	14,400	(10,300)	(4,100)	–
<b>Other staff</b>	223,500	187,900	(134,500)	(53,400)	–
<b>Other participants</b>					
Mr Magnus Böcker <sup>(3)(6)</sup>	268,400	268,400	(191,900)	(76,500)	–
Mr Timothy Utama <sup>(3)(4)</sup>	45,000	–	–	–	–
Mr Robert Ian Caisley <sup>(5)</sup>	31,500	–	–	–	–
Mr Richard Teng Wee Chen <sup>(7)</sup>	25,900	–	–	–	–
	<b>811,600</b>	<b>673,600</b>	<b>(481,800)</b>	<b>(191,800)</b>	<b>–</b>

Refer to footnotes on page 99.

###### (ii) FY2016 Grant under SGX PSP 2015

The number of SGX shares to be awarded to each participant will be based on the achievement of prescribed performance targets over a three-year performance period from 1 July 2015 to 30 June 2018. The performance shares will vest on 1 September 2019.

The details of shares granted to the participants are as follows:

Participants (as defined under SGX Performance Share Plan)	Shares granted at grant date	Balance as at 01.07.2017	Shares lapsed during financial year	Balance as at 30.06.2018 <sup>(2)</sup>
<b>EMCO members</b>				
Mr Muthukrishnan Ramaswami <sup>(3)</sup>	53,600	53,600	–	53,600
Mr Chew Sutat <sup>(3)</sup>	37,800	37,800	–	37,800
Mr Syn Hsien-Min Michael <sup>(3)</sup>	34,700	34,700	–	34,700
Mr Chng Lay Chew	22,800	22,800	–	22,800
Ms Agnes Koh	15,100	15,100	–	15,100
Mr Arulraj Maria Devadoss	14,200	14,200	–	14,200
Ms Tinku Gupta	13,200	13,200	–	13,200
<b>Other staff</b>	264,600	234,900	(34,700)	200,200
<b>Other participants</b>				
Mr Timothy Utama <sup>(3)(4)</sup>	31,500	–	–	–
	<b>487,500</b>	<b>426,300</b>	<b>(34,700)</b>	<b>391,600</b>

Refer to footnotes on page 99.

*(iii) FY2017 Grant under SGX PSP 2015*

The number of SGX shares to be awarded to each participant will be based on the achievement of prescribed performance targets, over a three-year performance period from 1 July 2016 to 30 June 2019. The performance shares will vest on 1 September 2020.

The details of shares granted to the participants are as follows:

Participants (as defined under SGX Performance Share Plan)	Shares granted at grant date	Balance as at 01.07.2017	Shares lapsed during financial year	Balance as at 30.06.2018 <sup>(2)</sup>
<b>EMCO members</b>				
Mr Loh Boon Chye <sup>(3)</sup>	133,100	133,100	—	133,100
Mr Muthukrishnan Ramaswami <sup>(3)</sup>	59,900	59,900	—	59,900
Mr Chew Sutat <sup>(3)</sup>	41,600	41,600	—	41,600
Mr Syn Hsien-Min Michael <sup>(3)</sup>	39,900	39,900	—	39,900
Mr Chng Lay Chew	25,800	25,800	—	25,800
Mr Tan Boon Gin	25,800	25,800	—	25,800
Ms Agnes Koh	21,600	21,600	—	21,600
Ms Tinku Gupta	16,000	16,000	—	16,000
Mr Arulraj Maria Devadoss	15,000	15,000	—	15,000
<b>Other staff</b>	280,100	261,900	(36,000)	225,900
	<b>658,800</b>	<b>640,600</b>	<b>(36,000)</b>	<b>604,600</b>

Refer to footnotes on page 99.

*(iv) FY2018 Grant under SGX PSP 2015*

The number of SGX shares to be awarded to each participant will be based on the achievement of prescribed performance targets, over a three-year performance period from 1 July 2017 to 30 June 2020. The performance shares will vest on 1 September 2021.

The details of shares granted to the participants are as follows:

Participants (as defined under SGX Performance Share Plan)	Shares granted during the financial year	Shares lapsed during financial year	Balance as at 30.06.2018 <sup>(2)</sup>
<b>EMCO members</b>			
Mr Loh Boon Chye <sup>(3)</sup>	135,900	—	135,900
Mr Muthukrishnan Ramaswami <sup>(3)</sup>	57,800	—	57,800
Mr Chew Sutat <sup>(3)</sup>	42,500	—	42,500
Mr Syn Hsien-Min Michael <sup>(3)</sup>	36,700	—	36,700
Mr Tan Boon Gin <sup>(3)</sup>	34,000	—	34,000
Mr Chng Lay Chew	26,300	—	26,300
Ms Agnes Koh	22,100	—	22,100
Ms Tinku Gupta	22,100	—	22,100
Mr Arulraj Maria Devadoss	16,100	—	16,100
<b>Other staff</b>	264,700	(36,600)	228,100
	<b>658,200</b>	<b>(36,600)</b>	<b>621,600</b>

Refer to footnotes on page 99.

## Directors' Statement

For the financial year ended 30 June 2018

### Share plans (continued)

#### (a) SGX Performance Share Plan (continued)

##### Share grant and vesting (continued)

###### (v) Summary of SGX Performance Share Plan under SGX PSP

The summary of the total number of shares granted, lapsed, vested and outstanding as at 30 June 2018 are as follows:

	Shares granted during financial year	Aggregate shares granted since commencement of SGX Performance Share Plan to 30.06.2018	Aggregate shares lapsed since commencement of SGX Performance Share Plan to 30.06.2018	Aggregate shares vested since commencement of SGX Performance Share Plan to 30.06.2018	Aggregate shares outstanding as at 30.06.2018
<b>Participants who received more than 5% of the total grants available</b>					
Mr Hsieh Fu Hua <sup>(11)</sup>	–	2,712,485	(676,900)	(2,035,585)	–
Mr Magnus Böcker <sup>(6)</sup>	–	1,149,300	(723,300)	(426,000)	–
Mr Gan Seow Ann <sup>(9)</sup>	–	902,100	(357,500)	(544,600)	–
Ms Yeo Lian Sim <sup>(8)</sup>	–	855,700	(339,300)	(516,400)	–
Mr Seck Wai Kwong <sup>(10)</sup>	–	845,600	(335,900)	(509,700)	–
Mr Muthukrishnan Ramaswami	–	698,500	(453,400)	(245,100)	–
<b>Participants who received less than 5% of the total grants available</b>					
Other staff	–	6,662,850	(3,567,900)	(3,094,950)	–
	–	<b>13,826,535</b>	<b>(6,454,200)</b>	<b>(7,372,335)</b>	–

Refer to footnotes on page 99.

###### (vi) Summary of SGX Performance Share Plan under SGX PSP 2015

The summary of the total number of shares granted, lapsed, vested and outstanding as at 30 June 2018 are as follows:

	Shares granted during financial year	Aggregate shares granted since commencement of SGX Performance Share Plan to 30.06.2018	Aggregate shares lapsed since commencement of SGX Performance Share Plan to 30.06.2018	Aggregate shares vested since commencement of SGX Performance Share Plan to 30.06.2018	Aggregate shares outstanding as at 30.06.2018
<b>Participants who received more than 5% of the total grants available</b>					
Mr Loh Boon Chye	135,900	269,000	–	–	269,000
Mr Muthukrishnan Ramaswami	57,800	171,300	–	–	171,300
Mr Chew Sutat	42,500	121,900	–	–	121,900
Mr Syn Hsien-Min Michael	36,700	111,300	–	–	111,300
<b>Participants who received less than 5% of the total grants available</b>					
Other staff	385,300	1,131,000	(186,700)	–	944,300
	<b>658,200</b>	<b>1,804,500</b>	<b>(186,700)</b>	<b>–</b>	<b>1,617,800</b>

No shares were granted to employees of Associated Company (as defined under the SGX Performance Share Plan) since the commencement of SGX Performance Share Plan.

- (<sup>1</sup>) The number of shares vested during the financial year for FY2015 Grant under SGX PSP represents the level of achievement against the performance conditions. Overall achievement for the grant was 28.5%. The number of shares vested to each participant is rounded to the nearest hundred shares.
- (<sup>2</sup>) Represents the number of shares required if participants are to be awarded at 100% of the grant. However, the shares to be awarded at the vesting date may range from 0% to 150% of the grant, depending on the level of achievement against the performance conditions.
- (<sup>3</sup>) Received more than 5% of the shares granted.
- (<sup>4</sup>) Mr Timothy Utama resigned as SGX's Chief Operations and Technology Officer and his last day of service was 31 March 2016. All his unvested shares lapsed at the end of his employment.
- (<sup>5</sup>) Mr Robert Ian Caisley resigned as SGX's Chief Information Officer and his last day of service was 31 December 2015. All his unvested shares lapsed at the end of his employment.
- (<sup>6</sup>) Mr Magnus Böcker's contract as the Chief Executive Officer ended on 30 June 2015. Under his contract, he was eligible to receive the grant at the vesting date, subject to the level of achievement against the performance conditions.
- (<sup>7</sup>) Mr Richard Teng Wee Chen resigned as SGX's Chief Regulatory Officer and his last day of service was 28 February 2015. All his unvested shares lapsed at the end of his employment.
- (<sup>8</sup>) Ms Yeo Lian Sim retired from her position as SGX's Chief Regulatory & Risk Officer and her last day of service was 31 December 2013.
- (<sup>9</sup>) Mr Gan Seow Ann resigned as SGX's Co-President and his last day of service was 26 May 2012.
- (<sup>10</sup>) Mr Seck Wai Kwong resigned as SGX's Chief Financial Officer and his last day of service was 10 June 2011.
- (<sup>11</sup>) Mr Hsieh Fu Hua was SGX's former Chief Executive Officer and his contract ended on 30 November 2009.

#### **(b) SGX Deferred Long-Term Incentives Scheme**

The SGX Deferred Long-Term Incentives Scheme was approved by the RSDC in July 2006. It recognises past contributions and services, and strengthens the Company's ability to reward and retain high-performing executives and key senior employees.

##### **Eligibility**

Selected executives who have attained the rank of Assistant Vice President and above are eligible to be considered for the award under the SGX Deferred Long-Term Incentives Scheme.

The RSDC may determine to grant an award, wholly or partly, in the form of SGX shares, which will be free of charge, or in the form of cash. The amount released, if in the form of cash, is based on the market value of such shares on vesting date.

Unless otherwise decided by the RSDC, the entitlement to the award is conditional on the recipient remaining in service up to the specified vesting date.

##### **Share award and vesting**

###### *(i) FY2015 Award*

There were two awards in FY2015 in the form of SGX shares. The first award of 1,159,500 SGX shares was awarded on 15 August 2014 which vested in three equal instalments over a period of three years with the first instalment vested on 1 September 2015 and the final installment vested on 1 September 2017. The second award of 124,300 SGX shares was awarded to Mr Magnus Böcker on 30 June 2015 which vested in three equal instalments over a period of three years with the first instalment vested on 1 September 2016 and the final instalment vested on 1 June 2018. The final instalment was vested to the estate of Mr Magnus Böcker on 1 June 2018 in accordance with RSDC's approval.

## Directors' Statement

For the financial year ended 30 June 2018

### Share plans (continued)

#### (b) SGX Deferred Long-Term Incentives Scheme (continued)

##### Share award and vesting (continued)

###### (i) FY2015 Award (continued)

The details of shares awarded are as follows:

Recipients (as defined under SGX Deferred Long-Term Incentives Scheme)	Shares awarded at grant date	Balance as at 01.07.2017	Shares vested during financial year	Balance as at 30.06.2018
<b>EMCO members</b>				
Mr Muthukrishnan Ramaswami	61,200	20,400	(20,400)	–
Mr Chew Sutat	43,200	14,400	(14,400)	–
Mr Chng Lay Chew	34,200	11,400	(11,400)	–
Mr Syn Hsien-Min Michael	27,400	9,134	(9,134)	–
Mr Arulraj Maria Devadoss	21,600	7,200	(7,200)	–
Ms Agnes Koh	15,300	5,100	(5,100)	–
Ms Tinku Gupta	14,400	4,800	(4,800)	–
<b>Other staff</b>	695,700	201,800	(201,800)	–
<b>Other recipients</b>				
Mr Magnus Böcker <sup>(1)(4)</sup>	268,400	130,901	(130,901)	–
Mr Timothy Utama <sup>(2)</sup>	45,000	15,000	(15,000)	–
Mr Robert Ian Caisley <sup>(3)</sup>	31,500	–	–	–
Mr Richard Teng Wee Chen <sup>(5)</sup>	25,900	–	–	–
	<b>1,283,800</b>	<b>420,135</b>	<b>(420,135)</b>	<b>–</b>

Refer to footnotes on page 102.

###### (ii) FY2016 Award

The FY2016 Award was in the form of SGX shares. The award will vest in three equal instalments over a period of three years with the first instalment vested on 1 September 2016.

The details of shares awarded are as follows:

Recipients (as defined under SGX Deferred Long-Term Incentives Scheme)	Shares awarded at grant date	Balance as at 01.07.2017	Shares lapsed during financial year	Shares vested during financial year	Balance as at 30.06.2018
<b>EMCO members</b>					
Mr Muthukrishnan Ramaswami <sup>(1)</sup>	53,600	35,734	–	(17,866)	17,868
Mr Chew Sutat	37,800	25,200	–	(12,600)	12,600
Mr Syn Hsien-Min Michael	34,700	23,134	–	(11,566)	11,568
Mr Chng Lay Chew	22,800	15,200	–	(7,600)	7,600
Ms Agnes Koh	15,100	10,067	–	(5,033)	5,034
Mr Arulraj Maria Devadoss	14,200	9,467	–	(4,733)	4,734
Ms Tinku Gupta	13,200	8,800	–	(4,400)	4,400
<b>Other staff</b>	706,500	424,036	(18,172)	(211,298)	194,566
<b>Other recipients</b>					
Mr Timothy Utama <sup>(2)</sup>	31,500	21,000	–	(10,500)	10,500
Mr Robert Ian Caisley <sup>(3)</sup>	26,800	–	–	–	–
	<b>956,200</b>	<b>572,638</b>	<b>(18,172)</b>	<b>(285,596)</b>	<b>268,870</b>

Refer to footnotes on page 102.

*(iii) FY2017 Award*

The FY2017 Award was in the form of SGX shares. The award will vest in three equal instalments over a period of three years with the first instalment vested on 1 September 2017.

The details of shares awarded are as follows:

<b>Recipients (as defined under SGX Deferred Long-Term Incentives Scheme)</b>	<b>Shares awarded at grant date</b>	<b>Balance as at 01.07.2017</b>	<b>Shares lapsed during financial year</b>	<b>Shares vested during financial year</b>	<b>Balance as at 30.06.2018</b>
<b>EMCO members</b>					
Mr Loh Boon Chye <sup>(1)</sup>	133,100	133,100	–	(44,366)	88,734
Mr Muthukrishnan Ramaswami <sup>(1)</sup>	59,900	59,900	–	(19,966)	39,934
Mr Chew Sutat	41,600	41,600	–	(13,866)	27,734
Mr Syn Hsien-Min Michael	39,900	39,900	–	(13,300)	26,600
Mr Chng Lay Chew	25,800	25,800	–	(8,600)	17,200
Mr Tan Boon Gin	25,800	25,800	–	(8,600)	17,200
Ms Agnes Koh	21,600	21,600	–	(7,200)	14,400
Ms Tinku Gupta	16,000	16,000	–	(5,333)	10,667
Mr Arulraj Maria Devadoss	15,000	15,000	–	(5,000)	10,000
<b>Other staff</b>	<b>737,000</b>	<b>696,400</b>	<b>(34,135)</b>	<b>(231,226)</b>	<b>431,039</b>
	<b>1,115,700</b>	<b>1,075,100</b>	<b>(34,135)</b>	<b>(357,457)</b>	<b>683,508</b>

Refer to footnotes on page 102.

*(iv) FY2018 Award*

The FY2018 Award was in the form of SGX shares. The award will vest in three equal instalments over a period of three years with the first instalment vesting on 1 September 2018.

The details of shares awarded are as follows:

<b>Recipients (as defined under SGX Deferred Long-Term Incentives Scheme)</b>	<b>Shares awarded during financial year</b>	<b>Shares lapsed during financial year</b>	<b>Balance as at 30.06.2018</b>
<b>EMCO members</b>			
Mr Loh Boon Chye <sup>(1)</sup>	135,900	–	135,900
Mr Muthukrishnan Ramaswami	57,800	–	57,800
Mr Chew Sutat	42,500	–	42,500
Mr Syn Hsien-Min Michael	36,700	–	36,700
Mr Tan Boon Gin	34,000	–	34,000
Mr Chng Lay Chew	26,300	–	26,300
Ms Agnes Koh	22,100	–	22,100
Ms Tinku Gupta	22,100	–	22,100
Mr Arulraj Maria Devadoss	16,100	–	16,100
<b>Other staff</b>	<b>780,500</b>	<b>(37,500)</b>	<b>743,000</b>
	<b>1,174,000</b>	<b>(37,500)</b>	<b>1,136,500</b>

Refer to footnotes on page 102.

## Directors' Statement

For the financial year ended 30 June 2018

### Share plans (continued)

#### (b) SGX Deferred Long-Term Incentives Scheme (continued)

##### Share award and vesting (continued)

###### (v) Summary of SGX Deferred Long-Term Incentives Scheme

The summary of the total number of shares awarded, lapsed, vested and outstanding as at 30 June 2018 are as follows:

	Shares awarded during financial year	Aggregate shares awarded since commencement of SGX Deferred Long-Term Incentives Scheme to 30.06.2018	Aggregate shares lapsed since commencement of SGX Deferred Long-Term Incentives Scheme to 30.06.2018	Aggregate shares vested since commencement of SGX Deferred Long-Term Incentives Scheme to 30.06.2018	Aggregate shares outstanding as at 30.06.2018
<b>Recipient who received more than 5% of the total awards available</b>					
Mr Magnus Böcker <sup>(4)</sup>	–	604,000	–	(604,000)	–
<b>Recipients who received less than 5% of the total awards available</b>					
Other staff	1,174,000	8,545,000	(860,026)	(5,596,096)	2,088,878
	<b>1,174,000</b>	<b>9,149,000</b>	<b>(860,026)</b>	<b>(6,200,096)</b>	<b>2,088,878</b>

<sup>(1)</sup> Received more than 5% of the shares awarded.

<sup>(2)</sup> Mr Timothy Utama resigned as SGX's Chief Operations and Technology Officer and his last day of service was 31 March 2016. As approved by the RSDC, he will continue to be eligible to receive the award at the vesting date.

<sup>(3)</sup> Mr Robert Ian Caisley resigned as SGX's Chief Information Officer and his last day of service was 31 December 2015. All his unvested shares lapsed at the end of his employment.

<sup>(4)</sup> Mr Magnus Böcker's contract as the Chief Executive Officer ended on 30 June 2015. Under his contract, he was eligible to receive the award at the vesting date.

<sup>(5)</sup> Mr Richard Teng Wee Chen resigned as SGX's Chief Regulatory Officer and his last day of service was 28 February 2015. All his unvested shares lapsed at the end of his employment.

## Audit Committee

The Audit Committee comprises the following Non-Executive Directors at the date of this statement:

Mr Kevin Kwok (Chairman)  
Ms Jane Diplock AO  
Mr Liew Mun Leong

Based on the criteria prescribed in both the Securities and Futures (Corporate Governance of Approved Exchanges, Approved Clearing Houses and Approved Holding Companies) Regulations 2005 (SFR 2005) and the Code of Corporate Governance 2012 (CCG 2012), all the Audit Committee members are independent.

The Audit Committee carried out its functions in accordance with Section 201B(5) of the Singapore Companies Act, Regulation 14(2) of the SFR 2005, the CCG 2012, and the SGX-ST Listing Manual. These functions include a review of the financial statements of the Company and of the Group for the financial year and the independent auditor's report thereon.

Accordingly, the Audit Committee has also undertaken a review of the nature and extent of non-audit services provided by the firm acting as the auditor. In the opinion of the Audit Committee, these services would not affect the independence of the auditor.

The Audit Committee has recommended to the Board that the independent auditor, PricewaterhouseCoopers LLP be nominated for re-appointment at the forthcoming Annual General Meeting.

In appointing the auditor of the Company and the subsidiaries, the Group has complied with Rule 712 and Rule 715 of the SGX-ST Listing Manual. The Group has no significant associated company.

## Independent auditor

The independent auditor, PricewaterhouseCoopers LLP, has expressed its willingness to accept re-appointment.

On behalf of the directors



Mr Kwa Chong Seng

Director

27 July 2018



Mr Loh Boon Chye

Director

Performance Overview

Group Overview

Value Creation & Sustainability

Governance

Financials

Others

# Independent Auditor's Report

To the Members of Singapore Exchange Limited

## Report on the Audit of the Financial Statements

### Our Opinion

In our opinion, the accompanying financial statements of Singapore Exchange Limited (the "Company") and its subsidiaries (the "Group") are properly drawn up in accordance with the provisions of the Companies Act, Chapter 50 (the "Act") and Financial Reporting Standards in Singapore ("FRSs") so as to give a true and fair view of the financial position of the Group and of the Company as at 30 June 2018, and of the financial performance and changes in equity of the Group and of the Company, and the cash flows of the Group for the financial year ended on that date.

### What we have audited

The financial statements of the Group and the Company comprise:

- the statements of comprehensive income of the Group and of the Company for the year ended 30 June 2018;
- the statements of financial position of the Group and of the Company as at 30 June 2018;
- the statements of changes in equity of the Group and of the Company for the year then ended;
- the statement of cash flows of the Group for the year then ended; and
- the notes to the financial statements, including a summary of significant accounting policies.

### Basis for Opinion

We conducted our audit in accordance with Singapore Standards on Auditing ("SSAs"). Our responsibilities under those standards are further described in the *Auditor's Responsibilities for the Audit of the Financial Statements* section of our report.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

### Independence

We are independent of the Group in accordance with the Accounting and Corporate Regulatory Authority Code of Professional Conduct and Ethics for Public Accountants and Accounting Entities ("ACRA Code") together with the ethical requirements that are relevant to our audit of the financial statements in Singapore, and we have fulfilled our other ethical responsibilities in accordance with these requirements and the ACRA Code.

### Our Audit Approach

#### Overview

<b>Materiality</b>	The overall group materiality that we used amounted to \$20 million, being approximately 5% of profit before tax for the financial year ended 30 June 2018. In determining materiality, both quantitative and qualitative factors were considered.
<b>Audit Scope</b>	Audit procedures were performed over the complete financial information of the Company and the subsidiaries that are significant to the Group ("significant components").
<b>Key audit matters</b>	Impairment assessment of goodwill relating to Energy Market Company Pte Ltd ("EMC") and intangible assets relating to EMC and Baltic Exchange Limited ("BEL")

As part of designing our audit, we determined materiality and assessed the risks of material misstatement in the accompanying financial statements. In particular, we considered where management made subjective judgements; for example, in respect of significant accounting estimates that involved making assumptions and considering future events that are inherently uncertain. As in all of our audits, we also addressed the risk of management override of internal controls, including among other matters consideration of whether there was evidence of bias that represented a risk of material misstatement due to fraud.

## Materiality

The scope of our audit was influenced by our application of materiality. An audit is designed to obtain reasonable assurance whether the financial statements of the Group are free from material misstatement. Misstatements may arise due to fraud or error. They are considered material if individually or in aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of the financial statements of the Group.

Based on our professional judgement, we determined certain quantitative thresholds for materiality. These, together with qualitative considerations, helped us to determine the scope of our audit and the nature, timing and extent of our audit procedures and to evaluate the effect of misstatements, both individually and in aggregate, on the financial statements as a whole. We determined overall materiality for the financial statements of the Group as a whole to be \$20 million, being approximately 5% of profit before tax. We chose profit before tax as the benchmark because, in our view, it reflects the underlying performance of the Group and it is one of the benchmarks that is commonly used by the users of financial statements in evaluating the performance of the Group. In performing our audit, we allocated materiality levels, which are less than the overall group materiality, to the significant components.

We agreed with the Audit Committee that we would report to them misstatements identified during our audit above \$1 million as well as misstatements below that amount that, in our view, warranted reporting for qualitative reasons.

## Audit Scope

We tailored the scope of our audit in order to perform sufficient work to enable us to provide an opinion on the financial statements of the Group as a whole, taking into account the structure of the Group, the accounting processes and controls and the industry in which the Group operates. The Group's financial reporting process is dependent on its IT systems. Our audit scope included testing the operating effectiveness of the controls over the integrity of key financial data processed through the IT systems that are relevant to financial reporting.

We audited the complete financial information of the Company and each of the significant components. This, together with the audit procedures performed at the Group level over group consolidation, goodwill, intangible assets, taxation and disclosures in the financial statements, gave us the evidence we needed for our opinion on the financial statements as a whole.

## Key Audit Matters

Key audit matters are those matters that, in our professional judgement, were of most significance in our audit of the financial statements for the financial year ended 30 June 2018. These matters were addressed in the context of our audit of the financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

Key Audit Matter	How our audit addressed the key audit matter
<u>Impairment assessment of goodwill relating to Energy Market Company Pte Ltd ("EMC") and intangible assets relating to EMC and Baltic Exchange Limited ("BEL")</u>  As at 30 June 2018, the goodwill and intangible asset (right to operate the Singapore electricity spot market) arising from the acquisition of EMC amounted to \$9,614,000 and \$23,748,000 respectively and they were allocated to EMC Cash Generating Unit ("CGU"). Baltic trade name ("trade name") arising from the acquisition of BEL amounted to \$37,680,000 at 30 June 2018 and was part of BEL CGU.  Management is required to perform an impairment assessment of goodwill annually and assess whether there is any indication that the intangible assets may be impaired. The recoverable amounts of the CGUs are compared with the carrying amounts of the CGUs to determine whether there is any impairment loss.  We focused on these areas because of the significant management judgements required in the impairment assessment, including estimating the future cash flows, long term growth rates and discount rate.  Refer to Note 3 – Critical accounting estimates and judgements, Note 19 – Intangible assets and Note 20 – Goodwill for disclosures relating to the impairment assessment.	We evaluated the reasonableness of management's estimate of future cash flows by taking into consideration the past performance and market developments.  With the assistance of our valuation specialists, we assessed the reasonableness of the rates used by management, i.e. long term growth rate and discount rate.  We found the estimate of future cash flows and the rates used to be reasonable.  We performed sensitivity analysis to assess the impact on the recoverable amount of the CGU by reasonable possible changes to the long term growth rate and discount rate. We found that reasonable changes in these rates did not result in impairment loss.

## **Independent Auditor's Report**

To the Members of Singapore Exchange Limited

### **Other Information**

Management is responsible for the other information. The other information comprises the Directors' Statement (but does not include the financial statements and our auditor's report thereon), which we obtained prior to the date of this auditor's report, and the other sections of the annual report ("the Other Sections"), which are expected to be made available to us after that date.

Our opinion on the financial statements does not cover the other information and we do not and will not express any form of assurance conclusion thereon.

In connection with our audit of the financial statements, our responsibility is to read the other information identified above and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the audit, or otherwise appears to be materially misstated.

If, based on the work we have performed on the other information that we obtained prior to the date of this auditor's report, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

When we read the Other Sections, if we conclude that there is a material misstatement therein, we are required to communicate the matter to those charged with governance and take appropriate actions in accordance with SSAs.

### **Responsibilities of Management and Directors for the Financial Statements**

Management is responsible for the preparation of financial statements that give a true and fair view in accordance with the provisions of the Act and FRSs, and for devising and maintaining a system of internal accounting controls sufficient to provide a reasonable assurance that assets are safeguarded against loss from unauthorised use or disposition; and transactions are properly authorised and that they are recorded as necessary to permit the preparation of true and fair financial statements and to maintain accountability of assets.

In preparing the financial statements, management is responsible for assessing the Group's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Group or to cease operations, or has no realistic alternative but to do so.

The directors' responsibilities include overseeing the Group's financial reporting process.

### **Auditor's Responsibilities for the Audit of the Financial Statements**

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with SSAs will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

## Auditor's Responsibilities for the Audit of the Financial Statements (continued)

As part of an audit in accordance with SSAs, we exercise professional judgement and maintain professional scepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Group's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the financial statements of the Group. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.

We communicate with the directors regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide the directors with a statement that we have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

From the matters communicated with the directors, we determine those matters that were of most significance in the audit of the financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

## Report on Other Legal and Regulatory Requirements

In our opinion, the accounting and other records required by the Act to be kept by the Company and by those subsidiary corporations incorporated in Singapore of which we are the auditors have been properly kept in accordance with the provisions of the Act.

The engagement partner on the audit resulting in this independent auditor's report is Mrs Deborah Ong (Ms Deborah Tan Yang Sock).

*Deborah Ong*

PricewaterhouseCoopers LLP  
Public Accountants and Chartered Accountants

Singapore, 27 July 2018

# Statements of Comprehensive Income

For the financial year ended 30 June 2018

	Note	The Group		The Company	
		2018 \$'000	2017 \$'000	2018 \$'000	2017 \$'000
<b>Operating revenue</b>					
Equities and Fixed Income	4	<b>406,600</b>	404,521	<b>2,615</b>	8,782
Derivatives	4	<b>339,812</b>	303,051	—	—
Market Data and Connectivity	4	<b>98,266</b>	93,242	<b>24,244</b>	21,762
Management fees from subsidiaries		—	—	<b>193,748</b>	199,642
Dividends from subsidiaries		—	—	<b>349,300</b>	378,500
<b>Operating revenue</b>		<b>844,678</b>	800,814	<b>569,907</b>	608,686
<b>Operating expenses</b>					
Staff	5	<b>175,743</b>	162,340	<b>108,835</b>	118,940
Technology	6	<b>126,922</b>	123,835	<b>62,151</b>	60,023
Processing and royalties		<b>46,334</b>	45,247	<b>693</b>	896
Premises	7	<b>28,304</b>	26,571	<b>19,306</b>	15,347
Professional fees		<b>12,789</b>	10,131	<b>6,662</b>	8,060
Others	8	<b>29,690</b>	30,873	<b>13,705</b>	17,776
<b>Operating expenses</b>		<b>419,782</b>	398,997	<b>211,352</b>	221,042
<b>Operating profit</b>	9	<b>424,896</b>	401,817	<b>358,555</b>	387,644
<b>Other gains – net</b>	10	<b>11,306</b>	5,655	<b>12,434</b>	3,308
<b>Profit before tax and share of results of associated companies</b>		<b>436,202</b>	407,472	<b>370,989</b>	390,952
Share of results of associated companies	23	<b>1,268</b>	1,412	—	—
<b>Profit before tax</b>		<b>437,470</b>	408,884	<b>370,989</b>	390,952
Tax	25	(74,270)	(69,192)	(3,970)	(3,766)
<b>Net profit after tax</b>		<b>363,200</b>	339,692	<b>367,019</b>	387,186
Attributable to:					
Equity holders of the Company		<b>363,200</b>	339,692	<b>367,019</b>	387,186
<b>Earnings per share based on net profit attributable to the equity holders of the Company (in cents per share)</b>					
– Basic	11	<b>33.9</b>	31.7		
– Diluted	11	<b>33.8</b>	31.6		
	Note	The Group		The Company	
		2018 \$'000	2017 \$'000	2018 \$'000	2017 \$'000
Net profit after tax		<b>363,200</b>	339,692	<b>367,019</b>	387,186
<b>Other comprehensive income</b>					
Items that may be reclassified subsequently to profit or loss:					
<u>Foreign exchange translation</u>					
– Exchange differences arising during the year	25(e)	(108)	4,297	—	—
<u>Cash flow hedges</u>					
– Fair value (losses)/gains arising during the year	25(e)	(1,405)	1,069	(32)	—
– Transferred to profit or loss	25(e)	(1,069)	(2,152)	—	—
<u>Available-for-sale financial assets</u>					
– Fair value gains arising during the year	25(e)	111	—	111	—
<b>Other comprehensive (expense)/income for the financial year, net of tax</b>		(2,471)	3,214	79	—
<b>Total comprehensive income for the financial year</b>		<b>360,729</b>	342,906	<b>367,098</b>	387,186
<b>Total comprehensive income attributable to:</b>					
Equity holders of the Company		<b>360,729</b>	342,906	<b>367,098</b>	387,186

# Statements of Financial Position

As at 30 June 2018

Note	The Group		The Company	
	2018 \$'000	2017 \$'000	2018 \$'000	2017 \$'000
<b>Assets</b>				
<b>Current assets</b>				
Cash and cash equivalents	12	<b>831,587</b>	796,392	<b>413,012</b>
Trade and other receivables	13	<b>826,786</b>	814,701	<b>19,313</b>
Derivative financial instruments	15	<b>40</b>	1,450	—
Available-for-sale financial assets	16	<b>22,003</b>	—	<b>22,003</b>
		<b>1,680,416</b>	<b>1,612,543</b>	<b>454,328</b>
				<b>414,751</b>
<b>Non-current assets</b>				
Available-for-sale financial assets	16	<b>3,648</b>	—	—
Investment property	17	<b>26,234</b>	26,193	—
Property, plant and equipment	17	<b>71,824</b>	80,421	<b>42,941</b>
Software	18	<b>173,799</b>	159,477	<b>35,718</b>
Intangible assets	19	<b>61,428</b>	63,544	—
Goodwill	20	<b>88,628</b>	88,401	—
Club memberships		<b>333</b>	325	<b>333</b>
Investments in subsidiaries	22	—	—	<b>738,840</b>
Investments in associated companies	23	<b>8,628</b>	10,307	<b>4,389</b>
Other receivables	13	—	—	<b>6,104</b>
		<b>434,522</b>	<b>428,668</b>	<b>828,325</b>
				<b>825,063</b>
<b>Total assets</b>		<b>2,114,938</b>	<b>2,041,211</b>	<b>1,282,653</b>
				<b>1,239,814</b>
<b>Liabilities</b>				
<b>Current liabilities</b>				
Trade and other payables	24	<b>890,662</b>	891,566	<b>294,021</b>
Derivative financial instruments	15	<b>1,967</b>	79	<b>39</b>
Taxation	25	<b>82,440</b>	71,398	<b>3,896</b>
Provisions	26	<b>10,963</b>	10,353	<b>7,108</b>
		<b>986,032</b>	<b>973,396</b>	<b>305,064</b>
				<b>332,650</b>
<b>Non-current liabilities</b>				
Trade and other payables	24	—	18	—
Deferred tax liabilities	25	<b>32,674</b>	35,264	<b>6,712</b>
		<b>32,674</b>	<b>35,282</b>	<b>6,712</b>
				<b>6,355</b>
<b>Total liabilities</b>		<b>1,018,706</b>	<b>1,008,678</b>	<b>311,776</b>
				<b>339,005</b>
<b>Net assets</b>		<b>1,096,232</b>	<b>1,032,533</b>	<b>970,877</b>
				<b>900,809</b>
<b>Equity</b>				
<b>Capital and reserves attributable to the Company's equity holders</b>				
Share capital	27	<b>429,236</b>	428,031	<b>429,236</b>
Treasury shares	27	<b>(11,363)</b>	(12,561)	<b>(11,363)</b>
Cash flow hedge reserve		<b>(1,405)</b>	1,069	<b>(32)</b>
Currency translation reserve		<b>2,864</b>	2,972	—
Fair value reserve		<b>111</b>	—	<b>111</b>
Securities clearing fund reserve	30	<b>25,000</b>	25,000	—
Derivatives clearing fund reserve	31	<b>34,021</b>	34,021	—
Share-based payment reserve		<b>15,875</b>	15,448	<b>15,875</b>
Retained profits		<b>441,377</b>	399,460	<b>376,534</b>
Proposed dividends	28	<b>160,516</b>	139,093	<b>160,516</b>
<b>Total equity</b>		<b>1,096,232</b>	<b>1,032,533</b>	<b>970,877</b>
				<b>900,809</b>

# Statements of Changes in Equity

For the financial year ended 30 June 2018

## The Group

	Note	Share capital \$'000	Treasury shares \$'000	Cash flow hedge reserve* \$'000	Currency translation reserve* \$'000	Fair value reserve* \$'000	Securities clearing fund reserve* \$'000	Derivatives clearing fund reserve* \$'000	Share-based payment reserve* \$'000	Retained profits \$'000	Proposed dividends \$'000	Total \$'000
<b>2018</b>												
Balance at 1 July 2017		428,031	(12,561)	1,069	2,972	–	25,000	34,021	15,448	399,460	139,093	1,032,533
Dividends paid											(139,093)	(139,093)
– Financial year 2017												
– Final dividend												
– Financial year 2017												
– Under provision of final dividend											(153)	(153)
– Financial year 2018												
– Interim dividends	28										(160,614)	(160,614)
Proposed dividend												
– Financial year 2018												
– Final dividend	28										(160,516)	160,516
Employee share plans – Value of employee services	5											
Vesting of shares under share-based remuneration plans	27(a)	1,205	9,294	–	–	–	–	–	–	10,926	–	10,926
Purchase of treasury shares	27(a)	–	(8,192)	–	–	–	–	–	–	–	–	(8,192)
Tax effect on treasury shares **	27(a)	–	96	–	–	–	–	–	–	–	–	96
		1,205	1,198	–	–	–	–	–	–	427	(321,283)	21,423
												(297,030)
<b>Total comprehensive income for the financial year</b>		–	–	(2,474)	(108)	111	–	–	–	363,200	–	360,729
<b>Balance at 30 June 2018</b>		<b>429,236</b>	<b>(11,363)</b>	<b>(1,405)</b>	<b>2,864</b>	<b>111</b>	<b>25,000</b>	<b>34,021</b>	<b>15,875</b>	<b>441,377</b>	<b>160,516</b>	<b>1,096,232</b>

\* These reserves are not available for distribution as dividends to the equity holders of the Company.

\*\* The tax effect relates to the deferred tax benefit/(liability) on the difference between consideration paid for treasury shares and variable share-based payment expense.

# Statements of Changes in Equity (continued)

For the financial year ended 30 June 2018

## The Group (continued)

	Note	Share capital \$'000	Treasury shares \$'000	Cash flow hedge reserve* \$'000	Currency translation reserve* \$'000	Securities clearing fund reserve* \$'000	Derivatives clearing fund reserve* \$'000	Share-based payment reserve* \$'000	Retained profits \$'000	Proposed dividends \$'000	Total \$'000
<b>2017</b>											
Balance at 1 July 2016		426,445	(12,855)	2,152	(1,325)	25,000	34,021	17,430	359,631	139,082	989,581
Dividends paid											
- Financial year 2016											
- Final dividend										(139,082)	(139,082)
- Financial year 2016											
- Under provision of final dividend										(164)	(164)
- Financial year 2017											
- Interim dividends	28									(160,606)	(160,606)
Proposed dividend											
- Financial year 2017											
- Final dividend	28									(139,093)	139,093
Employee share plans											
- Value of employee services	5										
Vesting of shares under share-based remuneration plans											
Purchase of treasury shares	27(a)	1,586	9,049	-	-	-	-	(10,635)	-	-	-
Tax effect on treasury shares **	27(a)	-	(8,638)	-	-	-	-	-	-	-	(8,638)
		1,586	(117)	-	-	-	-	-	(1,982)	(299,863)	11
											(299,954)
<b>Total comprehensive income for the financial year</b>		-	-	(1,083)	4,297	-	-	-	339,692	-	342,906
<b>Balance at 30 June 2017</b>		428,031	(12,561)	1,069	2,972	25,000	34,021	15,448	399,460	139,093	1,032,533

\* These reserves are not available for distribution as dividends to the equity holders of the Company.

\*\* The tax effect relates to the deferred tax benefit/(liability) on the difference between consideration paid for treasury shares and variable share-based payment expense.

# Statements of Changes in Equity (continued)

For the financial year ended 30 June 2018

## The Company

	Note	Share capital \$'000	Treasury shares \$'000	Cash flow hedge reserve* \$'000	Fair value reserve* \$'000	Share-based payment reserve* \$'000	Retained profits \$'000	Proposed dividends \$'000	Total \$'000
<b>2018</b>									
<b>Balance at 1 July 2017</b>		<b>428,031</b>	<b>(12,561)</b>	–	–	<b>15,448</b>	<b>330,798</b>	<b>139,093</b>	<b>900,809</b>
Dividends paid									
– Financial year 2017									
– Final dividend									
– Financial year 2017									
– Under provision of final dividend									
– Financial year 2018									
– Interim dividends	28								
Proposed dividend									
– Financial year 2018	28								
– Final dividend	28								
Employee share plans – Value of employee services	5								
Vesting of shares under share-based remuneration plans	27(a)	<b>1,205</b>	<b>9,294</b>	–	–	<b>(10,499)</b>	–	–	–
Purchase of treasury shares	27(a)	–	<b>(8,192)</b>	–	–	–	–	–	<b>(8,192)</b>
Tax effect on treasury shares**	27(a)	–	<b>96</b>	–	–	–	–	–	<b>96</b>
		<b>1,205</b>	<b>1,198</b>	–	–	<b>427</b>	<b>(321,283)</b>	<b>21,423</b>	<b>(297,030)</b>
<b>Total comprehensive income for the financial year</b>		–	–	<b>(32)</b>	<b>111</b>	–	<b>367,019</b>	–	<b>367,098</b>
<b>Balance at 30 June 2018</b>		<b>429,236</b>	<b>(11,363)</b>	<b>(32)</b>	<b>111</b>	<b>15,875</b>	<b>376,534</b>	<b>160,516</b>	<b>970,877</b>
<b>2017</b>									
<b>Balance at 1 July 2016</b>		<b>426,445</b>	<b>(12,855)</b>	–	–	<b>17,430</b>	<b>243,475</b>	<b>139,082</b>	<b>813,577</b>
Dividends paid									
– Financial year 2016									
– Final dividend									
– Financial year 2016									
– Under provision of final dividend									
– Financial year 2017									
– Interim dividends	28								
Proposed dividend									
– Financial year 2017	28								
– Final dividend	28								
Employee share plans – Value of employee services	5								
Vesting of shares under share-based remuneration plans	27(a)	<b>1,586</b>	<b>9,049</b>	–	–	<b>(10,635)</b>	–	–	–
Purchase of treasury shares	27(a)	–	<b>(8,638)</b>	–	–	–	–	–	<b>(8,638)</b>
Tax effect on treasury shares**	27(a)	–	<b>(117)</b>	–	–	–	–	–	<b>(117)</b>
		<b>1,586</b>	<b>294</b>	–	–	<b>(1,982)</b>	<b>(299,863)</b>	<b>11</b>	<b>(299,954)</b>
<b>Total comprehensive income for the financial year</b>		–	–	–	–	–	<b>387,186</b>	–	<b>387,186</b>
<b>Balance at 30 June 2017</b>		<b>428,031</b>	<b>(12,561)</b>	–	–	<b>15,448</b>	<b>330,798</b>	<b>139,093</b>	<b>900,809</b>

\* These reserves are not available for distribution as dividends to the equity holders of the Company.

\*\* The tax effect relates to the deferred tax benefit/(liability) on the difference between consideration paid for treasury shares and variable share-based payment expense.

# Statement of Cash Flows

For the financial year ended 30 June 2018

	Note	<b>The Group</b>	
		<b>2018 \$'000</b>	<b>2017 \$'000</b>
<b>Cash flows from operating activities</b>			
Profit before tax and share of results of associated companies		<b>436,202</b>	407,472
Adjustments for:			
- Depreciation and amortisation	9	<b>60,838</b>	57,694
- Variable share-based payment	5	<b>10,926</b>	8,653
- Loss on disposal of available-for-sale financial asset	10	—	3,961
- Net write-off of property, plant and equipment and software	8	<b>826</b>	51
- Net gain on disposal of property, plant and equipment and software	8	<b>(103)</b>	(122)
- Grant income for property, plant and equipment and software	8	—	(201)
- Interest income	10	<b>(10,021)</b>	(9,387)
- Dividend income from available-for-sale financial assets, current	10	<b>(13)</b>	—
Operating cash flow before working capital change		<b>498,655</b>	468,121
Change in working capital			
- Cash committed for National Electricity Market of Singapore		<b>(5,921)</b>	(7,846)
- Trade and other receivables		<b>(13,721)</b>	121,413
- Trade and other payables		<b>13,090</b>	(136,849)
Cash generated from operations		<b>492,103</b>	444,839
Income tax paid	25(c)	<b>(65,285)</b>	(67,090)
<b>Net cash provided by operating activities</b>		<b>426,818</b>	377,749
<b>Cash flows from investing activities</b>			
Proceeds from disposal of available-for-sale financial assets		—	40,995
Interest received		<b>11,028</b>	7,677
Grant received for property, plant and equipment and software		—	373
Proceeds from disposal of property, plant and equipment and software		<b>103</b>	172
Additional contributions to club memberships		<b>(8)</b>	(38)
Purchase of property, plant and equipment and software		<b>(78,559)</b>	(60,126)
Dividend payment to the former shareholders of a subsidiary		—	(16,535)
Acquisition of a subsidiary, net of cash acquired	21(b)	—	(120,096)
Dividend received from available-for-sale financial assets, current		<b>8</b>	—
Dividend received from associated company		<b>4,941</b>	—
Purchase of available-for-sale financial assets, current		<b>(21,869)</b>	—
Purchase of available-for-sale financial assets, non-current		<b>(3,648)</b>	—
Acquisition of interests in associated companies		<b>(1,499)</b>	—
<b>Net cash used in investing activities</b>		<b>(89,503)</b>	(147,578)
<b>Cash flows from financing activities</b>			
Dividends paid		<b>(299,860)</b>	(299,852)
Purchase of treasury shares	27	<b>(8,192)</b>	(8,638)
<b>Net cash used in financing activities</b>		<b>(308,052)</b>	(308,490)
<b>Net increase/(decrease) in cash and cash equivalents</b>		<b>29,263</b>	(78,319)
Cash and cash equivalents at beginning of financial year	12	<b>520,323</b>	598,083
Effects of currency translation on cash and cash equivalents		<b>11</b>	559
<b>Cash and cash equivalents at end of financial year</b>	12	<b>549,597</b>	520,323

# Notes to the Financial Statements

For the financial year ended 30 June 2018

These notes form an integral part of and should be read in conjunction with the accompanying financial statements.

## 1. General

The Company is incorporated and domiciled in Singapore. On 23 November 2000, the Company was admitted to the Official List of Singapore Exchange Securities Trading Limited ("SGX-ST"). The address of the registered office is:

2 Shenton Way  
#02-02 SGX Centre 1  
Singapore 068804

The principal activities of the Group are to operate an integrated securities exchange and derivatives exchange, related clearing houses and operation of an electricity market in Singapore, as well as provision and distribution of bulk freight market indices and information.

The principal activities of the Company are those of investment holding, treasury management, provision of management and administrative services to related corporations, provision of contract processing and technology connectivity services. The principal activities of the subsidiaries are set out in Note 22 to the financial statements. There has been no significant change in the principal activities of the Company and its subsidiaries during the financial year.

## 2. Significant accounting policies

### (a) Basis of preparation

These financial statements have been prepared in accordance with Singapore Financial Reporting Standards ("FRS") under the historical cost convention except as disclosed in the accounting policies below. The preparation of financial statements in conformity with FRS requires the use of estimates and assumptions, based on management's best knowledge, that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the financial year.

On 1 July 2017, the Group has adopted the following amended FRS which are mandatory for application for the financial year. The adoption did not result in substantial changes to the accounting policies of the Group and the Company and had no significant effect on the amounts reported for the current or prior financial years.

- Amendments to FRS 7: Statement of cash flows (Disclosure initiative)
- Amendments to FRS 12: Income Taxes (Recognition of deferred tax assets for unrealised losses)
- Amendments to FRS 112 Disclosure of Interests in Other Entities (Clarification of the scope of the Standard)

### (b) Group accounting

#### (1) Subsidiaries

##### (i) Consolidation

Subsidiaries are entities over which the Group has control. The Group controls an entity when it is exposed to, or has rights to, variable returns from its involvement with the entity and has the ability to affect those returns through its power over the entity. Subsidiaries are consolidated from the date when control is transferred to the Group and cease to be consolidated on the date when that control ceases.

In preparing the consolidated financial statements, intercompany transactions, balances and unrealised gains and losses on transactions between group companies are eliminated. Unrealised losses are considered an impairment indicator of the asset transferred. Where necessary, adjustments are made to the financial statements of subsidiaries to ensure consistency of accounting policies with those of the Group.

Non-controlling interest is that part of the net results of operations and of net assets of a subsidiary attributable to interests which are not owned directly or indirectly by the equity holders of the Company. They are shown separately in the statement of comprehensive income, statement of changes in equity and statement of financial position of the Group. Total comprehensive income is attributed to the non-controlling interest based on their respective interests in a subsidiary, even if this results in the non-controlling interests having a deficit balance.

Please refer to Note 2(q) for the Company's accounting policy on investments in subsidiaries.

##### (ii) Acquisitions

The acquisition method of accounting is used to account for business combinations by the Group.

The consideration transferred for the acquisition of a subsidiary or business comprises the fair value of the assets transferred, the liabilities incurred and the equity interests issued by the Group. The consideration transferred also includes the fair value of any contingent consideration arrangement and the fair value of any pre-existing equity interest in the subsidiary.

Acquisition-related costs are expensed as incurred. Identifiable assets acquired and liabilities and contingent liabilities assumed in a business combination are, with limited exceptions, measured initially at their fair values at the acquisition date.

On an acquisition-by-acquisition basis, the Group recognises any non-controlling interest

in the acquiree at the date of acquisition either at fair value or at the non-controlling interest's proportionate share of the acquiree's net identifiable assets.

The excess of the consideration transferred, the amount of any non-controlling interest in the acquiree and the acquisition-date fair value of any previous equity interest in the acquiree over the fair value of the net identifiable assets acquired is recorded as goodwill.

Please refer to Note 2(p) for the accounting policy on goodwill.

### *(iii) Disposals*

When a change in the Group's ownership interest in a subsidiary results in a loss of control over the subsidiary, the assets and liabilities of the subsidiary including any goodwill are derecognised. Amounts previously recognised in other comprehensive income in respect of that entity are also reclassified to profit or loss or transferred directly to retained profits if required by a specific FRS.

Any retained interest in the entity is remeasured at fair value. The difference between the carrying amount of the retained interest at the date when control is lost and its fair value is recognised in profit or loss.

## **(2) Associated companies**

Associated companies are entities over which the Group has significant influence, but not control, generally accompanied by a shareholding giving rise to voting rights of 20% and above but not exceeding 50%. Where the voting rights are less than 20%, the presumption that the entity is not an associated company is overcome if the Group has significant influence including representation on the board of directors or participation in policy-making process of the investee.

Investments in associated companies are accounted for in the consolidated financial statements using the equity method of accounting less impairment losses, if any.

### *(i) Acquisitions*

Investments in associated companies are initially recognised at cost. The cost of an acquisition is measured at the fair value of the assets given, equity instruments issued or liabilities incurred or assumed at the date of exchange, plus costs directly attributable to the acquisition. Goodwill on associated companies represents the excess of the cost of acquisition of the associated company over the Group's share of fair value of the identifiable net assets of the associated company and is included in the carrying amount of the investments.

### *(ii) Equity method of accounting*

In applying the equity method of accounting, the Group's share of its associated companies' post-acquisition profits or losses are recognised in profit or loss and its share of post-acquisition other comprehensive income is recognised in other

comprehensive income. These post-acquisition movements and distribution received from associated companies are adjusted against the carrying amounts of the investments. When the Group's share of losses in an associated company equals or exceeds its interest in the associated company, the Group does not recognise further losses, unless it has obligations or has made payments in behalf of the associated company.

Unrealised gains on transactions between the Group and its associated companies are eliminated to the extent of the Group's interest in the associated companies. Unrealised losses are also eliminated unless the transactions provide evidence of an impairment of the assets transferred. Where necessary, adjustments are made to bring the accounting policies in line with those of the Group.

### *(iii) Disposals*

Investments in associated companies are derecognised when the Group loses significant influence. Any retained interest in the entity is remeasured at its fair value. The difference between the carrying amount of the retained interest at the date when significant influence is lost and its fair value and any proceeds on partial disposal, is recognised in profit or loss.

Please refer to Note 2(q) for the Company's accounting policy on investments in associated companies.

## **(c) Currency translation**

### **Functional and presentation currency**

Items included in the financial statements of each entity in the Group are measured using the currency of the primary economic environment in which the entity operates ("functional currency"). The financial statements are presented in Singapore Dollars ("SGD"), which is the functional currency of the Company.

### **Transactions and balances**

Foreign currency transactions are translated into the functional currency using the exchange rates at the dates of transactions. Foreign exchange gains and losses resulting from the settlement of such transactions are recognised in profit or loss.

Foreign currency monetary assets and liabilities are translated into the functional currency at the rates of exchange at the balance sheet date. Currency translation differences are recognised in profit or loss.

Non-monetary items measured at fair values in foreign currencies are translated using the exchange rates at the date when the fair values are determined.

The results and financial position of foreign operations and associates that have a functional currency different from the presentation currency are translated into the presentation currency as follows:

- (i) Assets and liabilities are translated at the closing exchange rates at the reporting date;
- (ii) Revenue and expenses are translated at average exchange rates; and

# Notes to the Financial Statements

For the financial year ended 30 June 2018

## 2. Significant accounting policies (continued)

### (c) Currency translation (continued)

#### (2) Transactions and balances (continued)

- (iii) All resulting currency translation differences are recognised in other comprehensive income and accumulated in the currency translation reserve. These currency translation differences are reclassified to profit or loss on disposal or partial disposal of the foreign operations and associates that give rise to such reserve.

### (d) Revenue recognition

Revenue comprises the fair value of the consideration received or receivable. Revenue is presented net of goods and services tax and after eliminating revenue within the Group.

The Group recognises revenue when the amount of revenue and related cost can be reliably measured and it is probable that the collectability of the related receivables is reasonably assured. The recognition criteria below must be met before revenue is recognised:

- (i) securities clearing revenue, equity and commodities revenue, net of rebates, on a due date basis;
- (ii) initial and additional listing revenue, access revenue, market data revenue, post trade services revenue, corporate actions and other revenue, management fees, when the services are rendered;
- (iii) annual listing revenue, collateral management, licence, membership revenue, connectivity revenue and rental income on a time proportion basis;
- (iv) interest income, on a time proportion basis using the effective interest method; and
- (v) dividend income, when the right to receive payment is established.

### (e) Income taxes

Current income tax liabilities (and assets) for current and prior periods are recognised at the amounts expected to be paid to (or recovered from) the tax authorities, using the tax rates and tax laws that have been enacted or substantively enacted by the balance sheet date.

Deferred income tax is provided in full, using the liability method, on temporary differences arising between the tax bases of assets and liabilities and their carrying amounts in the financial statements.

Deferred income tax assets and liabilities are measured at:

- (i) the tax rates that are expected to apply when the related deferred income tax asset is realised or the deferred income tax liability is settled, based on tax rates and tax laws that have been enacted or substantively enacted by the balance sheet date; and

- (ii) the tax consequence that would follow from the manner in which the Group expects, at the balance sheet date, to recover or settle the carrying amounts of its assets and liabilities.

Deferred tax assets are recognised to the extent that it is probable that future taxable profit will be available against which the temporary differences can be utilised.

Deferred tax assets and liabilities are offset when there is a legally enforceable right to set off current tax assets against current tax liabilities and when the deferred income taxes relate to the same tax jurisdiction.

### (f) Leases

#### (1) When the Group is the lessee – Operating leases

Operating lease payments are recognised in profit or loss on a straight-line basis over the lease period.

When an operating lease is terminated before the expiry of the lease period, any payment required to be made to the lessor by way of penalty is recognised as an expense in the financial year in which the lease is terminated.

#### (2) When the Group is the lessor – Operating leases

Leases where the Group retains substantially all risks and rewards incidental to ownership are classified as operating leases. Rental income from operating leases (net of any incentives given to the lessees) is recognised in profit or loss on a straight-line basis over the lease term.

Contingent rents are recognised as income in profit or loss when earned.

### (g) Government grants

Grants from the government are recognised as a receivable at their fair value when there is reasonable assurance that the grant will be received and the Group will comply with all the attached conditions. Government grants relating to expenses are offset against the related expenses. Government grants relating to assets are deducted against the carrying amount of the assets.

### (h) Employee benefits

Employee benefits are recognised as employee compensation expense when they are due, unless they can be capitalised as an asset.

#### (1) Defined contribution plans

The Group makes legally required contributions to defined contribution plans. The Group's obligation is limited to the amount it contributes to the defined contribution plan. The Group's contributions are recognised as employee compensation expense when they are due.

#### (2) Employee leave entitlement

Employee entitlements to annual leave are recognised when they accrue to employees. A provision is made for the estimated liability for annual leave as a result of services rendered by employees up to the balance sheet date.

**(3) Share-based compensation**

The fair value of employee services received in exchange for equity-settled share-based remuneration plans granted to employees is recognised as share-based payment to employees in profit or loss with a corresponding increase in the share-based payment reserve over the vesting period. The amount is determined by reference to the fair value of the shares on grant date and the expected number of shares to be vested on vesting date.

At the end of each financial reporting period, the Company revises its estimates of the expected number of shares that the participants are expected to receive. Any changes to the expected number of shares to be vested will entail a corresponding adjustment to the share-based payment to employees and share-based payment reserve.

Upon vesting of a share-based compensation plan, the portion of share-based payment previously recognised in the share-based payment reserve is reversed against treasury shares. Differences between share-based payment and cost of treasury shares are taken to the share capital of the Company.

**(i) Cash and cash equivalents**

Cash and cash equivalents include cash on hand and deposits with banks which are subject to an insignificant risk of change in value.

**(j) Trade and other receivables**

Trade and other receivables are recognised on the date they are originated and initially at fair value and subsequently measured at amortised cost using the effective interest method, less an allowance for impairment. An allowance for impairment of trade and other receivables is recognised when there is objective evidence that the Group will not be able to collect amounts due according to the original terms of the receivables. The amount of the allowance is the difference between the asset's carrying amount and the present value of estimated future cash flows, discounted at the original effective interest rate and is recognised in profit or loss.

The allowance for impairment loss is reduced through profit or loss in a subsequent period when the amount of impairment loss decreases and the related decrease can be objectively measured. The carrying amount of the asset previously impaired is increased to the extent that the new carrying amount does not exceed the amortised cost had no impairment been recognised in prior periods.

**(k) Available-for-sale financial assets**

Available-for-sale financial assets are presented as non-current assets unless the investment matures or management intends to dispose of the assets within 12 months after the balance sheet date.

Purchase and sales of available-for-sale financial assets are recognised on trade date – the date on which the Group commits to purchase or sell the asset. Available-for-sale financial assets are derecognised when the rights to receive cash flows from the assets have expired or have been transferred and the Group has transferred

substantially all risks and rewards of ownership. On disposal of an available-for-sale financial asset, the difference between the carrying amount and the sales proceeds is recognised in profit or loss. Any amount previously recognised in other comprehensive income relating to that asset is reclassified to profit or loss.

Available-for-sale financial assets are initially recognised at fair value plus transaction costs and are subsequently carried at fair value. Interest and dividend income on available-for-sale financial assets are recognised separately in income. Changes in the fair values of available-for-sale debt securities denominated in foreign currencies are analysed into currency translation differences on the amortised cost of the securities and other changes; the currency translation differences are recognised in profit or loss and the other changes are recognised in other comprehensive income and accumulated in the fair value reserve. Changes in the fair values of available-for-sale equity securities are recognised in other comprehensive income and accumulated in the fair value reserve, together with the related currency translation differences.

The Group assesses at each reporting date whether there is objective evidence that the available-for-sale financial assets are impaired and recognises an allowance for impairment when such evidence exists. A significant or prolonged decline in the fair value of the available-for-sale financial asset below its cost is considered an indicator that the available-for-sale financial asset is impaired.

If there is objective evidence of impairment, the cumulative loss that has been recognised in other comprehensive income is reclassified from equity to profit or loss. The amount of cumulative loss that is reclassified is measured as the difference between the acquisition cost (net of any principal repayment and amortisation) and current fair value, less any impairment loss on that available-for-sale financial asset previously recognised in profit or loss. The impairment losses recognised as an expense for an available-for-sale equity security are not reversed through profit or loss in a subsequent period.

**(l) Property, plant and equipment**

**(1) Property, plant and equipment**

Property, plant and equipment are initially recognised at cost and subsequently stated at cost less accumulated depreciation and accumulated impairment losses.

**(2) Components of costs**

The cost of property, plant and equipment includes expenditure that is directly attributable to the acquisition and bringing the asset to the condition necessary for it to be capable of operating in the manner intended by management. Cost also includes any fair value gains or losses on qualifying cash flow hedges of property, plant and equipment that are transferred from the hedging reserve. Dismantlement, removal or restoration costs are included as part of the cost of property, plant and equipment if the obligation for dismantlement, removal or restoration is required to be incurred for the purpose of acquiring and using the asset.

## Notes to the Financial Statements

For the financial year ended 30 June 2018

### 2. Significant accounting policies (continued)

#### (l) Property, plant and equipment (continued)

##### (3) Depreciation of property, plant and equipment

No depreciation is provided on freehold land and work-in-progress.

Depreciation is calculated on a straight-line basis to allocate the cost of property, plant and equipment over their expected useful lives as follows:

	<b>Useful lives</b>
Leasehold improvements	1 to 7 years or lease term, whichever is shorter
Building and plant	25 to 50 years
Furniture, fittings and office equipment	3 to 10 years
Computer hardware	1 to 7 years
Motor vehicles	5 years

Fully depreciated assets still in use are retained in the financial statements.

The residual values and useful lives of property, plant and equipment are reviewed, and adjusted as appropriate, at each financial year end. The effects of any revision are recognised in profit or loss when the changes arise.

#### (4) Subsequent expenditure

Subsequent expenditure relating to property, plant and equipment that has already been recognised is added to the carrying amount of the asset only when it is probable that future economic benefits, in excess of the originally assessed standard of performance of the existing asset, will flow to the Group and the cost can be reliably measured. All other repair and maintenance expenses are recognised in profit or loss when incurred.

#### (5) Disposal

On disposal or retirement of a property, plant and equipment, the difference between the net disposal proceeds and its carrying amount is recognised in profit or loss.

#### (m) Software

Costs recognised are directly associated with identifiable software controlled by the Group that generate economic benefits exceeding costs beyond one year. Cost also includes any fair value gains or losses on qualifying cash flow hedges of computer software that are transferred from the hedging reserve. Costs associated with maintaining computer software are expensed off when incurred.

Acquired computer software licences are capitalised on the basis of the cost incurred to acquire and other directly attributable costs of preparing the software for its intended use. Direct expenditures, including employee costs, which enhance or extend the performance of computer software programmes beyond their original specifications, and which can be reliably measured, are recognised as a capital improvement and added to the original cost of the software.

Computer software costs and acquired computer software licences are stated at cost less accumulated amortisation and accumulated impairment losses. These costs are amortised using the straight-line method over their estimated useful lives, a period not exceeding 7 years. Where an indication of impairment exists, the carrying amount is assessed and written down immediately to its recoverable amount.

The period and method of amortisation of the software are reviewed at least at each financial year end. The effects of any revision of the amortisation period or method are included in profit or loss for the period in which the changes arise.

#### (n) Intangible assets

Intangible assets arising from business combinations are initially recognised at cost and are subsequently carried at cost less accumulated amortisation and accumulated impairment losses. These costs are amortised to profit or loss using the straight-line method over the estimated useful life of 30 years of the underlying asset.

The period and method of amortisation of intangible assets are reviewed at least at each period end. The effects of any revision of the amortisation period or method are included in profit or loss for the period in which the changes arise.

#### (o) Investment property

Investment property is held to either earn rental or for capital appreciation or both. Investment property acquired through business combinations are accounted as acquisition of assets (Note 2(b)(1)(ii)).

Investment property is initially recognised at cost and subsequently carried at cost less accumulated depreciation and accumulated impairment losses. Freehold land of the investment property is not depreciated. Building is depreciated on a straight-line basis to allocate the cost over the estimated useful life of 50 years. The residual value and useful life are reviewed, and adjusted as appropriate, at each financial year end. The effects of any revision are recognised in profit or loss when the changes arise.

Investment property is subject to renovations or improvements at regular intervals. The cost of major renovations and improvements is capitalised and the carrying amounts of the replaced components are recognised in profit or loss. All other repair and maintenance expenses are recognised in profit or loss when incurred.

On disposal of an investment property, the difference between the net disposal proceeds and the carrying amount is recognised in profit or loss.

			<p><b>(p) Goodwill on acquisitions</b></p> <p>Goodwill on acquisitions of subsidiaries and businesses, represents the excess of (i) the sum of the consideration transferred, the amount of any non-controlling interest in the acquiree and the acquisition-date fair value of any previous equity interest in the acquiree over (ii) the fair value of the identifiable net assets acquired. Goodwill on subsidiaries is recognised separately as intangible assets and carried at cost less accumulated impairment losses.</p> <p>Goodwill on acquisitions of associated companies represents the excess of the cost of the acquisition over the Group's share of the fair value of the identifiable net assets acquired. Goodwill on associated companies is included in the carrying amount of the investments.</p>
<b>(q) Investments in subsidiaries and associated companies</b>			<p>Investments in subsidiaries and associated companies are stated at cost less accumulated impairment losses in the statement of financial position of the Company. Where an indication of impairment exists, the carrying amount of the investment is assessed and written down to its recoverable amount. Impairment losses are recognised in the profit or loss in the year in which it is determined.</p> <p>On disposal of an investment, the difference between the net proceeds and its carrying amount is recognised in profit or loss.</p>
<b>(r) Impairment of non-financial assets</b>			<p><b>(1) Goodwill</b></p> <p>Goodwill recognised separately as an intangible asset is tested for impairment annually and whenever there is indication that the goodwill may be impaired. Goodwill included in the carrying amount of an investment in associated company or joint venture is tested for impairment as part of the investment, rather than separately.</p> <p>For the purpose of impairment testing of goodwill, goodwill is allocated to each of the Group's cash-generating-units ("CGU") expected to benefit from synergies arising from the business combination. A CGU is the smallest identifiable group of assets that generate cash inflows that are largely independent of the cash inflows from other assets or group of assets.</p> <p>An impairment loss is recognised when the carrying amount of a CGU, including the goodwill, exceeds the recoverable amount of the CGU. Recoverable amount of a CGU is the higher of the CGU's fair value less cost to sell and value-in-use.</p> <p>The total impairment loss of a CGU is allocated first to reduce the carrying amount of goodwill allocated to the CGU and then to the other assets of the CGU pro-rata on the basis of the carrying amount of each asset in the CGU.</p> <p>An impairment loss on goodwill is recognised as an expense and is not reversed in a subsequent period.</p>
<b>(2) Property, plant and equipment</b>			<p><b>Software</b></p> <p><b>Intangible assets</b></p> <p><b>Investment property</b></p> <p><b>Investments in subsidiaries and associated companies</b></p> <p>Property, plant and equipment, software, intangible assets, investment property and investments in subsidiaries and associated companies are reviewed for impairment whenever there is any objective evidence or indication that the carrying amount may not be fully recoverable. An impairment loss is recognised for the amount by which the asset's carrying amount exceeds its recoverable amount, which is the higher of an asset's net selling value and its value in use. The impairment loss is recognised in profit or loss.</p> <p>The recoverable amount is determined on an individual asset basis unless the asset does not generate cash flows that are largely independent of those from other assets. If this is the case, the recoverable amount is determined for the CGU to which the asset belongs.</p> <p>An impairment loss for an asset other than goodwill is reversed if, and only if, there has been a change in the estimates used to determine the asset's recoverable amount since the last impairment loss was recognised. The carrying amount of this asset is increased to its revised recoverable amount, provided that this amount does not exceed the carrying amount that would have been determined (net of any accumulated amortisation or depreciation) had no impairment loss been recognised for the asset in prior years. A reversal of impairment loss for an asset other than goodwill is recognised in profit or loss.</p>
<b>(s) Trade and other payables</b>			<p>Trade and other payables represent liabilities for goods and services provided to the Group prior to the end of financial year which are unpaid. They are classified as current liabilities, if payment is due within one year or less. Otherwise, they are presented as non-current liabilities.</p> <p>Trade and other payables are initially measured at fair value, and subsequently measured at amortised cost, using the effective interest method.</p>
<b>(t) Offsetting financial instruments</b>			<p>Financial assets and liabilities are offset and the net amount reported in the balance sheet when there is a legally enforceable right to offset and there is an intention to settle on a net basis or realise the asset and settle the liability simultaneously.</p>
<b>(u) Provisions</b>			<p>Provisions are recognised when the Group has a legal or constructive obligation as a result of past events, it is probable that an outflow of resources will be required to settle the obligation, and a reliable estimate of the amount of the obligation can be made. Changes in the estimated amount are recognised in profit or loss when the changes arise.</p>

## Notes to the Financial Statements

For the financial year ended 30 June 2018

### 2. Significant accounting policies (continued)

#### (v) Derivative financial instruments and hedging activities

A derivative financial instrument is initially recognised at its fair value on the date the contract is entered into and is subsequently carried at its fair value. The method of recognising the resulting gain or loss depends on whether the derivative is designated as a hedging instrument, and if so, the nature of the item being hedged.

The Group documents at the inception of the transaction the relationship between the hedging instruments and hedged items, as well as its risk management objective and strategies for undertaking various hedge transactions. The Group also documents its assessment, both at hedge inception and on an ongoing basis, on whether the derivatives designated as hedging instruments are highly effective in offsetting changes in fair value or cash flows of the hedged items.

Derivatives that are designated as hedging instrument are designated by the Group as cash flow hedge. Fair value changes on derivatives that are not designated or do not qualify for hedge accounting are recognised in profit or loss when the changes arise.

#### *Currency forwards – cash flow hedge*

The Group has entered into currency forwards that qualify as cash flow hedges against highly probable forecasted transactions in foreign currencies. The fair value changes on the effective portion of the currency forwards designated as cash flow hedges are recognised in the hedging reserve and transferred to either the cost of a hedged non-monetary asset upon acquisition or profit or loss when the hedged forecast transactions are recognised.

The fair value of currency forward contracts purchased or sold is based on the quoted bid price or offer price respectively at the balance sheet date. The notional principal amounts of the currency forward contracts are recorded as off-balance sheet items.

The fair value changes on the ineffective portion of currency forwards are recognised immediately in profit or loss. When a forecasted transaction is no longer expected to occur, the gains and losses that were previously recognised in the hedging reserve are transferred to profit or loss immediately.

#### (w) Share capital and treasury shares

Ordinary shares are classified as equity.

When any entity within the Group purchases the Company's ordinary shares ("treasury shares"), the consideration paid, including any directly attributable incremental costs, net of income taxes, is deducted from equity attributable to the Company's equity holders and presented as "treasury shares" within equity, until they are cancelled, sold or reissued.

When treasury shares are subsequently sold or reissued pursuant to the share-based remuneration plan, the cost of the treasury shares is reversed from the treasury share account and the realised gain or loss on sale or reissue, net of any directly attributable incremental transaction costs and related income tax, is taken to the share capital account of the Company.

#### (x) Dividends

Interim dividends are deducted from retained profits during the financial year in which they are declared payable.

Final dividends are transferred from retained profits to a proposed dividend reserve when they are proposed by the directors. The amount will be transferred from the proposed dividend reserve to dividend payable when the dividends are approved by the shareholders.

#### (y) Segment reporting

Operating segments are reported in a manner consistent with the internal reporting provided to the executive committee who are responsible for allocating resources and assessing performance of the operating segments.

### 3. Critical accounting estimates and judgments

Estimates and judgments are regularly evaluated based on historical experience, current circumstances and expectations of future events. The following provides a description of the areas involving a higher degree of judgment or complexity, or areas where assumptions and estimates are significant to the financial statements:

#### (a) Intangible assets

Intangible assets are valued on acquisition using appropriate methodology and amortised over the estimated useful lives. The valuation is calculated using discounted cash flow model and management's best estimate of future cash flows, long term growth rate and discount rate. Useful lives are based on management's best estimates of periods over which value from the intangible assets will be realised (Note 2(n) and Note 19). Management reassess the estimated useful lives at each period end, taking into account the period over which the intangible assets is expected to generate future economic benefit. Intangible assets are tested for impairment in accordance with Note 2(r)(2).

#### (b) Goodwill

Goodwill is tested for impairment in accordance with Note 2(r)(1). The recoverable amount of goodwill is based on value-in-use calculation using discounted cash flow model and management's best estimate of future cash flows, long term growth rate and discount rate (Note 20).

#### 4. Operating revenue

Operating revenue comprised the following:

	The Group		The Company	
	2018 \$'000	2017 \$'000	2018 \$'000	2017 \$'000
<b>Equities and Fixed Income</b>				
<i>Issuer Services</i>				
Listing	51,626	49,385	—	—
Corporate actions and other	34,564	34,413	—	—
	86,190	83,798	—	—
<b>Securities Trading and Clearing</b>				
Securities clearing	170,879	158,626	—	—
Access	40,657	37,193	—	—
Collateral management, membership and other	9,589	9,230	—	—
	221,125	205,049	—	—
<b>Post Trade Services</b>				
Securities settlement	87,625	95,684	—	—
Contract processing	3,366	11,570	2,615	8,782
Depository management	8,294	8,420	—	—
	99,285	115,674	2,615	8,782
	406,600	404,521	2,615	8,782
<b>Derivatives</b>				
Equity and Commodities	237,060	220,510	—	—
Collateral management, licence, membership and other	102,752	82,541	—	—
	339,812	303,051	—	—
<b>Market Data and Connectivity</b>				
Market data	42,356	39,933	81	310
Connectivity	55,910	53,309	24,163	21,452
	98,266	93,242	24,244	21,762

#### 5. Staff

	The Group		The Company	
	2018 \$'000	2017 \$'000	2018 \$'000	2017 \$'000
Salaries	108,402	104,675	63,867	73,056
Employer's contribution to defined contribution plans on salaries	9,059	8,142	5,514	5,369
	117,461	112,817	69,381	78,425
Variable bonus	44,383	38,030	27,684	29,733
Employer's contribution to defined contribution plans on variable bonus	2,973	2,840	1,747	2,129
	47,356	40,870	29,431	31,862
Variable share-based payment	10,926	8,653	10,926	8,653
Variable share-based payment recharge to subsidiary	—	—	(903)	—
	175,743	162,340	108,835	118,940

The remuneration of key management under the employment of the Group and the Company are included in staff costs. Refer to Note 38 on key management's remuneration.

#### 6. Technology

	The Group		The Company	
	2018 \$'000	2017 \$'000	2018 \$'000	2017 \$'000
System maintenance and rental	72,737	70,245	41,906	39,116
Depreciation and amortisation	50,186	48,051	17,908	16,550
Communication charges	3,999	5,539	2,337	4,357
	126,922	123,835	62,151	60,023

## Notes to the Financial Statements

For the financial year ended 30 June 2018

### 7. Premises

	The Group		The Company	
	2018 \$'000	2017 \$'000	2018 \$'000	2017 \$'000
Rental and maintenance of premises	19,910	18,708	11,986	8,218
Depreciation of furniture and fittings, building and leasehold improvements	8,394	7,863	7,320	7,129
	<b>28,304</b>	<b>26,571</b>	<b>19,306</b>	<b>15,347</b>

### 8. Other operating expenses

	The Group		The Company	
	2018 \$'000	2017 \$'000	2018 \$'000	2017 \$'000
Marketing	5,168	6,405	2,324	2,491
Travelling	3,592	3,383	1,487	2,211
Allowance/(reversal) for impairment of trade receivables (net)	1,838	1,591	(16)	167
Net write-off of property, plant and equipment and software	826	51	817	13
Net gain on disposal of property, plant and equipment and software	(103)	(122)	(103)	(122)
Directors' fee	2,744	2,110	1,771	1,785
Regulatory fee	5,065	4,266	400	400
Amortisation of intangible assets	2,244	1,780	—	—
Services from price vendors	2,781	3,964	537	1,489
Miscellaneous	5,535	7,646	6,488	9,342
Grant income for property, plant and equipment and software	—	(201)	—	—
	<b>29,690</b>	<b>30,873</b>	<b>13,705</b>	<b>17,776</b>

### 9. Operating profit

	The Group		The Company	
	2018 \$'000	2017 \$'000	2018 \$'000	2017 \$'000

**Operating profit is arrived after:**

*Charging:*

Audit services by auditor of the Company	1,005	923	345	348
Other services by auditor of the Company	452	13	438	13
Rental of technology equipment - operating lease	1,388	1,307	704	290
Rental of premises - operating lease	21,622	21,493	16,338	10,502
Provision for unutilised leave (Note 26(b))	10	578	(685)	516
Depreciation and amortisation	60,838	57,694	25,241	23,679

*And crediting:*

Grants from government schemes and agencies received on property, plant and equipment	—	373	—	—
Grants from government schemes and agencies received on operating expenses	—	234	—	7
Collateral management revenue on collateral balances held in trust (net)	53,330	44,319	—	—

## 10. Other gains - net

	The Group		The Company	
	2018 \$'000	2017 \$'000	2018 \$'000	2017 \$'000
Other revenue including interest income:				
- Interest income from fixed deposits and current accounts with banks	9,925	9,387	5,160	4,634
- Interest income from available-for-sale financial assets	96	-	96	-
- Dividend income	13	-	4,954	-
- Others	829	402	2,636	2,105
	10,863	9,789	12,846	6,739
Net foreign exchange gain/(loss)	443	(173)	(412)	530
Loss on disposal of available- for-sale financial asset*	-	(3,961)	-	(3,961)
	11,306	5,655	12,434	3,308

\* The Group and the Company completed its divestment of its 4.75% stake in BSE Limited in February 2017. Cash consideration for the divestment after expenses is \$40,995,000, resulting in a loss on disposal amounting to \$3,961,000.

## 11. Earnings per share

	The Group	
	2018 \$'000	2017 \$'000
Net profit attributable to the equity holders of the Company	<b>363,200</b>	<b>339,692</b>
Weighted average number of ordinary shares in issue for basic earnings per share ('000)	<b>1,070,534</b>	1,070,443
Adjustments for:		
- Shares granted under SGX performance share plans and deferred long-term incentives schemes ('000)	<b>3,041</b>	3,202
Weighted average number of ordinary shares for diluted earnings per share ('000)	<b>1,073,575</b>	<b>1,073,645</b>
Earnings per share (in cents per share)		
- Basic	<b>33.9</b>	31.7
- Diluted	<b>33.8</b>	31.6

Basic earnings per share is calculated by dividing the net profit attributable to the equity holders of the Company by the weighted average number of ordinary shares in issue during the year.

For the purpose of calculating diluted earnings per share, the weighted average number of ordinary shares in issue is adjusted for the effects of all dilutive potential ordinary shares. Shares granted under the SGX performance share plans and the deferred long-term incentives schemes have potential dilutive effect on ordinary shares. The adjustment made represents the number of shares expected to vest under SGX performance share plans and the deferred long-term incentives schemes.

## 12. Cash and cash equivalents

	The Group		The Company	
	2018 \$'000	2017 \$'000	2018 \$'000	2017 \$'000
Cash at bank and on hand	<b>68,595</b>	47,047	<b>23,103</b>	9,410
Fixed deposits with banks	<b>762,992</b>	749,345	<b>389,909</b>	384,344
	<b>831,587</b>	796,392	<b>413,012</b>	393,754

For the purpose of presenting the statement of cash flows of the Group, the consolidated cash and cash equivalents comprise the following:

	The Group	
	2018 \$'000	2017 \$'000
Cash and cash equivalents per statement of cash flows	<b>549,597</b>	520,323
Add: Cash committed for:		
- Singapore Exchange Derivatives Clearing Limited ("SGX-DC") Clearing Fund (Note 31)	<b>200,021</b>	200,021
- Securities Clearing Fund (Note 30)	<b>60,000</b>	60,000
- National Electricity Market of Singapore ("NEMS") (Note 14)	<b>21,969</b>	16,048
Cash and cash equivalents (as above)	<b>831,587</b>	796,392

## Notes to the Financial Statements

For the financial year ended 30 June 2018

### 13. Trade and other receivables

	The Group		The Company	
	2018 \$'000	2017 \$'000	2018 \$'000	2017 \$'000
<b>Current</b>				
Trade receivables (net) (Note (a))	<b>772,122</b>	770,837	<b>6,131</b>	5,119
Other receivables (Note (b))	<b>54,664</b>	43,864	<b>13,182</b>	15,878
	<b>826,786</b>	814,701	<b>19,313</b>	20,997
<b>Non-current</b>				
Other receivables				
– Amount due from a subsidiary (non-trade) (Note (c))	–	–	<b>6,104</b>	6,215
	–	–	<b>6,104</b>	6,215
(a) Trade receivables (net) comprise:				
Receivables from clearing members and settlement banks				
– Daily settlement of accounts for due contracts and rights (Note 24(a))	<b>552,217</b>	575,526	–	–
Receivables under NEMS (Note 14)	<b>154,653</b>	130,270	–	–
Other trade receivables	<b>69,802</b>	67,794	<b>6,134</b>	5,137
	<b>776,672</b>	773,590	<b>6,134</b>	5,137
Less: Allowance for impairment of trade receivables (Note 39)	<b>(4,550)</b>	(2,753)	<b>(3)</b>	(18)
	<b>772,122</b>	770,837	<b>6,131</b>	5,119

The receivables from clearing members and settlement banks represent the net settlement obligations to CDP. The corresponding net settlement obligations from CDP to the clearing members and settlement banks are disclosed in Note 24(a).

	The Group		The Company	
	2018 \$'000	2017 \$'000	2018 \$'000	2017 \$'000
(b) Other receivables comprise:				
Prepayments	<b>23,206</b>	22,011	<b>10,786</b>	12,608
Interest receivable	<b>28,268</b>	18,975	<b>1,878</b>	2,800
Deposits	<b>721</b>	650	<b>263</b>	297
Staff advances	<b>41</b>	39	<b>3</b>	6
Others (non-trade)	<b>2,428</b>	2,189	<b>252</b>	167
	<b>54,664</b>	43,864	<b>13,182</b>	15,878

(c) Amount due from a subsidiary relates to an unsecured loan with interest fixed at 3.5% per annum and principal repayable in full in November 2021.

### 14. Cash, receivables and payables under NEMS

The Energy Market Company Pte Ltd ("EMC") has cash, receivables and payables in respect of sale of electricity to market participants and purchase of electricity and ancillary services from market participants in the NEMS as follows:

	The Group	
	2018 \$'000	2017 \$'000
Cash committed for NEMS (Note 12)	<b>21,969</b>	16,048
Receivables under NEMS (Note 13(a))	<b>154,653</b>	130,270
<b>Total settlement cash and receivables</b>	<b>176,622</b>	146,318
Payables under NEMS (Note 24(a))	<b>176,622</b>	146,318
<b>Total settlement payables</b>	<b>176,622</b>	146,318

## 14. Cash, receivables and payables under NEMS (continued)

### (a) Cash committed for NEMS

The cash represents EMC's commitment to NEMS for the operation of the NEMS. The manners in which the cash can be used are defined by the Singapore Electricity Market Rules ("Market Rules") issued by the Energy Market Authority of Singapore. The committed cash is not available to EMC for its operations.

### (b) Adjustments to balances arising from post-transaction changes in metering data or dispute over final settlement statements

EMC acts as an administrator in the NEMS. In the NEMS, the Market Support Services Licensee ("MSSL") is responsible for the provision and accuracy of the metering data, which is used in calculation of settlements.

Under the Market Rules, transactions must be settled based on final settlement invoices. Subsequent to the final settlement date and up to 253 trading days from the trading day, EMC may, however be advised by the MSSL on the changes to the metering data and the quantities of electricity traded.

In addition, the market participants may dispute over final settlement statements. These will result in adjustments to the settlement amounts due to/from the market participants. Any adjustments to be made after the issue of the final settlement invoices shall be included in the preliminary settlement statement issued immediately following the resolution of disputes.

## 15. Derivative financial instruments

The table below sets out the notional principal amounts of the outstanding currency forward contracts of the Group and the company as well as their corresponding fair values at the balance sheet date:

	The Group			The Company		
	Fair value			Fair value		
Contract notional amount \$'000	Asset \$'000	Liability \$'000	Contract notional amount \$'000	Asset \$'000	Liability \$'000	
<b>2018</b>						
Cash-flow hedges						
- Currency forwards	86,674	40	(1,967)	9,054	-	(39)
		40	(1,967)			(39)
<b>2017</b>						
Cash-flow hedges						
- Currency forwards	82,500	1,450	(79)		-	-
		1,450	(79)			-

As at 30 June 2018, the settlement dates on currency forward contracts range between 1 month and 9 months for the Group (2017: 1 month and 9 months) and 1 month for the Company (2017: Nil).

Currency forwards designated as cash flow hedges are entered to hedge highly probable forecast transactions mainly denominated in United States Dollar ("USD") and Euro ("EUR"). The currency contracts have maturity dates that coincide within the expected occurrence of these transactions. Gains and losses recognised in the cash flow hedge reserve prior to the occurrence of these transactions are reclassified to profit or loss in the month during which the hedged forecast transaction affects the profit or loss. Gains and losses of currency forwards used to hedge highly probable forecast foreign currency purchases of property, plant and equipment and software transactions are included in the cost of the assets and recognised in the profit or loss over their estimated useful lives as part of depreciation expenses.

## 16. Available-for-sale financial assets

	The Group and The Company	
	2018 \$'000	2017 \$'000
<b>Current</b>		
Equity securities – Quoted	3,551	-
Bonds – Unquoted	18,452	-
	22,003	-
<b>Non-current</b>		
Equity securities – Unquoted	3,648	-

## Notes to the Financial Statements

For the financial year ended 30 June 2018

### 17. Investment property, and Property, plant and equipment

	Owner occupied property				Furniture, fittings and office equipment \$'000	Computer hardware \$'000	Motor vehicles \$'000	Work-in- progress <sup>(a)</sup> \$'000	Total \$'000
<b>The Group</b>									
<b>2018</b>									
<b>Cost</b>									
At 1 July 2017	26,362	5,880	6,015	35,592	7,582	60,904	384	14,025	130,382
Reclassification	–	–	–	6,223	64	2,375	–	(8,662)	–
Additions	150	–	364	619	58	4,891	401	4,131	10,464
Disposals	–	–	–	(49)	–	(1,114)	(384)	–	(1,547)
Currency translation	81	18	18	–	–	–	–	–	36
At 30 June 2018	<u>26,593</u>	<u>5,898</u>	<u>6,397</u>	<u>42,385</u>	<u>7,704</u>	<u>67,056</u>	<u>401</u>	<u>9,494</u>	<u>139,335</u>
<b>Accumulated depreciation</b>									
At 1 July 2017	169	–	337	17,874	3,754	27,612	384	–	49,961
Depreciation charge <sup>(b)</sup>	192	–	658	7,087	1,358	9,864	13	–	18,980
Disposals	–	–	–	(49)	–	(993)	(384)	–	(1,426)
Currency translation	(2)	–	(4)	–	–	–	–	–	(4)
At 30 June 2018	<u>359</u>	<u>–</u>	<u>991</u>	<u>24,912</u>	<u>5,112</u>	<u>36,483</u>	<u>13</u>	<u>–</u>	<u>67,511</u>
<b>Net book value</b>									
At 30 June 2018	<u>26,234</u>	<u>5,898</u>	<u>5,406</u>	<u>17,473</u>	<u>2,592</u>	<u>30,573</u>	<u>388</u>	<u>9,494</u>	<u>71,824</u>
<b>Market value</b>									
At 30 June 2018	<u>26,442</u>								
<b>2017</b>									
<b>Cost</b>									
At 1 July 2016	–	–	–	35,111	7,319	58,750	750	16,585	118,515
Acquisition of subsidiary (Note 21(c))	25,450	5,677	5,654	–	156	64	–	–	11,551
Reclassification	–	–	–	1,186	–	20,099	–	(21,285)	–
Additions	–	–	158	142	101	3,843	–	18,725	22,969
Disposals	–	–	–	(847)	–	(21,854)	(366)	–	(23,067)
Currency translation	912	203	203	–	6	2	–	–	414
At 30 June 2017	<u>26,362</u>	<u>5,880</u>	<u>6,015</u>	<u>35,592</u>	<u>7,582</u>	<u>60,904</u>	<u>384</u>	<u>14,025</u>	<u>130,382</u>
<b>Accumulated depreciation</b>									
At 1 July 2016	–	–	–	12,494	2,408	40,833	750	–	56,485
Depreciation charge <sup>(b)</sup>	167	–	333	6,227	1,345	8,628	–	–	16,533
Disposals	–	–	–	(847)	–	(21,850)	(366)	–	(23,063)
Currency translation	2	–	4	–	1	1	–	–	6
At 30 June 2017	<u>169</u>	<u>–</u>	<u>337</u>	<u>17,874</u>	<u>3,754</u>	<u>27,612</u>	<u>384</u>	<u>–</u>	<u>49,961</u>
<b>Net book value</b>									
At 30 June 2017	<u>26,193</u>	<u>5,880</u>	<u>5,678</u>	<u>17,718</u>	<u>3,828</u>	<u>33,292</u>	<u>–</u>	<u>14,025</u>	<u>80,421</u>
<b>Market value</b>									
At 30 June 2017	<u>26,362</u>								

The investment property held by the Group is leased to non-related parties under operating leases (Note 37(b)).

## 17. Investment property, and Property, plant and equipment (continued)

The following amounts are recognised in the statement of comprehensive income of the Group:

	<b>The Group</b>	
	<b>2018 \$'000</b>	<b>2017 \$'000</b>
Rental income	<b>2,461</b>	1,617
Direct operating expenses arising from the investment property	(704)	(350)

Details of the Group's investment property are as follows:

Location	Description	Tenure
The Baltic Exchange, 38 St Mary Axe, London EC3, United Kingdom	Office building	Freehold

The fair value of the investment property was independently appraised by an external valuer and is determined using the income method. The property is classified under level 3 of the fair value hierarchy and the significant unobservable input used for valuation is market yields. As at 30 June 2018, there were no transfers in and out of level 3 of the fair value hierarchy.

	Leasehold improvements \$'000	Furniture, fittings and office equipment \$'000	Computer hardware \$'000	Motor vehicles \$'000	Work-in- progress <sup>(a)</sup> \$'000	Total \$'000
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### The Company

#### 2018

##### Cost

At 1 July 2017	<b>35,186</b>	<b>7,221</b>	<b>37,457</b>	<b>384</b>	<b>10,888</b>	<b>91,136</b>
Reclassification	<b>6,223</b>	<b>64</b>	<b>2,298</b>	<b>—</b>	<b>(8,585)</b>	<b>—</b>
Additions	<b>619</b>	<b>58</b>	<b>2,994</b>	<b>401</b>	<b>362</b>	<b>4,434</b>
Intercompany transfer	<b>—</b>	<b>—</b>	<b>(877)</b>	<b>—</b>	<b>16</b>	<b>(861)</b>
Disposals	<b>(49)</b>	<b>—</b>	<b>(932)</b>	<b>(384)</b>	<b>—</b>	<b>(1,365)</b>
At 30 June 2018	<b>41,979</b>	<b>7,343</b>	<b>40,940</b>	<b>401</b>	<b>2,681</b>	<b>93,344</b>

##### Accumulated depreciation

At 1 July 2017	<b>17,681</b>	<b>3,611</b>	<b>16,498</b>	<b>384</b>	<b>—</b>	<b>38,174</b>
Depreciation charge <sup>(b)</sup>	<b>6,961</b>	<b>1,268</b>	<b>6,059</b>	<b>13</b>	<b>—</b>	<b>14,301</b>
Intercompany transfer	<b>—</b>	<b>—</b>	<b>(820)</b>	<b>—</b>	<b>—</b>	<b>(820)</b>
Disposals	<b>(49)</b>	<b>—</b>	<b>(819)</b>	<b>(384)</b>	<b>—</b>	<b>(1,252)</b>
At 30 June 2018	<b>24,593</b>	<b>4,879</b>	<b>20,918</b>	<b>13</b>	<b>—</b>	<b>50,403</b>

##### Net book value

At 30 June 2018	<b>17,386</b>	<b>2,464</b>	<b>20,022</b>	<b>388</b>	<b>2,681</b>	<b>42,941</b>
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#### 2017

##### Cost

At 1 July 2016	<b>34,713</b>	<b>7,138</b>	<b>43,450</b>	<b>750</b>	<b>7,625</b>	<b>93,676</b>
Reclassification	<b>1,179</b>	<b>—</b>	<b>11,221</b>	<b>—</b>	<b>(12,400)</b>	<b>—</b>
Additions	<b>141</b>	<b>83</b>	<b>2,745</b>	<b>—</b>	<b>15,663</b>	<b>18,632</b>
Disposals	<b>(847)</b>	<b>—</b>	<b>(19,959)</b>	<b>(366)</b>	<b>—</b>	<b>(21,172)</b>
At 30 June 2017	<b>35,186</b>	<b>7,221</b>	<b>37,457</b>	<b>384</b>	<b>10,888</b>	<b>91,136</b>

##### Accumulated depreciation

At 1 July 2016	<b>12,453</b>	<b>2,348</b>	<b>31,360</b>	<b>750</b>	<b>—</b>	<b>46,911</b>
Depreciation charge <sup>(b)</sup>	<b>6,075</b>	<b>1,263</b>	<b>5,092</b>	<b>—</b>	<b>—</b>	<b>12,430</b>
Disposals	<b>(847)</b>	<b>—</b>	<b>(19,954)</b>	<b>(366)</b>	<b>—</b>	<b>(21,167)</b>
At 30 June 2017	<b>17,681</b>	<b>3,611</b>	<b>16,498</b>	<b>384</b>	<b>—</b>	<b>38,174</b>

##### Net book value

At 30 June 2017	<b>17,505</b>	<b>3,610</b>	<b>20,959</b>	<b>—</b>	<b>10,888</b>	<b>52,962</b>
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<sup>(a)</sup> Work-in-progress comprises mainly system infrastructure under development and leasehold improvements under construction.

<sup>(b)</sup> Depreciation of leasehold improvements in SGX's data centres amounting to \$825,000 (2017: \$209,000) is classified as depreciation and amortisation expense under Technology cost for both Group and Company.

## Notes to the Financial Statements

For the financial year ended 30 June 2018

### 18. Software

	Software \$'000	Work- in-progress \$'000	Total \$'000
<b>The Group</b>			
<b>2018</b>			
<b>Cost</b>			
At 1 July 2017	307,823	44,332	352,155
Reclassification	17,436	(17,436)	—
Additions	5,159	49,288	54,447
Write-off	(7,429)	(331)	(7,760)
Currency translation	1	—	1
At 30 June 2018	<u>322,990</u>	<u>75,853</u>	<u>398,843</u>
<b>Accumulated amortisation</b>			
At 1 July 2017	192,678	—	192,678
Amortisation charge	39,422	—	39,422
Write-off	(7,055)	—	(7,055)
Currency translation	(1)	—	(1)
At 30 June 2018	<u>225,044</u>	<u>—</u>	<u>225,044</u>
<b>Net book value</b>			
At 30 June 2018	<u>97,946</u>	<u>75,853</u>	<u>173,799</u>
<b>2017</b>			
<b>Cost</b>			
At 1 July 2016	311,706	67,794	379,500
Acquisition of subsidiary (Note 21(c))	391	—	391
Reclassification	62,195	(62,195)	—
Additions	5,070	38,733	43,803
Write-off	(71,553)	—	(71,553)
Currency translation	14	—	14
At 30 June 2017	<u>307,823</u>	<u>44,332</u>	<u>352,155</u>
<b>Accumulated amortisation</b>			
At 1 July 2016	224,798	—	224,798
Amortisation charge	39,214	—	39,214
Write-off	(71,335)	—	(71,335)
Currency translation	1	—	1
At 30 June 2017	<u>192,678</u>	<u>—</u>	<u>192,678</u>
<b>Net book value</b>			
At 30 June 2017	<u>115,145</u>	<u>44,332</u>	<u>159,477</u>

**18. Software (continued)**

	Software \$'000	Work- in-progress \$'000	Total \$'000
<b>The Company</b>			
<b>2018</b>			
<b>Cost</b>			
At 1 July 2017	76,558	14,231	90,789
Reclassification	11,297	(11,297)	–
Additions	3,416	7,699	11,115
Intercompany transfer	(7,214)	(259)	(7,473)
Write-off	(4,247)	(331)	(4,578)
At 30 June 2018	<u>79,810</u>	<u>10,043</u>	<u>89,853</u>
<b>Accumulated amortisation</b>			
At 1 July 2017	53,307	–	53,307
Amortisation charge	10,940	–	10,940
Intercompany transfer	(6,238)	–	(6,238)
Write-off	(3,874)	–	(3,874)
At 30 June 2018	<u>54,135</u>	<u>–</u>	<u>54,135</u>
<b>Net book value</b>			
At 30 June 2018	<u>25,675</u>	<u>10,043</u>	<u>35,718</u>
<b>2017</b>			
<b>Cost</b>			
At 1 July 2016	65,169	11,444	76,613
Reclassification	10,673	(10,673)	–
Additions	3,230	13,460	16,690
Write-off	(2,514)	–	(2,514)
At 30 June 2017	<u>76,558</u>	<u>14,231</u>	<u>90,789</u>
<b>Accumulated amortisation</b>			
At 1 July 2016	44,564	–	44,564
Amortisation charge	11,249	–	11,249
Write-off	(2,506)	–	(2,506)
At 30 June 2017	<u>53,307</u>	<u>–</u>	<u>53,307</u>
<b>Net book value</b>			
At 30 June 2017	<u>23,251</u>	<u>14,231</u>	<u>37,482</u>

## Notes to the Financial Statements

For the financial year ended 30 June 2018

### 19. Intangible assets

	Right to operate Singapore electricity spot market \$'000	Trade name \$'000	Total \$'000
<b>The Group</b>			
<b>2018</b>			
<b>Cost</b>			
At 1 July 2017	27,140	39,775	66,915
Currency translation	—	120	120
At 30 June 2018	27,140	39,895	67,035
<b>Accumulated amortisation</b>			
At 1 July 2017	2,488	883	3,371
Amortisation charge (Note 8)	904	1,340	2,244
Currency translation	—	(8)	(8)
At 30 June 2018	3,392	2,215	5,607
<b>Net book value</b>			
At 30 June 2018	23,748	37,680	61,428
 <b>2017</b>			
<b>Cost</b>			
At 1 July 2016	27,140	—	27,140
Acquisition of subsidiary (Note 21(c))	—	38,399	38,399
Currency translation	—	1,376	1,376
At 30 June 2017	27,140	39,775	66,915
<b>Accumulated amortisation</b>			
At 1 July 2016	1,584	—	1,584
Amortisation charge (Note 8)	904	876	1,780
Currency translation	—	7	7
At 30 June 2017	2,488	883	3,371
<b>Net book value</b>			
At 30 June 2017	24,652	38,892	63,544

The intangible assets are the right to operate the Singapore electricity spot market, arising from the acquisition of EMC and BEL's trade name arising from the acquisition of BEL (Note 21).

No impairment loss has been recognised as there is no objective evidence or indication that the carrying amounts may not be fully recoverable as at 30 June 2018 (2017: Nil).

### 20. Goodwill

	<b>The Group</b>	
	<b>2018</b> \$'000	<b>2017</b> \$'000
Beginning of financial year	88,401	9,614
Acquisition of subsidiary (Note 21(c))	—	76,224
Currency translation	227	2,563
Balance at end of financial year	88,628	88,401

The goodwill relates to the acquisition of EMC, a subsidiary operating the Singapore electricity spot market and acquisition of BEL, a subsidiary providing freight market indices and information, membership services and facilities for trading of derivative shipping contracts.

## 20. Goodwill (continued)

For the purpose of impairment testing, goodwill is allocated to each of the Group's Cash Generating Unit ("CGU") expected to benefit from synergies of the business combination. Goodwill arising from the acquisition of EMC is allocated to EMC CGU and goodwill arising from the acquisition of BEL is allocated to Derivatives CGU.

The carrying amounts of goodwill allocated to the following CGUs as at 30 June were as follows:

	<b>The Group</b>	
	<b>2018 \$'000</b>	<b>2017 \$'000</b>
EMC	9,614	9,614
Derivatives	79,014	78,787
	<b>88,628</b>	<b>88,401</b>

The recoverable amount of the goodwill was determined based on value-in-use calculation using the discounted cash flow model. Key inputs of the computation are as follows:

<b>CGU - EMC</b>	<b>Key Inputs</b>	<b>Basis</b>
Free cash flows	Management's forecasts of earnings and capital expenditure over a ten-year period.	Past performance and market developments
Long term growth rate	2% - 3% (2017: 2% - 3%)	Long term inflation and growth rate of Singapore
Discount rate	10.0% (2017: 9.5%)	Cost of capital to operate the Singapore electricity spot market

<b>CGU - Derivatives</b>	<b>Key Inputs</b>	<b>Basis</b>
Free cash flows	Management's forecasts of earnings and capital expenditure over a ten-year period.	Past performance, expectations of growth in derivatives contract volumes and market developments
Long term growth rate	3% (2017: 3%)	Long term growth rate of developed economies
Discount rate	10.0% (2017: 9.5%)	Cost of capital to operate the Singapore derivatives market

Based on the value-in-use calculations, there is no impairment on goodwill (FY2017: Nil). While the estimated recoverable amount of the goodwill is sensitive to any change in key inputs to the value-in-use calculations, the change in the estimated recoverable amount from any reasonably possible change on the key input does not materially cause the recoverable amount to be lower than its carrying amount.

## 21. Business combinations

On 8 November 2016, SGX acquired 100% of the equity interest in BEL for a consideration of \$138,794,000 (GBP 77,616,000). Consequently, BEL became a wholly owned subsidiary.

The principal activity of BEL is to provide freight market indices and information, membership services and facilities for the trading of derivatives shipping contracts. This acquisition strengthens our ability to further develop forward freight agreement ("FFA") related products.

Details of the consideration paid, the assets acquired and liabilities assumed, and the effects on the cash flows of the Group, at the acquisition date, are as follows:

	\$'000
<b>(a) Purchase consideration</b>	
Cash paid	138,794
<b>Consideration transferred for the business</b>	<b>138,794</b>
<b>(b) Effect on cash flows of the Group</b>	
Cash paid (as above)	138,794
Less: Cash and cash equivalents in subsidiary acquired	(18,698)
<b>Cash outflow on acquisition</b>	<b>120,096</b>

## Notes to the Financial Statements

For the financial year ended 30 June 2018

### 21. Business combinations (continued)

	\$'000
<b>(c) Identifiable assets acquired and liabilities assumed</b>	
Cash and cash equivalents	18,698
Trade and other receivables	4,545
Investment property	25,450
Property, plant and equipment	11,551
Software	391
Intangible asset	38,399
<b>Total assets</b>	<b>99,034</b>
Trade and other payables	25,189
Derivative financial instruments	108
Taxation	586
Deferred tax liabilities	10,581
<b>Total liabilities</b>	<b>36,464</b>
<b>Total identifiable net assets</b>	<b>62,570</b>
Add: Goodwill	76,224
<b>Consideration transferred for the business</b>	<b>138,794</b>

#### (d) Acquisition-related costs

Total acquisition-related costs amounted to \$5,475,000 of which \$3,707,000 is included in FY2017 statements of comprehensive income of the Group under Professional fees, Marketing, Travelling and Others as well as the operating cash flows in the statement of cash flows of the Group.

#### (e) Acquired receivables

The fair value and gross contractual amount of Trade and other receivables is \$4,545,000.

#### (f) Goodwill

The goodwill of \$76,224,000 is attributable to the synergies expected to arise from the growth of the FFA business.

#### (g) Revenue and profit contribution

The acquired business contributed revenue of \$8,179,000 and \$235,000 net loss after tax to the Group for the period from 8 November 2016 to 30 June 2017.

Had BEL been consolidated from 1 July 2016, consolidated revenue and consolidated profit of the Group for the period ended 30 June 2017 would have been \$804,228,000 and \$334,588,000 respectively.

### 22. Investments in subsidiaries

	The Company	
	2018 \$'000	2017 \$'000
<b>Equity investments at cost</b>		
Balance at beginning of financial year	682,701	573,501
Capital injection	15,150	164,000
Capital reduction	—	(54,800)
<b>697,851</b>	<b>682,701</b>	
<b>Long-term receivables</b>		
Amount due from subsidiary	40,989	40,989
Balance at end of financial year	<b>738,840</b>	<b>723,690</b>

The amount due from subsidiary is interest-free and has no fixed terms of repayment.

## 22. Investments in subsidiaries (continued)

Details of the subsidiaries are as follows:

Name of subsidiary	Note	Principal activities	Country of business and incorporation	Equity held by			
				The Company	Subsidiaries	2018 %	2017 %
Singapore Exchange Securities Trading Limited	(a)	Operating a securities exchange	Singapore	100	100	—	—
Singapore Exchange Derivatives Trading Limited	(a)	Operating a derivatives exchange	Singapore	100	100	—	—
The Central Depository (Pte) Limited	(a)	Providing clearing, counterparty guarantee, depository and related services for securities transactions	Singapore	100	100	—	—
Singapore Exchange Derivatives Clearing Limited	(a)	Providing clearing, counterparty guarantee and related services for derivatives transactions	Singapore	100	100	—	—
SGX Bond Trading Pte. Ltd.	(a)	Providing bond trading services	Singapore	100	100	—	—
Singapore Exchange Regulation Pte. Ltd.	(a)	Providing front-line regulatory functions	Singapore	100	100	—	—
Singapore Exchange IT Solutions Pte Limited	(a)	Providing computer services and software maintenance	Singapore	100	100	—	—
Asian Gateway Investments Pte Ltd	(a)	Investment holding	Singapore	100	100	—	—
Singapore Commodity Exchange Limited	(a)	Dormant	Singapore	100	100	—	—
SGX International Pte. Ltd.	(a)	Dormant	Singapore	100	100	—	—
Securities Clearing and Computer Services (Pte) Limited	(a)	Dormant	Singapore	100	100	—	—
Asian Gateway Investments (China) Pte. Ltd.	(a)	Investment holding	Singapore	—	—	100	100
SGX Baltic Investments Pte Ltd	(a)	Investment holding	Singapore	—	—	100	100
The Baltic Exchange Limited	(b)	Investment holding, membership services and provision of management services to related corporations	United Kingdom	—	—	100	100

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### 22. Investments in subsidiaries (continued)

Name of subsidiary	Note	Principal activities	Country of business and incorporation	Equity held by			
				The Company 2018 %	2017 %	Subsidiaries 2018 %	2017 %
Baltic Exchange Derivatives Trading Limited	(b)	Dormant	United Kingdom	—	—	100	100
Baltic Exchange Information Services Limited	(b)	Providing and distributing bulk freight market indices and information	United Kingdom	—	—	100	100
The Baltic Exchange (Asia) Pte. Limited	(a)	Distributing bulk freight market indices and information in Asia and membership services	Singapore	—	—	100	100
Energy Market Company Pte Ltd	(a)	Operating an electricity market	Singapore	—	—	100	100
Asia Converge Pte Ltd	(a)	Dormant	Singapore	—	—	100	100
Asiaclear Pte Ltd	(a)	Dormant	Singapore	—	—	100	100
CDP Nominees Pte Ltd	(a)	Dormant	Singapore	—	—	100	100
Globalclear Pte Ltd	(a)	Dormant	Singapore	—	—	100	100
Joint Asian Derivatives Pte. Ltd.	(a)	Dormant	Singapore	—	—	100	100
SGX America Limited	(c)	Providing consultancy services	United States of America	—	—	100	100
Shanghai Yaxu Consultancy Company Limited	(d)(e)	Providing consultancy services	People's Republic of China	—	—	100	100

(a) Audited by PricewaterhouseCoopers LLP, Singapore.

(b) Audited by PricewaterhouseCoopers LLP, United Kingdom.

(c) Not required to be audited in the United States of America.

(d) Audited by PricewaterhouseCoopers Zhong Tian LLP, People's Republic of China.

(e) The subsidiary's financial year-end is 31 December.

### 23. Investments in associated companies

	The Group		The Company	
	2018 \$'000	2017 \$'000	2018 \$'000	2017 \$'000
Investment in associated companies	8,628	10,307	4,389	4,389

### 23. Investments in associated companies (continued)

Details of the associated companies held by the Group and the Company are as follows:

Name of company	Principal activity	Country of business and incorporation	Equity holding	
			2018 %	2017 %
<b>Held by the Group through a subsidiary</b>				
Capbridge Pte. Ltd. <sup>(a)</sup>	Shares, stocks and bonds broking	Singapore	10 <sup>(d)</sup>	—
Capbridge Platform Pte. Ltd. <sup>(a)</sup>	Operating private market platform	Singapore	10 <sup>(d)</sup>	—
Commodities Intelligence Centre Pte. Ltd. <sup>(b)</sup>	Development of e-commerce applications	Singapore	10 <sup>(d)</sup>	—
<b>Held by the Company</b>				
Philippines Dealing System Holdings Corp. <sup>(c)</sup>	Investment holding	Philippines	20	20

<sup>(a)</sup> Audited by CA Practice PAC, Singapore.

<sup>(b)</sup> Commodities Intelligence Centre Pte. Ltd. was incorporated on 7 May 2018. It is in the process of appointing its auditor.

<sup>(c)</sup> Audited by SyCip Gorres Velayo & Co, Philippines.

<sup>(d)</sup> Where the voting rights are less than 20%, the presumption that the entity is not an associated company is overcome if the Group has significant influence including representation on the board of directors or participation in policy-making process of the investee.

There was no associated company that was individually material to the Group (2017: Nil).

The following table summarises, in aggregate, the Group's share of profit and other comprehensive income of the associated companies accounted for using the equity method:

	The Group			
	2018 \$'000	2017 \$'000	2018 \$'000	2017 \$'000
Profit from continuing operations			1,268	1,412
Total comprehensive income			1,268	1,412

There are no contingent liabilities relating to the Group's interest in the associated company (2017: Nil).

### 24. Trade and other payables

	The Group		The Company	
	2018 \$'000	2017 \$'000	2018 \$'000	2017 \$'000
<b>Current</b>				
Trade payables (Note (a))	761,947	752,081	505	895
Other payables (Note (b))	128,715	139,485	56,444	70,908
Amount due to subsidiaries (non-trade) (Note (c))	—	—	237,072	249,921
	<b>890,662</b>	<b>891,566</b>	<b>294,021</b>	<b>321,724</b>
<b>Non-current</b>				
Trade and other payables:				
– Accrual for operating expenses	—	18	—	—
(a) Trade payables comprise:				
Payables to clearing members and settlement banks				
– Daily settlement of accounts for due contracts and rights (Note 13(a))	552,217	575,526	—	—
Payables under NEMS (Note 14)	176,622	146,318	—	—
Other trade payables	33,108	30,237	505	895
	<b>761,947</b>	<b>752,081</b>	<b>505</b>	<b>895</b>

The payables to clearing members and settlement banks represent the net settlement obligations by CDP. The corresponding net settlement obligations by clearing members and settlement banks to CDP are disclosed in Note 13(a).

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### 24. Trade and other payables (continued)

	The Group		The Company	
	2018 \$'000	2017 \$'000	2018 \$'000	2017 \$'000
(b) Other payables comprise:				
Accrual for operating expenses	60,964	80,738	18,868	32,464
Accrual for bonus	48,609	42,397	31,397	32,341
Defined contribution plans payable	1,699	1,609	953	970
Advance receipts	8,817	7,855	11	11
Others (non-trade)	8,626	6,886	5,215	5,122
	<b>128,715</b>	<b>139,485</b>	<b>56,444</b>	<b>70,908</b>

(c) The amounts due to subsidiaries are unsecured, non-interest bearing and repayable on demand.

### 25. Income taxes

#### (a) Income tax expense

	The Group		The Company	
	2018 \$'000	2017 \$'000	2018 \$'000	2017 \$'000
Tax expense attributable to profit is made up of:				
- current income tax	81,988	63,492	4,521	1,455
- deferred income tax	(5,223)	6,574	437	2,311
	<b>76,765</b>	<b>70,066</b>	<b>4,958</b>	<b>3,766</b>
Over provision in prior financial years:				
- current income tax	(2,495)	(874)	(988)	-
	<b>74,270</b>	<b>69,192</b>	<b>3,970</b>	<b>3,766</b>

#### (b) Tax reconciliation

The tax expense on profit differs from the amount that would arise using the Singapore rate of income tax due to the following:

	The Group		The Company	
	2018 \$'000	2017 \$'000	2018 \$'000	2017 \$'000
Profit before tax and share of results of associated companies	<b>436,202</b>	407,472	<b>370,989</b>	390,952
Tax calculated at a tax rate of 17% (2017: 17%)	<b>74,154</b>	69,270	<b>63,068</b>	66,462
Tax effect of:				
Singapore statutory income exemption	(208)	(183)	(26)	(26)
Income not subject to tax	(17)	(58)	(60,238)	(64,345)
Tax incentives and rebate	(465)	(1,498)	(389)	(418)
Expenses not deductible for tax purposes	2,580	2,289	1,723	2,019
Others	721	246	820	74
Over provision in prior financial years	(2,495)	(874)	(988)	-
	<b>74,270</b>	<b>69,192</b>	<b>3,970</b>	<b>3,766</b>

**25. Income taxes (continued)****(c) Movements in provision for tax**

	<b>The Group</b>		<b>The Company</b>	
	2018 \$'000	2017 \$'000	2018 \$'000	2017 \$'000
Balance at beginning of financial year	<b>71,398</b>	75,262	<b>3,733</b>	5,174
Acquisition of subsidiary (Note 21(c))	–	586	–	–
Income tax paid	(65,285)	(67,090)	(3,370)	(2,896)
Tax expense on profit for the financial year	<b>81,988</b>	63,492	<b>4,521</b>	1,455
Over provision in prior financial years	(2,495)	(874)	(988)	–
Utilisation of losses and capital allowances <sup>(a)</sup>	(3,165)	–	–	–
Currency translation	(1)	22	–	–
Balance at end of financial year	<b>82,440</b>	71,398	<b>3,896</b>	3,733

<sup>(a)</sup> This arises from transfer of prior year's tax losses and unutilised capital allowances between entities within the group.

**(d) Deferred income tax**

The following amounts, determined after appropriate offsetting, are shown in the statement of financial position:

	<b>The Group</b>		<b>The Company</b>	
	2018 \$'000	2017 \$'000	2018 \$'000	2017 \$'000
Deferred tax assets:				
– to be recovered within 12 months	<b>2,882</b>	5,006	<b>1,119</b>	1,379
– to be recovered after 12 months	<b>488</b>	388	<b>488</b>	388
	<b>3,370</b>	5,394	<b>1,607</b>	1,767
– Effect of offsetting	(3,370)	(5,394)	(1,607)	(1,767)
	–	–	–	–
Deferred tax liabilities:				
– to be settled within 12 months	<b>11,260</b>	11,593	<b>3,146</b>	2,960
– to be settled after 12 months	<b>24,784</b>	29,065	<b>5,173</b>	5,162
	<b>36,044</b>	40,658	<b>8,319</b>	8,122
– Effect of offsetting	(3,370)	(5,394)	(1,607)	(1,767)
	<b>32,674</b>	35,264	<b>6,712</b>	6,355

The movements in the deferred tax assets and liabilities during the financial year are as follows:

**The Group – deferred tax assets**

	<b>Unutilised tax losses</b>		<b>Unutilised capital allowances</b>		<b>Employee share plans</b>		<b>Total</b>	
	2018 \$'000	2017 \$'000	2018 \$'000	2017 \$'000	2018 \$'000	2017 \$'000	2018 \$'000	2017 \$'000
Balance at beginning of financial year	<b>1,589</b>	696	<b>2,038</b>	2,168	<b>1,767</b>	2,221	<b>5,394</b>	5,085
Credited/(charged) to profit or loss	<b>811</b>	893	<b>490</b>	(130)	(256)	(337)	<b>1,045</b>	426
Utilisation of losses and capital allowances <sup>(a)</sup>	(697)	–	(2,468)	–	–	–	(3,165)	–
Charged to equity	–	–	–	–	96	(117)	96	(117)
Balance at end of financial year	<b>1,703</b>	1,589	<b>60</b>	2,038	<b>1,607</b>	1,767	<b>3,370</b>	5,394

<sup>(a)</sup> This arises from transfer of prior year's tax losses and unutilised capital allowances between entities within the group.

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For the financial year ended 30 June 2018

### 25. Income taxes (continued)

#### (d) Deferred income tax (continued)

The Group – deferred tax liabilities

	Cash flow hedge reserve		Accelerated tax depreciation		Intangible assets arising from business combinations		Available-for-sale financial assets		Total	
	2018 \$'000	2017 \$'000	2018 \$'000	2017 \$'000	2018 \$'000	2017 \$'000	2018 \$'000	2017 \$'000	2018 \$'000	2017 \$'000
Balance at beginning of financial year	218	439	25,845	18,138	14,595	4,344	–	–	40,658	22,921
Acquisition of subsidiary (Note 21(c))	–	–	–	355	–	10,226	–	–	–	10,581
Charged/(credited) to profit or loss	–	–	(3,749)	7,339	(429)	(339)	–	–	(4,178)	7,000
Charged/(credited) to equity	(506)	(221)	–	–	–	–	23	–	(483)	(221)
Currency Translation	–	–	13	13	34	364	–	–	47	377
Balance at end of financial year	(288)	218	22,109	25,845	14,200	14,595	23	–	36,044	40,658

The Company – deferred tax assets

	Employee share plans	
	2018 \$'000	2017 \$'000
Balance at beginning of financial year	1,767	2,221
Charged to profit or loss	(256)	(337)
Credited/(charged) to equity	96	(117)
Balance at end of financial year	1,607	1,767

The Company – deferred tax liabilities

	Cash flow hedge reserve		Available-for-sale financial assets		Accelerated tax depreciation		Total	
	2018 \$'000	2017 \$'000	2018 \$'000	2017 \$'000	2018 \$'000	2017 \$'000	2018 \$'000	2017 \$'000
Balance at beginning of financial year	–	–	–	–	8,122	6,149	8,122	6,149
Charged to profit or loss	–	–	–	–	181	1,973	181	1,973
Credited to equity	(7)	–	23	–	–	–	16	–
Balance at end of financial year	(7)	–	23	–	8,303	8,122	8,319	8,122

Deferred tax assets have not been recognised in respect of the following items:

	The Group	
	2018 \$'000	2017 \$'000
Tax losses	22,704	22,705

These items principally relate to four (2017: four) entities within the Group which are dormant.

Deferred tax assets have not been recognised in respect of these items as it is not probable that future taxable profits will be available against which the Group can utilise the benefits. The tax losses are subject to the relevant provisions of the Singapore Income Tax Act and confirmation by the tax authorities.

**25. Income taxes (continued)****(e) Tax effects on other comprehensive income**

	The Group			The Company		
	Before tax \$'000	Tax benefit/ (liability) \$'000	Net of tax \$'000	Before tax \$'000	Tax benefit/ (liability) \$'000	Net of tax \$'000
<b>2018</b>						
<b>Other comprehensive income</b>						
Foreign exchange translation	(108)	–	(108)	–	–	–
Fair value (losses)/gains and transferred to profit or loss on cash flow hedges	(2,980)	506	(2,474)	(39)	7	(32)
Fair value gains on available-for-sale financial assets	134	(23)	111	134	(23)	111
	<b>(2,954)</b>	<b>483</b>	<b>(2,471)</b>	<b>95</b>	<b>(16)</b>	<b>79</b>
<b>2017</b>						
<b>Other comprehensive income</b>						
Foreign exchange translation	4,297	–	4,297	–	–	–
Fair value (losses)/gains and transferred to profit or loss on cash flow hedges	(1,304)	221	(1,083)	–	–	–
	<b>2,993</b>	<b>221</b>	<b>3,214</b>	<b>–</b>	<b>–</b>	<b>–</b>

**26. Provisions**

	The Group		The Company	
	2018 \$'000	2017 \$'000	2018 \$'000	2017 \$'000
Provision for SGX-MAS Market Development Scheme (Note (a))	1,802	1,802	–	–
Provision for unutilised leave (Note (b))	5,560	5,550	3,526	4,211
Provision for dismantlement, removal or restoration of property, plant and equipment (Note (c))	3,601	3,001	3,582	2,982
	<b>10,963</b>	<b>10,353</b>	<b>7,108</b>	<b>7,193</b>

**(a) Provision for SGX-MAS Market Development Scheme**

Provision for SGX-MAS Market Development Scheme is used to fund projects that raise awareness of the securities and derivatives market among investors.

The provision recorded at the Group as at 30 June 2018 is \$1,802,000 (2017: \$1,802,000).

**(b) Provision for unutilised leave**

Provision for unutilised leave is the estimated liability for annual leave as a result of services rendered by employees up to the balance sheet date.

	The Group		The Company	
	2018 \$'000	2017 \$'000	2018 \$'000	2017 \$'000
Balance at beginning of financial year	5,550	4,972	4,211	3,695
Provision made during the financial year, net	10	578	(685)	516
Balance at end of financial year	<b>5,560</b>	<b>5,550</b>	<b>3,526</b>	<b>4,211</b>

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### 26. Provisions (continued)

#### (c) Provision for dismantlement, removal or restoration of property, plant and equipment

Provision for dismantlement, removal or restoration of leased premises is expected to be utilised upon return of these leased premises.

	<b>The Group</b>		<b>The Company</b>	
	2018 \$'000	2017 \$'000	2018 \$'000	2017 \$'000
Balance at beginning of financial year	3,001	3,001	2,982	2,982
Provision made during the financial year, net	600	—	600	—
Balance at end of financial year	<b>3,601</b>	3,001	<b>3,582</b>	2,982

### 27. Share capital

#### (a) Share capital and treasury shares

The Group and The Company

	<b>Number of shares</b>		<b>Amount</b>	
	Issued shares '000	Treasury shares '000	Share capital \$'000	Treasury shares \$'000
<b>2018</b>				
Balance at beginning of financial year	1,071,642	1,694	428,031	(12,561)
Purchase of treasury shares	—	1,097	—	(8,192)
Vesting of shares under share-based remuneration plans	—	(1,255)	1,205	9,294
Tax effect on treasury shares	—	—	—	96
Balance at end of financial year	<b>1,071,642</b>	<b>1,536</b>	<b>429,236</b>	<b>(11,363)</b>
<b>2017</b>				
Balance at beginning of financial year	1,071,642	1,784	426,445	(12,855)
Purchase of treasury shares	—	1,174	—	(8,638)
Vesting of shares under share-based remuneration plans	—	(1,264)	1,586	9,049
Tax effect on treasury shares	—	—	—	(117)
Balance at end of financial year	<b>1,071,642</b>	<b>1,694</b>	<b>428,031</b>	<b>(12,561)</b>

All issued ordinary shares are fully paid. There is no par value for these ordinary shares.

Fully paid ordinary shares carry one vote per share and carry a right to dividends as and when declared by the Company, except for shares held as treasury shares.

The Company purchased 1,097,000 of its shares (2017: 1,173,700) in the open market during the financial year. The total amount paid to purchase the shares was \$8,192,000 (2017: \$8,638,000). The Company holds the shares bought back as treasury shares and plans to use these shares to fulfil its obligations under the Company's share-based remuneration plans.

## 27. Share capital (continued)

### (b) Performance share plans

#### (i) Outstanding performance shares

Details of performance shares awarded to participants at the balance sheet date are as follows:

Number of shares	The Group and The Company					Total
	FY2014 grant*	FY2015 grants**	FY2016 grant**	FY2017 grant**	FY2018 grant**	
<b>2018</b>						
Balance at beginning of financial year	–	673,600	426,300	640,600	–	1,740,500
Granted	–	–	–	–	658,200	658,200
Vested	–	(191,800)	–	–	–	(191,800)
Lapsed	–	(481,800)	(34,700)	(36,000)	(36,600)	(589,100)
Balance at end of financial year	–	–	391,600	604,600	621,600	1,617,800
<b>2017</b>						
Balance at beginning of financial year	646,800	709,200	456,000	–	–	1,812,000
Granted	–	–	–	658,800	–	658,800
Vested	(197,200)	–	–	–	–	(197,200)
Lapsed	(449,600)	(35,600)	(29,700)	(18,200)	–	(533,100)
Balance at end of financial year	–	673,600	426,300	640,600	–	1,740,500

\* The number of shares vested represents the level of achievement against the performance conditions.

\*\* Represents the number of shares required if participants are to be awarded at 100% of the grant. However, the shares to be awarded at the vesting date may range from 0% to 150% of the grant, depending on the level of achievement against the performance conditions.

The terms of the performance share plans are set out in the Directors' Statement under the caption "SGX Performance Share Plan"

#### (ii) Fair value of performance shares

The fair value of the performance shares at grant date and the key assumptions of the fair value model for the grants were as follows:

	FY2018 grant	FY2017 grant	FY2016 grant	FY2015 grants	FY2014 grant
Date of grant	15.09.2017	15.08.2016	30.10.2015	15.08.2014 and 30.06.2015	15.08.2013
Vesting date	01.09.2021	01.09.2020	01.09.2019	01.09.2017 and 01.06.2018	01.09.2016
Number of performance shares at grant date	658,200	658,800	487,500	811,600	753,900
Fair value per performance share at grant date	\$7.25	\$6.68	\$6.30	\$5.27 to \$5.54	\$5.77
<b>Assumption under Monte-Carlo Model</b>					
<b>Expected volatility</b>					
Shares of Singapore Exchange Limited	17.30%	17.42%	16.30%	14.44% to 16.03%	19.81%
FTSE Mondo Visione	–	–	–	11.77% to 18.94%	21.14%
Shares of selected peer exchanges	15.64% to 42.66%	16.60% to 48.79%	18.51% to 51.53%	–	–
Historical volatility period	36 months	36 months	36 months	36 months	36 months
<b>Risk-free interest rate</b>					
Date on which yield of Singapore government bond was based	15.09.2017	15.08.2016	30.10.2015	15.08.2014 and 30.06.2015	15.08.2013
Term (years)	3	3	3	3	3
<b>Cost of funding</b>					
Risk-free interest rate	1.42%	1.14%	1.42%	0.71% to 1.27%	0.34%
<b>Expected dividend yield based on management's forecast</b>					
Share price reference	\$7.42	\$7.58	\$7.38	\$7.08 to \$7.94	\$7.58

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### 27. Share capital (continued)

#### (c) Deferred long-term incentives scheme

##### (i) Outstanding deferred long-term incentives shares

Details of deferred long-term incentives shares awarded to recipients at the balance sheet date are as follows:

Number of shares	The Group and The Company					Total
	FY2014 award	FY2015 awards	FY2016 award	FY2017 award	FY2018 award	
<b>2018</b>						
Balance at beginning of financial year	–	420,135	572,638	1,075,100	–	2,067,873
Awarded	–	–	–	–	1,174,000	1,174,000
Lapsed	–	–	(18,172)	(34,135)	(37,500)	(89,807)
Vested	–	(420,135)	(285,596)	(357,457)	–	(1,063,188)
Balance at end of financial year	–	–	268,870	683,508	1,136,500	2,088,878
<b>2017</b>						
Balance at beginning of financial year	361,262	839,670	922,200	–	–	2,123,132
Awarded	–	–	–	1,115,700	–	1,115,700
Lapsed	–	(20,472)	(43,004)	(40,600)	–	(104,076)
Vested	(361,262)	(399,063)	(306,558)	–	–	(1,066,883)
Balance at end of financial year	–	420,135	572,638	1,075,100	–	2,067,873

The terms of the deferred long-term incentives scheme are set out in the Directors' Statement under the caption "SGX Deferred Long-Term Incentives Scheme".

**27. Share capital** (continued)**(c) Deferred long-term incentives scheme** (continued)**(ii) Fair value of deferred long-term incentives shares**

The fair value of deferred long-term incentives shares was estimated by the present value of the share price adjusted for future expected dividends and funding cost. The fair value of shares at award date and the key assumptions of the fair value model for the awards were as follows:

**FY2018 Award**

Date of award	← 15.08.2017 →		
Vesting date	01.09.2018	01.09.2019	01.09.2020
Number of shares at award date	391,286	391,286	391,428
Fair value per deferred long-term incentives share at award date	\$7.25	\$6.98	\$6.71
<b>Assumption used in fair value model</b>			
<b>Risk-free interest rate</b>	1.18%	1.31%	1.46%
Date on which yield of Singapore government bond was based	15.08.2017	15.08.2017	15.08.2017
<b>Cost of funding</b>			
Risk-free interest rate	1.18%	1.31%	1.46%
<b>Expected dividend yield based on management's forecast</b>	3.77%	3.77%	3.77%
<b>Share price reference</b>	\$7.57	\$7.57	\$7.57

**FY2017 Award**

Date of award	← 15.08.2016 →		
Vesting date	01.09.2017	01.09.2018	01.09.2019
Number of shares at award date	371,853	371,853	371,994
Fair value per deferred long-term incentives share at award date	\$7.38	\$7.10	\$6.79
<b>Assumption used in fair value model</b>			
<b>Risk-free interest rate</b>	0.80%	0.89%	1.03%
Date on which yield of Singapore government bond was based	15.08.2016	15.08.2016	15.08.2016
<b>Cost of funding</b>			
Risk-free interest rate	0.80%	0.89%	1.03%
<b>Expected dividend yield based on management's forecast</b>	3.69%	4.22%	4.62%
<b>Share price reference</b>	\$7.66	\$7.66	\$7.66

## Notes to the Financial Statements

For the financial year ended 30 June 2018

### 27. Share capital (continued)

#### (c) Deferred long-term incentives scheme (continued)

##### (ii) Fair value of deferred long-term incentives shares (continued)

###### FY2016 Award

Date of award	17.08.2015		
Vesting date	01.09.2016	01.09.2017	01.09.2018
Number of shares at award date	318,690	318,690	318,820
Fair value per deferred long-term incentives share at award date	\$7.72	\$7.74	\$7.69
<b>Assumption used in fair value model</b>			
<b>Risk-free interest rate</b>	0.97%	1.17%	1.43%
Date on which yield of Singapore government bond was based	17.08.2015	17.08.2015	17.08.2015
<b>Cost of funding</b>			
Risk-free interest rate	0.97%	1.17%	1.43%
<b>Expected dividend yield based on management's forecast</b>	3.91%	3.65%	4.36%
<b>Share price reference</b>	\$8.02	\$8.02	\$8.02

###### FY2015 Awards

Date of award	15.08.2014 and 30.06.2015		
Vesting date	01.09.2015	01.09.2016	01.09.2017
Number of shares at award date	386,460	427,893	428,013
Fair value per deferred long-term incentives share at award date	\$6.88	\$6.82 to \$7.48	\$6.77 to \$7.50
<b>Assumption used in fair value model</b>			
<b>Risk-free interest rate</b>	0.34%	0.47% to 0.86%	0.69% to 0.99%
Date on which yield of Singapore government bond was based	14.08.2014 and 29.06.2015	14.08.2014 and 29.06.2015	14.08.2014 and 29.06.2015
14.08.2014 and 29.06.2015	14.08.2014 and 29.06.2015	14.08.2014 and 29.06.2015	29.06.2015
<b>Cost of funding</b>			
Risk-free interest rate	0.34%	0.47% to 0.86%	0.69% to 0.99%
<b>Expected dividend yield based on management's forecast</b>	4.35%	3.91%	3.65%
<b>Share price reference</b>	\$7.21	\$7.21 to \$7.83	\$7.21 to \$7.83
			\$7.83

**27. Share capital (continued)****(c) Deferred long-term incentives scheme (continued)****(ii) Fair value of deferred long-term incentives shares (continued)****FY2014 Award**

Date of award	15.08.2013		
Vesting date	01.09.2014	01.09.2015	01.09.2016
Number of shares at award date	407,797	407,797	407,906
Fair value per deferred long-term incentives share at award date	\$7.34	\$7.34	\$7.26
<b>Assumption used in fair value model</b>			
<b>Risk-free interest rate</b>	0.22%	0.26%	0.33%
Date on which yield of Singapore government bond was based	14.08.2013	14.08.2013	14.08.2013
<b>Cost of funding</b>			
Risk-free interest rate	0.22%	0.26%	0.33%
<b>Expected dividend yield based on management's forecast</b>	4.43%	4.49%	5.63%
<b>Share price reference</b>	\$7.61	\$7.61	\$7.61

**28. Dividends**

	<b>The Group and The Company</b>	
	<b>2018 \$'000</b>	<b>2017 \$'000</b>
Interim tax exempt dividends of 15.0 cents per share (2017: 15.0 cents)	<b>160,614</b>	160,606
Proposed final tax exempt dividends of 15.0 cents per share (2017: 13.0 cents)	<b>160,516</b>	139,093
	<b>321,130</b>	299,699

The directors have proposed a final tax exempt dividend for FY2018 of 15.0 cents (2017: 13.0 cents) per share amounting to a total of \$160,516,000 (2017: \$139,093,000). The proposed dividend has been transferred from retained profits to the proposed dividends reserve.

**29. Segment information**

Management determines the operating segments based on the reports reviewed and used by the Executive Management Committee for performance assessment and resources allocation.

The Group operates primarily in Singapore and is organised into four segments as follows:

- (i) Equities and Fixed Income – provision of issuer services, securities trading and clearing, post trade services, membership and collateral management.
- (ii) Derivatives – provision of derivatives trading and clearing services, membership and collateral management.
- (iii) Market Data and Connectivity – provision of market data and connectivity services.
- (iv) Corporate – A non-operating segment comprising corporate activities which are not allocated to the three operating segments described above.

Segment performance is evaluated based on operating profits of the segment. Management monitors the operating results of the segments for the purpose of making decisions on performance assessment and resource allocation.

## Notes to the Financial Statements

For the financial year ended 30 June 2018

### 29. Segment information (continued)

	Equities and Fixed Income \$'000	Derivatives \$'000	Market Data and Connectivity \$'000	Corporate \$'000	The Group \$'000
<b>2018</b>					
<b>Operating Revenue</b>	<b>406,600</b>	<b>339,812</b>	<b>98,266</b>	—	<b>844,678</b>
Operating profits	224,166	148,402	52,328	—	424,896
Other gains – net	—	—	—	11,306	11,306
Share of results of associated companies	—	—	—	1,268	1,268
Tax	—	—	—	(74,270)	(74,270)
<b>Net profit after tax</b>					<b>363,200</b>
<b>Segment Assets</b>	<b>725,711</b>	<b>481,384</b>	<b>41,645</b>	<b>866,198</b>	<b>2,114,938</b>
Segment assets includes:					
– Investments in associated companies	—	—	—	8,628	8,628
– Additions to:					
– Property, plant and equipment and software	40,684	18,655	5,572	—	64,911
– Investment property	—	150	—	—	150
– Investments in associated companies	—	—	—	2,517	2,517
<b>Segment Liabilities</b>	<b>630,892</b>	<b>253,879</b>	<b>11,003</b>	<b>122,932</b>	<b>1,018,706</b>
<b>Other Information</b>					
Depreciation and amortisation	27,483	28,634	4,721	—	60,838
<b>2017</b>					
<b>Operating Revenue</b>	<b>404,521</b>	<b>303,051</b>	<b>93,242</b>	—	<b>800,814</b>
Operating profits	226,575	120,324	54,918	—	401,817
Other gains – net	—	—	—	5,655	5,655
Share of results of associated company	—	—	—	1,412	1,412
Tax	—	—	—	(69,192)	(69,192)
<b>Net profit after tax</b>					<b>339,692</b>
<b>Segment Assets</b>	<b>737,147</b>	<b>457,323</b>	<b>39,717</b>	<b>807,024</b>	<b>2,041,211</b>
Segment assets includes:					
– Investment in associated company	—	—	—	10,307	10,307
– Additions to:					
– Property, plant and equipment and software	39,736	32,195	6,783	—	78,714
– Investment property	—	25,450	—	—	25,450
– Intangible assets	—	38,399	—	—	38,399
– Goodwill	—	76,224	—	—	76,224
<b>Segment Liabilities</b>	<b>662,044</b>	<b>222,353</b>	<b>10,426</b>	<b>113,855</b>	<b>1,008,678</b>
<b>Other Information</b>					
Depreciation and amortisation	27,512	25,675	4,507	—	57,694

### 30. Securities Clearing Fund

The Securities Clearing Fund was established under the clearing rules of the securities clearing subsidiary, The Central Depository (Pte) Limited ("CDP"). The clearing fund is to provide resources to enable CDP to discharge its obligations and the liabilities of defaulting clearing members arising from transactions in approved securities and futures.

The Securities Clearing Fund uses a scalable structure to better align members' contributions to their clearing risk exposure with CDP. Contributions by clearing members will vary with the value of securities and futures traded.

The Securities Clearing Fund comprised contributions from both CDP and its clearing members as follows:

#### (a) Contribution by CDP

	<b>The Group</b>	
	<b>2018 \$'000</b>	<b>2017 \$'000</b>
Cash at bank – contributed by CDP	<b>60,000</b>	60,000

Cash contributions by CDP are denominated in SGD and placed in interest bearing accounts with 1 bank (2017: 1 bank). The initial \$25,000,000 contribution by CDP into the Securities Clearing Fund is recorded in the securities clearing fund reserve.

#### (b) Contribution by Clearing Members

The cash contributions from CDP clearing members are not recorded in the statement of financial position of the Group as these contributions are held in trust by the Group.

	<b>The Group</b>	
	<b>2018 \$'000</b>	<b>2017 \$'000</b>
<b>Contributions by CDP clearing members</b>		
– cash at bank, held in trust	<b>46,622</b>	46,120

The Securities Clearing Fund is a trust asset held subject to the trust purposes set out in CDP Clearing Rule 7.1.2.

Payments out of the Securities Clearing Fund shall be made in the following order:

- (1) Contributions by defaulting clearing members;
- (2) Contributions by CDP of an amount not less than 15% of the Securities Clearing Fund size or \$30,000,000, whichever is higher;
- (3) Collateralised contributions by all other non-defaulting clearing members on a pro-rata basis in the proportion of each clearing member's required Collateralised Contribution to the total required Collateralised Contributions of all other non-defaulting clearing members at the time of default;
- (4) Contingent contributions by all other non-defaulting clearing members on a pro-rata basis in the proportion of each clearing member's required Contingent Contributions to the total required Contingent Contributions of all other non-defaulting clearing members;
- (5) Insurance (if any); and
- (6) Any other contributions (the last layer of the Securities Clearing Fund contributed by CDP amounted to \$30,000,000 (2017: \$30,000,000)).

## Notes to the Financial Statements

For the financial year ended 30 June 2018

### 31. Singapore Exchange Derivatives Clearing Limited (“SGX-DC”) Clearing Fund

The SGX-DC Clearing Fund structure specifies the apportionment and sequence of use of resources in the event of single and multiple defaults.

The Group has committed cash amounting to \$200,021,000 (2017: \$200,021,000) (Note 12) to support the SGX-DC Clearing Fund. The SGX-DC Clearing Fund is made up of the following:

	2018 \$'000	2017 \$'000
SGX-DC share capital	<b>152,000</b>	152,000
Derivatives clearing fund reserve (Note a)	<b>34,021</b>	34,021
Other SGX-DC's contributions	<b>14,000</b>	14,000
	<b>200,021</b>	200,021

Except for the \$200,021,000 (2017: \$200,021,000) mentioned above, other resources available for the SGX-DC Clearing Fund are not included in the statement of financial position of the Group. These are third party obligations towards the SGX-DC Clearing Fund and where they are held by SGX-DC, these resources are held in trust (Note 32(b)).

#### (a) Derivatives clearing fund reserve

Upon the dissolution of the SGX-DT Compensation Fund on 24 November 2006, the cash proceeds of \$34,021,000 were set aside as the Group's derivatives clearing fund reserve to support the SGX-DC Clearing Fund. This reserve is not available for distribution as dividend.

#### (b) Utilisation of SGX-DC Clearing Fund

The SGX-DC clearing rules enable resources to be mobilised should any derivatives clearing member be unable to meet its obligations. Under the SGX-DC Clearing Fund structure, the resources available would be utilised in the following priority:

- (1) the defaulting derivatives clearing member's collateral deposited with or provided to SGX-DC;
- (2) SGX-DC's contributions of an amount equivalent to 15% of its Clearing Fund size;
- (3) security deposits of non-defaulting derivatives clearing members participating in the same Contract Class as the defaulted derivatives clearing member;
- (4) further assessments on non-defaulting derivatives clearing members participating in the same Contract Class as the defaulted derivatives clearing member;
- (5) SGX-DC's contributions of an amount equivalent to 10% of its Clearing Fund size;
- (6) security deposits of other non-defaulting derivatives clearing members not participating in the same Contract Class as the defaulted derivatives clearing member;
- (7) further assessments on other non-defaulting derivatives clearing members not participating in the same Contract Class as the defaulted derivatives clearing member; and
- (8) any other contributions to the SGX-DC Clearing Fund.

The rules of SGX-DC provide for SGX-DC to continually draw down resources in the above sequence in the event of multiple defaults occurring within a period of 90 days. Upon utilisation of the SGX-DC Clearing Fund, SGX-DC will be obliged to contribute at least 25% of the SGX-DC Clearing Fund size in relation to paragraph 31(b)(2) and 31(b)(5) above.

## 32. Security, margin and other deposits

The Group, in its normal course of business, through subsidiaries operating as clearing houses, holds assets in trust or contingent assets such as irrevocable letters of credit, government securities or on-demand guarantees. None of these assets or contingent assets, together with the corresponding liabilities, are included in the statement of financial position of the Group.

### (a) The Central Depository (Pte) Limited ("CDP")

#### (i) Margin and other deposits

As the clearing house for securities traded on Singapore Exchange Securities Trading Limited ("SGX-ST"), CDP becomes the novated counterparty for these instruments.

The rules of CDP require its clearing members to provide collateral in the form acceptable to CDP as margin deposits to guarantee the performance of the obligations associated with securities traded on SGX-ST. The total collateral required by CDP at 30 June 2018 were approximately \$45,779,000 (2017: \$40,120,000).

In addition, the CDP Clearing Rules provides that CDP may request its clearing members to place additional collateral with CDP in respect of its securities clearing activities from time to time.

Forms of collateral acceptable by CDP as margins include cash, government securities, selected common stocks and other instruments as approved by CDP from time to time.

As at the reporting date, clearing members had lodged the following collateral with CDP:

	2018 \$'000	2017 \$'000
<b>Margin deposits</b>		
Cash	<u>151,541</u>	<u>165,203</u>
<b>Other collateral</b>		
Irrevocable letters of credit	<u>20,000</u>	<u>20,000</u>

All cash deposits in the financial year are placed in interest-bearing accounts with banks. Interest earned on the cash deposits is credited to the securities clearing members, with a portion retained by CDP.

### (b) Singapore Exchange Derivatives Clearing Limited ("SGX-DC")

#### (i) Margin deposits

As the clearing house for futures and options traded on Singapore Exchange Derivatives Trading Limited ("SGX-DT"), Over-The-Counter ("OTC") commodities contracts and Over-The-Counter Financial ("OTCF") derivatives contracts, SGX-DC becomes the novated counterparty for these derivative instruments.

The rules of SGX-DC require its derivatives clearing members to provide collateral in the form acceptable to SGX-DC as margin deposits to guarantee the performance of the obligations associated with derivative instruments positions.

The total margins required by SGX-DC at 30 June 2018 were approximately \$7,364,527,000 (2017: \$6,599,261,000).

As at the reporting date, clearing members had lodged the following collateral with SGX-DC:

	2018 \$'000	2017 \$'000
<b>Margin deposits</b>		
Cash	<u>7,793,764</u>	<u>7,641,615</u>
Quoted government securities, at fair value	<u>928,554</u>	<u>356,799</u>

All cash deposits are placed in interest-bearing accounts with banks and/or in reverse repurchase agreements. Interest earned on the cash deposits is credited to the derivatives clearing members, with a portion retained by SGX-DC.

## Notes to the Financial Statements

For the financial year ended 30 June 2018

### 32. Security, margin and other deposits (continued)

#### (b) Singapore Exchange Derivatives Clearing Limited ("SGX-DC") (continued)

##### (ii) Performance deposits and deposits received for contract value

For commodities contracts which are physically-settled, the rules of SGX-DC and its contract specifications require its clearing members to provide collateral in the form acceptable to SGX-DC as performance deposits to secure the performance of a delivery contract. In its capacity as escrow agent to the physical delivery of the contract, SGX-DC also collects the contract value of the commodities to be delivered through the exchange.

As at the reporting date, the following were lodged with SGX-DC for performance deposits purposes:

	2018 \$'000	2017 \$'000
<b>Performance deposits and deposits received for contract value</b>		
Cash	—	154

##### (iii) Security and other deposits

The rules of SGX-DC require its clearing members to deposit security for their derivatives clearing obligations to SGX-DC:

- (1) Clearing Members who clear exchange-traded derivatives and OTC commodities contracts are required to post the higher of S\$1 million or up to 4.5% (currently 3.3%) of the daily average of risk margin during the preceding three-month period, in cash, government securities or any forms of collateral acceptable to SGX-DC;
- (2) Clearing Members who clear OTCF derivatives contracts are required to post the higher of US\$5,000,000 or 6.0% of the daily average of risk margin during the preceding three-month period, in cash or government securities or any forms of collateral acceptable to SGX-DC;
- (3) Clearing Members who clear exchange-traded derivatives, OTC commodities contracts and OTCF derivatives contracts will be required to post the aggregate of (1) and (2).

As at the reporting date, the following security and other deposits were lodged with SGX-DC for clearing fund purpose:

	2018 \$'000	2017 \$'000
<b>Security and other deposits</b>		
Cash	531,806	505,444
Quoted government securities, at fair value	43,529	37,552

##### (iv) Collateral for Mutual Offset Settlement Agreement

As at 30 June 2018, irrevocable letters of credit amounting to approximately \$388,368,000 (2017: \$392,616,000) were lodged by The Chicago Mercantile Exchange with SGX-DC. This is to fulfill collateral requirements under the Mutual Offset Settlement Agreement.

### 33. Financial requirements

#### (a) CDP

The rules of CDP impose financial requirements on its clearing members. As at 30 June 2018, clearing members had lodged the following collateral with CDP to support their financial requirements:

	2018 \$'000	2017 \$'000
Cash	<b>10,000</b>	10,000

None of these assets or contingent assets nor the corresponding liabilities are included in the statement of financial position of the Group.

#### (b) SGX-DC

The rules of SGX-DC impose financial requirements on its clearing members. As at 30 June 2018, clearing members had lodged the following collateral with SGX-DC to support their financial requirements:

	2018 \$'000	2017 \$'000
Cash	<b>986,048</b>	834,407

None of these assets or contingent assets nor the corresponding liabilities are included in the statement of financial position of the Group.

### 34. Collaterals for Securities Borrowing and Lending

CDP operates a Securities Borrowing and Lending ("SBL") programme for its Depositors and Depositary Agents. SBL involves a temporary transfer of securities from a lender to a borrower, via CDP, for a fee. The SBL programme requires the borrowers of securities to provide collateral in the form of cash and/or certain designated securities.

As at the reporting date, borrowers had lodged the following collateral with CDP for SBL purpose:

	2018 \$'000	2017 \$'000
Cash	<b>22,203</b>	26,762
Securities, at fair value	<b>20,358</b>	10,962

None of these assets or contingent assets nor the corresponding liabilities are included in the statement of financial position of the Group.

## Notes to the Financial Statements

For the financial year ended 30 June 2018

### 35. Securities and Derivatives Fidelity Funds

The Fidelity Funds are administered by Singapore Exchange Securities Trading Limited ("SGX-ST") and Singapore Exchange Derivatives Trading Limited ("SGX-DT"), as required by Section 176 of the Securities and Futures Act. The assets of the Funds are kept separate from all other assets, and are held in trust for the purposes set out in the Securities and Futures Act. The balances of the Fidelity Funds are as follows:

	2018 \$'000	2017 \$'000
Securities Exchange Fidelity Fund	36,445	36,086
Derivatives Exchange Fidelity Fund	24,772	24,527
	<b>61,217</b>	<b>60,613</b>

The purposes of the fidelity funds pursuant to Section 186 of the Securities and Futures Act are as follows:

- (a) to compensate any person (other than an accredited investor) who has suffered a pecuniary loss from any defalcation committed:
  - (i) in the course of, or in connection with, dealing in securities, or the trading of a futures contract;
  - (ii) by a member of a securities exchange or a futures exchange or by any agent of such member; and
  - (iii) in relation to any money or other property entrusted to or received:
    - by that member or any of its agents; or
    - by that member or any of its agents as trustee or on behalf of the trustees of that money or property.
- (b) to pay the Official Assignee or a trustee in bankruptcy within the meaning of the Bankruptcy Act (Cap. 20) if the available assets of a bankrupt, who is a member of SGX-ST or SGX-DT, are insufficient to satisfy any debts arising from dealings in securities or trading in futures contracts which have been proved in the bankruptcy by creditors of the bankrupt member.
- (c) to pay a liquidator of a member of SGX-ST or SGX-DT which is being wound up if the available assets of a member are insufficient to satisfy any debts arising from dealings in securities or trading in futures contracts which have been proved in the liquidation of the member.

Any reference to dealing in securities or trading of a futures contract refers to such dealing or trading through the exchange which establishes, keeps and administers the fidelity fund or through a trading linkage of the exchange with an overseas securities exchange or an overseas futures exchange.

No further provision has been made in the financial year ended 30 June 2018 for contribution to be paid to the securities and derivatives fidelity funds as the minimum sum of \$20 million (2017: \$20 million) for each fund as currently required under the Securities and Futures Act has been met.

	2018 \$'000	2017 \$'000
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The assets and liabilities of the Funds are as follows:

#### Assets

Fixed deposits with banks	60,600	60,300
Bank balance	717	482
Interest receivable	35	24
	<b>61,352</b>	<b>60,806</b>

#### Liabilities

Other payables and accruals	7	3
Taxation	123	186
Deferred tax liabilities	5	4
	<b>135</b>	<b>193</b>

#### Net assets

	61,217	60,613
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The assets and liabilities of the Funds are not included in the statement of financial position of the Group as they are held in trust.

### 36. Contingent liabilities

At the balance sheet date, the Group and the Company's contingent liabilities are as follows:

	The Group	The Company
	2018 \$'000	2017 \$'000
Unsecured guarantees by SGX-DC to banks for standby letters of credit issued by the banks to Chicago Mercantile Exchange ("CME") for members' open positions on CME. These guarantees are supported by members' collateral balances (Note 32(b))	<b>205,767</b>	239,702

### 37. Commitments

#### (a) Operating lease commitments – Where the Group and the Company is a lessee

The Group and Company lease its office premises, data centre and equipment from non-related parties under non-cancellable operating lease agreements. The leases have varying terms, escalation clauses and renewal rights.

The future aggregate minimum lease payments payable under non-cancellable operating leases contracted for at the reporting date but not recognised as liabilities, are as follows:

	The Group	The Company
	2018 \$'000	2017 \$'000
Not later than one financial year	<b>23,129</b>	22,779
Later than one financial year but not later than five financial years	<b>35,504</b>	55,374
Later than five financial years	<b>1,272</b>	2,760
	<b>59,905</b>	80,913
	<b>58,752</b>	80,189

#### (b) Operating lease commitments – Where the Group is a lessor

The Group leases out office space to non-related parties under non-cancellable operating leases. The leases have varying terms and renewal rights.

The future minimum lease receivables under non-cancellable operating leases contracted for at the balance sheet date but not recognised as receivables are as follows:

	The Group
	2018 \$'000
Not later than one financial year	1,698
Later than one financial year but not later than five financial years	3,239
Later than five financial years	335
	<b>5,272</b>
	1,712
	4,747
	943
	7,402

#### (c) Capital commitments

Capital commitments contracted for at year end but not recognised in the financial statements are as follows:

	The Group	The Company
	2018 \$'000	2017 \$'000
Property, plant and equipment	–	30
Software	<b>14,756</b>	6,994
	<b>14,756</b>	7,024
	–	2,615
	–	2,615

## Notes to the Financial Statements

For the financial year ended 30 June 2018

### 38. Related party transactions

In addition to the information disclosed elsewhere in the financial statements, the following transactions took place between the Group and related parties at terms agreed between the parties:

#### Directors' fees and key management's remuneration

Key management's remuneration included fees, salary, bonus, commission and other emoluments (including benefits-in-kind) computed based on the cost incurred by the Group and the Company, and where the Group or the Company did not incur any costs, the value of the benefit is included. The directors' fees and key management's remuneration are as follows:

	<b>The Group</b>	
	<b>2018</b> \$'000	<b>2017</b> \$'000
Salaries and other short-term employee benefits	<b>13,890</b>	11,996
Employer's contribution to Central Provident Fund	<b>137</b>	134
Share-based payment to key management	<b>4,621</b>	2,868
	<b>18,648</b>	14,998

Included in the above is total remuneration to directors of the Company amounting to \$6,778,000 (2017: \$5,773,000).

During the financial year, 393,500 shares (2017: 362,700 shares) under SGX performance share plan and 393,500 shares (2017: 362,700 shares) under SGX deferred long-term incentives scheme were granted to key management of the Group. The shares were granted under the same terms and conditions as those offered to other employees of the Company.

### 39. Financial risk management

#### Financial risk management objectives and policies

The Group is exposed to market risk (including currency risk, price risk and interest rate risk), credit risk and liquidity risk arising from its business activities. The Group's overall risk management strategy seeks to minimise adverse effects from the unpredictability of financial markets on the Group's financial performance.

The Board of Directors has overall responsibility for the oversight of financial risk management for the Group. The Risk Management Committee ("RMC") assists the Board in discharging its oversight responsibility. The RMC's primary function is to review, recommend to the Board for approval, and where authority is delegated by the Board, approve:

- (1) the type and level of business risks (risk appetite) that the Group undertakes on an integrated basis to achieve its business strategy; and
- (2) the frameworks and policies for managing risks that are consistent with its risk appetite.

Management is responsible for identifying, monitoring and managing the Group's financial risk exposures.

## 39. Financial risk management (continued)

The main financial risks that the Group is exposed to and how they are managed are set out below.

### Market risk – Currency risk

The Group managed its main currency exposure as follows:

**(a) Revenue receivables from clearing of derivative products  
Interest receivables from placements of margin deposits**

The Group's revenue from the clearing of derivative products is in USD and SGD. Interest receivables from placements of margin deposits with banks are mainly denominated in USD. For these receivables denominated in USD, the Group manages the currency exposure through currency forward contracts which are designated as cash flow hedges. Upon settlement of the currency forward contracts and payment obligations denominated in foreign currency, any excess foreign currencies are converted back to SGD in a timely manner to minimise currency exposure. As at the reporting date, there is no significant currency risk exposure arising from these receivables. These receivables are also exposed to credit risk.

**(b) Net assets in foreign operations**

The Group is exposed to currency risk on the net assets in foreign operations mainly in GBP. Management monitors the Group's currency exposure by tracking the GBP currency movement on a regular basis. As this investment is long-term in nature, the Group does not hedge the currency risk of the net assets in foreign operations. As at the reporting date, there is no significant currency risk exposure arising from net assets in foreign operations.

**(c) Investment in available-for-sale financial assets**

For investment in available-for sale financial assets classified as current assets, the Group and the Company have investments in equity securities and bonds mainly denominated in SGD, USD and EUR. To minimise foreign currency exposure, the Group and the Company enters into currency forward contracts to manage its exposure.

For investment in available-for sale financial assets classified as non-current asset, the Group holds the investment on a long term basis and does not hedge the currency exposure of this investment. The Group has an investment in unquoted equity securities denominated in GBP. Management monitors the currency exposure by tracking the GBP currency movement on a regular basis.

As at the reporting date, there is no significant currency risk exposures arising from available-for-sale financial assets.

**(d) Cash and cash equivalents**

As at the reporting date, the cash balances of the Group and the Company are mainly denominated in SGD, USD and GBP. USD and GBP cash balances placed in banks to meet the short-term USD and GBP payment obligations respectively were not hedged. The cash balances are also exposed to credit risk.

# Notes to the Financial Statements

For the financial year ended 30 June 2018

## 39. Financial risk management (continued)

### Market risk – Currency risk (continued)

The Group and Company's currency exposures are as follows:

	The Group At 30 June 2018						
	SGD <sup>(a)</sup> \$'000	USD \$'000	GBP \$'000	EUR \$'000	JPY \$'000	Others \$'000	Total \$'000
<b>Financial assets</b>							
Cash and cash equivalents	810,587	13,811	4,681	58	385	2,065	831,587
Trade and other receivables							
– Daily settlement of accounts for due contracts and rights	506,461	45,151	–	495	–	110	552,217
– Receivables under NEMS	154,653	–	–	–	–	–	154,653
– Others	65,227	24,871	4,556	256	1,249	551	96,710
Available-for-sale financial assets	10,328	9,791	3,648	600	555	729	25,651
<b>Financial liabilities</b>							
Trade and other payables							
– Daily settlement of accounts for due contracts and rights	(506,461)	(45,151)	–	(495)	–	(110)	(552,217)
– Payables under NEMS	(176,622)	–	–	–	–	–	(176,622)
– Others	(129,957)	(23,085)	(7,602)	(246)	(417)	(516)	(161,823)
Net financial assets/liabilities	734,216	25,388	5,283	668	1,772	2,829	770,156
<b>Net non-financial assets of foreign subsidiaries</b>							
Currency exposure	734,216	25,388	21,526	668	1,772	2,829	786,399
Currency forward contracts	–	(86,274)	–	(400)	–	–	(86,674)

<sup>(a)</sup> The SGD balances have been included for completeness.

	The Group At 30 June 2017						
	SGD <sup>(a)</sup> \$'000	USD \$'000	GBP \$'000	EUR \$'000	JPY \$'000	Others \$'000	Total \$'000
<b>Financial assets</b>							
Cash and cash equivalents	783,155	8,060	4,142	51	195	789	796,392
Trade and other receivables							
– Daily settlement of accounts for due contracts and rights	535,731	39,205	–	–	–	590	575,526
– Receivables under NEMS	130,270	–	–	–	–	–	130,270
– Others	77,891	4,217	4,268	–	21	497	86,894
<b>Financial liabilities</b>							
Trade and other payables							
– Daily settlement of accounts for due contracts and rights	(535,731)	(39,205)	–	–	–	(590)	(575,526)
– Payables under NEMS	(146,318)	–	–	–	–	–	(146,318)
– Others	(138,366)	(23,751)	(6,880)	–	–	(743)	(169,740)
Net financial assets/liabilities	706,632	(11,474)	1,530	51	216	543	697,498
<b>Net non-financial assets of foreign subsidiaries</b>							
Currency exposure	706,592	(11,474)	17,704	51	216	513	713,632
Currency forward contracts	–	(81,140)	–	(1,360)	–	–	(82,500)

<sup>(a)</sup> The SGD balances have been included for completeness.

### 39. Financial risk management (continued)

#### Market risk – Currency risk (continued)

	The Company At 30 June 2018						
	SGD <sup>(a)</sup> \$'000	USD \$'000	GBP \$'000	EUR \$'000	JPY \$'000	Others \$'000	Total \$'000
<b>Financial assets</b>							
Cash and cash equivalents	408,349	3,508	132	–	–	1,023	413,012
Trade and other receivables	8,459	29	6,104	–	7	32	14,631
Available-for-sale financial assets	10,328	9,791	–	600	555	729	22,003
<b>Financial liabilities</b>							
Trade and other payables	(293,994)	(27)	–	–	–	–	(294,021)
Currency exposure	133,142	13,301	6,236	600	562	1,784	155,625
Currency forward contracts	–	(8,654)	–	(400)	–	–	(9,054)

<sup>(a)</sup> The SGD balances have been included for completeness.

	The Company At 30 June 2017					
	SGD <sup>(a)</sup> \$'000	USD \$'000	GBP \$'000	INR \$'000	Others \$'000	Total \$'000
<b>Financial assets</b>						
Cash and cash equivalents	389,685	3,684	132	–	253	393,754
Trade and other receivables	8,264	43	6,241	8	48	14,604
<b>Financial liabilities</b>						
Trade and other payables	(321,634)	(14)	–	–	(76)	(321,724)
Currency exposure	76,315	3,713	6,373	8	225	86,634

<sup>(a)</sup> The SGD balances have been included for completeness.

A currency risk sensitivity analysis is not provided as the Group and the Company are not expected to have significant currency exposures.

#### Market risk – Price risk

The Group and the Company is exposed to price risk arising from its investments in available-for-sale financial assets. To manage the price risk arising from its investments, the Group and the Company diversifies its multi-asset portfolio comprising of equities and bonds across developed markets and sectors, in accordance with limits set in the investment mandate.

A change of 5% (2017: Nil) in prices for investments at the reporting date would affect other comprehensive income by the amounts shown below. This analysis assumes that all other variables remain constant.

	Impact to other comprehensive income \$'000
<b>Group</b>	
– Price increase	1,065
– Price decrease	(1,065)
<b>Company</b>	
– Price increase	913
– Price decrease	(913)

## Notes to the Financial Statements

For the financial year ended 30 June 2018

### 39. Financial risk management (continued)

#### Market risk – Interest rate risk

Cash flow interest rate risk is the risk that the future cash flows of a financial instrument will fluctuate because of changes in market interest rates. Fair value interest rate risk is the risk that the fair value of a financial instrument will fluctuate due to changes in market interest rates.

The Group and the Company's fixed deposit placements are mainly short-term in nature and placed with banks that offer the most competitive interest rates. The Group and the Company manages its interest rate risks arising from investments in bonds by placing such balances on varying maturities and interest rate terms.

The tables below set out the Group and the Company's financial assets and liabilities at carrying amounts, categorised by the earlier of contractual re-pricing or maturity dates.

#### The Group

	Variable rates			Fixed rates			Non-interest bearing \$'000	Total \$'000		
	Less than 6 months \$'000	6 to 12 months \$'000	Over 1 year \$'000	Less than 6 months \$'000	6 to 12 months \$'000	Over 1 year \$'000				
<b>At 30 June 2018</b>										
<b>Financial assets</b>										
Cash and cash equivalents	<b>54,079</b>	–	–	<b>474,280</b>	<b>288,712</b>	–	<b>14,516</b>	<b>831,587</b>		
Trade and other receivable	–	–	–	7	2	–	<b>803,571</b>	<b>803,580</b>		
Available-for-sale financial assets	<b>1,033</b>	–	–	–	–	<b>17,419</b>	<b>7,199</b>	<b>25,651</b>		
<b>Financial liabilities</b>										
Trade and other payables	–	–	–	–	–	–	<b>(890,662)</b>	<b>(890,662)</b>		
Net financial assets/(liabilities)	<b>55,112</b>	–	–	<b>474,287</b>	<b>288,714</b>	<b>17,419</b>	<b>(65,376)</b>	<b>770,156</b>		

	Variable rates			Fixed rates			Non-interest bearing \$'000	Total \$'000		
	Less than 6 months \$'000	6 to 12 months \$'000	Over 1 year \$'000	Less than 6 months \$'000	6 to 12 months \$'000	Over 1 year \$'000				
<b>At 30 June 2017</b>										
<b>Financial assets</b>										
Cash and cash equivalents	29,689	–	–	509,344	240,000	–	17,359	796,392		
Trade and other receivables	–	–	–	9	3	–	792,678	792,690		
<b>Financial liabilities</b>										
Trade and other payables	–	–	–	–	–	–	<b>(891,584)</b>	<b>(891,584)</b>		
Net financial assets/(liabilities)	<b>29,689</b>	–	–	<b>509,353</b>	<b>240,003</b>	–	<b>(81,547)</b>	<b>697,498</b>		

### 39. Financial risk management (continued)

#### Market risk – Interest rate risk (continued)

##### The Company

	Variable rates			Fixed rates			Non-interest bearing \$'000	Total \$'000		
	Less than 6 months \$'000	6 to 12 months \$'000	Over 1 year \$'000	Less than 6 months \$'000	6 to 12 months \$'000	Over 1 year \$'000				
<b>At 30 June 2018</b>										
<b>Financial assets</b>										
Cash and cash equivalents	<b>12,292</b>	–	–	353,209	36,700	–	10,811	<b>413,012</b>		
Trade and other receivables	–	–	–	7	2	6,104	8,518	<b>14,631</b>		
Available-for-sale financial assets	<b>1,033</b>	–	–	–	–	17,419	<b>3,551</b>	<b>22,003</b>		
<b>Financial liabilities</b>										
Trade and other payables	–	–	–	–	–	–	(294,021)	(294,021)		
Net financial assets/(liabilities)	<b>13,325</b>	–	–	<b>353,216</b>	<b>36,702</b>	<b>23,523</b>	<b>(271,141)</b>	<b>155,625</b>		
<b>At 30 June 2017</b>										
<b>Financial assets</b>										
Cash and cash equivalents	970	–	–	340,344	44,000	–	8,440	393,754		
Trade and other receivables	–	–	–	5	1	6,086	8,512	14,604		
<b>Financial liabilities</b>										
Trade and other payables	–	–	–	–	–	–	(321,724)	(321,724)		
Net financial assets/(liabilities)	<b>970</b>	–	–	<b>340,349</b>	<b>44,001</b>	<b>6,086</b>	<b>(304,772)</b>	<b>86,634</b>		

A change of 0.5% (2017: Nil) in interest rate for the Group and the Company's investment in bonds at the reporting date would affect profit after tax and other comprehensive income by the amounts shown below. This analysis assumes that all other variables remain constant.

	Impact to profit after tax \$'000	Impact to other comprehensive income \$'000
<b>Group</b>		
– Interest rate increase	4	(203)
– Interest rate decrease	(4)	203
<b>Company</b>		
– Interest rate increase	4	(203)
– Interest rate decrease	(4)	203

## Notes to the Financial Statements

For the financial year ended 30 June 2018

### 39. Financial risk management (continued)

#### Credit risk

Credit risk refers to the risk that counterparty will default on its contractual obligations resulting in financial loss to the Group and the Company. The major classes of financial assets of the Group and of the Company are trade receivables and cash deposits.

The Group manages its main credit exposures as follows:

#### (a) Cash deposits

Cash balances of the Group and the Company are mainly placed in fixed deposits with financial institutions of high credit quality. The Board has approved policies that limit the maximum credit exposure to each financial institution. Exposure and compliance with counterparty limits set by the RMC are monitored by the relevant business units and reported by the Risk Management unit to the RMC. The Group placed 62% (2017: 67%) of its cash and cash equivalents with 4 banks (2017: 4 banks). The Company placed 94% (2017: 96%) of its cash and cash equivalents with 4 banks (2017: 4 banks).

#### (b) Available-for-sale financial assets

The available-for-sale bond instruments invested by the Group and the Company are restricted to fixed income securities with minimum credit rating of BBB+ or equivalent with ratings by Standard & Poor's, Moody's or Fitch.

#### (c) Clearing and settlement

In the normal course of business as clearing houses, SGX-DC and CDP act as central counterparties ("CCP") for every transaction received by or matched through the Group's facilities. As CCP, each clearing house substitutes itself as the buyer to the selling clearing member, and seller to the buying clearing member, and assumes all rights and obligations to the counterparty. As a result, each clearing house faces considerable credit risk exposure should any of its clearing members be unable to meet its settlement obligations to the clearing house, resulting in a default. The Group has in place a sound and transparent risk management and regulatory framework governing the operations of securities and derivatives markets. On an on-going basis, the Group mitigates its counterparty risk through active monitoring and management of its exposures to clearing members by having in place a system of financial safeguards.

#### *Credit risk management practices*

The Group mitigates its exposures to risk by admitting clearing members which meet prescribed capital and financial requirements and have risk management systems to monitor their exposures. On an on-going basis, a clearing member must continue to comply with the financial requirements, and also set aside capital commensurate with its risk exposures. In addition, it must ensure that it has the necessary systems and procedures to preserve sound liquidity and financial position at all times.

Both SGX-DC and CDP have well-established risk management systems to monitor and measure the risk exposures of its members. In addition, SGX-DC and CDP require all cleared positions and contracts to be sufficiently collateralised at all times to protect SGX-DC and CDP against potential losses. SGX-DC also revalues and settles the daily mark-to-market variations with clearing members to prevent losses from accumulating. CDP also requires clearing members to monitor compliance with risk management measures such as monitoring for large exposures.

#### *Financial safeguards*

A clearing fund has been established for each of the securities and derivatives markets to be used in support of the clearing houses' roles as CCP. The Group and the relevant clearing members are required to contribute to the respective clearing funds.

## 39. Financial risk management (continued)

### Credit risk (continued)

#### (c) Clearing and settlement (continued)

##### *Trade receivables arising from settlement of securities trades*

Settlement for all securities transactions of securities clearing members are effected through the Group's subsidiary, CDP. Such settlements can be effected through designated settlement banks.

The "receivables from clearing members and settlement banks" included in trade receivables represent the aggregate of net settlement obligations of each of the clearing members and settlement banks to CDP for the last three trading days of the financial year. At 30 June 2018, there were 25 (2017: 26) securities clearing members and 7 (2017: 7) designated settlement banks. The Group may have concentration risk exposure to these securities clearing members and settlement banks with regards to their net settlement obligations to CDP. The settlement exposure of CDP to each securities clearing member or settlement bank fluctuates daily according to the net trading position (net buy or net sell) of each securities clearing member and the extent to which these settlement obligations are effected through the settlement banks.

#### (d) Receivables under NEMS

In relation to NEMS receivables in Note 14, EMC is required to ensure that market participants maintain certain levels of prudential security in discharging its obligations under the NEMS Market Rules ("Market Rules"). EMC is entitled to recover any default receivables from all market participants under the Market Rule and credit risk exposure to NEMS receivables is minimised.

Under the Market Rules, each market participant has to provide credit support which is not less than 30 times of individual estimated average daily exposure. The Market Rules specify the type of credit support to be provided and assigned to EMC. These include bankers' guarantees or irrevocable commercial letter of credit from reputable financial institutions, cash deposits and Singapore Government Treasury bills. The credit support received as at 30 June 2018 were in the form of bankers' guarantees and cash deposits and have an aggregate value of \$279,880,000 (2017: \$253,020,000). There is no significant concentration of credit risk for receivables under NEMS.

#### (e) Trade receivables (excluding balances arising from clearing and settlement of securities trades and NEMS)

Trade receivables of the Group and the Company comprise receivables from trading and clearing members, listed companies and other entities. Exposure from these trade receivables is continuously monitored and followed up by Finance and relevant business units.

Management believes that the credit risk with respect to trade receivables is limited. Impairment allowances are made for debts that are outstanding above 360 days and debtors that are under judicial management, scheme of arrangement or other financial difficulties. Management believes that there is no other additional credit risk beyond the amount of allowance for impairment made in these financial statements.

The Group, excluding the balances arising from clearing and settlement of trade and NEMS, has no significant concentration of credit risk on its trade receivables.

The Company has no significant concentration of credit risk on its trade receivables.

The maximum exposure to credit risk for trade receivables and cash deposits is the carrying amount of the financial assets presented on the statement of financial position as the Group and the Company do not hold any collateral against these financial assets.

As clearing houses, SGX-DC and CDP have general lien on all monies and other properties deposited by clearing members. The clearing house may combine any account of the clearing member with its liabilities to the clearing house. Such funds may be applied towards satisfaction of liabilities of the clearing member to the clearing house.

#### (f) Financial assets that are neither past due nor impaired

All of the Group's cash deposits are not impaired as the deposits are placed with banks of high credit quality.

Trade receivables that are neither past due nor impaired comprise companies with good collection track record with the Group. As at 30 June 2018, 98.9% (2017: 99.3%) and 83.4% (2017: 98.6%) of the Group and the Company's trade receivables fall into this category.

## Notes to the Financial Statements

For the financial year ended 30 June 2018

### 39. Financial risk management (continued)

#### Credit risk (continued)

##### (g) Financial assets that are past due and/or impaired

There is no other class of financial assets that is past due and/or impaired except for trade receivables.

The age analysis of trade receivables past due but not impaired is as follows:

	The Group		The Company	
	2018 \$'000	2017 \$'000	2018 \$'000	2017 \$'000
Past due up to 90 days	2,384	1,431	528	28
Past due 91 days to 360 days	3,611	3,033	485	25
	5,995	4,464	1,013	53

The carrying amount of trade receivables individually determined to be impaired and the movement in the related allowance for impairment are as follows:

	The Group		The Company	
	2018 \$'000	2017 \$'000	2018 \$'000	2017 \$'000
Gross amount	4,550	2,753	3	18
Less: Allowance for impairment	(4,550)	(2,753)	(3)	(18)
	—	—	—	—
Balance at beginning of financial year	2,753	1,668	18	1
Allowance made	2,211	1,848	3	18
Allowance utilised	(41)	(363)	—	—
Allowance written back	(373)	(400)	(18)	(1)
Balance at end of financial year	4,550	2,753	3	18

#### Liquidity risk

Liquidity risk is the risk that the Group will encounter difficulty in meeting the obligations associated with its financial liabilities that are settled by delivering cash or another financial asset.

##### (a) Liabilities related risk

The Group and the Company has minimal liquidity risk as it maintains sufficient cash for daily operations through prudent liquidity risk management. The Group and Company has no external borrowings.

The financial liabilities of the Group and the Company are analysed into the relevant maturity buckets based on the remaining period from the balance sheet date to the contractual maturity dates. The amounts disclosed in the table below are contractual undiscounted cash flows.

### 39. Financial risk management (continued)

#### Liquidity risk (continued)

##### (a) Liabilities related risk (continued)

###### The Group

	Up to 3 months \$'000	> 3 months to 1 year \$'000	Above 1 year \$'000	Total \$'000
<b>At 30 June 2018</b>				
<b>Financial liabilities</b>				
Trade and other payables <sup>(a)</sup>	890,206	456	—	890,662

###### At 30 June 2017

###### Financial liabilities

Trade and other payables <sup>(b)</sup>	891,545	21	18	891,584
<b>At 30 June 2017</b>				

(a) Included the following:

- \$552,217,000 payables to clearing members and settlement banks for daily settlement of accounts for due contracts and rights with a corresponding amount in trade receivables; and
- \$176,622,000 payables under NEMS with corresponding amounts in cash and cash equivalents and trade receivables.

(b) Included the following:

- \$575,526,000 payables to clearing members and settlement banks for daily settlement of accounts for due contracts and rights with a corresponding amount in trade receivables; and
- \$146,318,000 payables under NEMS with corresponding amounts in cash and cash equivalents and trade receivables.

###### The Company

	Up to 3 months \$'000	> 3 months to 1 year \$'000	Above 1 year \$'000	Total \$'000
<b>At 30 June 2018</b>				
<b>Financial liabilities</b>				
Trade and other payables	294,021	—	—	294,021
<b>At 30 June 2017</b>				
<b>Financial liabilities</b>				
Trade and other payables	321,724	—	—	321,724

As at 30 June 2018, the gross notional value of outstanding currency forward contracts held by the Group and Company were \$86,674,000 (2017: \$82,500,000) and \$9,054,000 (2017: Nil) respectively. The Group's outstanding currency forward contracts that would be settled on a gross basis are analysed into relevant maturity buckets based on the remaining contractual maturity dates as follows:

The Group	At 30 June 2018			At 30 June 2017		
	Up to 3 months \$'000	> 3 months to 1 year \$'000	Total \$'000	Up to 3 months \$'000	> 3 months to 1 year \$'000	Total \$'000
<b>Currency forward contracts</b>						
– gross outflows	46,544	40,044	86,588	39,957	36,643	76,600
– gross inflows	45,612	39,049	84,661	40,646	37,325	77,971

The Company	At 30 June 2018			At 30 June 2017		
	Up to 3 months \$'000	> 3 months to 1 year \$'000	Total \$'000	Up to 3 months \$'000	> 3 months to 1 year \$'000	Total \$'000
<b>Currency forward contracts</b>						
– gross outflows	9,096	—	9,096	—	—	—
– gross inflows	9,057	—	9,057	—	—	—

## Notes to the Financial Statements

For the financial year ended 30 June 2018

### 39. Financial risk management (continued)

#### Liquidity risk (continued)

##### (b) Contingent liabilities related risk

At the balance sheet date, the following guarantees may impact the liquidity positions in the earliest period in which the guarantees are called upon:

	The Group		The Company	
	2018 \$'000	2017 \$'000	2018 \$'000	2017 \$'000
Unsecured guarantees by SGX-DC to banks for standby letters of credit issued by the banks to Chicago Mercantile Exchange	205,767	239,702	—	—

The settlement obligation of the above contingent liabilities is not determinable as the obligation arises from the occurrence of future events that are not within the control of the Group and the Company.

##### (c) Clearing and settlement-related risk

The clearing houses of the Group, CDP and SGX-DC, act as the novated counterparty for transactions of approved securities and derivatives. The Group is exposed to liquidity risk should any clearing member default. The Group has put in place sufficient committed bank credit facilities of \$405,663,000 (2017: \$366,848,000), comprising committed unsecured credit lines for prudent risk management and to maintain adequate liquid resources.

#### Fair value measurements

The following table presents assets and liabilities measured at fair value and classified by level of the following fair value measurement hierarchy:

- (a) quoted prices (unadjusted) in active markets for identical assets or liabilities (Level 1);
- (b) inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly (i.e. as prices) or indirectly (i.e. derived from prices) (Level 2); and
- (c) inputs for the asset or liability that are not based on observable market data (unobservable inputs) (Level 3).

	Level 1 \$'000	Level 2 \$'000	Level 3 \$'000	Total \$'000
<b>The Group</b>				
<b>At 30 June 2018</b>				
<b>Assets</b>				
Derivative financial instruments	—	40	—	40
Available-for-sale financial assets	3,551	18,452	3,648	25,651
<b>Liabilities</b>				
Derivative financial instruments	—	1,967	—	1,967
<b>At 30 June 2017</b>				
<b>Assets</b>				
Derivative financial instruments	—	1,450	—	1,450
<b>Liabilities</b>				
Derivative financial instruments	—	79	—	79

### 39. Financial risk management (continued)

#### Fair value measurements (continued)

	Level 1 \$'000	Level 2 \$'000	Level 3 \$'000	Total \$'000
<b>The Company</b>				
<b>At 30 June 2018</b>				
<b>Assets</b>				
Available-for-sale financial asset	3,551	18,452	—	22,003
<b>Liabilities</b>				
Derivative financial instruments	—	39	—	39
<b>At 30 June 2017</b>				
<b>Assets</b>				
Available-for-sale financial asset	—	—	—	—
<b>Liabilities</b>				
Derivative financial instruments	—	—	—	—

There were no transfers between Level 1 and 2 during the year.

The fair value of financial instruments traded in active markets is based on quoted market prices at the balance sheet date. The quoted market price used for financial assets held by the Group and the Company is the current bid price. These instruments are included in Level 1.

The fair value of financial instruments that are not traded in an active market is determined by using valuation techniques. The Group and the Company use a variety of methods and makes assumptions that are based on market conditions existing at each balance sheet date. Quoted market prices or dealer quotes for similar instruments are used to estimate fair value for available-for-sale debt instruments. The fair value of currency forward contracts has been calculated using the rates quoted by the Group's bankers to terminate the contracts at the balance sheet date. These instruments are classified as Level 2 and comprise available-for-sale debt instruments and derivatives financial instruments.

Where a valuation technique for these instruments is based on significant unobservable inputs, such instruments are classified as Level 3.

The carrying amounts of cash and cash equivalents, trade and other receivables, and trade and other payables approximate their fair values.

## Notes to the Financial Statements

For the financial year ended 30 June 2018

### 39. Financial risk management (continued)

#### Offsetting financial assets and financial liabilities

The Group reports financial assets and financial liabilities on a net basis on the statement of financial position where there is a legally enforceable right to offset the recognised amounts and there is an intention to settle on a net basis or to realise the asset and settle the liabilities simultaneously.

The following table shows the effect of netting arrangements on financial assets and liabilities that are reported net on the statement of financial position.

#### (a) Financial assets subject to offsetting arrangements

**As at 30 June 2018**

	Gross amounts of recognised financial assets \$'000	Less: Gross amounts of recognised financial liabilities set off in the statement of financial position \$'000	Net amounts of financial assets presented in the statement of financial position <sup>(i)</sup> \$'000
Receivables from clearing members and settlement banks – Daily settlement of accounts for due contracts and rights	<b>5,464,748</b>	<b>(4,912,531)</b>	<b>552,217</b>

**As at 30 June 2017**

	Gross amounts of recognised financial assets \$'000	Less: Gross amounts of recognised financial liabilities set off in the statement of financial position \$'000	Net amounts of financial assets presented in the statement of financial position <sup>(i)</sup> \$'000
Receivables from clearing members and settlement banks – Daily settlement of accounts for due contracts and rights	<b>5,437,043</b>	<b>(4,861,517)</b>	<b>575,526</b>

<sup>(i)</sup> The collaterals deposited by clearing members and settlement banks cannot be attributed directly to the individual transactions. For information on the collaterals, please refer to Note 32(a).

#### (b) Financial liabilities subject to offsetting arrangements

**As at 30 June 2018**

	Gross amounts of recognised financial liabilities \$'000	Less: Gross amounts of recognised financial assets set off in the statement of financial position \$'000	Net amounts of financial liabilities presented in the statement of financial position <sup>(i)</sup> \$'000
Payables to clearing members and settlement banks – Daily settlement of accounts for due contracts and rights	<b>5,464,748</b>	<b>(4,912,531)</b>	<b>552,217</b>

**As at 30 June 2017**

	Gross amounts of recognised financial liabilities \$'000	Less: Gross amounts of recognised financial assets set off in the statement of financial position \$'000	Net amounts of financial liabilities presented in the statement of financial position <sup>(i)</sup> \$'000
Payables to clearing members and settlement banks – Daily settlement of accounts for due contracts and rights	<b>5,437,043</b>	<b>(4,861,517)</b>	<b>575,526</b>

<sup>(i)</sup> The collaterals deposited by clearing members and settlement banks cannot be attributed directly to the individual transactions. For information on the collaterals, please refer to Note 32(a).

The amounts shown in the tables above that have been offsetted in the statements of financial position are measured using the same basis.

## 40. Capital requirement and management

The Group's capital management objectives are to optimise returns to shareholders whilst supporting the growth requirements of the business and fulfilling its obligations to the relevant regulatory authorities and other stakeholders.

Effective 1 July 2008, the Group is required, under the Regulatory Capital Framework ("the Framework") formalised by the Monetary Authority of Singapore to maintain adequate financial resources to meet prudential requirements that commensurate with the operational risk, investment risk and the counterparty default risk arising from its central counterparty clearing and settlement activities. With respect to the counterparty default risk, each of the Group's clearing house subsidiaries is required to contribute capital to maintain a clearing fund that is sufficient to cover simultaneous default of the member that is responsible for largest credit exposure, its affiliates and the two financially weakest members under simulated extreme but plausible market conditions. The Group has been in compliance with the Framework since 1 July 2008.

Given the dynamic nature of the Group's business and the framework, the Group regularly reviews and monitors its capital position to ensure that the business activities and growth are prudently funded. In addition, the Group will seek opportunities to optimise shareholders' returns by creating a more efficient capital structure to reduce the overall cost of capital. In line with its dividend policy, SGX maintains a base dividend commitment to its shareholders.

## 41. New accounting standards and FRS interpretations

### (a) Full convergence with International Financial Reporting Standards ("IFRS") and adoption of new standards

On 29 May 2014, the Singapore Accounting Standards Council announced that Singapore-incorporated companies listed on SGX are required to apply a new financial reporting framework identical to the IFRS (referred to as "SFRS(I)s" hereinafter) for the annual periods beginning on or after 1 January 2018.

The Group has adopted SFRS(I)s on 1 July 2018 and as a result, the Group's financial statements for the financial year ending 30 June 2019 will be prepared in accordance with SFRS(I)s.

In adopting SFRS(I)s, the Group is required to apply all of the specific transition requirements in SFRS(I) 1 *First-time Adoption of Singapore Financial Reporting Standards (International)*.

The Group expects that the adoption of SFRS(I)s will have no material impact on the financial statements in the year of initial application and will be electing the optional exemption for business combinations prior to 1 July 2009 date of transition to SFRS(I).

### (b) SFRS(I) 15 Revenue from Contracts with Customers

SFRS(I) 15 establishes a comprehensive framework for entities to use in accounting revenue arising from contracts with customers.

The core principle of SFRS(I) 15 is that an entity should recognise revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. Specifically, the standard introduces a 5-step approach for revenue recognition:

Step 1: Identify the contract(s) with a customer

Step 2: Identify the performance obligations in the contract

Step 3: Determine the transaction price

Step 4: Allocate the transaction price to the performance obligations in the contract

Step 5: Recognise revenue when (or as) the entity satisfies a performance obligation

SFRS(I) 15 is effective for annual periods beginning on or after 1 January 2018. In accordance with the requirements of SFRS(I) 1, the Group will adopt SFRS(I) 15 retrospectively. The Group is currently assessing the impact of adopting the new accounting standard.

## Notes to the Financial Statements

For the financial year ended 30 June 2018

### 41. New accounting standards and FRS interpretations (continued)

#### (c) SFRS(I) 9 *Financial Instruments*

SFRS(I) 9 introduces new requirements for classification and measurement of financial instruments, impairment of financial assets, and hedge accounting. SFRS(I) 9 also introduces expanded disclosure requirements and changes in presentation.

##### (i) Classification and measurement

This adoption of SFRS(I) 9 will have an effect on the classification and measurement of the Group's financial assets, but no impact on the classification and measurement of the Group's financial liabilities.

For financial assets currently held at fair value, the Group expects to continue measuring most of these assets at fair value under SFRS(I) 9. The expected classification and measurement of these financial assets under SFRS(I) 9 is summarised below:

- Current and non-current available-for-sale ("AFS") equity securities are expected to be classified as financial assets subsequently measured at fair value through other comprehensive income ("FVOCI"). Similar to AFS financial assets, the fair value changes of FVOCI financial assets are taken to other comprehensive income ("OCI") on re-measurement. However, any gain or loss on FVOCI equity instruments will not be reclassified to income statement upon divestment.
- AFS debt instruments are expected to be classified as FVOCI as the Group's business model on these assets is to collect contractual cash flows consisting solely of payments of principal and interest and to sell these assets.

##### (ii) Impairment of financial assets

The following financial assets will be subject to the expected credit loss impairment model under SFRS(I) 9 affecting:

- Trade receivables recognised under SFRS(I) 15; and
- Debt instruments carried at FVOCI

No significant impact on provision for impairment of the above financial assets and corresponding opening retained profits is expected to arise from the application of the expected credit loss impairment model.

##### (iii) Hedge accounting

The Group expects that all its existing hedges that are designated in effective hedging relationships will continue to qualify for hedge accounting under SFRS(I) 9.

SFRS(I) 9 will take effect from financial year beginning on or after 1 January 2018. The Group plans to elect to apply the short-term exemption under SFRS(I) 1, which exempt the Group from applying SFRS(I) 9 to comparative information.

#### (d) SFRS(I) 16 *Leases*

SFRS(I) 16 will result in almost all leases being recognised on the balance sheet, as the distinction between operating and finance leases is removed. Under the new standard, an asset (the right to use the leased item) and a financial liability to pay rentals are recognised. The only exceptions are short-term and low-value leases. The accounting for lessors will not change significantly.

Some of the commitments may be covered by the exception for short-term and low-value leases and some commitments may relate to arrangements that will not qualify as leases under SFRS(I) 16.

SFRS(I) 16 will take effect from financial year beginning on or after 1 January 2019. The Group is currently assessing the impact of adopting the new accounting standard.

### 42. Authorisation of financial statements

These financial statements have been authorised for issue by the Board of Directors on 27 July 2018.

# Statistics of Shareholdings

As at 1 August 2018

Share Capital : S\$410,553,725.94

Number of Issued and Paid-up Shares : 1,071,642,400

Class of Shares : Ordinary shares

Voting Rights : One vote per share

The Company cannot exercise any voting rights in respect of shares held by it as treasury shares.

Subject to the Companies Act, Chapter 50, subsidiaries cannot exercise any voting rights in respect of shares held by them as subsidiary holdings<sup>1</sup>.

## Distribution of Shareholdings

Size of shareholdings	No. of shareholders	%	No. of shares (excluding treasury shares)	% <sup>2</sup>
1 – 99	91	0.24	2,988	0.00
100 – 1,000	11,806	30.40	11,100,020	1.04
1,001 – 10,000	22,827	58.78	90,001,492	8.41
10,001 – 1,000,000	4,086	10.52	156,298,439	14.60
1,000,001 and above	24	0.06	812,703,692	75.95
<b>Total</b>	<b>38,834</b>	<b>100.00</b>	<b>1,070,106,631</b>	<b>100.00</b>

Based on information available to the Company as at **1 August 2018** approximately **99.90%** of the issued ordinary shares of the Company are held by the public and, therefore, Rule 723 of the Listing Manual issued by the Singapore Exchange Securities Trading Limited is complied with.

## Twenty Largest Shareholders

No.	Name	No. of shares	% <sup>2</sup>
1	SEL HOLDINGS PTE LTD <sup>3</sup>	249,991,184	23.36
2	CITIBANK NOMINEES SINGAPORE PTE LTD	212,021,503	19.81
3	DBS NOMINEES (PRIVATE) LIMITED	126,597,464	11.83
4	DBSN SERVICES PTE. LTD.	71,337,046	6.67
5	HSBC (SINGAPORE) NOMINEES PTE LTD	61,779,207	5.77
6	RAFFLES NOMINEES (PTE) LIMITED	17,554,032	1.64
7	PHILLIP SECURITIES PTE LTD	14,113,307	1.32
8	BPSS NOMINEES SINGAPORE (PTE.) LTD.	9,712,616	0.91
9	DB NOMINEES (SINGAPORE) PTE LTD	8,474,652	0.79
10	UNITED OVERSEAS BANK NOMINEES (PRIVATE) LIMITED	8,054,355	0.75
11	OCBC NOMINEES SINGAPORE PRIVATE LIMITED	3,915,211	0.37
12	CGS-CIMB SECURITIES (SINGAPORE) PTE. LTD.	3,635,989	0.34
13	MORGAN STANLEY ASIA (SINGAPORE) SECURITIES PTE LTD	3,517,958	0.33
14	OCBC SECURITIES PRIVATE LIMITED	3,373,343	0.32
15	UOB KAY HIAN PRIVATE LIMITED	3,082,400	0.29
16	DBS VICKERS SECURITIES (SINGAPORE) PTE LTD	2,785,900	0.26
17	MAYBANK KIM ENG SECURITIES PTE. LTD.	2,216,347	0.21
18	BNP PARIBAS NOMINEES SINGAPORE PTE LTD	2,114,133	0.20
19	WAN FOKK WENG	2,000,000	0.19
20	MERRILL LYNCH (SINGAPORE) PTE LTD	1,821,096	0.17
<b>Total</b>		<b>808,097,743</b>	<b>75.53</b>

## Treasury Shares and Subsidiary Holdings

Number of treasury shares: **1,535,769**

Number of subsidiary holdings: **Nil**

Percentage of treasury shares against the total number of issued ordinary shares: **0.14%**

Percentage of subsidiary holdings against the total number of issued ordinary shares: **0%**

## Substantial Shareholders

According to the Register of Substantial Shareholders maintained by the Company, the Company had no substantial shareholders as at **1 August 2018**.

<sup>1</sup> "Subsidiary holdings" is defined in the Listing Manual to mean shares referred to in Sections 21(4), 21(4B), 21(6A) and 21(6C) of the Companies Act, Chapter 50.

<sup>2</sup> Percentage is calculated based on the total number of issued shares, excluding treasury shares.

<sup>3</sup> Pursuant to Section 11(2)(b) of the Exchanges (Demutualisation & Merger) Act 1999 (the "Merger Act"), SEL Holdings Pte Ltd ("SEL"), being the special purpose company set up under the Merger Act to hold the SGX shares for the benefit of the Financial Sector Development Fund, shall not exercise or control the exercise of votes attached to the SGX shares. Owing to the restriction in the exercise of votes attached to the SGX shares, SEL is not regarded as a substantial shareholder of SGX.

# Notice of Annual General Meeting

Singapore Exchange Limited

Company Registration No. 199904940D  
(Incorporated in the Republic of Singapore)

**NOTICE IS HEREBY GIVEN** that the Nineteenth Annual General Meeting of Singapore Exchange Limited (the "Company") will be held at Grand Mandarin Ballroom, Level 6, Main Tower, Mandarin Orchard Singapore, 333 Orchard Road, Singapore 238867 on Thursday, 20 September 2018 at 10.00 a.m. to transact the following business:

## ROUTINE BUSINESS

**Ordinary Resolution 1** To receive and adopt the Directors' Statement and Audited Financial Statements for the financial year ended 30 June 2018 and the Auditor's Report thereon.

**Ordinary Resolution 2** To declare a final tax exempt dividend of 15 cents per share for the financial year ended 30 June 2018 ("Final Dividend"). (FY2017: 13 cents per share)

To re-elect the following directors who will be retiring by rotation under Article 97 of the Constitution of the Company and who, being eligible, offer themselves for re-election:

**Ordinary Resolution 3(a)** • Mr Kevin Kwok; and

**Ordinary Resolution 3(b)** • Mr Loh Boon Chye.

**Ordinary Resolution 4** To approve the sum of S\$930,000 to be paid to the Chairman as director's fees for the financial year ending 30 June 2019. (FY2018: S\$750,000 and a car with a driver)

**Ordinary Resolution 5** To approve the sum of up to S\$1,600,000 to be paid to all directors (other than the Chief Executive Officer) as directors' fees for the financial year ending 30 June 2019. (Same as for FY2018: up to S\$1,600,000 for all directors other than the Chief Executive Officer)

**Ordinary Resolution 6** To re-appoint PricewaterhouseCoopers LLP as Auditor of the Company and to authorise the directors to fix its remuneration.

## SPECIAL BUSINESS

To consider and, if thought fit, to pass with or without modifications, the following resolutions, which will be proposed as Ordinary Resolutions:

**Ordinary Resolution 7** That Mr Ng Wai King be and is hereby appointed as a director of the Company pursuant to Article 103 of the Constitution of the Company.

**Ordinary Resolution 8** That Mr Subra Suresh be and is hereby appointed as a director of the Company pursuant to Article 103 of the Constitution of the Company.

**Ordinary Resolution 9** That authority be and is hereby given to the directors of the Company to:

- (a) (i) issue shares of the Company ("shares") whether by way of rights, bonus or otherwise; and/or
  - (ii) make or grant offers, agreements or options (collectively, "Instruments") that might or would require shares to be issued, including but not limited to the creation and issue of (as well as adjustments to) warrants, debentures or other instruments convertible into shares,

at any time and upon such terms and conditions and for such purposes and to such persons as the directors may in their absolute discretion deem fit; and

- (b) (notwithstanding the authority conferred by this Resolution may have ceased to be in force) issue shares in pursuance of any Instrument made or granted by the directors while this Resolution was in force,

provided that:

- (1) the aggregate number of shares to be issued pursuant to this Resolution (including shares to be issued in pursuance of Instruments made or granted pursuant to this Resolution) does not exceed 50 per cent. of the total number of issued shares (excluding treasury shares and subsidiary holdings) (as calculated in accordance with sub-paragraph (2) below), of which the aggregate number of shares to be issued other than on a *pro rata* basis to shareholders of the Company (including shares to be issued in pursuance of Instruments made or granted pursuant to this Resolution) does not exceed 10 per cent. of the total number of issued shares (excluding treasury shares and subsidiary holdings) (as calculated in accordance with sub-paragraph (2) below);
- (2) (subject to such manner of calculation as may be prescribed by the Singapore Exchange Securities Trading Limited ("SGX-ST") for the purpose of determining the aggregate number of shares that may be issued under sub-paragraph (1) above, the percentage of issued shares shall be based on the total number of issued shares (excluding treasury shares and subsidiary holdings) at the time this Resolution is passed, after adjusting for:
  - (i) new shares arising from the conversion or exercise of any convertible securities or share options or vesting of share awards which are outstanding or subsisting at the time this Resolution is passed; and
  - (ii) any subsequent bonus issue or consolidation or subdivision of shares,
 and, in sub-paragraph (1) above and this sub-paragraph (2), "subsidiary holdings" has the meaning given to it in the Listing Manual of the SGX-ST;
- (3) in exercising the authority conferred by this Resolution, the Company shall comply with the provisions of the Listing Manual of the SGX-ST for the time being in force (unless such compliance has been waived by the Monetary Authority of Singapore) and the Constitution for the time being of the Company; and
- (4) (unless revoked or varied by the Company in general meeting) the authority conferred by this Resolution shall continue in force until the conclusion of the next Annual General Meeting of the Company or the date by which the next Annual General Meeting of the Company is required by law to be held, whichever is the earlier.

#### **Ordinary Resolution 10**

That:

- (a) for the purposes of Sections 76C and 76E of the Companies Act, Chapter 50 of Singapore (the "Companies Act"), the exercise by the directors of the Company of all the powers of the Company to purchase or otherwise acquire issued ordinary shares of the Company ("Shares") not exceeding in aggregate the Maximum Percentage (as hereafter defined), at such price or prices as may be determined by the directors from time to time up to the Maximum Price (as hereafter defined), whether by way of:
  - (i) market purchase(s) on the SGX-ST and/or any other securities exchange on which the Shares may for the time being be listed and quoted ("Other Exchange"); and/or
  - (ii) off-market purchase(s) (if effected otherwise than on the SGX-ST or, as the case may be, Other Exchange) in accordance with any equal access scheme(s) as may be determined or formulated by the directors as they consider fit, which scheme(s) shall satisfy all the conditions prescribed by the Companies Act,

and otherwise in accordance with all other laws and regulations and rules of the SGX-ST or, as the case may be, Other Exchange, as may for the time being be applicable, be and is hereby authorised and approved generally and unconditionally (the "Share Purchase Mandate");

## Notice of Annual General Meeting

Singapore Exchange Limited

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- (b) unless varied or revoked by the Company in general meeting, the authority conferred on the directors of the Company pursuant to the Share Purchase Mandate may be exercised by the directors at any time and from time to time during the period commencing from the date of the passing of this Resolution and expiring on the earliest of:
  - (i) the date on which the next Annual General Meeting of the Company is held;
  - (ii) the date by which the next Annual General Meeting of the Company is required by law to be held; and
  - (iii) the date on which purchases and acquisitions of Shares pursuant to the Share Purchase Mandate are carried out to the full extent mandated;
- (c) in this Resolution:
  - "Average Closing Price" means the average of the closing market prices of a Share over the five consecutive trading days on which the Shares are transacted on the SGX-ST or, as the case may be, Other Exchange, immediately preceding the date of the market purchase by the Company or, as the case may be, the date of the making of the offer pursuant to the off-market purchase, and deemed to be adjusted, in accordance with the listing rules of the SGX-ST, for any corporate action that occurs after the relevant five-day period;
  - "date of the making of the offer" means the date on which the Company makes an offer for the purchase or acquisition of Shares from holders of Shares stating therein the relevant terms of the equal access scheme for effecting the off-market purchase;
  - "Maximum Percentage" means that number of issued Shares representing 10 per cent. of the total number of issued Shares as at the date of the passing of this Resolution (excluding treasury shares and subsidiary holdings (as defined in the Listing Manual of the SGX-ST)); and
  - "Maximum Price" in relation to a Share to be purchased or acquired, means the purchase price (excluding brokerage, commission, applicable goods and services tax and other related expenses) which shall not exceed, whether pursuant to a market purchase or an off-market purchase, 105 per cent. of the Average Closing Price of the Shares; and
- (d) the directors of the Company and/or any of them be and are hereby authorised to complete and do all such acts and things (including executing such documents as may be required) as they and/or he/she may consider expedient or necessary or in the interests of the Company to give effect to the transactions contemplated and/or authorised by this Resolution.

### Ordinary Resolution 11

That:

- (a) a new share plan to be known as the "SGX Restricted Share Plan" (the "SGX RSP"), the rules of which, for the purpose of identification, have been subscribed to by the Chairman of the Meeting, under which awards of fully paid-up Shares, their equivalent cash value or combinations thereof will be granted, free of payment, to selected directors and employees of the Company and/or its subsidiaries, details of which are set out in the Letter to Shareholders dated 28 August 2018, be and is hereby approved; and
- (b) the directors of the Company be and are hereby authorised:
  - (i) to establish and administer the SGX RSP; and
  - (ii) to modify and/or alter the SGX RSP at any time and from time to time, provided that such modification and/or alteration is effected in accordance with the provisions of the SGX RSP, and to do all such acts and to enter into all such transactions and arrangements as may be necessary or expedient in order to give full effect to the SGX RSP.

## By Order of the Board

**Ding Hui Yun (Ms)**  
**Seah Kim Ming Glenn (Mr)**  
 Company Secretaries  
 Singapore Exchange Limited  
**28 August 2018**

## EXPLANATORY NOTES

### Routine Business

**Ordinary Resolutions 3(a) & 3(b)** are to re-elect Mr Kevin Kwok and Mr Loh Boon Chye who will be retiring by rotation under Article 97 of the Constitution of the Company.

Mr Kevin Kwok will, upon re-election, continue to serve as the Chairman of the Audit Committee, a member of the Nominating & Governance Committee and Risk Management Committee. Mr Loh Boon Chye will, upon re-election, continue to serve as the Chief Executive Officer. Mr Kwok is considered an independent director. Mr Loh is considered an executive non-independent director. Detailed information on these directors can be found under 'Board of Directors' in the Company's Annual Report 2018. Save as disclosed therein, there are no material relationships (including immediate family relationships) between each of these directors and the other directors or the Company.

Mr Ng Kok Song is also retiring from office by rotation, but has decided not to offer himself for re-election.

**Ordinary Resolution 4** is to seek approval for the payment of S\$930,000 to the Chairman as director's fees for undertaking duties and responsibilities as Chairman of the Board for the financial year ending 30 June 2019 ("FY2019") (S\$750,000 and a car with a driver for the preceding financial year). As in the preceding financial year, the sum of S\$930,000 does not include any director's fees payable for serving as chairman or member of any Board committee(s). However, there will be no other emoluments or separate attendance fees payable to the Chairman in conjunction with the revision to the structure of the Chairman's director's fees.

In arriving at the proposed Chairman's fee of S\$930,000, the Company took into account:

- (a) the significant leadership role played by the Chairman on the Board, and in providing clear oversight and guidance to management;
- (b) the amount of time the Chairman spends on Company matters, including providing input and guidance on strategy and supporting management in engaging with a wide range of other stakeholders such as partners, governments and regulators, as well as travelling to visit with industry global peers; and
- (c) comparable benchmarks from other large listed companies and peers in the financial industry in Singapore that have chairmen with similar roles and responsibilities, as well as benchmarks from global bourses.

Additional information on the role of the Chairman can be found under 'Corporate Governance' in the Company's Annual Report 2018.

If the new SGX RSP is approved under Ordinary Resolution 11, then approximately three-quarters of the Chairman's fee of S\$930,000 for FY2019 will be paid in cash and approximately one-quarter will be delivered in SGX shares in the form of a share award to be granted under the new SGX RSP, for the Chairman who, on the date of grant of the share award, has served for at least 12 months. All fees payable for serving as chairman or member of any Board committee(s) will be paid entirely in cash. The actual number of shares to be awarded will be determined by reference to the volume-weighted average price of a share on the Singapore Exchange Securities Trading Limited over the 14 trading days immediately following the date of the Nineteenth Annual General Meeting, rounded down to the nearest share. The award will consist of fully paid shares, with no performance conditions attached and no vesting period imposed, but it is currently intended that there will be a moratorium on the sale of such shares for a period of up to one year after the grant of the award (this will be lifted if the Chairman steps off the Board before the end of the moratorium period).

**Ordinary Resolution 5** is to seek approval for the payment of up to S\$1,600,000 to all directors (other than the Chief Executive Officer) as directors' fees for FY2019 (which is the same as that for the preceding financial year). The directors' fees are calculated based on, among other things, the number of Directors expected to hold office during the course of that year.

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The fees for non-executive directors reflect the scope and extent of a director's responsibilities and obligations and are measured competitively against industry benchmarks. Although there is no increase in the absolute amount of the proposed fees from the preceding financial year, if approved, the basic fee and committee fee payable to directors will be increased to bring these fees in line with market norms, and to ensure that the Company is able to attract and retain the right calibre of directors necessary to contribute effectively to the Board in an ever-increasingly competitive market. With the revision to the basic fees, no attendance fees will be payable. The fee structure for the financial year ended 30 June 2018 ("FY2018") and the revised fee structure for FY2019 are set out below.

### FY2018 fee structure and revised fee structure for FY2019

Non-Executive Director	FY2018	FY2019	Increase
Basic Fee – Member	\$55,000	\$75,000	\$20,000
Audit Committee – Chairman	\$40,000	\$55,000	\$15,000
Audit Committee – Member	\$30,000	\$40,000	\$10,000
Risk Management Committee – Chairman	\$30,000	\$55,000	\$25,000
Risk Management Committee – Member	\$20,000	\$40,000	\$20,000
Other Committee – Chairman	\$30,000	\$40,000	\$10,000
Other Committee – Member	\$20,000	\$25,000	\$5,000
Meeting Attendance Fee	\$1,500		N.A.

If the new SGX RSP is approved under Ordinary Resolution 11, then approximately three-quarters of the basic fee for FY2019 will be paid in cash and approximately one-quarter will be delivered in SGX shares in the form of share awards to be granted under the new SGX RSP, for the non-executive directors (other than Mr Thaddeus Beczak and Ms Lim Sok Hui) who, on the date of grant of the share awards, have served for at least 12 months. All fees payable for serving as chairman or member of any Board committee(s) will be paid entirely in cash. The actual number of shares to be awarded will be determined by reference to the volume-weighted average price of a share on the Singapore Exchange Securities Trading Limited over the 14 trading days immediately following the date of the Nineteenth Annual General Meeting, rounded down to the nearest share. The award will consist of fully paid shares, with no performance conditions attached and no vesting period imposed, but it is currently intended that there will be a moratorium on the sale of such shares for a period of up to one year after the grant of the award (this will be lifted if the non-executive director steps off the Board before the end of the moratorium period). The following persons will receive all of their directors' fees for FY2019 in cash (calculated on a pro-rated basis): (i) Mr Ng Kok Song, who is retiring from office by rotation at the Nineteenth Annual General Meeting but will not be offering himself for re-election, (ii) Mr Ng Wai King and Mr Subra Suresh, who are proposed to be appointed as additional directors at the Nineteenth Annual General Meeting, and (iii) any other non-executive director who steps down from the board before the date of grant of the share awards. The directors' fees for FY2019 for Mr Thaddeus Beczak and Ms Lim Sok Hui will be paid in cash to their respective employers, Old Peak Investments Ltd and DBS Bank Ltd.

The exact amount of director's fees received by each director for FY2018 is disclosed in full in the Company's Annual Report 2018.

### Special Business

**Ordinary Resolution 7** is to appoint Mr Ng Wai King as an additional director pursuant to Article 103 of the Constitution of the Company. Mr Ng will be considered an independent director. Detailed information on Mr Ng can be found under 'Board of Directors' in the Company's Annual Report 2018. Save as disclosed therein, there are no material relationships (including immediate family relationships) between Mr Ng and the other directors or the Company.

**Ordinary Resolution 8** is to appoint Mr Subra Suresh as an additional director pursuant to Article 103 of the Constitution of the Company. Mr Suresh will be considered an independent director. Detailed information on Mr Suresh can be found under 'Board of Directors' in the Company's Annual Report 2018. Save as disclosed therein, there are no material relationships (including immediate family relationships) between Mr Suresh and the other directors or the Company.

**Ordinary Resolution 9** is to empower the directors to issue shares and to make or grant instruments (such as warrants or debentures) convertible into shares, and to issue shares in pursuance of such instruments, up to a number not exceeding 50 per cent. of the total number of issued shares (excluding treasury shares and subsidiary holdings) (the "50% Limit"), with a sub-limit of 10 per cent. for issues other than on a *pro rata* basis to shareholders. The sub-limit of 10 per cent. for non *pro rata* issues is lower than the 20 per cent. sub-limit allowed under the Listing Manual of the SGX-ST. The Company believes that the lower limit sought for the issue of shares made on a non *pro rata* basis to shareholders is adequate for the time being and will review this limit annually. For the purpose of determining the aggregate number of shares that may be issued, the percentage of issued shares shall be based on the total number of issued shares (excluding treasury shares and subsidiary holdings) at the time that Ordinary Resolution 9 is passed, after adjusting for (a) new shares arising from the conversion or exercise of any convertible securities or share options or vesting of share awards which are outstanding or subsisting at the time that Ordinary Resolution 9 is passed, and (b) any subsequent bonus issue or consolidation or subdivision of shares. As at 1 August 2018 (the "Latest Practicable Date"), the Company had 1,535,769 treasury shares and no subsidiary holdings.

**Ordinary Resolution 10** is to renew the mandate to allow the Company to purchase or otherwise acquire Shares, on the terms and subject to the conditions set out in the Resolution.

The Company intends to use its internal sources of funds to finance its purchase or acquisition of its Shares. The amount of financing required for the Company to purchase or acquire its Shares, and the impact on the Company's financial position, cannot be ascertained as at the date of this Notice as these will depend on whether the Shares are purchased or acquired out of capital and/or retained profits of the Company, the number of Shares purchased or acquired, the consideration paid for such Shares and whether the Shares purchased or acquired are held as treasury shares or cancelled.

Based on the existing issued Shares (excluding treasury shares) as at the Latest Practicable Date, and assuming that on or prior to the Annual General Meeting (i) no further Shares are issued or repurchased, or held by the Company as treasury shares, and (ii) no Shares are held as subsidiary holdings, the purchase by the Company of up to the maximum limit of 10 per cent. of its issued Shares (excluding treasury shares) will result in the purchase or acquisition of 107,010,663 Shares.

In the case of both market purchases and off-market purchases by the Company, assuming that the Maximum Price is S\$7.88 for one Share (being the price equivalent to 5 per cent. above the Average Closing Price of the Shares immediately preceding the Latest Practicable Date), having regard to the Company's share capital and cash and cash equivalents of approximately S\$429,236,000 and S\$413,012,000 respectively, the maximum number of Shares the Company is able to purchase or acquire out of capital to be held as treasury shares or to be cancelled for the duration of the proposed Share Purchase Mandate is 52,412,690 Shares representing 4.90 per cent. of the total number of issued Shares (excluding treasury shares) as at the Latest Practicable Date.

In the case of both market purchases and off-market purchases by the Company, assuming that the Maximum Price is S\$7.88 for one Share (being the price equivalent to 5 per cent. above the Average Closing Price of the Shares immediately preceding the Latest Practicable Date), having regard to the Company's retained profits and cash and cash equivalents of approximately S\$376,534,000 and S\$413,012,000 respectively, the maximum number of Shares the Company is able to purchase or acquire out of retained profits to be held as treasury shares or to be cancelled for the duration of the proposed Share Purchase Mandate is 47,783,503 Shares representing 4.47 per cent. of the total number of issued Shares (excluding treasury shares) as at the Latest Practicable Date.

The financial effects of the purchase or acquisition of such Shares by the Company pursuant to the proposed Share Purchase Mandate on the audited financial statements of the Company and the Group for the financial year ended 30 June 2018 based on the assumptions set out above are set out in paragraph 2.7 of the Letter to Shareholders dated 28 August 2018.

**Ordinary Resolution 11** is to approve the new SGX RSP. Shareholders' approval is required for the new SGX RSP pursuant to Rule 843(3)(a) of the Listing Manual of the SGX-ST. The aggregate number of new Shares which may be allotted and issued pursuant to the new SGX RSP and the existing SGX Performance Share Plan 2015 (and/or any share schemes then in force) cannot exceed 10 per cent. of the total number of issued Shares (excluding treasury shares and subsidiary holdings) from time to time. In order to minimise shareholders' concerns against dilution, the current intention is that Shares which are to be delivered upon the vesting of awards will either be delivered by way of treasury shares or, where new Shares are to be issued, out of the non *pro rata* sub-limit under any valid general share issue mandate which may be in place at the relevant time. If approved, approximately one-quarter of the basic fee and Chairman's fee for FY2019 may be paid in Shares to be delivered in the form of share awards to be granted under the new SGX RSP (see the explanatory notes to Ordinary Resolutions 4 and 5 above). Please refer to the Letter to Shareholders dated 28 August 2018 for more details.

## Notice of Annual General Meeting

Singapore Exchange Limited

Company Registration No. 199904940D  
(Incorporated in the Republic of Singapore)

### NOTES

- (1) Each of the resolutions to be put to the vote of members at the Annual General Meeting (and at any adjournment thereof) will be voted on by way of a poll.
- (2)
  - (a) A member who is not a relevant intermediary is entitled to appoint not more than two proxies to attend, speak and vote at the Annual General Meeting. Where such member's form of proxy appoints more than one proxy, the proportion of the shareholding concerned to be represented by each proxy shall be specified in the form of proxy.
  - (b) A member who is a relevant intermediary is entitled to appoint more than two proxies to attend, speak and vote at the Annual General Meeting, but each proxy must be appointed to exercise the rights attached to a different share or shares held by such member. Where such member's form of proxy appoints more than two proxies, the number and class of shares in relation to which each proxy has been appointed shall be specified in the form of proxy.
- "Relevant intermediary" has the meaning ascribed to it in Section 181 of the Companies Act, Chapter 50 of Singapore.
- (3) A proxy need not be a member of the Company.
- (4) Completion and return of the instrument appointing a proxy or proxies by a member will not prevent him/her from attending, speaking and voting at the Annual General Meeting if he/she so wishes. The appointment of the proxy(ies) for the Annual General Meeting will be deemed to be revoked if the member attends the Annual General Meeting in person and in such event, the Company reserves the right to refuse to admit any person or persons appointed under the relevant instrument appointing a proxy or proxies to the Annual General Meeting.
- (5) The instrument appointing a proxy or proxies (together with the power of attorney, if any, under which it is signed or a certified copy thereof) must, if sent personally or by post, be deposited at the office of the Company's Share Registrar, Boardroom Corporate & Advisory Services Pte. Ltd. at 50 Raffles Place #32-01, Singapore Land Tower, Singapore 048623 or, if submitted by electronic communication (where the member has signed up for the electronic service provided by the Company to its members to receive notices of meetings, annual reports and other shareholder communications electronically, for online proxy appointment and for the access and use of an SGX-designated website (collectively "Electronic Service") and where such service has been made available), be received via the online proxy appointment process through the Electronic Service, in either case not less than 72 hours before the time appointed for holding the Annual General Meeting.

### PERSONAL DATA PRIVACY

By submitting an instrument appointing a proxy(ies) and/or representative(s) to attend, speak and vote at the Annual General Meeting and/or any adjournment thereof, a member of the Company (i) consents to the collection, use and disclosure of the member's personal data by the Company (or its agents or service providers) for the purpose of the processing, administration and analysis by the Company (or its agents or service providers) of proxies and representatives appointed for the Annual General Meeting (including any adjournment thereof) and the preparation and compilation of the attendance lists, minutes and other documents relating to the Annual General Meeting (including any adjournment thereof), and in order for the Company (or its agents or service providers) to comply with any applicable laws, listing rules, take-over rules, regulations and/or guidelines (collectively, the "Purposes"), (ii) warrants that where the member discloses the personal data of the member's proxy(ies) and/or representative(s) to the Company (or its agents or service providers), the member has obtained the prior consent of such proxy(ies) and/or representative(s) for the collection, use and disclosure by the Company (or its agents or service providers) of the personal data of such proxy(ies) and/or representative(s) for the Purposes, and (iii) agrees that the member will indemnify the Company in respect of any penalties, liabilities, claims, demands, losses and damages as a result of the member's breach of warranty.

### NOTICE OF BOOKS CLOSURE

**NOTICE IS ALSO HEREBY GIVEN** that, subject to the approval of shareholders for the Final Dividend being obtained at the Nineteenth Annual General Meeting, the Transfer Books and Register of Members of the Company will be closed from 5.00 p.m. on 28 September 2018 (Friday) up to (and including) 1 October 2018 (Monday) for the preparation of dividend warrants. Duly completed registrable transfers of ordinary shares of the Company received by the Company's Share Registrar, Boardroom Corporate & Advisory Services Pte. Ltd. at 50 Raffles Place #32-01, Singapore Land Tower, Singapore 048623 up to 5.00 p.m. on 28 September 2018 (Friday) will be registered to determine shareholders' entitlements to the proposed Final Dividend. Shareholders whose Securities Accounts with The Central Depository (Pte) Limited are credited with ordinary shares of the Company at 5.00 p.m. on 28 September 2018 (Friday) will be entitled to the proposed Final Dividend. Payment of the Final Dividend, if approved by shareholders at the Nineteenth Annual General Meeting, will be made on 5 October 2018 (Friday).



**Singapore Exchange Limited**  
Company Reg. No. 199904940D

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