

SINGAPORE EXCHANGE  
annual report 2017

 July 2016–June 2017



# Corporate Information

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## Board of Directors

### Chairman

Mr Kwa Chong Seng  
*Appointed on 22 September 2016*

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

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## Company Secretaries

Ms Ding Hui Yun  
Mr Seah Kim Ming Glenn  
*Appointed on 1 February 2017*

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## 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

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## Auditor

PricewaterhouseCoopers LLP  
8 Cross Street #17-00  
PWC Building  
Singapore 048424

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

### Partner-in-Charge

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

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## 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  
*Appointed on 22 September 2016*  
Mr Liew Mun Leong  
Mr Ng Kok Song

### Regulatory Conflicts Committee

#### 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  
*Appointed on 1 April 2017*  
Mr Liew Mun Leong

### Risk Management Committee

#### Chairman

Ms Lim Sok Hui (Mrs Chng Sok Hui)  
*Appointed on 1 April 2017*

#### Members

Mr Thaddeus Beczak  
Ms Jane Diplock AO

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## 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

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## Place of Incorporation

Singapore

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## Company Registration No.

199904940D

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## Date of Incorporation

21 August 1999

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## Investor Relations

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

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## Sustainability

For enquiries on SGX's Sustainability Report, contact the Sustainability team at email: [sustainability@sgx.com](mailto:sustainability@sgx.com)

# Global Exchange, Asian Expertise

We are Asia's most international, multi-asset exchange, offering investors the ability to trade all of Asia in one place.

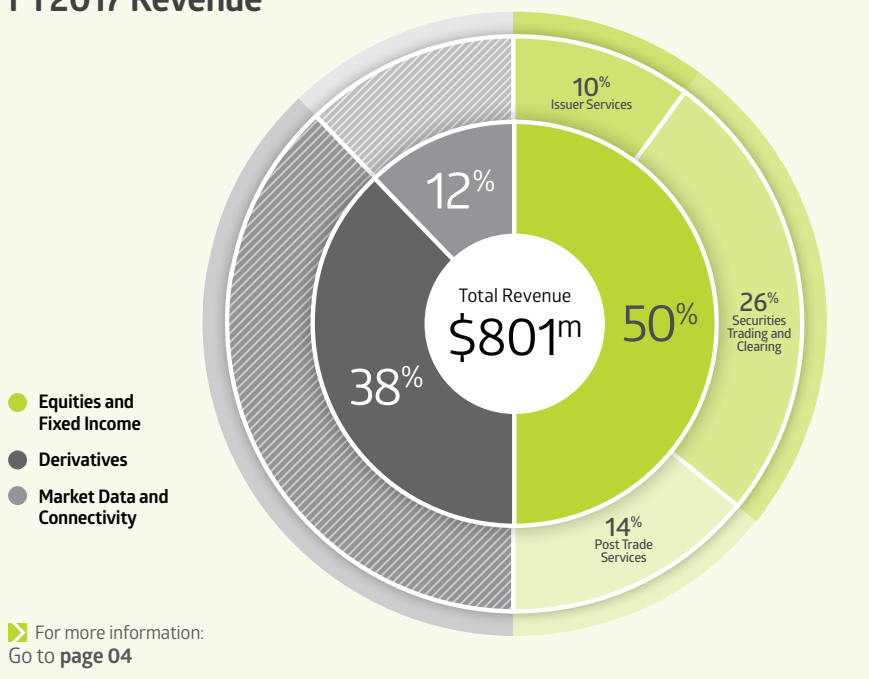
## Letter from the Chairman and the CEO

In FY2017, Singapore Exchange focused on building a business that will sustain performance into the future, against the backdrop of macroeconomic and geopolitical uncertainties, rising competition and increasing disruption in the business of fundraising.

For more information: Go to pages 08–12



## FY2017 Revenue



## Financial Highlights & Performance Review

Issuer Services	\$83.8m
Securities Trading and Clearing	\$205.0m
Post Trade Services	\$115.7m
Derivatives	\$303.1m
Market Data and Connectivity	\$93.2m

For more information: Go to pages 06–07

## 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: Go to pages 34–45

### Material Factors

Economic



Socio-Economic Impacts



Governance



People



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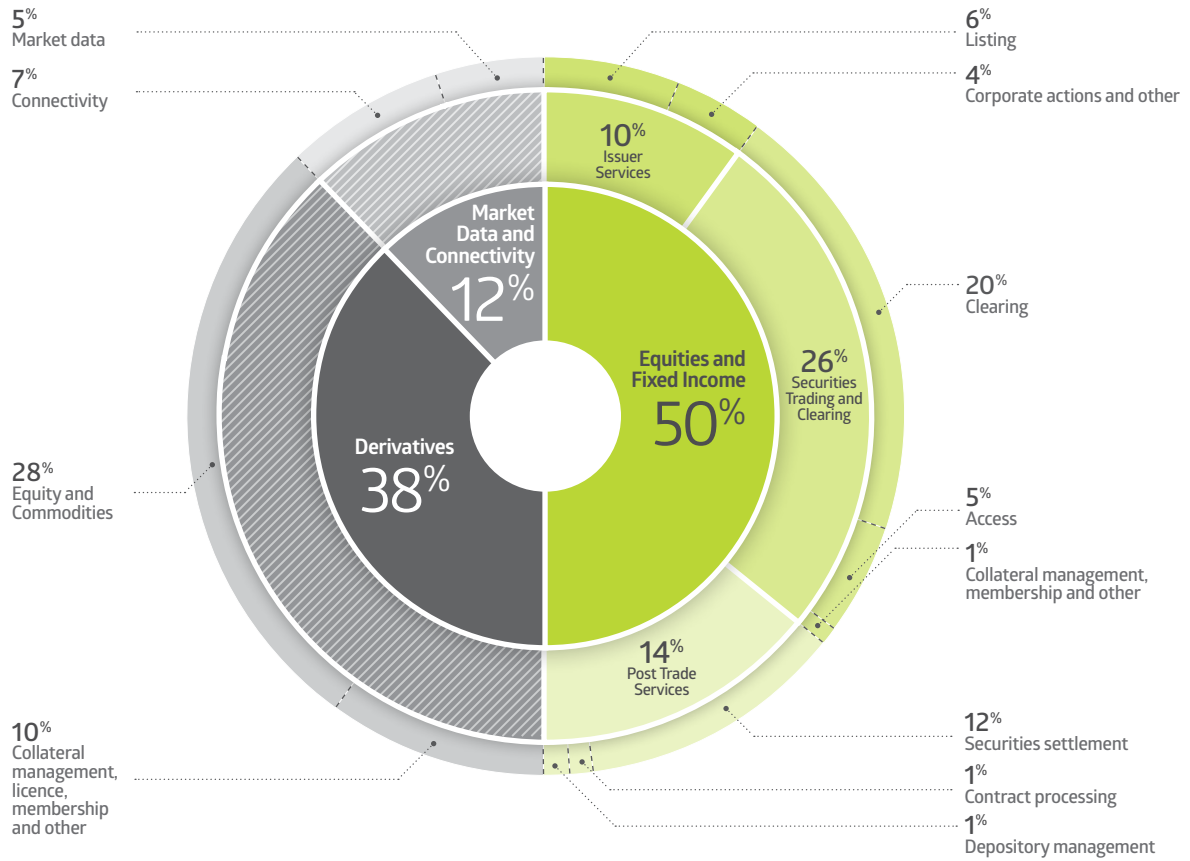
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Access our Annual Report at  
<http://investorrelations.sgx.com/annuals.cfm>

# Business at a Glance



## Revenue

**\$801<sup>m</sup>**

↓ 2% from \$818m

## Operating Profit

**\$402<sup>m</sup>**

↓ 2% from \$409m

## Net Profit

**\$340<sup>m</sup>**

↓ 3% from \$349m

## Earnings per Share

**31.7¢**

↓ 3% from 32.6¢

## Dividend per Share

**28¢**

↔ unchanged

## Return on Equity

**34%**

↓ 2% pts from 36%

All comparatives are for the year earlier.

# Financial Performance Summary

(\$million)	FY2013	FY2014	FY2015	FY2016	FY2017
<b>Statement of Income</b>					
Revenue	714	686	779	818	<b>801</b>
Expenses	301	315	377	409	<b>399</b>
Operating profit	413	371	402	409	<b>402</b>
Profit before tax and share of results of joint venture and associated companies	404	377	410	416	<b>409</b>
Net profit attributable to equity holders	336	320	349	349	<b>340</b>
<b>Statement of Cash Flows</b>					
Cash flows from operating activities	419	359	429	423	<b>378</b>
<b>Statement of Financial Position</b>					
Total assets	1,795	1,641	1,801	2,105	<b>2,041</b>
– Unrestricted cash and cash equivalents	613	607	633	598	<b>520</b>
– Committed for derivatives clearing fund	150	150	150	200	<b>200</b>
– Committed for securities clearing fund	60	60	60	60	<b>60</b>
– Committed for National Electricity Market of Singapore	Nil	Nil	7	8	<b>16</b>
Total liabilities	906	719	825	1,115	<b>1,009</b>
Total equity	889	922	976	990	<b>1,032</b>
– Includes proposed final dividend of	171	171	171	139	<b>139</b>
Capital expenditure	32	83	76	75	<b>67</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	2	1	2	<b>2</b>
<b>Financial Indicators</b>					
Revenue growth (%)	10.4	(4.0)	13.5	5.1	<b>(2.1)</b>
Operating profit margin (%)	57.9	54.1	51.6	50.0	<b>50.2</b>
Cost-to-income ratio (%)	42.1	45.9	48.4	50.0	<b>49.8</b>
Net gearing	Nil	Nil	Nil	Nil	<b>Nil</b>
Operating cash flow per share (cents)	39.2	33.5	40.1	39.6	<b>35.3</b>
Net asset value per ordinary share as at 30 June (cents)	83.1	86.2	91.2	92.5	<b>96.5</b>
Based on net profit attributable to equity holders					
Net profit margin (%)	46.6	46.3	44.3	42.1	<b>41.9</b>
Return on equity (%)	39.0	35.4	36.7	35.5	<b>33.6</b>
Dividend payout ratio (%)	89.1	93.4	86.0	85.9	<b>88.2</b>
Basic earnings per share (cents)	31.4	30.0	32.6	32.6	<b>31.7</b>

# Financial Highlights & Performance Review

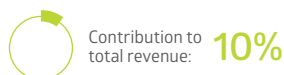
SGX recorded operating profit of \$401.8 million (\$409.1 million) and a net profit of \$339.7 million (\$349.0 million) in FY2017, with earnings per share of 31.7 cents (32.6 cents).

## Equities and Fixed Income

Equities and Fixed Income revenue was comparable at \$404.5 million (\$405.8 million), and accounted for 50% (49%) of total revenue.

### Issuer Services

Revenue increased \$1.2 million or 2% to \$83.8 million (\$82.6 million), accounting for 10% (10%) of total revenue.



#### Revenue

**\$83.8m**

↑ 2% from \$82.6m

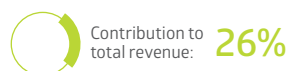


Type of Revenue	\$m	% change
Listing	49.4	+6%
Corporate actions and other	34.4	-4%

Listing revenue increased 6% mainly due to higher number of new bond listings. There were 819 bond listings raising \$384.7 billion, compared to 349 listings raising \$172.0 billion a year earlier. There were a total of 23 new equity listings which raised \$1.3 billion, compared to 21 new listings raising \$2.1 billion a year earlier. Secondary equity funds raised were \$15.1 billion (\$10.7 billion).

### Securities Trading and Clearing

Revenue was comparable to last year at \$205.0 million (\$205.0 million) and accounted for 26% (25%) of total revenue.



#### Revenue

**\$205.0m**

↔ unchanged



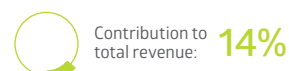
Type of Revenue	\$m	% change
Securities Clearing	158.6	-
Access	37.2	-1%
Collateral management, membership and other	9.2	+4%

Securities daily average value (SDAV) increased 2% to \$1.12 billion (\$1.10 billion) and total traded value increased 2% to \$280.7 billion (\$274.1 billion). There were 251 (250) trading days in the year.

Average clearing fee was 2.82 basis points, a decrease from 2.90 basis points a year earlier due to an increase in the trading of other products such as warrants and ETFs. Turnover velocity for the year was 39% (41%).

### Post Trade Services

Revenue decreased \$2.5 million or 2% to \$115.7 million (\$118.2 million), accounting for 14% (14%) of total revenue.



#### Revenue

**\$115.7m**

↓ 2% from \$118.2m



Type of Revenue	\$m	% change
Securities settlement	95.7	+2%
Contract processing	11.6	-27%
Depository management	8.4	-

Securities settlement revenue increased 2%, following a change in mix of securities settlement instructions.

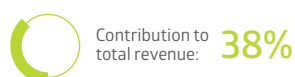
Contract processing revenue decreased \$4.4 million or 27% to \$11.6 million (\$15.9 million) due to lower number of contracts processed. Contract processing will be performed by brokers as they progressively migrate to their own back office systems. Contract processing revenue will no longer be significant once all brokers have migrated in the next financial year.



Included in the net profit is a \$4.0 million loss from the disposal of shares of the Bombay Stock Exchange. The Board of Directors has proposed a final dividend of 13 cents (13 cents) per share, payable on 6 October 2017. Total dividend for the year of 28 cents (28 cents) per share represents an 88% (86%) pay-out of the FY2017 reported net profit.

### Derivatives

Revenue decreased \$22.3 million or 7% to \$303.1 million (\$325.3 million), and accounted for 38% (40%) of total revenue.



#### Revenue

**\$303.1m**

7% from \$325.3m



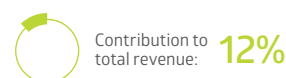
Type of Revenue	\$m	% change
Equity and commodities	220.5	-9%
Collateral management, licence, membership and other	82.5	-2%

Equity and Commodities revenue declined \$20.9 million or 9% as total volumes decreased 10% to 165.2 million contracts (183.1 million contracts). The decline in volume was mainly due to lower volumes in our FTSE China A50 Index Futures and Nikkei 225 Index Futures contracts. We gained market share in most of our key contracts in an environment of lower volumes and volatility. Average fee per contract was marginally lower at \$1.18 (\$1.19) mainly due to a change in mix of Derivatives contracts.

Collateral management, licence, membership and other revenue decreased 2%. Collateral management income declined due to lower margin balances.

### Market Data and Connectivity

Revenue increased \$6.2 million or 7% to \$93.2 million (\$87.0 million), accounting for 12% (11%) of total revenue.



#### Revenue

**\$93.2m**

7% from \$87.0m



Type of Revenue	\$m	% change
Market data	39.9	+4%
Connectivity	53.3	+10%

Market data revenue increased 4%, attributed to an increase in reported data usage for trading, risk and other back office applications.

Connectivity revenue increased 10%, following continued growth of our colocation services business.

### Total Revenue Contribution

### Sub-Segment

### Performance Highlights

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

# Letter from the Chairman and the CEO



**Mr Kwa Chong Seng**  
Chairman

**Mr Loh Boon Chye**  
Chief Executive Officer

## Net Profit

**\$340<sup>m</sup>**

3% from \$349m

## Total Revenue

**\$801<sup>m</sup>**

2% from \$818m



We firmly believe that our diversification into multiple asset classes covering different geographies has not only enabled us to sustain consistent financial performance through different market environments, but also reinforced our vital role as the most international exchange in Asia.”

## Dear Shareholders

### Staying the Course

In FY2017, Singapore Exchange (SGX) focused on building a business that will sustain performance into the future, against the backdrop of macroeconomic and geopolitical uncertainties, rising competition and increasing disruption in the business of fundraising.

### Strength in Diversity and Reach

FY2017's net profit fell 3% to \$339.7 million, on the back of a 2% decline in revenue to \$800.8 million. Our commitment to cost discipline has enabled us to deliver a flat jaw for FY2017, as operating expenses declined 2% to \$399.0 million.

We continue to return value to our shareholders in the form of dividends. The Board has proposed a final dividend of 13 cents per share for the fourth quarter. Together with the interim dividends paid for the first three quarters, the total dividend for FY2017 would be 28 cents per share, which represents an 88% payout of the FY2017 net profit.

As detailed in the preceding section of this annual report, SGX's strategy is built on two main pillars – Equities and Fixed Income, and Derivatives – and a smaller but increasingly important pillar, Market Data and Connectivity. Our progress towards a more balanced multi-asset revenue base is the result of deliberate steps we have taken in recent years in executing our growth and diversification strategy.

We firmly believe that our diversification into multiple asset classes covering different geographies has not only enabled us to sustain consistent financial performance through different market environments, but also reinforced our vital role as the most international exchange in Asia.

Our strategic direction will see us driving plans to deepen our geographical footprint, particularly in the US and the UK, broaden the distribution network of our products and services, and grow our client base. The investments that we have made are to prepare ourselves for the future, and reflect how we have planned ahead for growth, although some investments will require a longer incubation period.

### Advancing our Securities Market

SGX remained a key international venue for capital raising in FY2017, helping close to 120 issuers from Singapore and around the world raise a total of \$16.4 billion through new and secondary equity fundraising. Including IPOs, RTOs and secondary listings, a total of \$6.7 billion in market capitalisation was added to our equities market. Our Fixed Income business has turned in a record performance, with 819 bond listings raising \$384.7 billion, up 135% and 124% respectively from FY2016. Since we launched our SGX BondPro trading platform in 2016, we have seen encouraging client adoption and transaction volumes, supporting our aim to be the leading provider of liquidity for Asian fixed income.

The fundraising industry is undergoing swift and disruptive changes. Amidst this environment, we see a role for ourselves in building our ecosystem. We have ramped up collaborations with private fundraising platforms and agencies such as the Infocomm Media Development Authority and A\*STAR's ETPL, with a view to building relationships with early-stage businesses that may later translate into working relationships as they mature and become ready for public markets.

## Value Creation and Sustainability

### Value Creation

Our business model, using four forms of capital, generates sustainable and long-term value for our stakeholders.

▶ For further details:  
Go to **pages 24 to 25**

### 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.

▶ For further details:  
Go to **pages 28 to 29**

### Sustainability

Sustainability, which is integrated within our business strategy, remains core to the long-term viability of our organisation.

▶ For further details:  
Go to **pages 34 to 45**

## Letter from the Chairman and the CEO

Our IPO strategy continues to bear fruit as we engage our intermediaries, including issue managers, Catalist sponsors, listing aspirants and government agencies, so as to foster a conducive ecosystem that can generate and support more primary and secondary listings.

Our targeted sectorial approach towards seeking listing potentials has also enabled us to more effectively ingrain the value proposition of our market. We leveraged the lessons learnt and successes achieved in our REITs sector by focusing our energies on developing niche advantages and strengths in the key sectors of Technology, Consumer, Healthcare, Maritime & Offshore Services, and Minerals, Oil & Gas.

Later this year, we will celebrate the 10<sup>th</sup> anniversary of Catalist, one of the most liquid growth platforms globally for fast-growing companies. The Securities Daily Average Value (SDAV) on Catalist was up 45% year-on-year in FY2017, with turnover velocity improving by 20 percentage points. In the past year, fundraising activities on Catalist have increased as we signed up new sponsors, engaged more stakeholders and saw higher institutional participation.

Support for companies after their listing is important to the success of our market. In FY2017, SGX partnered with brokers to profile more than 90 corporates to over 1,000 institutional investors in nine cities. Our investor education activities for retail and institutional investors, ranging from our complimentary data-driven research reports to SGX Academy's training courses, are also well-received.

These activities, together with the collaborative efforts of the entire ecosystem to re-invigorate the markets, have contributed to healthy participation by investors.

Our regular dialogue with the industry has served us well as we reviewed our market structure and policies to address changing market conditions, while balancing the diverse interests of market participants. Earlier this year, we mandated all Mainboard IPOs to allocate at least 5% or \$50 million, whichever is lower, of their offer size to retail investors. With the support of market participants, we will also proceed to implement enhancements to the equities market structure in November 2017. As for the proposed introduction of a dual-class share (DCS) structure with appropriate safeguards, we are still evaluating the wide-ranging feedback received and will make a decision before the end of 2017.

In today's fast-evolving environment, SGX needs to be nimble to capture new business opportunities. We will maintain an open mind to new ideas and be ready to introduce initiatives that will strengthen SGX's relevance and attractiveness to issuers and investors alike. This includes developing new products to meet changing client needs, such as our first ETF that tracks an index created by SGX Index Edge as well as our first smart beta index which caters to investors looking for index-linked strategies.

Technology remains a key enabler to drive efficiency and growth across all our businesses. We continually upgrade our technology platforms as required and also embrace newer technologies



In today's fast-evolving environment, SGX needs to be nimble to capture new business opportunities. We will maintain an open mind to new ideas and be ready to introduce initiatives that will strengthen SGX's relevance and attractiveness to issuers and investors alike.”

to seek advantages for our businesses. In FY2018, we will complete the upgrade of the Securities Post Trade Systems to support the brokers in the securities market and enhance the CDP's on-line capabilities. In addition, we are actively experimenting with newer technologies – both in data and distributed ledgers – and will be an active participant in a Monetary Authority of Singapore (MAS) initiative to explore the use of these technologies in the Singapore Government Bond Market. We will also continue to invest further in developing our capabilities on our bond trading platform, SGX BondPro.

### Extending our Derivatives Value Chain

Our Derivatives business delivered a resilient performance in FY2017, and we continued to entrench our leadership as the largest offshore market for Asian derivatives across multiple asset classes. With the launch of our SGX TITAN platform, our derivative members and participants can manage their positions round the clock.

While derivatives revenue and total volumes declined, we have employed our operating and business strategies well to deliver market share growth in almost all our key derivative products. Liquidity improved across our growing portfolio, with average month-end open interest up 13% year-on-year to 4.2 million contracts. Our equity index futures continued to provide an avenue for global investors to navigate risk across key Asian markets. Notably, we achieved record volumes in our MSCI Singapore Index (SiMSCI) futures, with open interest reaching a new high in June and volume for the year up by 38% year-on-year.

Our foreign exchange (FX) portfolio is a solid contributor to our strategy to grow across asset classes. We saw standout performance in our USD/CNH and INR/USD futures contracts, which on average traded over US\$740 million and US\$800 million a day respectively in June, contributing substantially to more than three times volume gain for our FX contracts between FY2015 and FY2017. Supported by Singapore's position as the third-largest FX market globally, SGX continues to build its Asian FX product suite. In July this year, we launched four new SGX Asian FX futures contracts – IDR/USD, MYR/USD, MYR/SGD and PHP/USD.

With continued price volatility in steel raw materials, SGX maintained its leadership in iron ore derivatives, increasing its share of the offshore market to over 90%. We have also seen exciting signs of growth in the coking coal derivatives market, with our coking coal futures daily volumes this year increasing eight-fold since the fourth quarter of 2016 and reaching record levels of open interest. We see great opportunity in nurturing participation in our coking coal futures, which together with our iron ore contracts, offer participants in the downstream steel industry the ability to manage upstream volatility as well as gain margin efficiencies from trading the "virtual steel mill".

Over the past two years, we have grown our freight derivatives business five times to become one of the major clearing houses for forward freight agreements (FFAs) globally. The acquisition of the Baltic Exchange highlights the value we see in integrating the risk management of freight and cargo, given that seaborne bulk commodities are

## Letter from the Chairman and the CEO

largely produced and consumed in this region. With the transaction now complete, the stage is set for deeper collaboration between the two markets. We are confident in our ability to further drive the growth of FFA volumes and tap the opportunity to develop new freight derivatives centred on active Asian shipping routes.

Since the close of the acquisition in November 2016, the Baltic Exchange has already strengthened its presence in Asia, gaining 15 new members in the region. We continue to work with the Baltic Exchange to create and drive adoption of new benchmarks for Asian shipping routes. Also, we will develop new freight benchmarks for complementary commodities, such as LNG freight, to support Sling, SGX's LNG spot pricing tool.

### Forward-Looking Regulation

SGX's long-term success relies on its ability to maintain a solid record as a market regulator and operator. As markets evolve, and investors and companies become more sophisticated, we must innovate and regulate in a forward-looking and purposeful manner.

The newly formed Singapore Exchange Regulation Pte. Ltd. (SGX RegCo), which is an independent regulatory subsidiary of SGX, is expected to commence operations in the first quarter of FY2018. Aimed at enhancing the governance of SGX as a self-regulatory organisation, SGX RegCo will undertake all front-line regulatory functions and make more explicit the segregation of SGX RegCo's regulatory functions from SGX's commercial and operating activities. It will also have a separate board of directors from SGX. On behalf of SGX, we warmly welcome Professor Tan Cheng Han as the chairman of SGX RegCo.

### Note of Appreciation

In closing, we would like to thank our clients, members, business associates and shareholders for your partnership as we look forward to your support in the coming year. To SGX employees, who are our most important assets, thank you for your hard work and passion in living our goal to make SGX and the marketplace better for all our stakeholders.

Our initiatives in FY2017 have given SGX a positive momentum. As we look ahead to another year of development, we will build upon these efforts and strive to do even more to deliver greater value to our stakeholders.

### 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 next re-election as a director**  
21 September 2017

**Length of service as a director** (as at 30 June 2017)  
4 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 2017)  
*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 2014 to 29 June 2017)

- 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

<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 Loh Boon Chye

Chief Executive Officer  
Executive and Non-Independent Director

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

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

**Length of service as a director** (as at 30 June 2017)  
1 year 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 2017)  
*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 (Member)
- MAS Financial Centre Advisory Panel (Member)
- MAS Securities Industry Council (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)

**Past Directorship other than SGX held over the preceding three years**  
(from 30 June 2014 to 29 June 2017)  
Nil

### Committee Membership Key

**AC**  
Audit

**NGC**  
Nominating & Governance

**RCC**  
Regulatory Conflicts

**RSDC**  
Remuneration & Staff Development

**RMC**  
Risk Management



## Board of Directors



### Mr Thaddeus Beczak

Non-Executive and Independent Director

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

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

**Length of service as a director (as at 30 June 2017)**  
6 years 9 months

#### SGX Board Committee Membership

**RCC** (Member) **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 2017)

##### Listed company

- China Minsheng Financial Holding Corporation Limited
- Pacific Online Limited
- Phoenix Satellite Television Holdings Limited

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

- Arnhold (B.V.I.) Limited
- Chumleigh Limited<sup>1</sup>
- Derbyshire Limited
- Goldic Limited<sup>1</sup>
- Jade China International Limited<sup>1</sup>
- Old Peak Investments Limited
- Value Scale Investments Limited<sup>1</sup>
- White Tiger Group Limited<sup>1</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)

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

(from 30 June 2014 to 29 June 2017)

- ACR Capital Holdings Pte Limited (Non-Executive Chairman)
- Arnhold Holdings Limited
- Artisan Du Luxe Holding Limited (Non-Executive Chairman)
- China Renaissance Holdings Limited (Vice Chairman)
- China Renaissance Securities (Hong Kong) Limited (Chairman)
- e-Kong Group Limited

<sup>1</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 2017)**  
3 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 2017)

##### 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)

- Athena Investment Company (Singapore) Pte. Limited
- Nexford Holdings Pte Ltd
- Rahman Hydraulic Tin Sdn Bhd
- Straits Real Estate Pte. Ltd.
- Tan Chin Tuan Pte. Ltd<sup>1</sup> (Deputy Executive Chairman)
- Tecity Pte Ltd<sup>2</sup> (Executive Chairman)

#### Major Appointment (other than Directorship)

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

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

(from 30 June 2014 to 29 June 2017)

- ARA Asset Management Limited (Non-Executive Deputy Chairman)
- Cairnhill Rock Pte. Ltd.

<sup>1</sup> Including its subsidiaries & associates, namely Consultants Services (Private) Limited, Tecity 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, Siang Lim Private Limited, Choice Equities Pte Ltd, Integrated Holdings Private Limited (Executive Chairman).

<sup>2</sup> Including its subsidiaries & associates, namely Ho Peng Holdings Private Limited, Selected Holdings Private Limited, Mellford Pte. Ltd., Aequitas Pte. Ltd., Raffles Investments Limited, Raffles Investments (1993) Pte Ltd, Sigford Pte. Ltd., The Cairns Pte. Ltd., and Selected Properties Pte. Ltd.





## 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 2017)

5 years 11 months

### SGX Board Committee Membership

**RCC** (Chairman) **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 2017)

#### Listed company

Nil

#### Others (Non-Listed company)

Nil

### 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)
- Public Interest Oversight Board (Member)

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

(from 30 June 2014 to 29 June 2017)

- Australian Financial Services Group Pty Limited
- 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 last re-election as a director

23 September 2015

### Length of service as a director (as at 30 June 2017)

4 years 9 months

### SGX Board Committee Membership

**AC** (Chairman) **NGC** (Member) **RCC** (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 2017)

#### Listed company

- Mapletree Greater China 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 2014 to 29 June 2017)

- NTUC Income Insurance Co-Operative Limited
- Singapore Institute of Directors

## Board of Directors



### Mr Liew Mun Leong

Non-Executive and Independent Director

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

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

**Length of service as a director** (as at 30 June 2017)  
8 years

#### 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 2017)

*Listed company*

Nil

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

- Changi Airport Group (Singapore) Pte Ltd (Chairman)
- China Club Investment Pte Ltd (Chairman)
- Singapore-China Foundation Ltd
- Surbana Jurong 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) (Probono))
- NUS Business School (Advisory Board Member)
- NUS Business School (Provost's Chair Professor (Practice) (Probono))
- NUS Faculty of Engineering (Provost's Chair Professor (Practice) (Probono))

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

(from 30 June 2014 to 29 June 2017)

- CapitaLand Hope Foundation
- Dymon Asia Real Estate Limited (Chairman)
- Human Capital Leadership Institute
- Lan Ting Holdings Pte. Ltd
- Lotus Mentoring Leadership Pte. Ltd
- Pavilion Energy Pte Ltd
- Pavilion Gas Pte Ltd (Chairman)
- Surbana International Consultants Holdings Pte. Ltd. (Chairman)



### 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 2017)  
1 year 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 2017)

*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 2014 to 29 June 2017)

- 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 2017)

3 years 9 months

#### SGX Board Committee Membership

**NGC** (Member)

#### Academic & Professional Qualification

- Physics, University of Singapore
- Management, Stanford University

#### Present Directorship other than SGX

(as at 30 June 2017)

##### Listed company

Nil

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

- Avanda Investment Management Pte Ltd (Chairman)
- Wealth Management Institute Pte. Ltd.

#### 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 2014 to 29 June 2017)

- GIC Asset Management Private Limited
- GIC Private Limited
- GIC Real Estate Private Limited
- GIC Special Investments Private Limited
- Hon Sui Sen Endowment CLG Limited



### Mr Lim Chin Hu

Proposed Non-Executive and Non-Independent<sup>1</sup> Director

#### Proposed date of appointment as a director:

21 September 2017

#### Academic & Professional Qualification

Bachelor of Applied Science, La Trobe University, Australia

#### Present Directorship other than SGX (as at 30 June 2017)

##### Listed company

- Kulicke & Soffa Incorporated (Listed on Nasdaq)
- Keppel DC REIT Management Pte. Ltd.<sup>2</sup>

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

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

#### Major Appointment (other than Directorship)

- Personal Data Protection Commission (IMDA) (Advisor)
- SGX Listings Advisory Committee (Member)<sup>3</sup>
- Stream Global Pte Ltd (Managing Partner)

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

(from 30 June 2014 to 29 June 2017)

- Telstra Ltd (Listed on ASX)
- Singapore Institute of Directors

<sup>1</sup> Mr Lim will be 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.

<sup>2</sup> Stepped down on 1 August 2017

<sup>3</sup> Will be stepping down on 20 September 2017

# Executive Management Committee



**Mr Loh Boon Chye**  
Chief Executive Officer



**Mr Muthukrishnan Ramaswami**  
President



**Mr Chng Lay Chew**  
Chief Financial Officer



**Ms Agnes Koh**  
Chief Risk Officer



**Mr Tan Boon Gin**  
Chief Regulatory Officer



**Mr Chew Sutat**  
Executive Vice President



**Mr Arulraj Devadoss**  
Executive Vice President



**Mr Michael Syn**  
Executive Vice President



**Ms Tinku Gupta**  
Executive Vice President

## 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 27 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 firm's Country Executive for Singapore and Southeast Asia and a member of its Asia Pacific Executive Committee.

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, Head of Global Markets for Asia, and Chief Executive of Global Markets at Deutsche Bank AG in Singapore.

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.

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 October 2003 to September 2012, he has also been a Director on the Board of GIC Pte Ltd since November 2012.

He has also previously served as Chairman of the Capital Markets Working Group, Deputy President of ACI Singapore, Chairman of the Debt Capital Markets Committee of the Singapore Investment Banking Association, and Chairman of the Singapore Foreign Exchange Market Committee.

Mr Loh is also a council member and Distinguished Fellow at the Institute of Banking & Finance Singapore. He was awarded for Outstanding Contribution to Financial Markets in Asia in the Euromoney Awards for Excellence in 2010. He was presented the International Financial Law Review (IFLR) Market Reform Award 2017, for his contributions in boosting the competitiveness and range of international investors and issuers participating in Singapore's markets.

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

## 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 & 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. In April 2016, he was appointed to the Board of the Accounting and Corporate Regulatory Authority (ACRA), the national regulator of business entities and public accountants in Singapore.

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.

## 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.

## Executive Management Committee

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.

### Ms Agnes Koh

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 11 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 is a Chartered Accountant, a Member of the Institute of Singapore Chartered Accountants. She holds a Bachelor of Accountancy (Hons) from National University of Singapore.

### Mr Tan Boon Gin

Chief Regulatory Officer

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.

### Mr Chew Sutat

Executive Vice President

Mr Chew Sutat is Head of Equities & Fixed Income, where he is responsible for the equities and fixed income listing, trading and post-trade businesses and securities product sales for SGX globally.

Mr Chew joined SGX in June 2007 and was appointed to the Executive Management Committee in May 2008. He is also Chairman of SGX's Bull Charge CSR initiatives.

Prior to SGX, he was Group Head, Investment & Treasury Products at Standard Chartered Bank, where he was responsible for the strategy and development of the bank's existing geographic franchises and new ventures for Global Wealth Management.

Before Standard Chartered Bank, Mr Chew was with OCBC Securities, where he headed 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), Vice-Chairman of Kaki Bukit Citizens' Consultative Committee and on the board of Trustees for the Center for Domestic Employees.



Mr Chew graduated with a Bachelor of Arts (1<sup>st</sup> 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.

### 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.

### 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 of 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).

### 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.

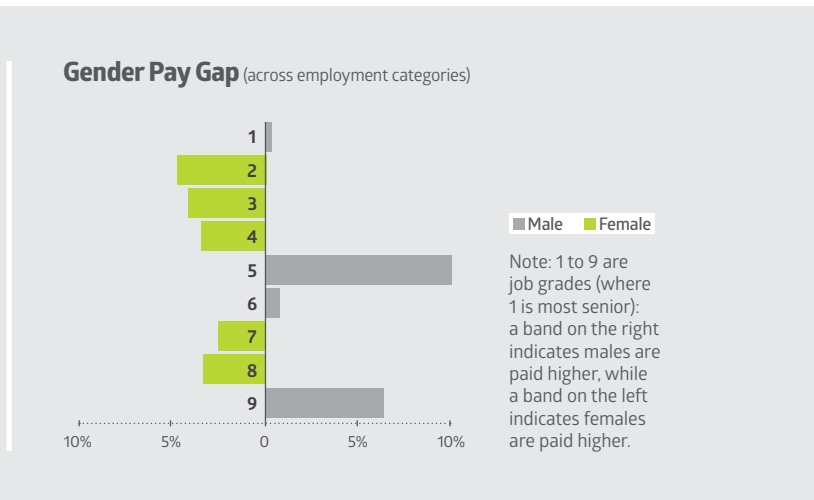
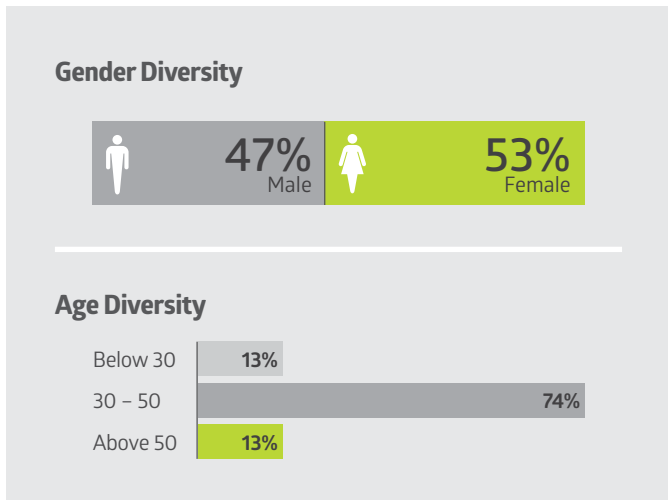
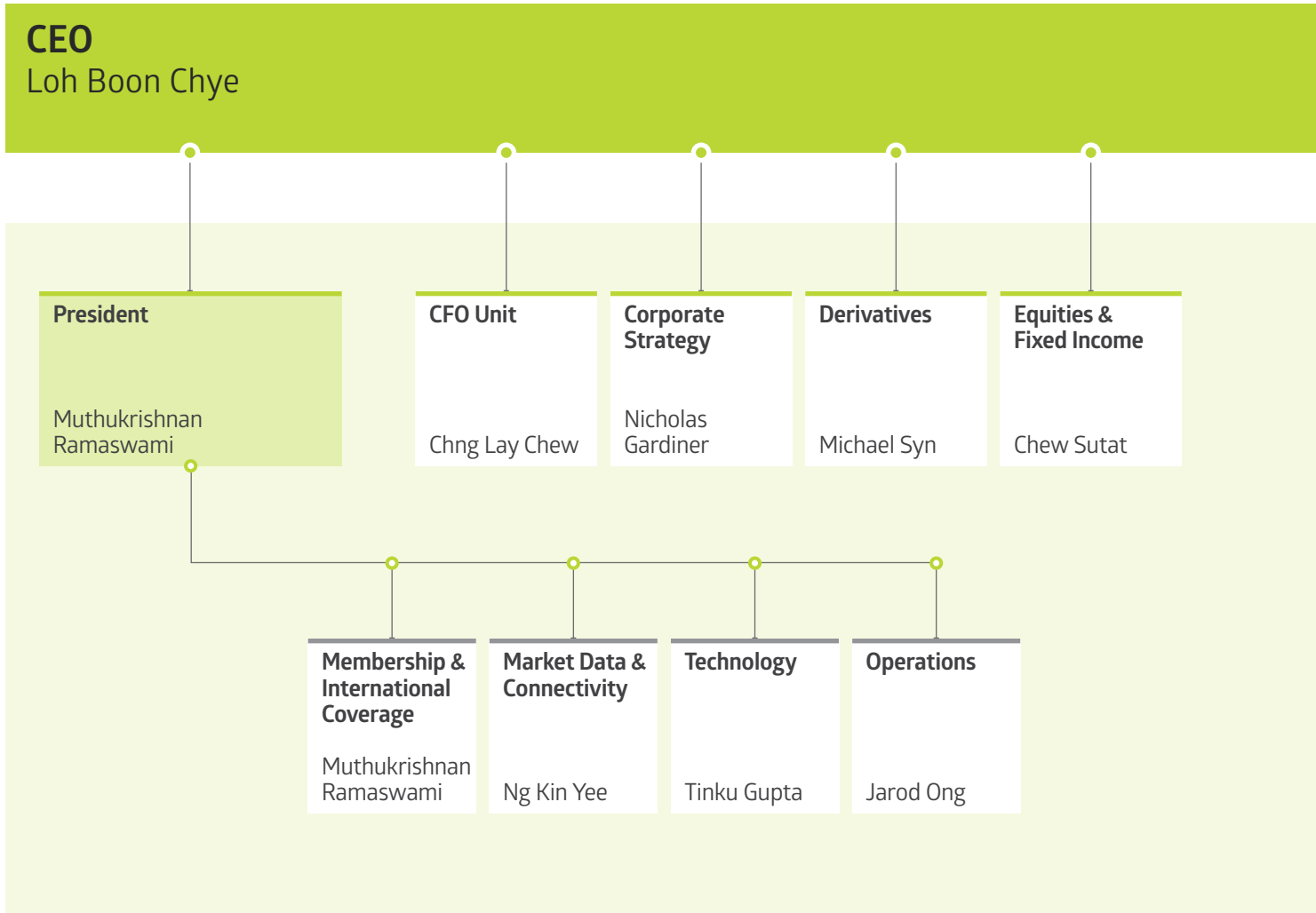
Ms Gupta joined SGX in October 1996, in what was then SIMEX, as part of the Technology team. Over the past 20 years, she has worked in a variety of roles, gaining exposure to and

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 from Jadavpur University, Calcutta.

# Organisation







**Number of employees<sup>1</sup>**

787

**Average length of service**

8 yrs

**Employees retention**

87%

**Average training hours per employee**

35 hrs

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

# Value Creation

This Integrated Report describes how Singapore Exchange (SGX) generates long-term value for our stakeholders. It is written as part of our annual report, and reflects the views of SGX's management through their contribution in the preparation of this report. The report covers how we develop a sustainable business model using 4 forms of capital. It 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 businesses 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.

### 1. 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.

### 2. Human Capital

Refers to the expertise and potential of our staff; as the operator of key financial market infrastructures, 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.

### 3. Intellectual Capital

Our institutionalised knowledge base is made up of our policies, procedures and processes, knowledge-based intangible assets and software, proprietary rights to our market data, and our brand. Our technological capabilities also position us to address industry-wide technology developments.

### 4. Social Capital

Takes the form of collaborative relationships with our various stakeholders, including but not limited to our 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.

## Key Trends



## Sustainable Business Model



## Key Risks



▶ For further details on Key Trends: Go to **pages 26 to 27**

▶ For further details on Corporate Governance: Go to **pages 46 to 66**

▶ For further details on Sustainability: Go to **pages 34 to 45**

▶ For further details on Self-Regulatory Organisation: Go to **pages 72 to 77**

SGX is a diversified exchange group that is both vertically and horizontally integrated. In the Securities market, our products and services cover the entire value chain from Listing to Depository. We offer products and services across all the 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 can 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 orders to buy and sell shares and other exchange-listed financial products are executed in a fair, orderly and transparent manner.



Competition



Technology Developments

- Grow Across Asset Classes and Geographies
- Advance Our Securities Market
- Optimise Resources and Control Costs



Regulatory & Reputation Risk



Credit & Liquidity Risk

▶ For further details on Strategic Priorities: Go to **pages 28 to 29**

▶ For further details on Risk Management: Go to **pages 30 to 33**

### Creating Sustainable and Long-Term Value

#### 1. The largest stock market in Southeast Asia

With total market capitalisation exceeding S\$1 trillion, we are an international listing venue with close to 40% of our listed companies based outside of Singapore.

#### 2. 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.

#### 3. The premier risk management venue in Asia

We are one of the first exchanges globally to adopt the Principles for Financial Market Infrastructure, and are certified as a Qualifying Counterparty under the Basel III framework.

▶ For further details, go to **page 26**

#### 4. 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. 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. In turn, volatility is susceptible to factors influencing the global economy.

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

This past year, our businesses were significantly influenced by the manner in which market participants adjusted to expected policy changes in benchmark interest rates, slower growth in the global economy and volatile commodity prices. Geopolitical events took centre stage as markets adjust to Brexit and change in the US administration. The change in US leadership and geopolitical changes have led to uncertainty in the Middle East and tensions in the South China Sea and the Korean Peninsula. Singapore provides a neutral marketplace to meet the increased need for financial risk management and hedging in this 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 in the near term. Our continued ability to meet the highest global regulatory standards, 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. In the near term, SGX is well placed to navigate these new regulatory trends, being one of the first exchanges globally to adopt the Principles for Financial Market Infrastructure introduced by CPSS-IOSCO. We are also 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. These have enabled SGX to offer clearing services to US and European customers.

New global regulations affecting SGX will continue to be phased in over the coming few years. 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, may also shape the applicability and scope of certain regulations. It is imperative that SGX keep abreast of these developments and adapt 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, with its impact on balance sheet management, risk appetites and business strategies.

## 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 compete favourably against existing and potential competitors, on our strength as a diversified business, a 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 against our peers.

A potential competitive threat could be the internationalisation of the onshore Asian emerging markets. This may allow direct participation from offshore customers which may compromise our advantage of being the only liquid offshore market for the SGX FTSE China A50 Index futures, Iron Ore futures, and SGX Nifty 50 Index futures. Conversely, this may also lead to greater awareness of these contracts, resulting in increased participation from international customers to the offshore contracts traded on SGX and the respective onshore contracts. To further mitigate the potential effects of competition, SGX is also focusing on its priority of growing across asset classes and geographies. As part of our strategy, we will continue to enhance our platforms to develop customer stickiness. We will also launch products that will widen our Asian product suite and create synergies across different asset classes.

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, as well as scaling up through mergers and acquisitions. These two trends will impact our strategic positioning over the long term by widening the gap in market share between large international exchanges and national exchanges.

We will continue to explore inorganic opportunities, partnerships and joint ventures that will offer synergies, especially in product development and internationalising our distribution. As an example, SGX acquired the Baltic Exchange to help drive the vertical integration of the entire steel manufacturing value chain, from provision of market data to the trading and clearing of iron ore, coking coal and freight derivative contracts, while taking advantage of Singapore's location as a maritime hub.

## Technology Developments



Technology is 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 technology and infrastructure for the long term by making appropriate investments. Our approach in continually investing to refresh and upgrade technology 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.

The development of disruptive technologies could change the landscape of our industry over time. To remain relevant as a centre for capital raising, risk management and price discovery, we actively monitor 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 FY2018, we will continue to build upon our success in growing across asset classes and geographies, advancing our securities market, as well as optimising our resources and controlling costs.

## Grow Across Asset Classes and Geographies

– to widen our product offering and increase our share in the global derivatives markets

### ■ Commodities

Increase our futures volume and market share 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

Establish SGX BondPro as a leading offshore G3 Asian bond trading platform

### ■ International

Grow our international client base in US, China, and EMEA

## Advance Our Securities Market

– to further develop Singapore as a major investment and capital raising venue

### ■ Equity Listings

Grow the number and size of listings, and develop technology as a key sector

### ■ Market Participation

Increase international participation in our market across all customer segments

### ■ New Products

Launch new products to meet customers' needs, for example, Daily Leverage Certificates, and develop our ETF and Structured Warrants markets

## Optimise Resources and Control Costs

– to drive organisational efficiency and productivity

### ■ Staff

Motivate employees to be innovative and provide them with tools to improve productivity

### ■ Processes

Simplify and digitise our internal and client-facing processes to be more efficient and effective

### ■ Capital Expenditure

Invest prudently in initiatives that deliver high impact and returns

### ■ Cost base

Calibrate operating expenses with revenue growth

## Business Unit Priorities

### Equities and Fixed Income

#### Issuer Services

In FY2018, we will continue to build on our strengths in established industries in Singapore, and develop growth sectors by attracting more regional and international companies to raise capital on our Equity and Fixed Income platforms. We remain committed to supporting local small and medium enterprises in their fund-raising efforts by expanding on our collaborations with government agencies and private platforms. We will 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. We will also step up efforts to attract greater international participation across institutional and retail segments. We will increase the number of available ETFs, Structured Warrants and REITs and at the same time, introduce new innovative products to better cater to different trading and investment needs.

#### Post Trade Services

The continued implementation of the New Post Trade System (NPTS), in close engagement with the industry and regulators, will remain our focus in the coming financial year. The majority of brokers have established direct connectivity to the SGX Post Trade environment using their own back office systems, thereby achieving increased operational efficiency and flexibility to offer differentiated services to their customers. The NPTS will enter its second phase of implementation in FY2018.

#### Fixed Income

We aim to provide issuers with greater access to wholesale fund raising and price discovery through our bond trading platform BondPro. Retail investors will have more access to corporate bonds with the 'Bond Seasoning Framework'.

### 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; our new platform will enhance efficiency in straight-through processing as well as round-the-clock trading, reconciliation and risk control.
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: Introduce Singapore-hubbed power and gas derivatives; RMB clearing services anchored on our China currency futures; expand our suite of maritime indices and ASEAN futures.

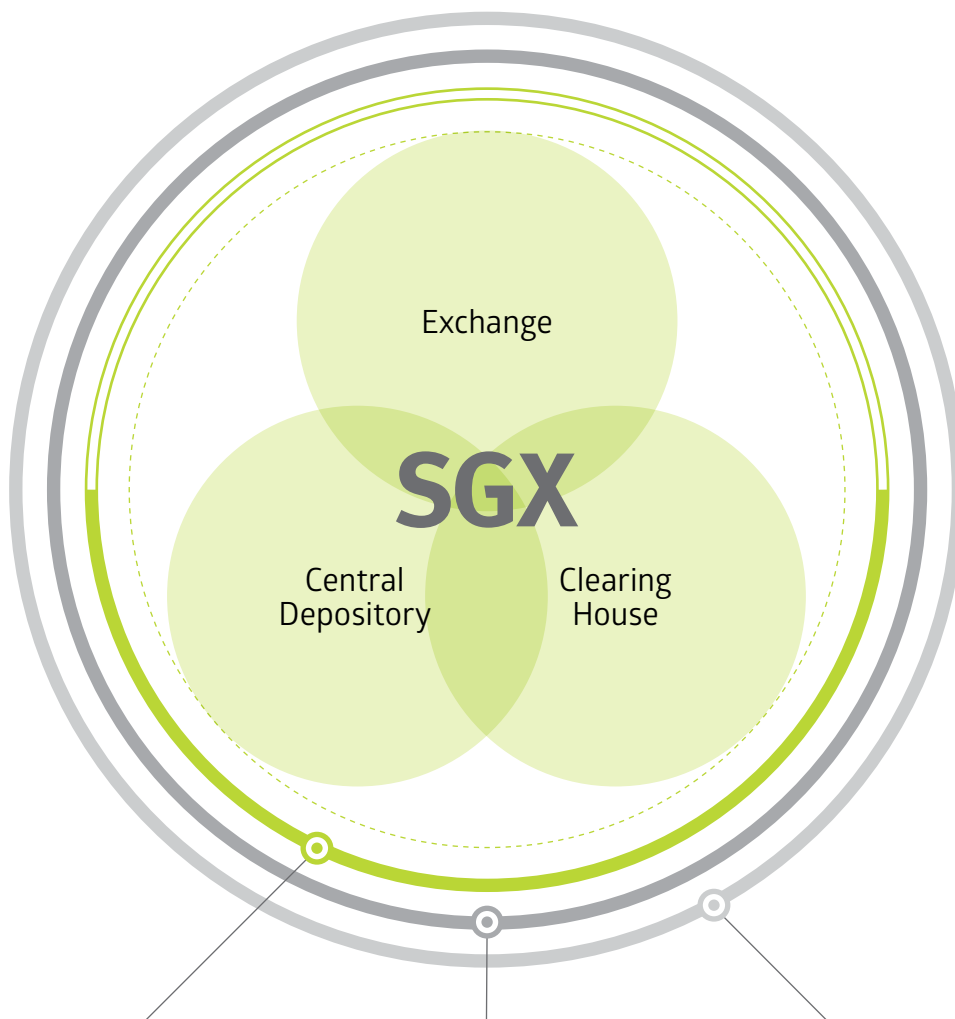
### Market Data & Connectivity

Our priority is to drive continued growth for our market data, connectivity and our index business, Index Edge. With the successful launch of SGX TITAN, our new integrated Derivatives trading and clearing platform, participants are able to connect to our platform to transact on our market and receive data feeds at significantly higher throughput. Our expanded colocation facility is able to meet continued demand for ultra low-latency connectivity and hosting services. For our Index business, we see good response from the market for our bespoke index calculation service, and will continue to scale up our capabilities to support demands from leading investment banks in the region. 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?
<p><b>1. Credit Risks</b></p> <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 ecosystem.</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.</p> <p>A robust default management protocol is set up to ensure that in the rare event of a member default, trades belonging to the defaulted member can be managed in an orderly fashion. This preserves market continuity and limits 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.</p> <p>SGX is committed to the safety of the Singapore marketplace, and as a result, 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>
<p><b>2. Liquidity Risks</b></p> <p><b>Risks arising from potential default of a participant</b>                      In the rare event of a member default, SGX may need liquidity in honouring 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 monitoring their credit quality. We set limits to how much we can be exposed to each bank, while ensuring that we have standby liquidity lines from other banks.</p>

# Risk Management

## Types of risks

### 3. Operational Risks

#### **Operational resilience is paramount to our business success**

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.

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.

SGX regularly runs enterprise business continuity exercises across technology, financial, physical security and pandemic scenarios to raise risk awareness and vigilance across the organisation.

#### **Increasing threat of cyber-attacks**

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.

## What are we doing about it?

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.

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.

For example, we continually assess potential scenarios and threats that could disrupt the exchange and clearing house, and perform business contingency drills regularly to ensure that staff respond effectively and SGX services are recovered quickly to minimise the impact on market users. This year, we held regular exercises with the industry to validate SGX's crisis responses and level of preparedness for business continuity.

SGX monitors the cyber threat environment on an ongoing basis to ensure that cyber risk is managed. We assess our cyber security maturity on a yearly basis to continually rectify identified gaps.

Types of risks	What are we doing about it?
<p><b>4. Regulatory Risks &amp; Reputation Risks</b></p> <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>
<p><b>5. Market Risks</b></p> <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. This ensures SGX's resources are liquid and of the highest quality.</p>

# Sustainability

## Board Statement

Sustainability has become a critical success factor for companies to ensure long-term value creation. There has been growing demand among investors for enhanced transparency on Environmental, Social and Governance (ESG) practices of listed companies. As Asia's leading and trusted market infrastructure which operates to the highest regulatory standards, we recognise that we can contribute to SGX's position as a recognised securities and derivatives exchange by advocating sustainable growth. We do this by managing our business' ESG impacts, and supporting 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.

In FY2017, we were active in advancing our sustainable practices.

SGX is pleased to announce that FY2017 marks the year that we joined the United Nations Sustainable Stock Exchange (UN SSE) Initiative. As a Partner Exchange of the 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.

SGX established the Singapore Exchange Regulation Pte. Ltd. – a separate subsidiary that will undertake all front-line regulatory functions. The move aims to further enhance the governance of SGX as a self-regulatory organisation (SRO) by making more explicit the segregation of regulatory functions from commercial and operating activities.

Acknowledging that the continued success of our business hinges on our ability to manage our key forms of capital, SGX has embarked on the following initiatives 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
- Used energy efficient data centres and introduced electronic statements to minimise our environmental footprint.

Recognising the importance of sustainability, the Executive Committee (EMCO) leads 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 overseen the management and monitoring of these factors.

In the coming years, we 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 2016 to 30 June 2017 (FY2017). We have included the historical data for the previous two years of FY2015 and FY2016 for comparison, where available. There has not been any restatement of figures for data disclosed in previous years.

### Reliability and Methodology

In FY2017, we have reviewed the sustainability reporting approach used to guide our disclosures. With a focus on enhancing the relevance of the report, we have elected to produce our 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 Guide. 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 adapting to risks and opportunities that arise from changes in global economic, regulatory 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 26 to 27 and pages 30 to 33).

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 undergoes a structured process of management and monitoring by our EMCO. More information on our risk management process can be found under our Risk Management Report (pages 30 to 33).

**Our ESG Risks and Opportunities**

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



# 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
Employees	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> </ul>
Regulators and Government	Dialogue, feedback sessions and jointly organised events.	<ul style="list-style-type: none"> <li>Operational efficiency</li> <li>Market structure and policies</li> </ul>
Issuers	Dialogue, workshops, promotional roadshows and seminars.	<ul style="list-style-type: none"> <li>Corporate governance</li> </ul>
Intermediaries	Dialogue, feedback sessions, training, and jointly organised exercises and events.	<ul style="list-style-type: none"> <li>Infrastructure updates and business continuity planning</li> </ul>
Investors	Investor Perception Study, education and advocacy programmes via the SGX Academy, and various roadshows.	<ul style="list-style-type: none"> <li>Regulatory policies and practices</li> </ul>
Public and Communities	Public consultations, educational workshops, seminars and programmes, scholarship and internship programmes fundraising and corporate activities.	<ul style="list-style-type: none"> <li>Financial literacy and investment education</li> <li>Corporate social responsibility initiatives</li> </ul>

We highlight some engagements with stakeholders during the year below:

### Annual Institutional Investor Perception Study 2017

Since FY2015, SGX has engaged a third-party service provider to conduct a perception study to gauge the market 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**
  - 64% of investors view SGX's practices as better than global peers.
  - SGX was commended for its positive track record, well-structured Board, prudent capital management, high level of disclosure and transparency, quality management team, and well-regulated market.
- Quality of SGX's Market**
  - All investors believe that SGX's market quality surpassed global peers.
  - SGX was recognised for its fair and transparent pricing and trading policies, its vital role in monitoring suspicious market activity and ensuring accountability.
  - Some participants pointed out the historical issues with technological disruption, as well as the number of delistings in our market.

## 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 13<sup>th</sup> annual SGX Bull Charge 2016. Started in 2004, Bull Charge is SGX's year-long charity initiative that brings the financial community and SGX-listed companies together to raise funds that go towards making a difference in the lives of the less privileged.

A total of 90 corporate sponsors supported the SGX Bull Charge 2016, raising over \$2.6million in proceeds for 4 charitable causes – the Asian Women's Welfare Association, 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.

For more information on SGX Bull Charge, please refer to <https://bullcharge.sgx.com>

### Public Consultations






In FY2017, SGX engaged in numerous public consultations<sup>1</sup> 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 possible introduction of a dual-class share structure and the potential adjustments to the equities market structure.

### 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 FY2017, the EMCO and Board reviewed and endorsed our existing material factors:

Material Factors		GRI Disclosures	Read more in our:
 <p>Economic</p>	Our financial performance, value creation, distribution, and retention for shareholders.	Economic performance	<ul style="list-style-type: none"> <li>▪ Financial Statements, Annual Report pages 86 to 161.</li> </ul>
 <p>Socio-Economic Impacts</p>	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 38 to 39.</li> </ul>
 <p>Governance</p>	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 40;</li> <li>▪ Corporate Governance Report, pages 46 to 66;</li> <li>▪ Self-Regulatory Organisation Governance Report, pages 72 to 77; and</li> <li>▪ Sustainability Website – Anti-corruption, Gifts and Entertainment Policy Statement</li> </ul>
 <p>People</p>	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 41 to 43; and</li> <li>▪ Sustainability Website – Employee Recruitment Statement.</li> </ul>
Non-Material Factor		GRI Disclosures	Read more in our:
 <p>Environment</p>	Our role in mitigating climate change.	Energy	<ul style="list-style-type: none"> <li>▪ Environment, Sustainability Report pages 44 to 45;</li> <li>▪ Sustainability Website – Environmental Policy.</li> </ul>

<sup>1</sup> More information on the consultation papers can be found on [www.sgx.com/wps/portal/sgxweb/home/regulation/consult\\_pub/consult\\_papers](http://www.sgx.com/wps/portal/sgxweb/home/regulation/consult_pub/consult_papers)

## 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. As a front-line regulator, we ensure that issuers meet their ongoing obligations to investors, and orders to transact in shares and other exchange-listed financial products are executed 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 FY2017, 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. Overall education outreach<sup>1</sup> grew to 269,000, which was a 37% increase from the previous year. Through our increased interaction with our stakeholders, the SGX Academy is able to contribute to SGX's overall responsiveness to market needs.

In FY2017, as part of our continued efforts to promote non-financial disclosures through sustainability reporting, SGX partnered with external consultants to conduct over 40 subsidised sustainability education and awareness workshops for our listed companies. These capability-building workshops were supported by the Monetary Authority of Singapore and organised by Global Compact Network Singapore. The workshops aim to impart practical and relevant know-how to listed companies to develop their first sustainability report and fulfil SGX's new rules on sustainability reporting announced last year.

Furthering our agenda to promote responsible investment, SGX partnered with the World Bank and launched an education partnership to raise investor awareness for bonds that achieve a positive social impact. Through the SGX Academy, SGX and the World Bank held an inaugural forum, 'Understanding Bond Investments and Quality Products with a Social Purpose', which garnered positive responses from a growing population of discerning investors looking to make a social and environmental impact through their investments. SGX Academy conducts regular bond investing workshops every quarter to equip the public with knowledge to invest in bonds.

SGX has an ongoing education partnership with the National Library Board (NLB) where we jointly reach out to a larger base of Singaporeans to provide investor education content through the regional libraries, beyond our traditional outreach.

<sup>1</sup> Education outreach includes event participants who attended over 300 events conducted by the SGX Academy and users of online educational content.

### Save and Invest Portfolio Series

SGX, in collaboration with CFA Society Singapore and MoneySENSE, launched a campaign to encourage retail investors to save and invest for the future. The campaign involves reaching out to an extensive readership base through a monthly "Save and Invest Portfolio Series" on The Sunday Times, featuring simulated savings and investment portfolios of 3 Singaporean individuals and families at different life stages. As part of this series, quarterly investor conferences were also organised and widely attended by retail investors.

The campaign provides retail investors with simulated examples of basic investment and portfolio building techniques, in accordance with specific investment goals and risk tolerance. The featured portfolios introduce investment instruments and products available to retail investors. The 3 simulated portfolios are tracked and guided by a panel of 4 CFA Society Singapore volunteers who are CFA charterholders and collectively have 77 years' experience as investment professionals.



Library users have benefited from our investor education seminars, e-tutorials on library video walls and ETF and REITs education panels that are being exhibited at various libraries. We have also contributed more than 200 investment books as part of the partnership and these books are readily available to the public.

**Operational Resilience**

As a market operator, the operational resilience of our infrastructure is critical to ensuring business continuity.

In FY2017, a key priority for SGX was to enhance the robustness of our technological and crisis management infrastructure so as to ensure market continuity. In consultation with the Monetary Authority of Singapore (MAS), SGX formed a Securities Industry Working Group (IWG) in November 2016 to spearhead initiatives to improve operational resilience of the market.

Demonstrating our resolve to minimise the adverse impact from a market disruption, SGX agreed to adopt all recommendations proposed by the IWG in the following areas:

1. Restoration of corrupt data
2. Market recovery procedures
3. Market closure and resumption
4. Trade assumption
5. Incident communication
6. Business continuity testing and support

To further enhance our operational processes, we have also developed an Enterprise Command Centre to improve monitoring and provide a better line of sight into the health, status and availability of our infrastructure.

**Targets and Performance Scoreboard:**

**Socio-Economic Targets for FY2018**

Target
<p><b>Stakeholder Education</b> Number of retail investor participation at educational or development programs</p>
<p><b>Operational Resilience</b> Number of Business Continuity Planning and IT Disaster Recovery exercises conducted</p>
<p><b>Effective Regulation</b> To help listed companies improve their Singapore Governance and Transparency Index (SGTI) scores by:</p> <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>
<p><b>Effective Risk Management</b> Observance of all relevant Principles for Financial Market Infrastructures (PFMI) principles</p>

# 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.

### The formation of SGX Regulation Pte. Ltd. (“RegCo”)

Undertaking all front-line regulatory functions, the SGX RegCo serves to promote our role as a SRO by making more explicit the segregation of our regulatory functions from our commercial and operating activities. This arrangement serves to keep SGX RegCo close to market developments while effectively separate from commercial activities.

## Sustainability Governance

In FY2017, the EMCO replaced the Sustainability Committee in overseeing 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. During the year, the EMCO attended a sustainability briefing conducted by an external consultant. Members in senior management also attended sustainability workshops.


### 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. All employees have to undergo annual compliance and independence training in line with internal policies.

In FY2017, 2 whistle-blowing reports concerning SGX were received, investigated and resolved. 12 cases relating to companies listed on the SGX were filed through our whistle-blowing channel. These cases have been communicated to the Regulation department within SGX for investigation. 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 FY2017	
Target	Performance Update
Ensure smooth implementation of “Comply or Explain” regime for sustainability reporting	 <b>Educational efforts are on track.</b> <ul style="list-style-type: none"> <li>Sustainability reporting workshops conducted for listed companies for over 350 attendees.</li> </ul>
Governance Targets for FY2018	
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 is influenced by 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 787 employed in SGX during the year. During the year, there were 97 new hires and 101 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 FY2017, an external consultant was commissioned to review and develop a more robust performance management framework to promote

a clear line of sight to organisational goals and strategy and strengthen performance measurement and its link to reward and staff development. Focus groups were organised to interview and obtain feedback from both employees and senior management. 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.

### 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 that would

be an asset to any organisation. In FY2017, we rolled out several initiatives on our Connects intranet platform to instil a culture of self-directed learning and development:

- A New Joiners' Portal to provide new hires with an end-to-end view of the onboarding process and to ensure visibility and clarity of the learning and development support available;
- Implemented the Individual Development Plan to encourage employees to adopt a self-directed learning approach that can be tailored to their specific job-scope. The platform also supports employees in monitoring and updating their learning records independently; and
- Increased learning and development related communication and engagement through initiatives such as the Learning Pulse Survey to obtain employees' feedback on learning-related matters.

At SGX, we also focus on leadership development to enhance our current capabilities. Every year as part of our future leadership pipeline, we recruit new graduates into the Management Associate Programme, where they undergo two years of job rotations and career development designed to equip them with the requisite skills and knowledge. 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.

# 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 FY2017, 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. Over 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.

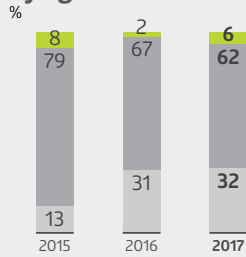
## Targets and Performance Scoreboard:

People Targets for FY2017	
Target	Performance Update
Deploy programmes aimed at improving the engagement of our employees	<ul style="list-style-type: none"> <li>▪ Implemented the Individual Development Plan to instil a culture of self-development and learning.</li> <li>▪ Engaged an external consultant to develop a more robust performance management system.</li> <li>▪ Enhanced staff welfare – family leave and the introduction of flexible spending account.</li> </ul>
Achieve 35 training hours per employee per year	Employees engaged in an average of 35 hours of training per year

People Targets for FY2018	
Target	
Implement programs for upgrading employee skills & transition assistance programs	
Achieve 35 training hours per employee per year	

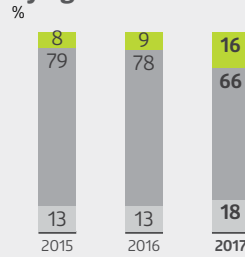
## Employment

### New Hires by Age



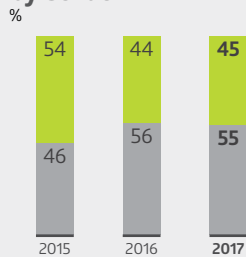
■ Over 50  
■ Between 30 and 50  
■ Below 30

### Voluntary Departure by Age



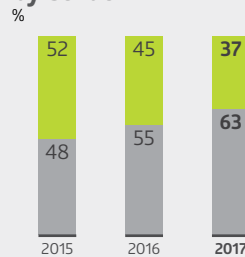
■ Over 50  
■ Between 30 and 50  
■ Below 30

### New Hires by Gender



■ Male ■ Female

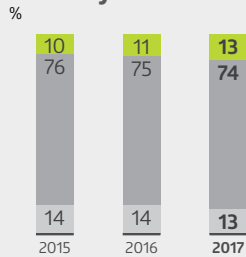
### Voluntary Departure by Gender



■ Male ■ Female

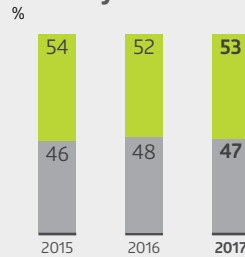
## Diversity and Inclusion

### Age Diversity



■ Over 50  
■ Between 30 and 50  
■ Below 30

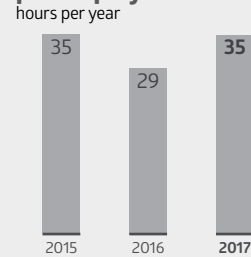
### Gender Diversity



■ Male ■ Female

## Training and Education

### Average Training per Employee



Note: Average training hours are reported only for SGX employees and does not include EMC or Baltic.

# 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<sup>1</sup> in FY2016, which encompasses both our direct and indirect impacts on energy consumption and other natural resources, SGX has undertaken further initiatives to promote environmental responsibility and reduce our environmental footprint.

In FY2017, SGX made available the use of electronic statements for retail investors. All nine retail securities brokers in Singapore and The Central Depository have progressively provided electronic statements to customers since the fourth quarter of 2016. This move, in line with the drive towards a paper-less and sustainable workplace, also offers customers convenience and secure and timely delivery of their account statements, trade contract details and confirmations of securities movements.

SGX also announced the move towards electronic transmission of shareholder documents with effect from March 2017. This was in response to positive feedback received from public consultation regarding e-communication.

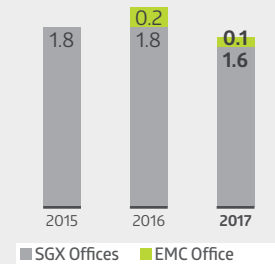
We will give issuers the flexibility to decide on the most appropriate e-communication regime to adopt for their shareholder base. In support of this initiative, SGX is doing away with mailing out CDs for our current annual report and will write to shareholders to explain that the same information is available on our website. Physical copies of our annual report will be made available upon request.

Our primary data centre has been awarded the Singapore 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 new, secondary data centre was awarded BCA Green Mark Platinum certification for excellence in Energy and Environmental Design of the Building.

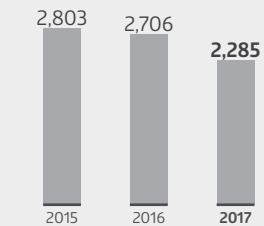
These efforts exemplify SGX's efforts to manage energy usage and have resulted in an overall improvement in energy consumption by 10%.

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

## Energy Consumption in Offices GWh



## Energy Intensity in Offices kWh/employee



Note: Energy consumption and intensity only reflects operations in Singapore (SGX and EMC) and does not include Baltic.

<sup>1</sup> Details of Environmental Policy can be found here: <http://investorrelations.sgx.com/sustainability.cfm>

**Targets and Performance Scoreboard:**

Environment Targets for FY2017	
Target	Performance Update
Undertake further initiatives to promote environmental responsibility	<ul style="list-style-type: none"> <li>▪ Introduced the use of electronic statements for retail investors.</li> <li>▪ Implemented electronic transmission of shareholder documents.</li> <li>▪ Adopted the use of energy efficient data centres.</li> </ul>
Analyse and monitor energy usage	<ul style="list-style-type: none"> <li>▪ Improved electricity consumption in our Singapore offices by 10%.</li> <li>▪ Achieved electricity savings of over 16,000 kWh/month compared to expectation of 6,500 kWh/month.</li> </ul>

Environment Targets for FY2018	
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 look forward to an enhanced reporting landscape as our listed companies embark on the journey of sustainability reporting, and will continue to engage and support them in deriving value from their sustainability reporting process.

# Corporate Governance

## 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 2017, SGX has complied in all material aspects

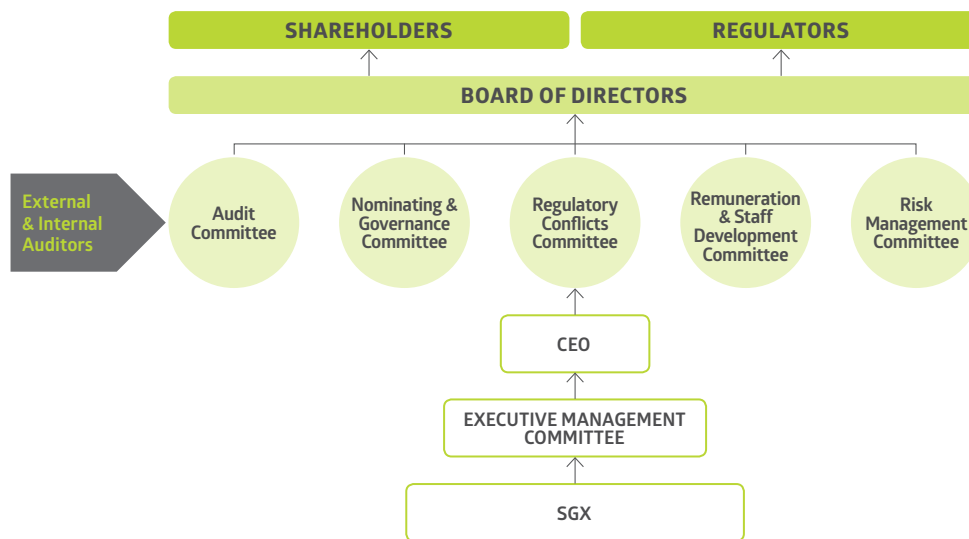
with the principles laid down by the guidelines in the CCG 2012 and SFR 2005. We provide a summary disclosure on our compliance with the CCG 2012 on page 66 of this Annual Report.

## 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. When SGX RegCo operationalises in FY2018, SGX will dissolve its Regulatory Conflicts Committee (“RCC”) as the duties undertaken by the RCC will be discharged by SGX RegCo board. 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. Unless specified otherwise, references to independence of directors are references to independence as defined under the CCG 2012 and SFR 2005.

## SGX Corporate Governance Framework



## Highlights

### Awards & Accolades

- Ranked 3<sup>rd</sup> in the Singapore Governance & Transparency Index 2017
- Winner for Board Diversity Award and Merit for Corporate Governance Award in the Big Cap category in the SIAS’ 2016 Investors’ Choice Awards
- Named “Derivatives Exchange of the Year” by Asia Risk for a third straight year
- Won Project of the Year award, presented by the Singapore Chapter of the Project Management Institute
- Silver for Best In-house Contact Centre and Bronze for Best Contact Centre Team Leader of the Year at 16<sup>th</sup> Contact Centre Association of Singapore Contact Centre Awards

### Transparency

- 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

### Strong Risk Management

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

### Board Renewal

- Retirement of long serving directors, Mr Chew Choon Seng and Mr Lee Hsien Yang on 22 September 2016. Mr Chew stepped down as Chairman of the Board as well



## 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 Chief Executive Officer (CEO) and directors, appointments on Board committees and Board succession;
- (b) the appointment of key management personnel and succession planning as an ongoing process;
- (c) approving broad policies, strategies and objectives. The Board provides guidance and leadership to management and ensures that adequate resources are available to meet its objectives;
- (d) annual budgets, major funding proposals, investment and divestment proposals;
- (e) the adequacy of internal controls, risk management, financial reporting and compliance;
- (f) assessment of management performance;
- (g) manage and/or mitigate actual or perceived conflicts of interest between SGX's regulatory accountabilities and commercial interests;
- (h) the sustainability of SGX's policies and proposals; and
- (i) corporate governance responsibilities.

#### Independent Judgement

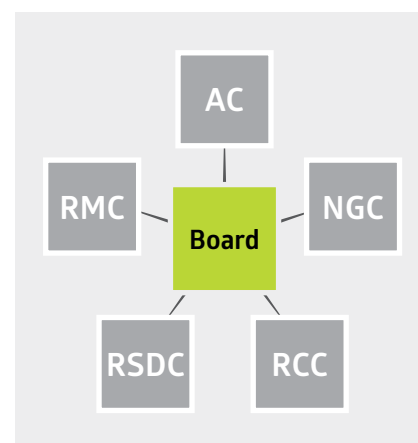
All directors exercise due diligence and independent judgement and make decisions objectively in the best interests of SGX. SGX adheres to the requirements under the CCG 2012 and SFR 2005. In determining the independence of its directors, please refer to "Board Independence" under Principle 2 in this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

#### Delegation by the Board

Board committees, namely the Audit Committee (AC), Nominating & Governance Committee (NGC), Regulatory Conflicts Committee (RCC), 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 committee as well as qualifications for committee membership, in line with the CCG 2012 and SFR 2005, where applicable. The TORs are reviewed on a regular basis, along with the committee structures and membership, to ensure their continued relevance. The detailed TORs of the Board committees are available on [SGX's website](#).

The RCC has been appointed by the Board to supervise the management of SGX's SRO conflicts. The activities of the RCC are outlined in the 'SRO Governance Report' in this Annual Report.

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 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 FY2017. Key matters discussed at these meetings included financial performance, annual budget, corporate and risk strategy, business plans, regulation,

## Corporate Governance

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 straightforward 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 to interact with senior management and have in-depth discussions on SGX's strategic direction. The last annual strategy meeting was held on 19 January 2017.

A record of the Directors' attendance at Board meetings during the financial year ended 30 June 2017 is set out in the table below.

### Board Approval

SGX has documented internal guidelines for matters that require Board approval. Matters which are specifically reserved for Board approval are:

- (a) matters involving a conflict of interest for a substantial shareholder or a director;
- (b) material acquisition and disposal of assets;
- (c) corporate or financial restructuring;
- (d) share issuances, interim dividends and other returns to shareholders;
- (e) matters which require Board approval as specified under SGX's interested person transaction policy; and
- (f) any investments or expenditures exceeding S\$10 million in total.

For expenditures of S\$10 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 senior management is responsible for overseeing the management of the SGX Group and implementing the Board-approved strategic policies.

Directors must avoid situations in which their own personal or business interests directly or indirectly conflict or potentially conflict, with the interest of SGX. 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 Secretary, 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 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, thereby facilitating board interaction and independent access to senior management.

During the financial year:-

- the external auditor, PricewaterhouseCoopers LLP, regularly updated AC members on developments in accounting and governance standards;
- the CEO updated the Board at each meeting on business and strategic developments in the global exchange and clearing house industry;
- the Board was briefed on regulatory changes on the Companies Act; and
- the Board and EMCO members met in an annual strategy meeting for in-depth discussion on the strategic issues and direction of SGX.

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

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					<ul style="list-style-type: none"> <li>●: Chair of the committee</li> <li>●: Member of the committee</li> <li>●: By Invitation</li> </ul>						
			<ul style="list-style-type: none"> <li>▪ All references to Regulations are a reference to the SFR 2005, which can be obtained from <a href="http://www.agc.gov.sg">www.agc.gov.sg</a>.</li> <li>▪ All references to Guidelines are references to the CCG 2012, which can be obtained from <a href="http://www.mas.gov.sg">www.mas.gov.sg</a>.</li> </ul>					AGM	Board	AC	NGC	RCC	RSDC	RMC
			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	No. of meeting held in FY2017						
						1	4	4	3	3	3	4		
Mr Kwa Chong Seng <sup>1</sup>	I	NE	Yes	Yes	Yes	Yes	Yes	●	●	●	●	●	●	
Mr Loh Boon Chye <sup>2</sup>	NI	E	No	No	No	Yes	Yes	●	●	●	●	●	●	
Mr Thaddeus Beczak	I	NE	Yes	Yes	Yes	Yes	Yes	●	●	-	-	●	●	
Ms Chew Gek Khim <sup>3</sup>	I	NE	Yes	Yes	Yes	Yes	Yes	●	●	-	●	-	●	
Ms Jane Diplock AO	I	NE	Yes	Yes	Yes	Yes	Yes	●	●	●	-	●	●	
Mr Kevin Kwok <sup>4</sup>	I	NE	Yes	Yes	Yes	Yes	Yes	●	●	●	●	-	●	
Mr Liew Mun Leong	I	NE	Yes	Yes	Yes	Yes	Yes	●	●	●	●	-	●	
Ms Lim Sok Hui (Mrs Chng Sok Hui) <sup>5</sup>	NI	NE	Yes	No	Yes	No	Yes	●	●	-	-	-	●	
Mr Ng Kok Song <sup>6</sup>	I	NE	Yes	Yes	Yes	Yes	Yes	●	●	-	●	-	●	
Mr Chew Choon Seng <sup>7</sup>	NI	NE	No	Yes	Yes	Yes	Yes	●	●	●	-	●	●	
Mr Lee Hsien Yang <sup>7</sup>	NI	NE	No	Yes	Yes	Yes	Yes	●	●	●	-	-	-	

<sup>1</sup> Mr Kwa Chong Seng was appointed Chairman of the Board at the last AGM held on 22 September 2016.

<sup>2</sup> 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.

<sup>3</sup> Ms Chew Gek Khim was appointed a RSDC member on 1 April 2017. She simultaneously stepped down as the Chairman of RMC on the same day.

<sup>4</sup> Mr Kevin Kwok stepped down as a RMC member and was appointed as a NGC member on 22 September 2016.

<sup>5</sup> 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). Ms Lim was appointed RMC Chairman on 1 April 2017.

<sup>6</sup> Mr Ng Kok Song stepped down as a RSDC member on 1 April 2017.

<sup>7</sup> Messrs Chew Choon Seng and Lee Hsien Yang are deemed non-independent, solely on account of each having completed nine consecutive years of service, as at the dates of their first appointments pursuant to the NGC's decision on Guideline 2.4. Both Messrs Chew Choon Seng and Lee Hsien Yang stepped down from the Board at the last AGM held on 22 September 2016.

# Corporate Governance

## 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 9 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.

#### Board Composition and Size

Each year, the NGC reviews the composition and size of the Board and each Board committee and the skills and core competencies of its members to ensure an appropriate balance and diversity of skills and experience. Core competencies include banking, finance, accounting, business acumen,

management experience, exchange industry knowledge, familiarity with regulatory requirements and knowledge of risk management. The NGC also takes into account gender diversity in relation to the composition of the Board. Out of 9 directors, 3 are female. 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.

#### Board Independence (as at 30 June 2017)



7 out of 9 directors are Independent Directors

#### Gender Diversity (as at 30 June 2017)



3 out of 9 directors are women

#### Director's Length of Service

(as at 30 June 2017)



9 out of 9 directors served under 9 years

#### 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.

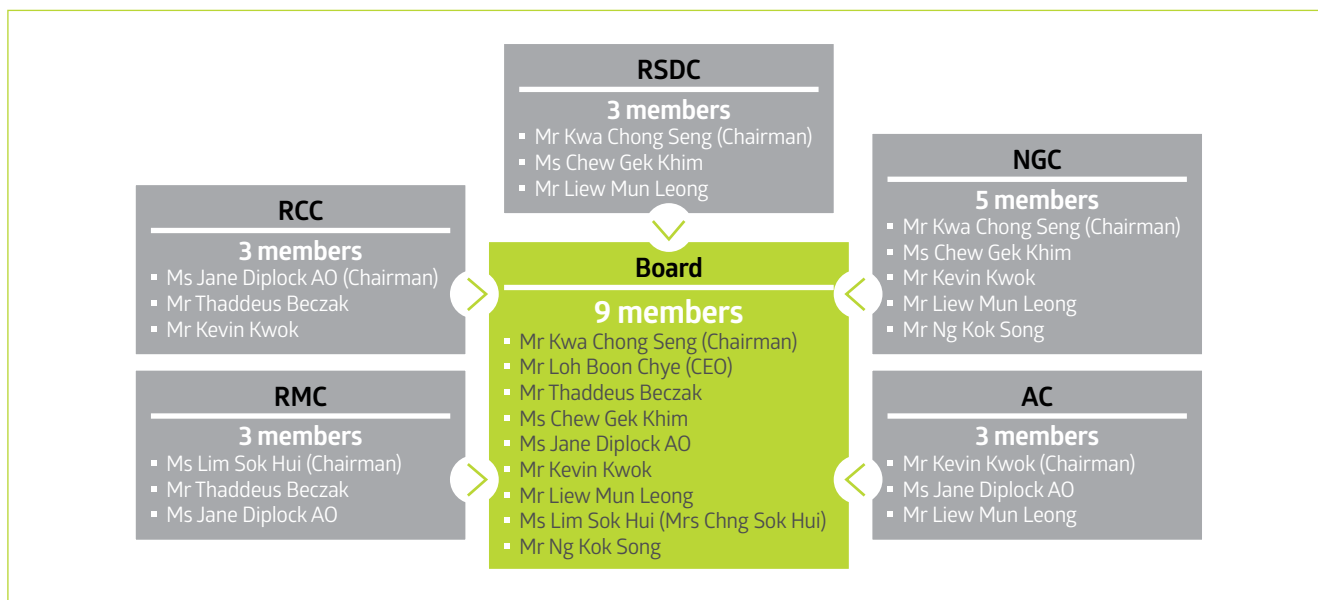
For this to happen, the Board, in particular its Non-Executive Directors (NEDs), must be kept well informed of SGX's businesses and be knowledgeable about the exchange industry. To ensure that NEDs are well supported by accurate, complete and timely

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 weekly to oversee the management of the SGX group and implement the Board’s strategic policies.

Board interaction with, and independent access to, senior management is encouraged. EMCO members 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 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 or 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 Articles provide 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 3, 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

# Corporate Governance

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.

### 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 or 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 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) a determination of the candidate's independence;
- (b) 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
- (c) 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 Loh Boon Chye and Ms Lim Sok Hui, all directors are considered independent according to these criteria. If at any time 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 Chairman of the Board and the NGC Chairman 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 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 FY2017. The Board also expects that the directors (including any directors who are newly appointed) will continue to (or will) discharge their duties adequately in FY2018.

#### 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 or re-appointment 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. The next review by the independent consultants will be in FY2018.

During FY2017, the Corporate Secretariat assisted the NGC in the evaluation process. Questionnaires were sent by the Corporate Secretariat to the Directors for the evaluation of the Board and its Board Committees. 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 and overall perception

of the Board. The review indicated that the Board continues to function effectively. 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 against qualitative and quantitative targets annually.

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.

In line with the CCG 2012's recommendation of using quantitative financial indicators, the Board has adopted performance measures which align its interests with shareholders' interests, such as (a) Return on Equity, (b) absolute minimum SGX Total Shareholder Return (TSR), and (c) SGX's TSR performance against the TSR of the FTSE/MV Exchanges Index, which is an index of 28 listed exchanges, in order to benchmark its relative performance against other exchanges.

#### 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 NGC. The factors 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-appointment or re-election. Specific needs which arise from time to time are taken into account in any appointment of new directors.

## Corporate Governance

The assessment of CEO's performance is undertaken by the Chairman and the results are reviewed by the Board. The NEDs assess the performance of the Chairman of the Board and provide the feedback to him.

### 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 the senior management, directors are also provided with the names and contact details of the management team. Draft agendas for Board and Board committee meetings are circulated to EMCO 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, 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 includes having common directors on the AC and the RMC, and the Head, Internal Audit and Chief Risk Officer 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's performance, the Board is updated semi-annually on the market view which includes a summary of analysts' feedback and recommendations following the full-year and half-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's performance and supporting data. It also contains operational metrics, audit findings, and a risk dashboard which provides an overview of SGX'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 enhancing long-term shareholder value.

The Company Secretaries assist the Chairman to ensure good information flows within the Board and its Board committees and between senior 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. Mr Seah Kim Ming Glenn was appointed Joint Company Secretary on 1 February 2017.

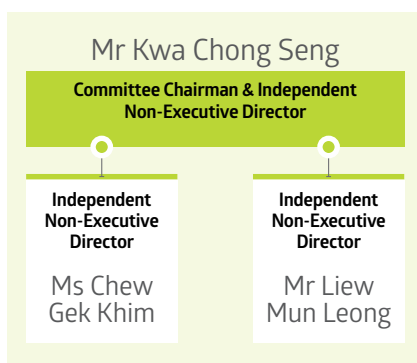
**Independent Professional Advice**

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 Group's remuneration policy, oversee the remuneration of the Board and key executives including reviewing the remuneration of the CEO, 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.

The RSDC reviews and recommends to the Board, the specific remuneration package for the CEO upon recruitment or renewal (where applicable). Subsequently, annual increments, variable bonuses, long-term incentive awards and other incentive awards or benefits in kind, will be reviewed by the RSDC against the achievement of prescribed goals and targets for the CEO and key management personnel, for recommendation to the Board.

The RSDC also 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.

The RSDC 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.

The RSDC has access to the Head of Human Resources, who attends all RSDC

meetings. The RSDC may also seek external expert advice on remuneration of directors and staff.

The RSDC 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.

No member of the RSDC is involved in deliberations in respect of any remuneration, compensation, options or any form of benefits to be granted to him.

**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.

## Corporate Governance

### 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 FY2017, an external independent consultant was appointed to facilitate the review of non-executive directors' 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 external independent consultant had recommended (1) an approximately 27% increase in the non-executive directors' basic fees; (2) retention of Board Chairman fees of S\$750,000 and the current benefits of a car and driver; and (3) retention of the current framework for determining non-executive directors' fees.

The RSDC considered the recommendation of the external independent consultant and in light of the uncertainty in market conditions recommended no change for either the current framework for determining non-executive directors' fees or the non-executive directors' basic fees. The Board concurs with the RSDC and recommends for the shareholders'

approval, the non-executive directors' fees. The framework for determining non-executive directors' fees (excluding the fees payable to the SGX Chairman), as set out below, was last revised in FY2011, and the basic fee and attendance fee have remained unchanged since FY2008.

The RSDC (with SGX Chairman recusing himself), with the concurrence of the Board, recommended no change to the fees and emoluments paid to the SGX Chairman. 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.

Fee			
	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 2017 was S\$1,785,154 (details as set out in the table below):

Name of Director	Directors' fees	Name of Director	Directors' fees
Mr Kwa Chong Seng <sup>1</sup>	S\$ 669,722	Mr Kevin Kwok	S\$ 160,500
Mr Chew Choon Seng <sup>2</sup>	S\$ 192,029	Mr Lee Hsien Yang <sup>3</sup>	S\$ 22,403
Mr Thaddeus Beczak	S\$ 114,500	Mr Liew Mun Leong	S\$ 146,000
Ms Chew Gek Khim	S\$ 120,500	Ms Lim Sok Hui (Mrs Chng Sok Hui)	S\$ 92,500
Ms Jane Diplock AO	S\$ 160,500	Mr Ng Kok Song	S\$ 106,500
<b>Total</b>			<b>S\$ 1,785,154</b>

<sup>1</sup> Chairman fee (excluding the provision of a car with a driver) for Mr Kwa was paid from 23 September 2016.

<sup>2</sup> Chairman fee (excluding the provision of a car with a driver) for Mr Chew was paid up to 22 September 2016.

<sup>3</sup> Director's fee for Mr Lee was paid up to 22 September 2016.

SGX seeks shareholders' approval at the AGM for the non-executive directors' fees to be paid for the current financial year so that the non-executive Directors' fees can be paid on a quarterly basis in arrears. No director decides his own fees. The non-executive directors' 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.

There are no share-based compensation schemes in place for non-executive directors.

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 2017.

**Remuneration Matters**  
**Disclosure on 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 25 days from the end of the quarter. Annual results are released within 30 days from the financial year-end. In presenting the annual financial statements and quarterly financial results to shareholders, the Board aims to provide shareholders with a balanced and clear assessment of SGX's financial results, position and prospects.

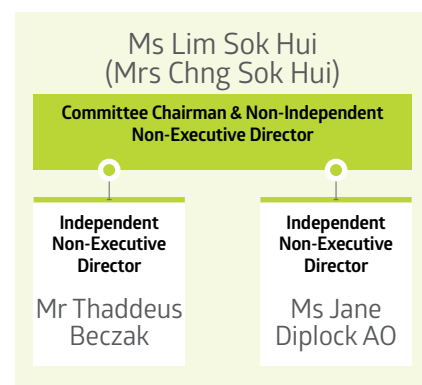
For the financial year under review, the CEO and the Chief Financial Officer (CFO) have provided assurance to the Board on the integrity of the financial statements for SGX and its subsidiaries. For interim financial statements, the Board provides a statement of negative assurance to shareholders, in 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).

SGX is accountable to MAS on how it discharges its responsibilities as an exchange, depository and clearing

house, and as a regulator. In this respect, an annual self-assessment report and an annual report on the RCC's 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 RMC comprises 3 directors namely:



The Board is responsible for overseeing SGX's risk management, framework and policies. To assist the Board, the Board has established the RMC, a dedicated board risk 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. 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, the first line of defence, own the risks at

## Corporate Governance

their source and establish processes and controls to respond to them. The second line of defence comprises the independent Enterprise Risk Management and Compliance functions. Enterprise Risk Management oversees the completeness and accuracy of risk assessments, risk reporting and the adequacy of mitigation plans. Compliance focuses on compliance risks and works with Enterprise Risk Management and the operating units to mitigate these risks. Internal Audit, as the third line of defence, provides objective assurance to the AC. Together, these 3 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.

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 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. This stated understanding between the Board and Management aligns SGX's risk profile with its business objectives and helps bring discipline as Management drives strategy within the established risk boundaries. It also 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.

There are 3 programs in place for the organisation to identify, assess and manage risks faced by SGX. The first program 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 program, the unit-level "Risk Self Assessments", 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 program is a "Control Self-Assessment" program which provides objective assurance to the CEO and his management team that key controls are operating effectively. The units are required to perform self-testing to verify that key controls operated 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.

The Board has received assurance from the CEO and CFO on the SGX group's financial records and the effectiveness of SGX's risk management and internal controls. The Board also receives a separate quarterly representation on SGX's financial information and controls, including that the financial records have been properly maintained and the financial statements give a true and fair view of the SGX group's operations and finances, from the CEO and CFO.

SGX engages in Business Continuity Management (BCM) 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'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.

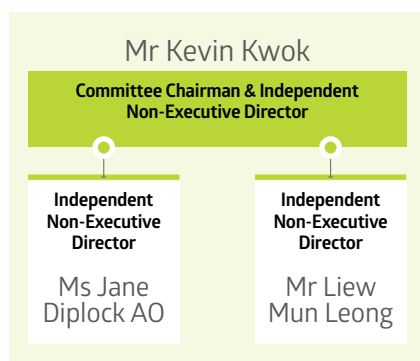
Based on the internal controls established and maintained by SGX, work performed by the internal and external auditors, and reviews performed by management and various Board Committees, the Board, with the recommendation of the AC, is of the opinion that SGX's internal controls and risk management systems, addressing financial, operational, compliance and information technology risks, are adequate and effective as of 30 June 2017.

On 14 July 2016, SGX's securities market experienced a market disruption when the exchange ceased trading at 11.38am and remained closed for the rest of the day. The disruption was caused by a disk failure and an application that did not detect the problem. The disruption was prolonged due to challenges in the orders and trade reconciliation process. In addition to SGX's own immediate measures to address the incident, SGX convened a Securities Industry Working Group (IWG) with representatives from SGX and industry stakeholders. In March 2017, the IWG made 6 recommendations across various areas, 3 of which were immediately implemented by SGX, with the remaining 3 being implemented across the industry with the oversight of a steering group comprising SGX and broker-members of the IWG.

On 8 December 2016, SGX's derivatives market experienced a market disruption when certain derivatives contracts were delayed for the start of the trading day. Investigations found that the event was caused by an application error. SGX took recovery action and the relevant derivatives contracts resumed normal trading at 10.00 am. A permanent fix has been deployed to address the root cause of the incident.

**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 the external auditor. 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 auditors.

**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 and the external auditor, at its quarterly AC meetings. 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, 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.

# Corporate Governance

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 FY2017

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 the management and the external auditor and were reviewed by the AC:

Significant Matters	How the AC reviewed these matters
Acquisition of Baltic Exchange Limited – Purchase price allocation	<p>The AC reviewed the following:</p> <ul style="list-style-type: none"> <li>(i) Approach on purchase price allocation;</li> <li>(ii) Key assumptions applied in arriving at the fair value of assets acquired and liabilities assumed; and</li> <li>(iii) The fair value and useful life assigned to the identified intangible assets.</li> </ul> <p>The purchase price allocation was 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 2017. Refer to page 98 of this Annual Report.</p>
Impairment Assessment of Goodwill and Intangible Asset	<p>The AC 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 asset. It reviewed the reasonableness of cash flow forecasts, the long term growth rate and discount rate.</p> <p>The impairment assessment of goodwill and intangible asset of EMC was 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 2017. Refer to page 98 of this Annual Report.</p>



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 assessed 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 management's report, 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.

#### ***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 FY2017	S\$'000	% of total audit fees
Total Audit Fees	923	-
Total Non-Audit Fees	13	1%
Total Fees Paid	936	-

#### ***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 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 2017.

#### ***Oversight of Internal Audit***

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

- scope of the annual internal audit plans to ensure that the plans provided a sufficiently robust review of the internal controls of SGX;

- significant audit observations and management's responses thereto;
- approval of Internal Audit Charter;
- adequacy and effectiveness of Internal Audit function; and
- budget and staffing for Internal Audit function.

The AC Chairman met regularly with the Head of Internal Audit without the presence of management, more than 4 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. For the financial year under review, the AC Chairman guided the Internal Audit function in adopting the prescribed practices published in the revised Guidebook for Audit Committees in Singapore.

The AC also reviewed management's and Internal Audit'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:

- scope of annual compliance plans;
- compliance activities, key compliance risks identified and compliance response thereto;
- regulatory breaches and compliance response thereto;
- approval of Compliance Charter; and
- 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

## Corporate Governance

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 reports from the Head of Compliance, at least 4 times for the financial year under review.

### Interested Person Transactions and Material Contracts

There were no Interested Person Transactions and no material contracts entered into by SGX or any of its subsidiaries involving interests of any Director or controlling shareholder during FY2017.

### 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 group'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 including the AC Chairman.

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, its regulator, the MAS, 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 2017, 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. Internal Audit continues to meet or exceed the requirements of the IIA Standards in all key aspects. Quality assessment reviews are carried out at least once in 5 years by external qualified professionals. The last review was completed in 2013 and the next review will be conducted by the end of 2017. 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 3 to 16 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.

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 group's corporate governance practices promote the fair and equitable treatment to all shareholders. 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. Pursuant to the introduction of the multiple proxies regime under the Singapore Companies (Amendment) Act 2014, 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.

# Corporate Governance

## 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 25 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 Directors (including the chairpersons of the respective Board Committees), EMCO and senior management 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.

### 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.

### 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:

- Board of Directors and EMCO profiles;
- Minutes and Summary of Proceedings of general meetings of shareholders;
- Audiocasts of general meetings of shareholders;
- Annual Reports;
- Letter/Circular to Shareholders;
- Company announcements;
- Press releases;
- Financial Results; and
- 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, 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.

## Conduct of Shareholder Meetings PRINCIPLE 16

Shareholders are informed of shareholders' meetings through published notices and reports or circulars sent to all shareholders or at the shareholder's election, made available electronically. 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 party is also appointed as scrutineers for the electronic poll voting process. 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. The total numbers and percentage of votes cast for or against the resolutions are also announced after the general meeting via SGXNet. Each share is entitled to one 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, RCC and RMC, external audit, senior management and legal advisors (where necessary), are present at general meetings to address shareholders' queries.

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

Audiocasts of the AGM proceedings are publicly available on SGX's website. The Company Secretaries prepare minutes of the general meetings, which capture the essence of the comments or queries from shareholders and responses from the Board and management. These minutes are available to shareholders upon request.

# Corporate Governance

## Summary of Disclosures of Code of Corporate Governance 2012

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#### The Board's Conduct of Affairs

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#### Board Composition and Guidance

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#### Disclosure on Remuneration

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#### Accountability

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#### Risk Management and Internal Controls

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### Shareholder Rights and Responsibilities

#### Shareholder Rights

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#### Conduct of Shareholder Meetings

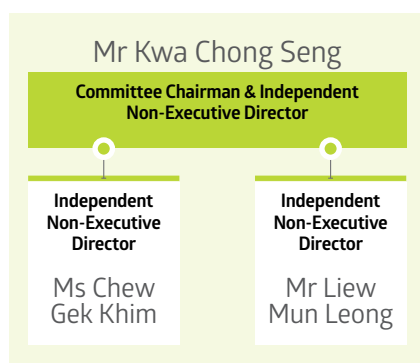
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# Express disclosure requirements in Code of Corporate Governance 2012

# 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:



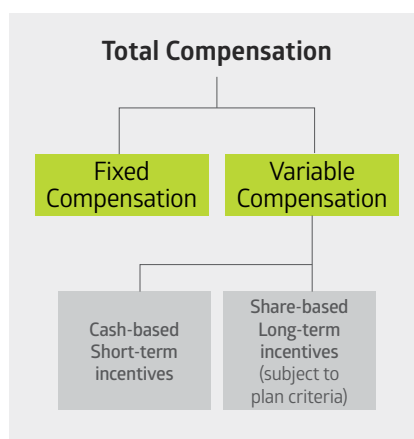
## Compensation Philosophy

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 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.

## 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 employees in Regulation, Risk Management, CFO unit, Human Resources, Internal Audit and Legal, Compliance and Corporate Secretariat functions, 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 in four broad categories of objectives, namely, financial; business and functional; regulatory and controls; and organisational and people development, as well as relevant comparative remuneration in the market. In line with the current regulatory standards, the control functions' performance objectives are based principally on the achievement of objectives for the functions and 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 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.

# Remuneration Report

## 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 the 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 determined by the achievement of sales targets and distributed to employees based on the achievement of team and individual sales targets and corporate 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 on the sales incentive plan) and the long-term incentive plans. It is computed using the following formula:

$$\text{Total Incentives (TI) Pool} = \text{A percentage of [Profit before Variable Bonus less Corporate Tax less Cost of Equity]}$$

## 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.

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 participate in the plan.

## FY2014 to FY2017 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 financial measures that also drive alignment with shareholders' interests.

Details of the performance share grants for FY2014 to FY2017 are as follows:

### Summary of Grants

Grant	Performance period	Vesting Date	Performance Targets
FY2014	1 July 2013 to 30 June 2016	1 September 2016	(1) ROE
FY2015	1 July 2014 to 30 June 2017	1 September 2017	(2) Absolute TSR
FY2015 (A)*	1 July 2015 to 30 June 2018	1 September 2018	(3) Relative TSR against FTSE/MV TSR (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)

\* Grant awarded to the former CEO, Mr Magnus Bocker on 30 June 2015 as part of his rewards for performance in FY2015.

### Table A – FY2014 to 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%)	
	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	

# Remuneration Report

**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

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 and Above Target 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 86 for the details of the share plans and grants to senior management and employees.



## Disclosure on Directors' Remuneration

The table below shows the gross remuneration of the Executive Director of SGX for the financial year ended 30 June 2017.

Executive Director	Fixed pay <sup>1</sup>	Bonus for FY2017 <sup>1,2</sup>	Long-term incentives	Benefits-in-kind	Total gross Remuneration
		\$	\$	\$	\$
Mr Loh Boon Chye	1,212,240	2,005,100	–	27,497	3,244,837

<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 FY2017.

Please refer to the Corporate Governance Report on pages 55 to 56 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 2017.

Executives	Fixed pay <sup>1</sup>	Bonus for FY2017 <sup>1,2</sup>	Long-term incentives <sup>3</sup>	Benefits-in-kind	Total gross Remuneration
		\$	\$	\$	\$
Mr Muthukrishnan Ramaswami	509,364	853,900	562,365	3,513	1,929,142
Mr Chew Sutat	412,248	630,100	397,185	11,735	1,451,268
Mr Lawrence Wong	406,488	342,700	291,128	299,362 <sup>4</sup>	1,339,678
Mr Chng Lay Chew	583,368	391,400	297,103	4,619	1,276,490
Mr Michael Syn	412,248	545,100	268,386	2,222	1,227,956

<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 FY2017.

<sup>3</sup> Vesting of FY2014 PSP and DLTIS awards based on the fair value on grant date. The shares vested on 1 September 2016.

<sup>4</sup> Includes benefits and allowances related to overseas posting.

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 as disclosed in pages 88 and 92 of the Directors' Statement.

## Benefits

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

# Self-Regulatory Organisation Governance Report

## Obligations

SGX is a front-line regulator, regulating market participants including listed companies, and trading & 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. We employ the highest standards in carrying out our dual role and ensure that any potential conflicts between our responsibilities as a regulator and as a listed company are adequately addressed. We remain the custodians of trust and confidence in the Singapore market.

### Our regulatory activities remain focused on:



Operating a fair, orderly and transparent market



Admitting high quality issuers and market intermediaries



Providing safe and efficient clearing and settlement facilities



Supporting the continuous development of SGX's markets and clearing houses

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 ongoing 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.

### Managing Self-Regulatory Organisation (SRO) 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 perceived or actual conflicts. The Regulatory Conflicts Committee (RCC) assists the SGX Board with the management of SRO conflicts. The RCC comprises directors who are independent of management and business relationships with SGX. Appointments to the RCC are subject to MAS approval. In addition, the introduction of the Listings Advisory Committee in October 2015 had further enhanced SGX's framework for managing actual or perceived conflict arising from SGX's dual role as a commercial for-profit entity and a Securities Market Regulator.

The RCC decides on conflict cases, as needed, and reviews the regulatory implications of our strategic initiatives. The RCC also ensures the adequacy of resources allocated to the regulatory function and oversees the processes for identifying and managing regulatory conflicts. The RCC reports to MAS annually on the adequacy of our conflicts management framework and practices as required under the Securities and Futures Act.

The RCC reported to the MAS in October 2016 that they had fulfilled their statutory duties in overseeing SRO governance within SGX, adequacy of regulatory resources and in addressing SRO conflicts.

### SGX Regulation Pte. Ltd. (SGX RegCo)

SGX has long faced perceptions of possible SRO conflicts. To further enhance our existing SRO framework, a regulatory subsidiary, SGX RegCo, was established in April 2017 to undertake all regulatory functions on behalf of SGX. SGX RegCo will be governed by a board of directors (SGX RegCo board) separate from that of SGX.

The majority of SGX RegCo board, including the Chairman, will comprise directors who are independent from the SGX Group. All SGX RegCo directors will also be independent of any other corporation listed on SGX-ST and the member firms of the SGX Group. Following the establishment of SGX RegCo, SGX RegCo board will take over all of RCC's current roles and responsibilities. RCC will be dissolved once SGX RegCo becomes operational in Q1FY2018.

To strengthen the independence of SGX RegCo, SGX RegCo Chief Executive Officer will report exclusively to the SGX RegCo board in relation to the performance of the functions of SGX RegCo.

SGX RegCo's independence explicitly separates the governance of regulatory decisions from commercial ones. SRO conflicts guidelines and other existing instruments will dictate that purely regulatory matters will be exclusively decided at SGX RegCo level. This demonstrates our commitment to do all that we can within the SRO framework to ensure that the checks and balances within the board of directors cannot conflict commercial objectives and our regulatory responsibilities.

## Self-Regulatory Organisation Governance Report

### Enhancing Trust in Regulation

Communications play a vital role in enhancing trust and developing our market. In FY2017, we continued to focus on growing the market's understanding of our regulatory approaches, increased engagements with stakeholders and made more regulatory resources available online.

#### Consultation on Dual-Class Shares

We put emphasis on engaging with key stakeholders by keeping them well informed of our initiatives, seeking for, and responding directly to their feedback and supporting greater discussion of initiatives. In this spirit, SGX carries out extensive public communication and engagements on the possibility of introducing dual-class shares in the Singapore market, an area of significant stakeholder interest. These engagements include a public roundtable organised in conjunction with NUS Faculty of Law. Members of the business community, academics, professionals and entrepreneurs were present. We also held a dialogue session with CFA society members, and one-to-one meetings with law firms, academics and asset managers. We will evaluate the feedback received and target to update the market before the year-end.

On 28 July 2017, in response to queries regarding secondary listing raised during the public consultation process, we clarified that DCS companies that are primary-listed on "developed markets" can seek a secondary listing on SGX in accordance to our existing secondary listing framework, subject to the listings review process and satisfaction of our suitability criteria.

#### Regulatory Column on Enforcement of False Trading

To further enhance transparency and address trends that are of regulatory concern, we published 2 Regulator's Columns to provide guidance and awareness on topical issues, including for the first time, providing information on the factors which SGX considers when dealing with cases of false trading in our markets.

#### Publication of Long-Term Rule Waivers

We have also launched a section on SGX's website to publish long-term listing rule waivers granted to issuers in FY2017. In addition, we are also working on a section to publish listing decisions on certain applications on a no-names basis to go online in FY2018. This is intended to enhance market understanding of SGX's deliberations on listing applications.

#### Issuance of Trade Surveillance Handbook and Member Surveillance Dashboards

As part of our efforts to stem out trading misconduct to minimise market impact and maintain public confidence, we have issued the Trade Surveillance Handbook and Member Surveillance Dashboards in September 2016.

The Trade Surveillance Handbook provided guidance on trading malpractices and parameters in trade surveillance programmes, while the Dashboards provide each member with alerts and information on its own trading activities monthly, which it can use to proactively arrest potential malpractice. We also conducted a series of roadshows following the launch of these initiatives to share information on trading misconduct and guidelines on surveillance monitoring with members. Sharing what we see with our members cultivates an open relationship and enables us to enlist them as force multipliers in our market surveillance activities.

#### Engagements with Relevant Stakeholders

As part of our ongoing efforts to engage with various groups of stakeholders, we had speaking engagements at 9 external events. In addition, we also held regular dialogues with issue managers, sponsors and members to anticipate potential issues, identify trends, address regulatory concerns and provide greater clarity and certainty on regulatory matters.

We will continue to be open to feedback from our stakeholders as we execute our regulatory initiatives. We intend to increase clarity on our regulatory approaches, keep our communication channels with stakeholders open and increase transparency on our regulatory thinking and focus areas.

## Enhancing the Quality of our Marketplace

We continue to set and enforce regulation to assure a fair, orderly and transparent marketplace. We remain alert to changes in the market and regulatory landscape, and have introduced new requirements, tools and structures to further enhance the quality of our marketplace.

### Execution-Related Advice (ERA) Guidance Note

In March 2017, following consultation with the Monetary Authority of Singapore (MAS) and the Securities Association of Singapore (SAS), we issued the ERA Guidance Note to provide guidance on circumstances under which the provision of ERA on listed Excluded Investment Products (EIPs) by Trading Representatives (TR) is considered acceptable. This initiative supports TRs in providing better value-added services following the exemption of ERA on listed EIPs from the Financial Advisers Act.

### Enhanced Rights Issue Limit

On 13 Mar 2017, we announced that companies will be able to seek a general mandate for an issue of pro-rata renounceable rights shares of up to 100% of the share capital from 50% previously. The enhanced rights issue limit is aimed at helping companies raise funds expediently for expansion activities or working capital.

### Minimum Retail Allocation for Mainboard Initial Public Offerings (IPO)

From 2 May 2017, all Mainboard IPOs will be required to allocate to retail investors, at least 5% or S\$50 million of shares, whichever is lower, of their total offer size.

The new rules are aimed at facilitating greater retail participation in Singapore's equities market.

### Changes to the Securities Market Microstructure

In March 2017, we issued a public consultation on the proposed changes to the securities market microstructure. The changes include (a) introducing a mid-day trading break in response to industry feedback on shorter trading hours; (b) widening the tick size in the \$1.00 to \$1.99 price band for most securities; and (c) widening the forced order range for all securities in response to feedback that the current range is too restrictive. After a thorough assessment of the feedback received, the changes were finalised and announced on 18 July 2017, and will be effective from 13 November 2017.

### Minimum Trading Price (MTP) Framework

We continue to have close stakeholder engagement and monitoring after the launch of major initiatives in order to ensure that these initiatives are further calibrated to achieve intended outcomes. In this regard, we introduced an additional market capitalisation criterion to the MTP framework on 2 December 2016. This followed a review to assess if the objectives of reducing the risk of excessive speculation and potential manipulation can be achieved in a more calibrated and efficient way.

### Refining SGX Trading Rulebook

As part of our efforts to ensure our policies remain up-to-date, we continued to refine our Securities and Derivatives Trading rulebooks in FY2017. The refinements will ensure that our policies are relevant to the current market environment, aligned with international practices, and consistent across the markets we operate. We will do so with active involvement of our Members and relevant stakeholders in our regulatory development process.

### Securities Industry Working Group (IWG)

In September 2016, we formed an IWG to assess and make recommendations on SGX's and industry participants' processes to improve the Singapore securities market's operational resilience. As part of our involvement, we proactively engaged Members for their feedback on proposed changes to the market closure/resumption policies, and trade assumption procedures, which were subsequently approved by the IWG. We continue to be part of the working groups, established by the IWG, to follow-through on the implementation of the IWG's recommendations.

## Self-Regulatory Organisation Governance Report

### Regulatory Activities in FY2017

#### Front-line Regulatory activities

SGX conducts rigorous real-time surveillance of trading activities to promote orderly trading and detect any undesirable market conduct. Where there is any indication of anomalous trading, we will issue a public query to the listed company to see if it has unannounced material information that could explain the trading activity. We issued 173 public queries this year.

For potential breaches of the law, SGX works with the relevant agencies and authorities to take appropriate action. This helps in preserving the integrity of our market. We referred 34 cases to the authorities during the year.

In FY2017, 5 TRs were charged before the SGX-ST Disciplinary Committee for market misconduct. Two of the TRs were involved in pre-arranging cross trades of significant volume amongst their clients, which created a false or misleading appearance of active trading in several counters. The two TRs were fined between S\$60,000 and S\$70,000, and suspended for two to three months respectively. The remaining three TRs, who worked as a team, collectively created a false market in a particular counter by executing extensive cross trades amongst their clients to artificially maintain the share price. The three TRs were fined an aggregate of S\$250,000 and suspended for between 3 and 6 months each.

An Individual Trading Member (TMI) was also charged before the SGX-DT Disciplinary Committee for engaging in spoofing activity in several futures contracts. He was fined S\$200,000 and expelled as a TMI of SGX-DT. This was the first disciplinary proceeding on market misconduct since trading in the derivatives market became fully automated in 2006.

#### Listings Applications

We continued to uphold high listing standards to ensure the quality of our issuers. During the year, we received 27 IPOs and Reverse Takeover (RTO) applications and notifications. Including applications and notifications from the previous year, 23 were approved or proceeded to lodge and 6 applications were returned or withdrawn.

#### Member and Sponsors Admissions and Inspections

We conduct periodic inspections and reviews of members to ensure that they have put in place adequate internal controls in accordance with our rules. We also monitor the financial health of all members on an ongoing basis. Members must immediately notify us when their financial resources decline to prescribed threshold levels so that we can take early and appropriate mitigating actions. This is necessary to protect the interests of their customers.

In addition, we conduct periodic inspections and reviews of sponsors for assurance that key processes, procedures and systems are in place to discharge their duties and obligations under our rules.

We conducted 28 on-site inspections and compliance visits of members in FY2017. We also conducted risk-based inspections on 4 sponsors and reviews on 4 sponsors.

We are constantly looking to broaden the scope of participation in our exchange and clearing house. In this respect, we admitted 25 Proprietary Trading Members and 9 Agency Members, including a new retail securities trading and clearing member. On the Catalist sponsorship front, we admitted 3 full sponsors during the year.

## Engaging the Investing Public

SGX continued to support investor education initiatives via its Investor Education Fund (IEF).

In FY2017, the IEF saw an increase of \$560,220 arising from fines and composition sums collected in connection to rule breaches. During the year, the Investor Education Committee (IEC) approved funding of \$780,000 for investor education projects that included both SGX-led projects as well as initiatives of industry partners.

Continuing with FY2016's investor education efforts on the evolving digital sector, a further 5 videos were produced and 3 seminars organised to provide investors with overview and key summaries of different sub-sectors including big data, social media and crowd-funding. Extending on FY2016's initiatives, FY2017 also saw the launch of a new series – Rediscovering Traditional Technology which showcased how traditional technology and telecommunications companies support emerging technologies. SGX will similarly use a combination of research reports, infographics, videos and seminars to reach out to investors.

In addition to initiatives supported by the IEF, SGX continued to partner stakeholders in strengthening investor education. SGX partnered NUS to organise the NUS-SGX Stock Pitch Competition to increase the awareness and use of Stockfacts by university students. A series of roadshows and information sessions was held in conjunction with the Stock Pitch Competition, reaching out to the undergraduates in the various local universities. To step up investor education for the Chinese-speaking segment, SGX partnered Lianhe Zaobao on a Chinese investment guidebook and a series of Mandarin investment seminars.

The IEF also co-funded various partners on investor education initiatives. SGX continued to support the Securities Association of Singapore (SAS) in their seminars and workshops to upgrade the skills of customers of brokers and Shareinvestor to build and launch a dedicated portal where investors can easily obtain news, research reports and other information on Catalist companies.



# Report of Independent Committees

## Overview

SGX's systems to deal with conflicts of interest arising from its dual role as a front-line regulator of market participants and a listed for-profit entity include the setting up of independent committees comprising the Listings Advisory Committee, Disciplinary Committee and Appeals Committee to supplement its regulatory and disciplinary processes. To ensure impartial and independent administration of their powers, the members of SGX's 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 Mainboard listing applications which involve novel or unprecedented issues, or where specialist expertise is required, or which involve matters of public interest, or when SGX is of the view that a referral is appropriate. The Listings Advisory Committee currently has 16 members with legal, accounting, corporate finance and market experience and also includes representatives of the investment community.

The Disciplinary and Appeals Committees provide independent and transparent adjudication of SGX rule breaches. The Disciplinary Committee is able to impose a wide range of sanctions for breaches of trading or clearing rules against trading or clearing members, their directors, trading representatives, approved traders or 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. For breaches of SGX's listing rules committed on or after 7 October 2015 and which entail more

severe sanctions, the sanctions which the Listings Disciplinary Committee (whose members are drawn from the Disciplinary Committee) can impose include 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 applications 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.

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

During the financial year ending 30 June 2017, 6 members retired from the Disciplinary Committee and 3 members retired from the Appeals Committee. The Disciplinary Committee and Appeals Committee currently have 14 and 6 members respectively. These members have legal, accounting, corporate finance, market experience, as well as directorship experience in SGX-listed issuers.

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

regulation functions within SGX and the Head of the Office of the Secretariat reports directly to the Chairmen of the respective committees.

The operation of the Committees and the Office of the Secretariat is funded separately by a Compliance Fund which is segregated from the rest of SGX's monies. In FY2017, the operating costs of the Committees and the Office of the Secretariat amounted to S\$609,647.

## Listings Advisory Committee Annual Report Note from the Listings Advisory Committee Chairman

This is the Listing Advisory Committee's (LAC) second Annual Report and sets out our work done from 1 July 2016 to 30 June 2017.

During the year, 8 listing applications were reviewed by the Deputy Chairman and me, together with the Secretariat. 2 of these listing applications were referred to the LAC.

## IPO Referral Cases

The 2 IPO listing applications referred to the LAC involved listing applicants with transaction structures or ownership structures which were complex and unusual.

The first referral case reviewed by the LAC in July 2016 involved a company listing applicant which overseas subsidiary was involved in numerous complex fund-raising transactions. These transactions included the overseas subsidiary's issuance of convertible bonds which could be converted into shares in the subsidiary, which could subsequently be swapped for shares in the listed company, resulting in a dilutive impact on the listed company shares. The numerous complex transactions would be deemed approved when investors subscribed for the IPO shares. The listing application was referred to

the LAC as SGX was of the view that the various fund-raising transactions, in particular, the share swap, was novel.

The second referral case reviewed by the LAC in August and September 2016 involved a business trust listing applicant with overseas portfolio assets in an industry which was subject to foreign ownership restrictions. The business trust, being a foreigner in this overseas jurisdiction, was not permitted to have its shareholdings in the entities holding the assets exceed the maximum prescribed limit allowed for foreigners. The business trust held the assets through a highly complex ownership structure whereby the business trust's economic interest in the assets would far exceed its shareholding interests; such stark disparity between economic and shareholding interests had not been observed in other SGX-listed business trusts. The listing application was referred to the LAC as SGX was of the view that a referral was appropriate.

In both referral cases, the LAC was concerned about retail investors having difficulty in understanding the complex nature and terms of the transactions or ownership structures. The LAC's recommendations included requiring the listing applicants to incorporate the relevant health warnings and clear disclosures in the prospectuses.

The grounds of decisions of the LAC's advice for the referral cases are available on [SGX's website](#).

### Non-Referral Cases

The remaining 6 listing applications were mostly business trusts or REITs.

After a review of these 6 listing applications, the Deputy Chairman and I, taking into consideration the Secretariat's recommendations, agreed 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.

### Media Engagement

During the financial year ending 30 June 2016, the LAC had advised on SGX's proposed listing framework for dual-class share structures. The LAC had recommended that dual-class share structures be permitted to list on SGX subject to appropriate safeguards set out in the LAC's first annual report.

The LAC's advice was reported by both local and foreign media. It attracted lively debate from both supporters and detractors of dual-class share structures. During my engagement with the local media in September 2016 in connection with the LAC's first anniversary, I took the opportunity to reiterate that as SGX has no natural hinterland providing a pipeline of listings, permitting listing of dual-class share structures is that "something extra" which SGX can offer to compete internationally. The LAC is heartened to note that the Committee on the Future Economy, having recognised that dual-class share structures are increasingly being considered by companies in industries such as information technology and life sciences, had subsequently recommended that dual-class share structures be permitted on SGX, with appropriate safeguards. The LAC notes that SGX has since consulted the public on dual-class share structures in February this year.

### Acknowledgements and Welcomes

I wish to express my sincere appreciation to the LAC Deputy Chairman, Professor Tan Cheng Han, Senior Counsel, for serving alongside me since October 2015 and who has stepped down from the LAC in July 2017 to chair the Board of Singapore Exchange Regulation Pte. Ltd. The LAC

has benefited greatly from his tireless dedication and learned legal insights.

Professor Hans Tjio has taken over from Professor Tan as Deputy Chairman and I look forward to working closely with him. I am also delighted to welcome Mr Goh Kian Hwee to the committee.

I also wish to thank my fellow distinguished LAC members for contributing their valuable time and expertise in reviewing the referral matters.

I am deeply appreciative of the Secretariat team headed by Ms Ng Ee San who has been instrumental in facilitating the LAC's robust discussions on referral matters by providing relevant research and analysis and for preparing grounds of decisions containing lucid expositions of the LAC's concerns and advice.

The LAC looks forward to its work in the coming year. We remain committed to working together with SGX towards a more robust capital markets landscape in Singapore.

### Mr Gautam Banerjee

Chairman  
SGX Listings Advisory Committee

# Report of Independent Committees

## Listings Advisory Committee Members

The members of the Listings Advisory Committee are as follows:

No.	Name	Position	Title
1	Mr Gautam Banerjee	Chairman	Chairman, Blackstone Singapore Pte Ltd Former Executive Chairman, PricewaterhouseCoopers Singapore
2	Professor Tan Cheng Han, Senior Counsel	Deputy Chairman <i>(till 4 July 2017)</i>	Chairman, E W Barker Centre for Law & Business, Faculty of Law, National University of Singapore Chairman, Singapore Exchange Regulation Pte. Ltd. Board Member, Accounting and Corporate Regulatory Authority Board Member, Sport Singapore
3	Professor Hans Tjio	Deputy Chairman <i>(with effect from 5 July 2017)</i>	Co-Director, Centre for Banking and Finance Law, National University of Singapore Member, Securities Industry Council
4	Mrs Fang Ai Lian	Member	Adviser, Far East Organization Former Managing Partner, Ernst & Young LLP
5	Mr David Gerald	Member	Founder, President and Chief Executive Officer, Securities Investors Association (Singapore)
6	Mr Goh Kian Hwee	Member <i>(with effect from 5 July 2017)</i>	Joint Group Managing Director, QAF Limited Independent Director, CapitaLand Commercial Trust Management Limited Former Senior Partner, Rajah & Tann Singapore LLP
7	Mr Subramaniam Iyer	Member	Founder and Director, S2K2 Advisory (operating as SmartKapital)
8	Mr Lionel Lee	Member	Group Chief Executive Officer and Managing Director, Ezra Holdings Limited
9	Mr Daryl Liew	Member	Co-Chairman, Advocacy Committee, CFA Society Singapore Head, Portfolio Management, Singapore, REYL Singapore Pte Ltd
10	Mr Lim Chin Hu	Member	Managing Partner, Stream Global Pte Ltd
11	Mrs Margaret Lui	Member	Chief Executive Officer, Azalea Investment Management Pte Ltd
12	Mr Mak Lye Mun	Member	Country Head and Chief Executive Officer, CIMB Bank Berhad Singapore Branch Chief Executive Officer, Wholesale Banking, CIMB Group Holdings Berhad
13	Mr Kabir Mathur	Member	Former Director, KKR Singapore Pte. Limited
14	Mr Ronald Ong	Member	Chairman and Chief Executive Officer, Southeast Asia, Morgan Stanley Asia (Singapore) Pte.
15	Mr Soon Tit Koon	Member	Independent Director, Great Eastern Holdings Limited Independent Director, SPH REIT Management Pte. Ltd.
16	Mr Toh Teng Peow David	Member	Director and Chief Technology Officer, Nanyang Technological University-NTUitive Pte. Ltd.
17	Ms Tracey Woon	Member	Vice Chairman, Asia Pacific, Wealth Management, UBS AG

## Disciplinary and Appeals Committees Report Cases Heard in FY2017

There were 3 Disciplinary Committee hearings in FY2017, 2 of which involved breaches of the SGX-ST Rules and 1 which involved breaches of the Futures Trading Rules. The Disciplinary Committee ordered fines of S\$580,000 in total.

Date of Hearing	Parties charged	Relevant Rules	Charges	Description of trading behaviour	Sanctions imposed
27 October 2016	2 Trading Representatives from different SGX-ST Trading Member firms	Rule 13.8.1(1) of the SGX-ST Rules which prohibits an act or practice that will or is likely to create a false or misleading appearance of active trading.  Rule 7.5.3 of the SGX-ST Rules which requires adherence to the principles of good business practice in the conduct of business affairs.	5 charges brought under Rule 13.8.1(1) and 1 charge brought under Rule 7.5.3.  At the hearing, SGX-ST proceeded with 2 charges under Rule 13.8.1(1), with the other 4 charges taken into consideration by the Disciplinary Committee for sentencing purposes.	The Trading Representatives executed pre-arranged cross trades in relevant securities in accounts belonging to them or their clients to prevent force-selling of the securities by their respective Trading Member firms.	The Disciplinary Committee imposed an aggregate fine of S\$70,000 and suspension from trading for 3 months against the first Trading Representative and an aggregate fine of S\$60,000 and suspension from trading for 2 months against the second Trading Representative.
27 October 2016	3 Trading Representatives from the same team in a SGX-ST Trading Member firm, 1 of whom was the team leader and the other 2 were his trading assistants.	Rule 13.8.1(2)(c) of the SGX-ST Rules which prohibits manipulative orders or transactions which lead to a false market.  Rule 13.12.1 of the SGX-ST Rules which requires the unique identification number and password for entering orders into the Trading System to be kept confidential.	2 charges brought under Rule 13.8.1(2)(c) and 1 charge brought under Rule 13.12.1.  At the hearing, SGX-ST proceeded with 1 charge under Rule 13.8.1(2)(c) with the other 2 charges taken into consideration by the Disciplinary Committee for sentencing purposes.	The Trading Representatives artificially maintained the price of the relevant securities by executing pre-arranged cross-trades in accounts belonging to their clients or the Trading Representative who was the team leader. This involved placing orders in between the bid-offer spread on both sides of the order book or repeated slicing of an order to continually fill an order on the opposite side of the order book.	The Disciplinary Committee imposed an aggregate fine of S\$180,000 and suspension from trading for 6 months against the Trading Representative who was the team leader and an aggregate fine of S\$35,000 and suspension from trading for 3 months against each of the other 2 Trading Representatives.  All 3 Trading Representatives were also required to attend an education programme on securities regulation before being allowed to resume their duties as Trading Representatives.

# Report of Independent Committees

## Disciplinary and Appeals Committees Report (cont'd) Cases Heard in FY2017 (cont'd)

Date of Hearing	Parties charged	Relevant Rules	Charges	Description of trading behaviour	Sanctions imposed
28 April 2017	SGX-DT Trading Member (Individual)	Rule 3.4.8 of the Futures Trading Rules which prohibits entering bids or offers into the Trading System other than in good faith for the purpose of executing <i>bona fide</i> transactions.	5 charges brought under Rule 3.4.8.  At the hearing, SGX-DT proceeded with all 5 charges.	The Trading Member (Individual) engaged in spoofing. He entered small genuine orders on 1 side of the order book, followed by large orders on the opposite side of the order book, which created an impression of strong supply or demand in the relevant futures contracts. When his small genuine orders were filled by other market participants, he would delete his large orders which had been entered with the intent to be cancelled before execution.	The Disciplinary Committee imposed an aggregate fine of S\$200,000 and expulsion of the Trading Member (Individual).

The Disciplinary Committee's grounds of decisions are available on [SGX's website](#).

There were no Appeals Committee hearings in FY2017.

## Disciplinary Committee Members

During FY2017, Disciplinary Committee Co-Chairman Mr Eddie Tan, Deputy Chairmen Mr Hamidul Haq and Mr Leong Mun Wai and members Mr Kan Shik Lum, Mr Lam Chee Kin and Mr Mah Kah Loon, retired from the Disciplinary Committee.

6 new members were appointed to the Disciplinary Committee during FY2017, namely Mr Cavinder Bull, Senior Counsel as Co-Chairman, Mr Tan Chong Huat as Deputy Chairman and Ms Cheng Ai Phing, Mr George Lee, Mr Soh Gim Teik and Dr Tommy Tan as 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 Non-Executive Director and Chairman of Audit Committee, ARA Asset Management (Fortune) Limited (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	Former Managing Director, Goldman Sachs Futures Pte.
7	Mr George Lee	Member	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	Executive Chairman and Partner, 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, Diversified Industrials & Infrastructure, 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

During FY2017, 3 members, namely Mr George Lee, Mr Michael Wong Ping Seng and Mr Hugh Young, retired from the Appeals Committee.

2 new members were appointed to the Appeals Committee during FY2017, namely Mr Chan Leng Sun, Senior Counsel as Deputy Chairman and Mr Kan Yut Keong, Benjamin as member.

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	Head, Dispute Resolution, Baker McKenzie.Wong & Leow Global Head, International Arbitration, Baker McKenzie
3	Mr Kan Yut Keong, Benjamin	Member	Managing Director, Cornerstone Advisors Pte. Ltd. Audit Committee Chairman, Competition Commission of Singapore 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 2017

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 2017.

In the opinion of the directors,

- (a) the financial statements set out on pages 101 to 160 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 2017 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:

**Mr Kwa Chong Seng** (Chairman)  
**Mr Loh Boon Chye** (Chief Executive Officer)  
**Mr Thaddeus Beczak**  
**Ms Chew Gek Khim**  
**Ms Jane Diplock AO**  
**Mr Kevin Kwok**  
**Mr Liew Mun Leong**  
**Ms Lim Sok Hui (Mrs Chng Sok Hui)**  
**Mr Ng Kok Song**

## 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 30.06.2017	At 01.07.2016	At 30.06.2017	At 01.07.2016
<u>Singapore Exchange Limited</u>				
Mr Kwa Chong Seng	20,000	20,000	–	–
Mr Kevin Kwok	70,000	70,000	70,000	70,000

- (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, 266,200 shares granted to Loh Boon Chye will vest between 1 September 2017 and 1 September 2020.

- (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 2017.

### 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) FY2014 Grant under SGX PSP

The number of SGX shares to be awarded to each participant will be based on the achievement of certain prescribed performance targets, over a three-year performance period from 1 July 2013 to 30 June 2016. The performance shares vested on 1 September 2016 and were fulfilled by the delivery of shares previously purchased from market.

## Share plans (continued)

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

## Share grant and vesting (continued)

## (i) FY2014 Grant 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 01.07.2016	Shares lapsed during financial year	Shares vested during financial year <sup>(1)</sup>	Balance as at 30.06.2017
<b>Executive Management Committee (EMCO) members</b>					
Mr Muthukrishnan Ramaswami <sup>(3)</sup>	68,300	68,300	(47,500)	(20,800)	–
Mr Chew Sutat <sup>(3)</sup>	48,300	48,300	(33,600)	(14,700)	–
Mr Chng Lay Chew <sup>(3)</sup>	38,500	38,500	(26,800)	(11,700)	–
Mr Syn Hsien-Min Michael	28,000	28,000	(19,500)	(8,500)	–
Mr Arulraj Maria Devadoss	24,500	24,500	(17,000)	(7,500)	–
Ms Agnes Koh	18,100	18,100	(12,600)	(5,500)	–
Ms Tinku Gupta <sup>(4)</sup>	13,400	13,400	(9,300)	(4,100)	–
<b>Other staff</b>	<b>213,000</b>	<b>201,100</b>	<b>(139,700)</b>	<b>(61,400)</b>	<b>–</b>
<b>Other participants</b>					
Mr Magnus Böcker <sup>(3)(7)</sup>	161,100	161,100	(112,000)	(49,100)	–
Ms Yeo Lian Sim <sup>(3)(9)</sup>	45,500	45,500	(31,600)	(13,900)	–
Mr Robert Ian Caisley <sup>(6)</sup>	35,000	–	–	–	–
Mr Richard Teng Wee Chen <sup>(8)</sup>	31,500	–	–	–	–
Mr Timothy Utama <sup>(5)</sup>	28,700	–	–	–	–
	<b>753,900</b>	<b>646,800</b>	<b>(449,600)</b>	<b>(197,200)</b>	<b>–</b>

Refer to footnotes on page 91.

## (ii) FY2015 Grants under SGX PSP

There were two grants in FY2015. The first grant of 687,300 SGX shares was granted on 15 August 2014. The number of SGX shares to be awarded to each participant will be based on the achievement of certain prescribed performance targets, over a three-year performance period from 1 July 2014 to 30 June 2017. The second grant of 124,300 SGX shares was granted to Mr Magnus Böcker on 30 June 2015. The number of SGX shares to be awarded will be based on the achievement of certain prescribed performance targets, over a three-year performance period from 1 July 2015 to 30 June 2018. The performance shares of the first grant and second grant will vest on 1 September 2017 and 1 September 2018 respectively.

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 01.07.2016	Shares lapsed during financial year	Balance as at 30.06.2017 <sup>(2)</sup>
<b>EMCO members</b>				
Mr Muthukrishnan Ramaswami <sup>(3)</sup>	61,200	61,200	–	61,200
Mr Chew Sutat <sup>(3)</sup>	43,200	43,200	–	43,200
Mr Chng Lay Chew	34,200	34,200	–	34,200
Mr Syn Hsien-Min Michael	27,400	27,400	–	27,400
Mr Arulraj Maria Devadoss	21,600	21,600	–	21,600
Ms Agnes Koh	15,300	15,300	–	15,300
Ms Tinku Gupta <sup>(4)</sup>	14,400	14,400	–	14,400
<b>Other staff</b>	<b>223,500</b>	<b>223,500</b>	<b>(35,600)</b>	<b>187,900</b>
<b>Other participants</b>				
Mr Magnus Böcker <sup>(3)(7)</sup>	268,400	268,400	–	268,400
Mr Timothy Utama <sup>(3)(5)</sup>	45,000	–	–	–
Mr Robert Ian Caisley <sup>(6)</sup>	31,500	–	–	–
Mr Richard Teng Wee Chen <sup>(8)</sup>	25,900	–	–	–
	<b>811,600</b>	<b>709,200</b>	<b>(35,600)</b>	<b>673,600</b>

Refer to footnotes on page 91.

*(iii) FY2016 Grant under SGX PSP 2015*

The number of SGX shares to be awarded to each participant will be based on the achievement of certain 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 01.07.2016	Shares lapsed during financial year	Balance as at 30.06.2017 <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 <sup>(4)</sup>	13,200	13,200	–	13,200
<b>Other staff</b>	264,600	264,600	(29,700)	234,900
<b>Other participants</b>				
Mr Timothy Utama <sup>(3)(5)</sup>	31,500	–	–	–
	<b>487,500</b>	<b>456,000</b>	<b>(29,700)</b>	<b>426,300</b>

Refer to footnotes on page 91.

*(iv) FY2017 Grant under SGX PSP 2015*

The number of SGX shares to be awarded to each participant will be based on the achievement of certain 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 during the financial year	Shares lapsed during financial year	Balance as at 30.06.2017 <sup>(2)</sup>
<b>EMCO members</b>			
Mr Loh Boon Chye <sup>(3)</sup>	133,100	–	133,100
Mr Muthukrishnan Ramaswami <sup>(3)</sup>	59,900	–	59,900
Mr Chew Sutat <sup>(3)</sup>	41,600	–	41,600
Mr Syn Hsien-Min Michael <sup>(3)</sup>	39,900	–	39,900
Mr Chng Lay Chew	25,800	–	25,800
Mr Tan Boon Gin	25,800	–	25,800
Ms Agnes Koh	21,600	–	21,600
Mr Arulraj Maria Devadoss	15,000	–	15,000
Ms Tinku Gupta <sup>(4)</sup>	16,000	–	16,000
<b>Other staff</b>	280,100	(18,200)	261,900
	<b>658,800</b>	<b>(18,200)</b>	<b>640,600</b>

Refer to footnotes on page 91.

## 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 2017 are as follows:

	Shares granted during financial year	Aggregate shares granted since commencement of SGX Performance Share Plan to 30.06.2017	Aggregate shares lapsed since commencement of SGX Performance Share Plan to 30.06.2017	Aggregate shares vested since commencement of SGX Performance Share Plan to 30.06.2017	Aggregate shares outstanding as at 30.06.2017
<b>Participants who received more than 5% of the total grants available</b>					
Mr Hsieh Fu Hua <sup>(12)</sup>	–	2,712,485	(676,900)	(2,035,585)	–
Mr Magnus Böcker <sup>(7)</sup>	–	1,149,300	(531,400)	(349,500)	268,400
Mr Gan Seow Ann <sup>(10)</sup>	–	902,100	(357,500)	(544,600)	–
Ms Yeo Lian Sim <sup>(9)</sup>	–	855,700	(339,300)	(516,400)	–
Mr Seck Wai Kwong <sup>(11)</sup>	–	845,600	(335,900)	(509,700)	–
Mr Muthukrishnan Ramaswami	–	698,500	(409,600)	(227,700)	61,200
<b>Participants who received less than 5% of the total grants available</b>					
Other staff	–	6,662,850	(3,321,800)	(2,997,050)	344,000
	–	<b>13,826,535</b>	<b>(5,972,400)</b>	<b>(7,180,535)</b>	<b>673,600</b>

Refer to footnotes on page 91.

## (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 2017 are as follows:

	Shares granted during financial year	Aggregate shares granted since commencement of SGX Performance Share Plan to 30.06.2017	Aggregate shares lapsed since commencement of SGX Performance Share Plan to 30.06.2017	Aggregate shares vested since commencement of SGX Performance Share Plan to 30.06.2017	Aggregate shares outstanding as at 30.06.2017
<b>Participants who received more than 5% of the total grants available</b>					
Mr Loh Boon Chye	133,100	133,100	–	–	133,100
Mr Muthukrishnan Ramaswami	59,900	113,500	–	–	113,500
Mr Chew Sutat	41,600	79,400	–	–	79,400
Mr Syn Hsien-Min Michael	39,900	74,600	–	–	74,600
<b>Participants who received less than 5% of the total grants available</b>					
Other staff	384,300	745,700	(79,400)	–	666,300
	<b>658,800</b>	<b>1,146,300</b>	<b>(79,400)</b>	<b>–</b>	<b>1,066,900</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 FY2014 Grant under SGX PSP represents the level of achievement against the performance conditions. Overall achievement for the grant was 30.5%. 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> Ms Tinku Gupta was appointed as a member of EMCO with effect from 1 May 2017. Her shares were previously grouped under "Other staff".
- <sup>(5)</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>(6)</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>(7)</sup> Mr Magnus Böcker's contract as the Chief Executive Officer ended on 30 June 2015. Under his contract, he will continue to be eligible to receive the grant at the vesting date, subject to the level of achievement against the performance conditions.
- <sup>(8)</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>(9)</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. As approved by the RSDC, she will continue to be eligible to receive the grant at the vesting date, subject to the level of achievement against the performance conditions.
- <sup>(10)</sup> Mr Gan Seow Ann resigned as SGX's Co-President and his last day of service was 26 May 2012. All his unvested shares lapsed at the end of his employment.
- <sup>(11)</sup> Mr Seck Wai Kwong resigned as SGX's Chief Financial Officer and his last day of service was 10 June 2011. All his unvested shares lapsed at the end of his employment.
- <sup>(12)</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) FY2014 Award

The FY2014 Award was in the form of SGX shares and the award vested in three equal instalments over a period of three years. The first instalment of this award vested on 1 September 2014 and the final instalment vested on 1 September 2016.



## Share plans (continued)

## (b) SGX Deferred Long-Term Incentives Scheme (continued)

## Share award and vesting (continued)

## (i) FY2014 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 01.07.2016	Shares vested during financial year	Balance as at 30.06.2017
<b>EMCO members</b>				
Mr Muthukrishnan Ramaswami <sup>(1)</sup>	68,300	22,768	(22,768)	–
Mr Chew Sutat	48,300	16,100	(16,100)	–
Mr Chng Lay Chew	38,500	12,834	(12,834)	–
Mr Syn Hsien-Min Michael	28,000	9,334	(9,334)	–
Mr Arulraj Maria Devadoss	24,500	8,168	(8,168)	–
Ms Agnes Koh	18,100	6,034	(6,034)	–
Ms Tinku Gupta <sup>(2)</sup>	13,400	4,468	(4,468)	–
<b>Other staff</b>	682,600	203,120	(203,120)	–
<b>Other recipients</b>				
Mr Magnus Böcker <sup>(1)(5)</sup>	161,100	53,700	(53,700)	–
Ms Yeo Lian Sim <sup>(7)</sup>	45,500	15,168	(15,168)	–
Mr Robert Ian Caisley <sup>(4)</sup>	35,000	–	–	–
Mr Richard Teng Wee Chen <sup>(6)</sup>	31,500	–	–	–
Mr Timothy Utama <sup>(3)</sup>	28,700	9,568	(9,568)	–
	<b>1,223,500</b>	<b>361,262</b>	<b>(361,262)</b>	<b>–</b>

Refer to footnotes on page 94.

## (ii) FY2015 Award

There were two awards in FY2015 in the form of SGX shares. The first award of 1,159,500 shares was awarded on 15 August 2014 which will vest in three equal instalments over a period of three years with the first instalment vested on 1 September 2015. The second award of 124,300 SGX shares was awarded to Mr Magnus Böcker on 30 June 2015 which will vest in three equal instalments over a period of three years with the first instalment vesting 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 01.07.2016	Shares lapsed during financial year	Shares vested during financial year	Balance as at 30.06.2017
<b>EMCO members</b>					
Mr Muthukrishnan Ramaswami	61,200	40,800	–	(20,400)	20,400
Mr Chew Sutat	43,200	28,800	–	(14,400)	14,400
Mr Chng Lay Chew	34,200	22,800	–	(11,400)	11,400
Mr Syn Hsien-Min Michael	27,400	18,267	–	(9,133)	9,134
Mr Arulraj Maria Devadoss	21,600	14,400	–	(7,200)	7,200
Ms Agnes Koh	15,300	10,200	–	(5,100)	5,100
Ms Tinku Gupta <sup>(2)</sup>	14,400	9,600	–	(4,800)	4,800
<b>Other staff</b>	695,700	444,436	(20,472)	(222,164)	201,800
<b>Other recipient</b>					
Mr Magnus Böcker <sup>(1)(5)</sup>	268,400	220,367	–	(89,466)	130,901
Mr Timothy Utama <sup>(3)</sup>	45,000	30,000	–	(15,000)	15,000
Mr Robert Ian Caisley <sup>(4)</sup>	31,500	–	–	–	–
Mr Richard Teng Wee Chen <sup>(6)</sup>	25,900	–	–	–	–
	<b>1,283,800</b>	<b>839,670</b>	<b>(20,472)</b>	<b>(399,063)</b>	<b>420,135</b>

Refer to footnotes on page 94.

*(iii) 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 01.07.2016	Shares lapsed during financial year	Shares vested during financial year	Balance as at 30.06.2017
<b>EMCO members</b>					
Mr Muthukrishnan Ramaswami <sup>(1)</sup>	53,600	53,600	–	(17,866)	35,734
Mr Chew Sutat	37,800	37,800	–	(12,600)	25,200
Mr Syn Hsien-Min Michael	34,700	34,700	–	(11,566)	23,134
Mr Chng Lay Chew	22,800	22,800	–	(7,600)	15,200
Ms Agnes Koh	15,100	15,100	–	(5,033)	10,067
Mr Arulraj Maria Devadoss	14,200	14,200	–	(4,733)	9,467
Ms Tinku Gupta <sup>(2)</sup>	13,200	13,200	–	(4,400)	8,800
<b>Other staff</b>	706,500	699,300	(43,004)	(232,260)	424,036
<b>Other recipient</b>					
Mr Timothy Utama <sup>(3)</sup>	31,500	31,500	–	(10,500)	21,000
Mr Robert Ian Caisley <sup>(4)</sup>	26,800	–	–	–	–
	<b>956,200</b>	<b>922,200</b>	<b>(43,004)</b>	<b>(306,558)</b>	<b>572,638</b>

Refer to footnotes on page 94.

*(iv) 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 vesting on 1 September 2017.

The details of shares awarded are as follows:

Recipients (as defined under SGX Deferred Long-Term Incentives Scheme)	Shares awarded during financial year	Shares lapsed during financial year	Balance as at 30.06.2017
<b>EMCO members</b>			
Mr Loh Boon Chye <sup>(1)</sup>	133,100	–	133,100
Mr Muthukrishnan Ramaswami <sup>(1)</sup>	59,900	–	59,900
Mr Chew Sutat	41,600	–	41,600
Mr Syn Hsien-Min Michael	39,900	–	39,900
Mr Chng Lay Chew	25,800	–	25,800
Mr Tan Boon Gin	25,800	–	25,800
Ms Agnes Koh	21,600	–	21,600
Ms Tinku Gupta <sup>(2)</sup>	16,000	–	16,000
Mr Arulraj Maria Devadoss	15,000	–	15,000
<b>Other staff</b>	737,000	(40,600)	696,400
	<b>1,115,700</b>	<b>(40,600)</b>	<b>1,075,100</b>

Refer to footnotes on page 94.

## Share plans (continued)

## (b) SGX Deferred Long-Term Incentives Scheme (continued)

## Share grant 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 2017 are as follows:

	Shares awarded during financial year	Aggregate shares awarded since commencement of SGX Deferred Long-Term Incentives Scheme to 30.06.2017	Aggregate shares lapsed since commencement of SGX Deferred Long-Term Incentives Scheme to 30.06.2017	Aggregate shares vested since commencement of SGX Deferred Long-Term Incentives Scheme to 30.06.2017	Aggregate shares outstanding as at 30.06.2017
<b>Recipient who received more than 5% of the total awards available</b>					
Mr Magnus Böcker <sup>(5)</sup>	–	604,000	–	(473,099)	130,901
<b>Recipients who received less than 5% of the total awards available</b>					
Other staff	1,115,700	7,371,000	(770,219)	(4,663,809)	1,936,972
	<b>1,115,700</b>	<b>7,975,000</b>	<b>(770,219)</b>	<b>(5,136,908)</b>	<b>2,067,873</b>

<sup>(1)</sup> Received more than 5% of the shares awarded.

<sup>(2)</sup> Ms Tinku Gupta was appointed as a member of EMCO with effect from 1 May 2017. Her shares were previously grouped under "Other staff".

<sup>(3)</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>(4)</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>(5)</sup> Mr Magnus Böcker's contract as the Chief Executive Officer ended on 30 June 2015. Under his contract, he will continue to be eligible to receive the award at the vesting date.

<sup>(6)</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>(7)</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. As approved by the RSDC, she will continue to be eligible to receive the award at the vesting date.

## 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 2017



Mr Loh Boon Chye  
**Director**

# 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 2017, and of the financial performance and changes in equity of the Group and 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 2017;
- the statements of financial position of the Group and of the Company as at 30 June 2017;
- 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 (rounded down to the nearest million), which represents 5% of profit before tax for the financial year ended 30 June 2017. 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>	<ul style="list-style-type: none"> <li>• Acquisition of Baltic Exchange Limited ("Baltic") – purchase price allocation</li> <li>• Impairment assessment of goodwill and intangible asset of Energy Market Company Pte Ltd ("EMC")</li> </ul>

## INDEPENDENT AUDITOR'S REPORT TO THE MEMBERS OF SINGAPORE EXCHANGE LIMITED

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 (rounded down to the nearest million), being 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 asset, 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 2017. 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.

## INDEPENDENT AUDITOR'S REPORT TO THE MEMBERS OF SINGAPORE EXCHANGE LIMITED

Key Audit Matter	How our audit addressed the key audit matter
<p><u>Acquisition of Baltic Exchange Limited ("Baltic") - purchase price allocation ("PPA")</u></p> <p>On 8 November 2016, Singapore Exchange Limited announced the completion of the acquisition of Baltic. The purchase consideration was \$138,794,000.</p> <p>As part of the PPA process, management exercised judgement in the identification of intangibles assets which were not previously included in the assets recorded by Baltic. The intangible asset identified was the trade name and this was valued at \$38,399,000.</p> <p>We focused on the valuation of intangible asset – trade name because of the significant judgements involved in estimating the future cash flows, long term growth rate and discount rate to determine the fair value of the identified intangible asset – trade name.</p> <p>Refer to Note 3 – Critical accounting estimates and judgements and Note 21 – Business combinations for disclosure relating to purchase price allocation.</p>	<p>For the identified intangible asset – trade name, we evaluated the reasonableness of management's estimates of future cash flows by taking into consideration the past performances, and projection of future growth in forward freight agreement ("FFA") market.</p> <p>With the assistance of our valuation specialists, we assessed the reasonableness of the long term growth rate and the discount rate used by management.</p> <p>We found the estimates of future cash flows and the rates used to be reasonable.</p>
<p><u>Impairment assessment of goodwill and intangible asset of Energy Market Company Pte Ltd ("EMC")</u></p> <p>As at 30 June 2017, 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 \$24,652,000 respectively.</p> <p>These goodwill and intangible asset relate to the EMC cash-generating unit ("CGU"). Management is required to perform an impairment assessment of goodwill annually and assess whether there is any indication that the intangible asset may be impaired. The recoverable amount of the CGU is compared with the carrying amount of the CGU to determine whether there is any impairment loss.</p> <p>We focused on this area because of the significant judgements required in estimating the future cash flows, long term growth rate and discount rate.</p> <p>Refer to Note 3 – Critical accounting estimates and judgements, Note 19 – Intangible assets and Note 20 – Goodwill for disclosures relating to the impairment assessment.</p>	<p>We evaluated the reasonableness of management's estimate of future cash flows by taking into consideration the past performance, and projections of electricity demand growth in Singapore and market developments.</p> <p>With the assistance of our valuation specialists, we assessed the reasonableness of the long term growth rates and the discount rate used by management.</p> <p>We found the estimate of future cash flows and the rates used to be reasonable.</p> <p>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.</p>



## 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.

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.

## INDEPENDENT AUDITOR'S REPORT TO THE MEMBERS OF SINGAPORE EXCHANGE LIMITED

- 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).



PricewaterhouseCoopers LLP  
Public Accountants and Chartered Accountants

Singapore, 27 July 2017

# Statements of Comprehensive Income

For the financial year ended 30 June 2017

Performance Overview

Group Overview

Value Creation &amp; Sustainability

Governance

Financials

Others

	Note	The Group		The Company	
		2017 \$'000	2016 \$'000	2017 \$'000	2016 \$'000
<b>Operating revenue</b>					
Equities and Fixed Income	4	404,521	405,763	8,782	11,465
Derivatives	4	303,051	325,304	–	–
Market Data and Connectivity	4	93,242	87,042	21,762	16,966
Management fees from subsidiaries		–	–	199,642	201,079
Dividends from subsidiaries		–	–	378,500	450,000
<b>Operating revenue</b>		<b>800,814</b>	<b>818,109</b>	<b>608,686</b>	<b>679,510</b>
<b>Operating expenses</b>					
Staff	5	162,340	159,262	118,940	115,966
Technology	6	123,835	127,846	60,023	61,236
Processing and royalties		45,247	58,280	896	557
Premises	7	26,571	24,734	15,347	19,980
Professional fees		10,131	10,882	8,060	7,856
Others	8	30,873	27,965	17,776	14,646
<b>Operating expenses</b>		<b>398,997</b>	<b>408,969</b>	<b>221,042</b>	<b>220,241</b>
<b>Operating profit</b>	9	<b>401,817</b>	409,140	<b>387,644</b>	459,269
<b>Other gains - net</b>	10	<b>5,655</b>	5,709	<b>3,308</b>	1,999
<b>Profit before tax and share of results of associated company</b>		<b>407,472</b>	414,849	<b>390,952</b>	461,268
Share of results of associated company	23	1,412	1,112	–	–
<b>Profit before tax</b>		<b>408,884</b>	415,961	<b>390,952</b>	461,268
Tax	25	(69,192)	(66,944)	(3,766)	(855)
<b>Net profit after tax</b>		<b>339,692</b>	349,017	<b>387,186</b>	460,413
Attributable to:					
Equity holders of the Company		339,692	349,017	387,186	460,413
<b>Earnings per share based on net profit attributable to the equity holders of the Company (in cents per share)</b>					
– Basic	11	31.7	32.6	–	–
– Diluted	11	31.6	32.5	–	–
	Note	The Group		The Company	
		2017 \$'000	2016 \$'000	2017 \$'000	2016 \$'000
Net profit after tax		339,692	349,017	387,186	460,413
<b>Other comprehensive income</b>					
Items that may be reclassified subsequently to profit or loss:					
Net currency translation differences of financial statements of subsidiaries and associated company	25(e)	4,297	(490)	–	–
Fair value (losses)/ gains arising from cash flow hedges	25(e)	(1,083)	2,006	–	(71)
<b>Other comprehensive income/(expense) for the financial year, net of tax</b>		<b>3,214</b>	1,516	–	(71)
<b>Total comprehensive income for the financial year</b>		<b>342,906</b>	350,533	<b>387,186</b>	460,342
<b>Total comprehensive income attributable to:</b>					
Equity holders of the Company		342,906	350,533	387,186	460,342

# Statements of Financial Position

As at 30 June 2017

	Note	The Group		The Company	
		2017 \$'000	2016 \$'000	2017 \$'000	2016 \$'000
<b>Assets</b>					
<b>Current assets</b>					
Cash and cash equivalents	12	796,392	866,306	393,754	440,725
Trade and other receivables	13	814,701	929,981	20,997	16,587
Derivative financial instruments	15	1,450	2,665	–	–
		<b>1,612,543</b>	<b>1,798,952</b>	<b>414,751</b>	<b>457,312</b>
<b>Non-current assets</b>					
Available-for-sale financial asset	16	–	44,956	–	44,956
Investment property	17	26,193	–	–	–
Property, plant and equipment	17	80,421	62,030	52,962	46,765
Software	18	159,477	154,702	37,482	32,049
Intangible assets	19	63,544	25,556	–	–
Goodwill	20	88,401	9,614	–	–
Club memberships		325	287	325	287
Investments in subsidiaries	22	–	–	723,690	614,490
Investment in associated company	23	10,307	9,387	4,389	4,389
Other receivables	13	–	–	6,215	–
		<b>428,668</b>	<b>306,532</b>	<b>825,063</b>	<b>742,936</b>
<b>Total assets</b>		<b>2,041,211</b>	<b>2,105,484</b>	<b>1,239,814</b>	<b>1,200,248</b>
<b>Liabilities</b>					
<b>Current liabilities</b>					
Trade and other payables	24	891,566	1,012,652	321,724	370,892
Derivative financial instruments	15	79	66	–	–
Taxation	25	71,398	75,262	3,733	5,174
Provisions	26	10,353	9,775	7,193	6,677
		<b>973,396</b>	<b>1,097,755</b>	<b>332,650</b>	<b>382,743</b>
<b>Non-current liabilities</b>					
Trade and other payables	24	18	312	–	–
Deferred tax liabilities	25	35,264	17,836	6,355	3,928
		<b>35,282</b>	<b>18,148</b>	<b>6,355</b>	<b>3,928</b>
<b>Total liabilities</b>		<b>1,008,678</b>	<b>1,115,903</b>	<b>339,005</b>	<b>386,671</b>
<b>Net assets</b>		<b>1,032,533</b>	<b>989,581</b>	<b>900,809</b>	<b>813,577</b>
<b>Equity</b>					
<b>Capital and reserves attributable to the Company's equity holders</b>					
Share capital	27	428,031	426,445	428,031	426,445
Treasury shares	27	(12,561)	(12,855)	(12,561)	(12,855)
Cash flow hedge reserve		1,069	2,152	–	–
Currency translation reserve		2,972	(1,325)	–	–
Securities clearing fund reserve	30	25,000	25,000	–	–
Derivatives clearing fund reserve	31	34,021	34,021	–	–
Share-based payment reserve		15,448	17,430	15,448	17,430
Retained profits		399,460	359,631	330,798	243,475
Proposed dividends	28	139,093	139,082	139,093	139,082
<b>Total equity</b>		<b>1,032,533</b>	<b>989,581</b>	<b>900,809</b>	<b>813,577</b>

# Statements of Changes in Equity

For the financial year ended 30 June 2017

## The Group

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	–	–	–	–	–	8,653	–	–	8,653	
Vesting of shares under share-based remuneration plans	27(a)	1,586	9,049	–	–	–	(10,635)	–	–	–	
Purchase of treasury shares	27(a)	–	(8,638)	–	–	–	–	–	–	(8,638)	
Tax effect on treasury shares **	27(a)	–	(117)	–	–	–	–	–	–	(117)	
		1,586	294	–	–	–	(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 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 2017

## 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>2016</b>											
Balance at 1 July 2015		428,568	(12,049)	146	(835)	25,000	34,021	19,695	310,625	171,225	976,396
Dividends paid											
– Financial year 2015											
– Final dividend		–	–	–	–	–	–	–	–	(171,225)	(171,225)
– Financial year 2015											
– Under provision of final dividend		–	–	–	–	–	–	–	(232)	–	(232)
– Financial year 2016											
– Interim dividends	28	–	–	–	–	–	–	–	(160,697)	–	(160,697)
Proposed dividend											
– Financial year 2016											
– Final dividend	28	–	–	–	–	–	–	–	(139,082)	139,082	–
Employee share plans – Value of employee services	5	–	–	–	–	–	–	7,903	–	–	7,903
Vesting of shares under share-based remuneration plans	27(a)	(2,123)	12,291	–	–	–	–	(10,168)	–	–	–
Purchase of treasury shares	27(a)	–	(12,637)	–	–	–	–	–	–	–	(12,637)
Tax effect on treasury shares **	27(a)	–	(460)	–	–	–	–	–	–	–	(460)
		(2,123)	(806)	–	–	–	–	(2,265)	(300,011)	(32,143)	(337,348)
<b>Total comprehensive income for the financial year</b>		–	–	2,006	(490)	–	–	–	349,017	–	350,533
<b>Balance at 30 June 2016</b>		426,445	(12,855)	2,152	(1,325)	25,000	34,021	17,430	359,631	139,082	989,581

\* These reserves are not available for distribution as dividends to the equity holders of the Company.

\*\* The tax effect relates to the deferred tax 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 2017

## The Company

	Note	Share capital \$'000	Treasury shares \$'000	Cash flow hedge reserve* \$'000	Share-based payment reserve* \$'000	Retained profits \$'000	Proposed dividends \$'000	Total \$'000
<b>2017</b>								
<b>Balance at 1 July 2016</b>		<b>426,445</b>	<b>(12,855)</b>	<b>–</b>	<b>17,430</b>	<b>243,475</b>	<b>139,082</b>	<b>813,577</b>
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	–	–	–	8,653	–	–	8,653
Vesting of shares under share-based remuneration plans	27(a)	1,586	9,049	–	(10,635)	–	–	–
Purchase of treasury shares	27(a)	–	(8,638)	–	–	–	–	(8,638)
Tax effect on treasury shares**	27(a)	–	(117)	–	–	–	–	(117)
		<b>1,586</b>	<b>294</b>	<b>–</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>–</b>	<b>–</b>	<b>–</b>	<b>–</b>	<b>387,186</b>	<b>–</b>	<b>387,186</b>
<b>Balance at 30 June 2017</b>		<b>428,031</b>	<b>(12,561)</b>	<b>–</b>	<b>15,448</b>	<b>330,798</b>	<b>139,093</b>	<b>900,809</b>
<b>2016</b>								
<b>Balance at 1 July 2015</b>		428,568	(12,049)	71	19,695	83,073	171,225	690,583
Dividends paid								
– Financial year 2015 – Final dividend		–	–	–	–	–	(171,225)	(171,225)
– Financial year 2015 – Under provision of final dividend		–	–	–	–	(232)	–	(232)
– Financial year 2016 – Interim dividends	28	–	–	–	–	(160,697)	–	(160,697)
Proposed dividend								
– Financial year 2016 – Final dividend	28	–	–	–	–	(139,082)	139,082	–
Employee share plans – Value of employee services	5	–	–	–	7,903	–	–	7,903
Vesting of shares under share-based remuneration plans	27(a)	(2,123)	12,291	–	(10,168)	–	–	–
Purchase of treasury shares	27(a)	–	(12,637)	–	–	–	–	(12,637)
Tax effect on treasury shares**	27(a)	–	(460)	–	–	–	–	(460)
		<b>(2,123)</b>	<b>(806)</b>	<b>–</b>	<b>(2,265)</b>	<b>(300,011)</b>	<b>(32,143)</b>	<b>(337,348)</b>
<b>Total comprehensive income for the financial year</b>		<b>–</b>	<b>–</b>	<b>(71)</b>	<b>–</b>	<b>460,413</b>	<b>–</b>	<b>460,342</b>
<b>Balance at 30 June 2016</b>		<b>426,445</b>	<b>(12,855)</b>	<b>–</b>	<b>17,430</b>	<b>243,475</b>	<b>139,082</b>	<b>813,577</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 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 2017

	Note	The Group	
		2017 \$'000	2016 \$'000
<b>Cash flows from operating activities</b>			
Profit before tax and share of results of associated company		407,472	414,849
Adjustments for:			
- Depreciation and amortisation	9	57,694	59,855
- Variable share-based payment	5	8,653	7,903
- Loss on disposal of available-for-sale financial asset	10	3,961	–
- Impairment loss on available-for-sale financial asset	10	–	6,000
- Net write-off of property, plant and equipment and software	8	51	165
- Net gain on disposal of property, plant and equipment and software	8	(122)	(43)
- Grant income for property, plant and equipment and software	8	(201)	–
- Interest income	10	(9,387)	(9,445)
- Dividend income from other investments	10	–	(1,327)
Operating cash flow before working capital change		468,121	477,957
Change in working capital			
- Cash committed for National Electricity Market of Singapore		(7,846)	(922)
- Trade and other receivables		121,413	(275,586)
- Trade and other payables		(136,849)	292,302
Cash generated from operations		444,839	493,751
Income tax paid	25(c)	(67,090)	(70,281)
<b>Net cash provided by operating activities</b>		<b>377,749</b>	<b>423,470</b>
<b>Cash flows from investing activities</b>			
Proceeds from disposal of available-for-sale financial assets		40,995	–
Interest received		7,677	8,651
Grant received for property, plant and equipment and software		373	–
Proceeds from disposal of property, plant and equipment and software		172	–
Purchase of club memberships		(38)	–
Purchases of property, plant and equipment and software		(60,126)	(73,847)
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 other investments		–	1,327
Dividend received from associated company		–	672
<b>Net cash used in investing activities</b>		<b>(147,578)</b>	<b>(63,197)</b>
<b>Cash flows from financing activities</b>			
Dividends paid		(299,852)	(332,154)
Purchase of treasury shares	27	(8,638)	(12,637)
<b>Net cash used in financing activities</b>		<b>(308,490)</b>	<b>(344,791)</b>
<b>Net (decrease)/increase in cash and cash equivalents</b>		<b>(78,319)</b>	<b>15,482</b>
Cash and cash equivalents at beginning of financial year	12	598,083	632,601
Effects of currency translation on cash and cash equivalents		559	–
Increase in cash committed for Singapore Exchange Derivatives Clearing Limited Clearing Fund	31	–	(50,000)
<b>Cash and cash equivalents at end of financial year</b>	12	<b>520,323</b>	<b>598,083</b>



# Notes to the Financial Statements

For the financial year ended 30 June 2017

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 the only integrated securities exchange and derivatives exchange in Singapore and related clearing houses.

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. On 8 November 2016, the Group acquired control of The Baltic Exchange Limited ("BEL") and its subsidiaries (Note 21).

## 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.

The Group has adopted the new and revised FRS which are effective for annual periods beginning on or after 1 July 2016. The adoption of these standards did not have any significant effect on the amounts reported for the current or prior financial years.

### (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.

**2. Significant accounting policies** (continued)**(b) Group accounting** (continued)**(1) Subsidiaries** (continued)*(ii) Acquisitions* (continued)

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%.

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 or joint venture 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 or joint control. 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****(1) 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.

**(2) 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
- (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) listing revenue, collateral management, licence, membership revenue, connectivity revenue and rental income on a time proportion basis;
- (iii) access revenue, market data revenue, post trade services revenue, corporate actions and other revenue, management fees, when the services are rendered;
- (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.

**2. Significant accounting policies** (continued)**(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 the Central Provident Fund ("Fund"). The Group's obligation, in regard to the defined contribution plan, is limited to the amount it contributes to the Fund. 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 initially recognised at fair value plus transaction costs and are subsequently carried at fair value. Purchase and sales of available-for-sale financial assets are recognised on trade date, on which the Group commits to purchase or sell the asset. Investments are derecognised when the rights to receive cash flows from the available-for-sale financial assets have expired or all risks and rewards of ownership have been transferred. Changes in fair values of available-for-sale equity securities are recognised in the fair value reserve, together with the related currency translation differences. The fair value of available-for-sale financial assets not traded in an active market are determined by using valuation techniques such as discounted cash flow analysis.

Dividends on available-for-sale financial assets are recognised in profit or loss when the right to receive payment is established.

When available-for-sale financial assets are sold, the difference between the carrying amount and the sales proceeds is recognised in the profit or loss. The accumulated fair value adjustments recognised in the fair value reserve within equity are reclassified to profit or loss.

The Group assesses at each balance sheet date whether there is objective evidence that the available-for-sale financial assets are impaired. 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. When there is objective evidence that an available-for-sale financial asset is impaired, the cumulative loss that has been recognised directly in the fair value reserve is removed from the fair value reserve within equity and recognised in profit or loss. The cumulative loss is measured as the difference between the acquisition cost and the current fair value, less any impairment loss on that available-for-sale financial asset previously recognised in profit or loss. Impairment losses previously recognised in profit or loss on available-for-sale equity securities are not reversed through profit or loss in 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.

**(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:

	<u>Useful lives</u>
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.



**2. Significant accounting policies** (continued)**(o) Investment property** (continued)

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) Goodwill on acquisitions**

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.

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.

**(q) Investments in subsidiaries and associated companies**

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.

On disposal of an investment, the difference between the net proceeds and its carrying amount is recognised in profit or loss.

**(r) Impairment of non-financial assets****(1) Goodwill**

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.

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.

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.

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.

An impairment loss on goodwill is recognised as an expense and is not reversed in a subsequent period.

**(2) Property, plant and equipment****Software****Intangible assets****Investment property****Investments in subsidiaries and associated companies**

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.

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.

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.

**(s) Trade and other payables**

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.

Trade and other payables are initially measured at fair value, and subsequently measured at amortised cost, using the effective interest method.

**(t) Offsetting financial instruments**

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.

**(u) Provisions**

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.

**(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	
	2017 \$'000	2016 \$'000	2017 \$'000	2016 \$'000
<b>Equities and Fixed Income</b>				
<i>Issuer Services</i>				
Listing	49,385	46,668	–	–
Corporate actions and other	34,413	35,882	–	–
	<b>83,798</b>	82,550	–	–
<i>Securities Trading and Clearing</i>				
Securities clearing	158,626	158,547	–	–
Access	37,193	37,589	–	–
Collateral management, membership and other	9,230	8,871	–	–
	<b>205,049</b>	205,007	–	–
<i>Post Trade Services</i>				
Securities settlement	95,684	93,803	–	–
Contract processing	11,570	15,943	8,782	11,465
Depository management	8,420	8,460	–	–
	<b>115,674</b>	118,206	<b>8,782</b>	11,465
	<b>404,521</b>	405,763	<b>8,782</b>	11,465
<b>Derivatives</b>				
Equity and Commodities	220,510	241,421	–	–
Collateral management, licence, membership and other	82,541	83,883	–	–
	<b>303,051</b>	325,304	–	–
<b>Market Data and Connectivity</b>				
Market data	39,933	38,371	310	374
Connectivity	53,309	48,671	21,452	16,592
	<b>93,242</b>	87,042	<b>21,762</b>	16,966

#### 5. Staff

	The Group		The Company	
	2017 \$'000	2016 \$'000	2017 \$'000	2016 \$'000
Salaries	104,675	102,299	73,056	73,218
Employer's contribution to defined contribution plans on salaries	8,142	7,445	5,369	5,008
	<b>112,817</b>	109,744	<b>78,425</b>	78,226
Variable bonus	38,030	39,408	29,733	28,405
Employer's contribution to defined contribution plans on variable bonus	2,840	2,207	2,129	1,432
	<b>40,870</b>	41,615	<b>31,862</b>	29,837
Variable share-based payment	8,653	7,903	8,653	7,903
	<b>162,340</b>	159,262	<b>118,940</b>	115,966

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	
	2017 \$'000	2016 \$'000	2017 \$'000	2016 \$'000
System maintenance and rental	70,245	71,782	39,116	39,759
Depreciation and amortisation	48,051	51,869	16,550	18,080
Communication charges	5,539	4,195	4,357	3,397
	<b>123,835</b>	<b>127,846</b>	<b>60,023</b>	<b>61,236</b>

**7. Premises**

	The Group		The Company	
	2017 \$'000	2016 \$'000	2017 \$'000	2016 \$'000
Rental and maintenance of premises	18,708	17,765	8,218	13,109
Depreciation of furniture and fittings, building and leasehold improvements	7,863	6,969	7,129	6,871
	<b>26,571</b>	<b>24,734</b>	<b>15,347</b>	<b>19,980</b>

**8. Other operating expenses**

	The Group		The Company	
	2017 \$'000	2016 \$'000	2017 \$'000	2016 \$'000
Marketing	6,405	8,188	2,491	2,128
Travelling	3,383	2,950	2,211	1,895
Allowance/(reversal) for impairment of trade receivables (net)	1,591	486	167	(2)
Net write-off of property, plant and equipment and software	51	165	13	54
Net gain on disposal of property, plant and equipment and software	(122)	(43)	(122)	–
Directors' fee	2,110	2,203	1,785	1,983
Regulatory fee	4,266	4,159	400	400
Amortisation of intangible assets	1,780	906	–	–
Services from price vendors	3,964	3,274	1,489	1,044
Miscellaneous	7,646	5,677	9,342	7,144
Grant income for property, plant and equipment and software	(201)	–	–	–
	<b>30,873</b>	<b>27,965</b>	<b>17,776</b>	<b>14,646</b>

**9. Operating profit**

	The Group		The Company	
	2017 \$'000	2016 \$'000	2017 \$'000	2016 \$'000
<b>Operating profit is arrived after:</b>				
<i>Charging:</i>				
Audit services by auditor of the Company	923	692	348	243
Other services by auditor of the Company	13	331	13	233
Rental of technology equipment - operating lease	1,307	1,898	290	1,226
Rental of premises - operating lease	21,493	22,368	10,502	15,820
Provision for unutilised leave (Note 26(b))	578	587	516	500
Depreciation and amortisation	57,694	59,855	23,679	25,062
<i>And crediting:</i>				
Grants from government schemes and agencies received on property, plant and equipment	373	–	–	–
Grants from government schemes and agencies received on operating expenses	234	76	7	76
Collateral management revenue on collateral balances held in trust (net)	44,319	49,266	–	–

**10. Other gains - net**

	The Group		The Company	
	2017 \$'000	2016 \$'000	2017 \$'000	2016 \$'000
Other revenue including interest income:				
– Interest income from fixed deposits and current accounts with banks	9,387	9,445	4,634	4,624
– Dividend income	–	1,327	–	1,999
– Others	402	778	2,105	1,134
	9,789	11,550	6,739	7,757
Net foreign exchange (loss)/gain	(173)	159	530	242
Loss on disposal of available- for-sale financial asset (Note 16)	(3,961)	–	(3,961)	–
Impairment loss on available- for-sale financial asset (Note 16)	–	(6,000)	–	(6,000)
	5,655	5,709	3,308	1,999

**11. Earnings per share**

	The Group	
	2017 \$'000	2016 \$'000
Net profit attributable to the equity holders of the Company	339,692	349,017
Weighted average number of ordinary shares in issue for basic earnings per share ('000)	1,070,443	1,070,925
Adjustments for:		
– Shares granted under SGX performance share plans and deferred long-term incentives schemes ('000)	3,202	2,873
Weighted average number of ordinary shares for diluted earnings per share ('000)	1,073,645	1,073,798
Earnings per share (in cents per share)		
– Basic	31.7	32.6
– Diluted	31.6	32.5

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	
	2017 \$'000	2016 \$'000	2017 \$'000	2016 \$'000
Cash at bank and on hand	47,047	66,078	9,410	4,525
Fixed deposits with banks	749,345	800,228	384,344	436,200
	<b>796,392</b>	<b>866,306</b>	<b>393,754</b>	<b>440,725</b>

For the purpose of presenting the statement of cash flows of the Group, the consolidated cash and cash equivalents comprise the following:

	The Group	
	2017 \$'000	2016 \$'000
Cash and cash equivalents per statement of cash flows	520,323	598,083
Add: Cash committed for		
– Singapore Exchange Derivatives Clearing Limited (“SGX-DC”) Clearing Fund (Note 31)	200,021	200,021
– Securities Clearing Fund (Note 30)	60,000	60,000
– National Electricity Market of Singapore (“NEMS”) (Note 14)	16,048	8,202
Cash and cash equivalents (as above)	<b>796,392</b>	<b>866,306</b>

**13. Trade and other receivables**

	The Group		The Company	
	2017 \$'000	2016 \$'000	2017 \$'000	2016 \$'000
<b>Current</b>				
Trade receivables (net) (Note (a))	770,837	904,533	5,119	5,260
Other receivables (Note (b))	43,864	25,448	15,878	11,327
	<b>814,701</b>	<b>929,981</b>	<b>20,997</b>	<b>16,587</b>
<b>Non-current</b>				
Other receivables (Note (c))	–	–	6,215	–
	–	–	<b>6,215</b>	–
(a) Trade receivables (net) comprise:				
Receivables from clearing members and settlement banks				
– Daily settlement of accounts for due contracts and rights (Note 24(a))	575,526	762,878	–	–
Receivables under NEMS (Note 14)	130,270	81,702	–	–
Other trade receivables	67,794	61,621	5,137	5,261
	<b>773,590</b>	<b>906,201</b>	<b>5,137</b>	<b>5,261</b>
Less: Allowance for impairment of trade receivables (Note 39)	(2,753)	(1,668)	(18)	(1)
	<b>770,837</b>	<b>904,533</b>	<b>5,119</b>	<b>5,260</b>

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	
	2017 \$'000	2016 \$'000	2017 \$'000	2016 \$'000
(b) Other receivables comprise:				
Prepayments	22,011	15,729	12,608	8,753
Interest receivable	18,975	7,702	2,800	1,585
Deposits	650	706	297	302
Staff advances	39	16	6	4
Others (non-trade)	2,189	1,295	167	683
	<b>43,864</b>	<b>25,448</b>	<b>15,878</b>	<b>11,327</b>

(c) Other receivables relate to an unsecured loan to a subsidiary with interest fixed at 3.5% per annum and will be repayable in full by 18 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:

	<b>The Group</b>	
	<b>2017</b>	2016
	<b>\$'000</b>	\$'000
Cash committed for NEMS (Note 12)	<b>16,048</b>	8,202
Receivables under NEMS (Note 13(a))	<b>130,270</b>	81,702
<b>Total settlement cash and receivables</b>	<b>146,318</b>	89,904
Payables under NEMS (Note 24(a))	<b>146,318</b>	89,904
<b>Total settlement payables</b>	<b>146,318</b>	89,904

##### (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 their corresponding fair values at the balance sheet date:

	Contract notional amount \$'000	Fair value	
		Asset \$'000	Liability \$'000
<b>The Group</b>			
<b>2017</b>			
Cash-flow hedges			
– Currency forwards	82,500	1,450	(79)
		<u>1,450</u>	<u>(79)</u>
<b>2016</b>			
Cash-flow hedges			
– Currency forwards	82,830	2,665	(66)
		<u>2,665</u>	<u>(66)</u>

As at 30 June 2017, the settlement dates on currency forward contracts range between 1 month and 9 months (2016: 1 month and 9 months).

Currency forwards designated as cash flow hedges are entered to hedge highly probable forecast transactions mainly denominated in United States Dollar (“USD”). 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 asset

	The Group and The Company	
	2017 \$'000	2016 \$'000
<i>Unlisted equity security - BSE Limited (“BSE”)</i>		
Balance at beginning of financial year	44,956	50,956
Disposal	(44,956)	–
Impairment loss (Note 10)	–	(6,000)
Balance at end of financial year	<u>–</u>	<u>44,956</u>

During the financial year, the Group and the Company completed its divestment of its 4.75% stake in BSE. Cash consideration for the divestment after expenses is \$40,995,000, resulting in a loss on disposal amounting to \$3,961,000 (Note 10).

In the financial year ended 30 June 2016, the Group and the Company recognised an impairment loss of \$6,000,000 against its investment in BSE. The impairment arose mainly due to a decline in the fair value of the equity security and depreciation of the Indian Rupee (“INR”) against the SGD.

## 17. Investment property, and Property, plant and equipment

	Owner occupied property			Leasehold improvements \$'000	Furniture, fittings and office equipment \$'000	Computer hardware \$'000	Motor vehicles \$'000	Work-in- progress <sup>(a)</sup> \$'000	Total \$'000
	Investment property \$'000	Freehold land \$'000	Building and plant \$'000						
<b>The Group</b>									
<b>2017</b>									
<b>Cost</b>									
At 1 July 2016	–	–	–	33,507	7,088	56,689	750	16,585	114,619
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)	–	(22,658)	(366)	–	(23,871)
Currency translation	912	203	203	–	6	2	–	–	414
At 30 June 2017	26,362	5,880	6,015	33,988	7,351	58,039	384	14,025	125,682
<b>Accumulated depreciation</b>									
At 1 July 2016	–	–	–	10,890	2,177	38,772	750	–	52,589
Depreciation charge <sup>(b)</sup>	167	–	333	6,227	1,345	8,628	–	–	16,533
Disposals	–	–	–	(847)	–	(22,654)	(366)	–	(23,867)
Currency translation	2	–	4	–	1	1	–	–	6
At 30 June 2017	169	–	337	16,270	3,523	24,747	384	–	45,261
<b>Net book value</b>									
At 30 June 2017	26,193	5,880	5,678	17,718	3,828	33,292	–	14,025	80,421
<b>Market value</b>									
At 30 June 2017	26,362								
<b>2016</b>									
<b>Cost</b>									
At 1 July 2015	–	–	–	33,719	6,717	55,071	750	8,221	104,478
Reclassification	–	–	–	1,222	29	5,370	–	(6,621)	–
Additions	–	–	–	433	601	2,390	–	15,388	18,812
Disposals	–	–	–	(1,867)	(259)	(6,142)	–	(403)	(8,671)
At 30 June 2016	–	–	–	33,507	7,088	56,689	750	16,585	114,619
<b>Accumulated depreciation</b>									
At 1 July 2015	–	–	–	6,721	1,176	34,773	639	–	43,309
Depreciation charge <sup>(b)</sup>	–	–	–	5,959	1,257	10,138	111	–	17,465
Disposals	–	–	–	(1,790)	(256)	(6,139)	–	–	(8,185)
At 30 June 2016	–	–	–	10,890	2,177	38,772	750	–	52,589
<b>Net book value</b>									
At 30 June 2016	–	–	–	22,617	4,911	17,917	–	16,585	62,030

The investment property held by the Group is leased to non-related parties under operating leases (Note 37(b)).

The following amounts are recognised in the statement of comprehensive income of the Group:

	<b>The Group</b>	
	<b>2017</b>	2016
	<b>\$'000</b>	\$'000
Rental income	<b>1,617</b>	–
Direct operating expenses arising from the investment property	<b>350</b>	–

Details of the Group's investment property are as follows:

<b>Location</b>	<b>Description</b>	<b>Tenure</b>
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 2017, 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
<b>The Company</b>						
<b>2017</b>						
<b>Cost</b>						
At 1 July 2016	34,713	7,138	43,450	750	7,625	93,676
Reclassification	1,179	–	11,221	–	(12,400)	–
Additions	141	83	2,745	–	15,663	18,632
Disposals	(847)	–	(19,959)	(366)	–	(21,172)
At 30 June 2017	<u>35,186</u>	<u>7,221</u>	<u>37,457</u>	<u>384</u>	<u>10,888</u>	<u>91,136</u>
<b>Accumulated depreciation</b>						
At 1 July 2016	12,453	2,348	31,360	750	–	46,911
Depreciation charge <sup>(b)</sup>	6,075	1,263	5,092	–	–	12,430
Disposals	(847)	–	(19,954)	(366)	–	(21,167)
At 30 June 2017	<u>17,681</u>	<u>3,611</u>	<u>16,498</u>	<u>384</u>	<u>–</u>	<u>38,174</u>
<b>Net book value</b>						
At 30 June 2017	<u>17,505</u>	<u>3,610</u>	<u>20,959</u>	<u>–</u>	<u>10,888</u>	<u>52,962</u>
<b>2016</b>						
<b>Cost</b>						
At 1 July 2015	33,489	6,630	39,914	750	3,797	84,580
Reclassification	971	–	1,970	–	(2,941)	–
Additions	345	535	1,594	–	6,823	9,297
Disposals	(92)	(27)	(28)	–	(54)	(201)
At 30 June 2016	<u>34,713</u>	<u>7,138</u>	<u>43,450</u>	<u>750</u>	<u>7,625</u>	<u>93,676</u>
<b>Accumulated depreciation</b>						
At 1 July 2015	6,645	1,157	23,744	639	–	32,185
Depreciation charge <sup>(b)</sup>	5,900	1,218	7,644	111	–	14,873
Disposals	(92)	(27)	(28)	–	–	(147)
At 30 June 2016	<u>12,453</u>	<u>2,348</u>	<u>31,360</u>	<u>750</u>	<u>–</u>	<u>46,911</u>
<b>Net book value</b>						
At 30 June 2016	<u>22,260</u>	<u>4,790</u>	<u>12,090</u>	<u>–</u>	<u>7,625</u>	<u>46,765</u>

<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 \$209,000 (2016: \$247,000) is classified as depreciation and amortisation expense under Technology cost for both Group and Company.

## 18. Software

	Software \$'000	Work-in- progress \$'000	Total \$'000
<b>The Group</b>			
<b>2017</b>			
<b>Cost</b>			
At 1 July 2016	308,648	67,794	376,442
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>304,765</u>	<u>44,332</u>	<u>349,097</u>
<b>Accumulated amortisation</b>			
At 1 July 2016	221,740	–	221,740
Amortisation charge	39,214	–	39,214
Write-off	(71,335)	–	(71,335)
Currency translation	1	–	1
At 30 June 2017	<u>189,620</u>	<u>–</u>	<u>189,620</u>
<b>Net book value</b>			
At 30 June 2017	<u>115,145</u>	<u>44,332</u>	<u>159,477</u>
<b>2016</b>			
<b>Cost</b>			
At 1 July 2015	273,097	67,577	340,674
Reclassification	40,029	(40,029)	–
Additions	15,963	40,356	56,319
Write-off	(20,441)	(110)	(20,551)
At 30 June 2016	<u>308,648</u>	<u>67,794</u>	<u>376,442</u>
<b>Accumulated amortisation</b>			
At 1 July 2015	200,697	–	200,697
Amortisation charge	41,484	–	41,484
Write-off	(20,441)	–	(20,441)
At 30 June 2016	<u>221,740</u>	<u>–</u>	<u>221,740</u>
<b>Net book value</b>			
At 30 June 2016	<u>86,908</u>	<u>67,794</u>	<u>154,702</u>



	Software \$'000	Work-in- progress \$'000	Total \$'000
<b>The Company</b>			
<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>
<b>2016</b>			
<b>Cost</b>			
At 1 July 2015	65,278	1,797	67,075
Reclassification	755	(755)	–
Additions	2,101	10,402	12,503
Write-off	(2,965)	–	(2,965)
At 30 June 2016	<u>65,169</u>	<u>11,444</u>	<u>76,613</u>
<b>Accumulated amortisation</b>			
At 1 July 2015	37,340	–	37,340
Amortisation charge	10,189	–	10,189
Write-off	(2,965)	–	(2,965)
At 30 June 2016	<u>44,564</u>	<u>–</u>	<u>44,564</u>
<b>Net book value</b>			
At 30 June 2016	<u>20,605</u>	<u>11,444</u>	<u>32,049</u>

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**19. Intangible asset**

	Right to operate Singapore electricity spot market \$'000	Trade name \$'000	Total \$'000
<b>The Group</b>			
<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
<b>2016</b>			
<b>Cost</b>			
At 1 July 2015 and at 30 June 2016	27,140	–	27,140
<b>Accumulated amortisation</b>			
At 1 July 2015	678	–	678
Amortisation charge (Note 8)	906	–	906
At 30 June 2016	1,584	–	1,584
<b>Net book value</b>			
At 30 June 2016	25,556	–	25,556

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 2017 (2016: Nil).

**20. Goodwill**

The carrying amount of goodwill is as follows:

	<b>The Group</b>	
	2017 \$'000	2016 \$'000
Beginning of financial year	9,614	9,614
Acquisition of subsidiary (Note 21(c))	76,224	–
Currency translation	2,563	–
Balance at end of financial year	88,401	9,614

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.

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>2017</b>	2016
	<b>\$'000</b>	\$'000
EMC	<b>9,614</b>	9,614
Derivatives	<b>78,787</b>	–
	<b>88,401</b>	9,614

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, expectations of electricity demand growth in Singapore and market developments
Long term growth rate	2% - 3% (2016: 2% - 3%)	Long term electricity demand growth and long term growth rate and inflation of the Singapore economy
Discount rate	9.5% (2016: 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%	Long term growth rate of developed economies
Discount rate	9.5%	Cost of capital to operate the Singapore derivatives market.

Based on the value-in-use calculations, there is no impairment on goodwill (FY2016: 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.

**21. Business combinations** (continued)

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>
<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	
	2017 \$'000	2016 \$'000
<b>Equity investments at cost</b>		
Balance at beginning of financial year	573,501	494,001
Capital injection	164,000	79,500
Capital reduction	(54,800)	–
	<b>682,701</b>	<b>573,501</b>
<b>Long-term receivables</b>		
Amount due from subsidiary	40,989	40,989
Balance at end of financial year	<b>723,690</b>	<b>614,490</b>

The carrying value of the amount due from subsidiary approximates its fair value. The amount due from subsidiary is interest-free and has no fixed terms of repayment.

Details of the subsidiaries are as follows:

Name of subsidiary	Note	Principal activities	Country of business and incorporation	Equity held by			
				The Company		Subsidiaries	
				2017 %	2016 %	2017 %	2016 %
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.	(b)	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	–
The Baltic Exchange Limited	(c)	Investment holding, membership services and provision of management services to related corporations	United Kingdom	–	–	100	–

## 22. Investments in subsidiaries (continued)

Name of subsidiary	Note	Principal activities	Country of business and incorporation	Equity held by			
				The Company		Subsidiaries	
				2017 %	2016 %	2017 %	2016 %
Baltic Exchange Derivatives Trading Limited	(c)	Operating a regulated freight derivatives trading facility	United Kingdom	–	–	100	–
Baltic Exchange Information Services Limited	(c)	Providing and distributing bulk freight market indices and information	United Kingdom	–	–	100	–
The Baltic Exchange (Asia) Pte. Limited	(a)	Distributing bulk freight market indices and information in Asia and membership services	Singapore	–	–	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	(b)	Dormant	United States of America	–	–	100	100
Shanghai Yaxu Consultancy Company Limited	(e)(f)	Providing consultancy services	People's Republic of China	–	–	100	100

(a) Audited by PricewaterhouseCoopers LLP, Singapore.

(b) Singapore Exchange Regulation Pte. Ltd. was incorporated on 6 April 2017. It is not required to be audited for the financial year ended 30 June 2017.

(c) Audited by PricewaterhouseCoopers LLP, United Kingdom.

(d) Not required to be audited in the United States of America.

(e) Audited by PricewaterhouseCoopers Zhong Tian LLP, People's Republic of China.

(f) The subsidiary's financial year-end is 31 December.

## 23. Investment in associated company

	The Group		The Company	
	2017 \$'000	2016 \$'000	2017 \$'000	2016 \$'000
Investment in associated company	10,307	9,387	4,389	4,389

Details of the associated company held by the Group are as follows:

Name of company	Principal activity	Country of business and incorporation	Equity holding	
			2017 %	2016 %
Philippines Dealing System Holdings Corp. <sup>(a)</sup>	Investment holding	Philippines	20	20

(a) Audited by SyCip Gorres Velayo & Co, Philippines.

There was no associated company that was individually material to the Group (2016: Nil).

The following table summarises, in aggregate, the Group's share of profit and other comprehensive income of the associated company accounted for using the equity method:

	The Group	
	2017 \$'000	2016 \$'000
Profit from continuing operations	1,412	1,112
<b>Total comprehensive income</b>	<b>1,412</b>	<b>1,112</b>

There are no contingent liabilities relating to the Group's interest in the associated company (2016: Nil).

## 24. Trade and other payables

	The Group		The Company	
	2017 \$'000	2016 \$'000	2017 \$'000	2016 \$'000
<b>Current</b>				
Trade payables (Note (a))	752,081	882,699	895	762
Other payables (Note (b))	139,485	129,953	70,908	62,449
Amount due to subsidiaries (non-trade) (Note (c))	–	–	249,921	307,681
	<b>891,566</b>	<b>1,012,652</b>	<b>321,724</b>	<b>370,892</b>
<b>Non-current</b>				
Trade and other payables:				
– Accrual for operating expenses	18	312	–	–
(a) Trade payables comprise:				
Payables to clearing members and settlement banks				
– Daily settlement of accounts for due contracts and rights	575,526	762,878	–	–
Payables under NEMS (Note 14)	146,318	89,904	–	–
Other trade payables	30,237	29,917	895	762
	<b>752,081</b>	<b>882,699</b>	<b>895</b>	<b>762</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).

	The Group		The Company	
	2017 \$'000	2016 \$'000	2017 \$'000	2016 \$'000
(b) Other payables comprise:				
Accrual for operating expenses	80,738	74,115	32,464	24,609
Accrual for bonus	42,397	44,349	32,341	32,467
Defined contribution plans payable	1,609	1,583	970	1,043
Advance receipts	7,855	3,860	11	231
Others (non-trade)	6,886	6,046	5,122	4,099
	<b>139,485</b>	<b>129,953</b>	<b>70,908</b>	<b>62,449</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	
	2017 \$'000	2016 \$'000	2017 \$'000	2016 \$'000
Tax expense attributable to profit is made up of:				
– current income tax	63,492	71,110	1,455	3,859
– deferred income tax	6,574	(1,797)	2,311	(2,204)
	<b>70,066</b>	69,313	<b>3,766</b>	1,655
Over provision in prior financial years:				
– current income tax	(874)	(2,369)	–	(800)
	<b>69,192</b>	66,944	<b>3,766</b>	855

**(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	
	2017 \$'000	2016 \$'000	2017 \$'000	2016 \$'000
Profit before tax and share of results of associated company	407,472	414,849	390,952	461,268
Tax calculated at a tax rate of 17% (2016: 17%)	69,270	70,524	66,462	78,416
Tax effect of:				
Singapore statutory income exemption	(183)	(182)	(26)	(26)
Income not subject to tax	(58)	(283)	(64,345)	(76,840)
Tax incentives and rebate	(1,498)	(1,627)	(418)	(428)
Expenses not deductible for tax purposes	2,289	422	2,019	338
Others	246	459	74	195
Over provision in prior financial years	(874)	(2,369)	–	(800)
	<b>69,192</b>	66,944	<b>3,766</b>	855

**(c) Movements in provision for tax**

	The Group		The Company	
	2017 \$'000	2016 \$'000	2017 \$'000	2016 \$'000
Balance at beginning of financial year	75,262	76,802	5,174	2,714
Acquisition of subsidiary (Note 21(c))	586	–	–	–
Income tax paid	(67,090)	(70,281)	(2,896)	(599)
Tax expense on profit for the financial year	63,492	71,110	1,455	3,859
Over provision in prior financial years	(874)	(2,369)	–	(800)
Currency translation	22	–	–	–
Balance at end of financial year	<b>71,398</b>	75,262	<b>3,733</b>	5,174



**(d) Deferred income tax**

The following amounts, determined after appropriate offsetting, are shown in the statement of financial position:

	The Group		The Company	
	2017 \$'000	2016 \$'000	2017 \$'000	2016 \$'000
Deferred tax assets:				
– to be recovered within 12 months	5,006	4,636	1,379	1,772
– to be recovered after 12 months	388	449	388	449
	<b>5,394</b>	5,085	<b>1,767</b>	2,221
– Effect of offsetting	<b>(5,394)</b>	(5,085)	<b>(1,767)</b>	(2,221)
	<b>–</b>	<b>–</b>	<b>–</b>	<b>–</b>
Deferred tax liabilities:				
– to be settled within 12 months	11,593	8,910	2,960	3,045
– to be settled after 12 months	29,065	14,011	5,162	3,104
	<b>40,658</b>	22,921	<b>8,122</b>	6,149
– Effect of offsetting	<b>(5,394)</b>	(5,085)	<b>(1,767)</b>	(2,221)
	<b>35,264</b>	17,836	<b>6,355</b>	3,928

The movements in the deferred tax assets and liabilities during the financial year are as follows:

**The Group – deferred tax assets**

	Unutilised tax losses		Unutilised capital allowances		Employee share plan		Total	
	2017 \$'000	2016 \$'000	2017 \$'000	2016 \$'000	2017 \$'000	2016 \$'000	2017 \$'000	2016 \$'000
Balance at beginning of financial year	696	–	2,168	–	2,221	2,240	5,085	2,240
Credited/(charged) to profit or loss	893	696	(130)	2,168	(337)	441	426	3,305
Charged to equity	–	–	–	–	(117)	(460)	(117)	(460)
Balance at end 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

**The Group – deferred tax liabilities**

	Cash flow hedge reserve		Accelerated tax depreciation		Intangible assets arising from business combinations		Total	
	2017 \$'000	2016 \$'000	2017 \$'000	2016 \$'000	2017 \$'000	2016 \$'000	2017 \$'000	2016 \$'000
Balance at beginning of financial year	439	30	18,138	16,476	4,344	4,498	22,921	21,004
Acquisition of subsidiary (Note 21(c))	–	–	355	–	10,226	–	10,581	–
Charged/(credited) to profit or loss	–	–	7,339	1,662	(339)	(154)	7,000	1,508
Charged/(credited) to equity	(221)	409	–	–	–	–	(221)	409
Currency Translation	–	–	13	–	364	–	377	–
Balance at end of financial year	<b>218</b>	439	<b>25,845</b>	18,138	<b>14,595</b>	4,344	<b>40,658</b>	22,921

**The Company – deferred tax assets**

	Employee share plan	
	2017 \$'000	2016 \$'000
Balance at beginning of financial year	2,221	2,240
(Charged)/credited to profit or loss	(337)	441
Charged to equity	(117)	(460)
Balance at end of financial year	<b>1,767</b>	2,221

**25. Income taxes** (continued)**(d) Deferred income tax** (continued)

The Company – deferred tax liabilities

	Cash flow hedge reserve		Accelerated tax depreciation		Total	
	2017 \$'000	2016 \$'000	2017 \$'000	2016 \$'000	2017 \$'000	2016 \$'000
Balance at beginning of financial year	–	15	6,149	7,912	6,149	7,927
Charged/(credited) to profit or loss	–	–	1,973	(1,763)	1,973	(1,763)
Credited to equity	–	(15)	–	–	–	(15)
Balance at end of financial year	–	–	8,122	6,149	8,122	6,149

Deferred tax assets have not been recognised in respect of the following items:

	The Group	
	2017 \$'000	2016 \$'000
Tax losses	22,705	22,705
Unutilised capital allowances	–	615

These items principally relate to four (2016: 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 and unutilised capital allowances are subject to the relevant provisions of the Singapore Income Tax Act and confirmation by the tax authorities.

**(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>2017</b>						
<b>Other comprehensive income</b>						
Net currency translation differences of financial statements of subsidiaries and associated company	4,297	–	4,297	–	–	–
Fair value (losses)/gains 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>
<b>2016</b>						
<b>Other comprehensive income</b>						
Net currency translation differences of financial statements of associated company	(490)	–	(490)	–	–	–
Fair value gains/ (losses) on cash flow hedges	2,415	(409)	2,006	(86)	15	(71)
	<b>1,925</b>	<b>(409)</b>	<b>1,516</b>	<b>(86)</b>	<b>15</b>	<b>(71)</b>

## 26. Provisions

	The Group		The Company	
	2017 \$'000	2016 \$'000	2017 \$'000	2016 \$'000
Provision for SGX-MAS Market Development Scheme (Note (a))	1,802	1,802	–	–
Provision for unutilised leave (Note (b))	5,550	4,972	4,211	3,695
Provision for dismantlement, removal or restoration of property, plant and equipment (Note (c))	3,001	3,001	2,982	2,982
	<b>10,353</b>	<b>9,775</b>	<b>7,193</b>	<b>6,677</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 2017 is \$1,802,000 (2016: \$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.

Movements in this provision are as follows:

	The Group		The Company	
	2017 \$'000	2016 \$'000	2017 \$'000	2016 \$'000
Balance at beginning of financial year	4,972	4,385	3,695	3,195
Provision made during the financial year, net	578	587	516	500
Balance at end of financial year	<b>5,550</b>	<b>4,972</b>	<b>4,211</b>	<b>3,695</b>

### (c) Provision for dismantlement, removal or restoration of property, plant and equipment

Provision for dismantlement, removal or restoration is the estimated cost of dismantlement, removal or restoration of leased premises. The provision is expected to be utilised upon return of the leased premises.

Movements in this provision are as follows:

	The Group		The Company	
	2017 \$'000	2016 \$'000	2017 \$'000	2016 \$'000
Balance at beginning of financial year	3,001	3,246	2,982	2,977
Provision utilised during the financial year, net	–	(245)	–	5
Balance at end of financial year	<b>3,001</b>	<b>3,001</b>	<b>2,982</b>	<b>2,982</b>

**27. Share capital****(a) Share capital and treasury shares**

The Group and The Company

	Number of shares		Amount	
	Issued shares '000	Treasury shares '000	Share capital \$'000	Treasury shares \$'000
<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>
<b>2016</b>				
Balance at beginning of financial year	1,071,642	1,487	428,568	(12,049)
Purchase of treasury shares	–	1,746	–	(12,637)
Vesting of shares under share-based remuneration plans	–	(1,449)	(2,123)	12,291
Tax effect on treasury shares	–	–	–	(460)
Balance at end of financial year	<b>1,071,642</b>	<b>1,784</b>	<b>426,445</b>	<b>(12,855)</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 1,173,700 of its shares (2016: 1,746,100) in the open market during the financial year. The total amount paid to purchase the shares was \$8,638,000 (2016: \$12,637,000). 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.

**(b) Performance share plans****(i) Outstanding performance shares**

Details of performance shares awarded to participants at the balance sheet date are as follows:

	The Group and The Company					Total
	FY2013 grant*	FY2014 grant*	FY2015 grant**	FY2016 grants**	FY2017 grant**	
<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	–	–	<b>673,600</b>	<b>426,300</b>	<b>640,600</b>	<b>1,740,500</b>
<b>2016</b>						
Balance at beginning of financial year	640,300	710,500	785,700	–	–	2,136,500
Granted	–	–	–	487,500	–	487,500
Vested	(398,300)	–	–	–	–	(398,300)
Lapsed	(242,000)	(63,700)	(76,500)	(31,500)	–	(413,700)
Balance at end of financial year	–	646,800	709,200	456,000	–	1,812,000

\* 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:

	FY2017 grant	FY2016 grants	FY2015 grant	FY2014 grant	FY2013 grant
Date of grant	15.08.2016	30.10.2015	15.08.2014 and 30.06.2015	15.08.2013	15.08.2012
Vesting date	01.09.2020	01.09.2019	01.09.2017 and 01.09.2018	01.09.2016	01.09.2015
Number of performance shares at grant date	658,800	487,500	811,600	753,900	702,000
Fair value per performance share at grant date	\$6.68	\$6.30	\$5.27 to \$5.54	\$5.77	\$5.19
<b>Assumption under Monte-Carlo Model</b>					
<b>Expected volatility</b>					
Shares of Singapore Exchange Limited	17.42%	16.30%	14.44% to 16.03%	19.81%	19.82%
FTSE Mondo Visione	–	–	11.77% to 18.94%	21.14%	23.02%
Shares of selected peer exchanges	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	15.08.2016	30.10.2015	15.08.2014 and 30.06.2015	15.08.2013	15.08.2012
Term (years)	3	3	3	3	3
<b>Cost of funding</b>					
Risk-free interest rate	1.14%	1.42%	0.71% to 1.27%	0.34%	0.28%
<b>Expected dividend yield based on management's forecast</b>					
	4.18%	4.11%	3.97%	4.85%	4.91%
<b>Share price reference</b>					
	\$7.58	\$7.38	\$7.08 to \$7.94	\$7.58	\$6.90

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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
	FY2013 award	FY2014 award	FY2015 award	FY2016 awards	FY2017 award	
<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
<b>2016</b>						
Balance at beginning of financial year	307,172	748,365	1,232,700	–	–	2,288,237
Awarded	–	–	–	956,200	–	956,200
Lapsed	–	(12,968)	(23,600)	(34,000)	–	(70,568)
Vested	(307,172)	(374,135)	(369,430)	–	–	(1,050,737)
Balance at end of financial year	–	361,262	839,670	922,200	–	2,123,132

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".

**(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:

**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

<b>FY2016 Award</b>				
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	
<b>FY2015 Awards</b>				
Date of award	← 15.08.2014 and 30.06.2015 →			
Vesting date	01.09.2015	01.09.2016	01.09.2017	01.09.2018
Number of shares at award date	386,460	427,893	428,013	41,434
Fair value per deferred long-term incentives share at award date	\$6.88	\$6.82 to \$7.48	\$6.77 to \$7.50	\$7.45
<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%	1.28%
Date on which yield of Singapore government bond was based	14.08.2014	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%	1.28%
<b>Expected dividend yield based on management's forecast</b>	4.35%	3.91%	3.65%	4.36%
<b>Share price reference</b>	\$7.21	\$7.21 to \$7.83	\$7.21 to \$7.83	\$7.83

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**27. Share capital** (continued)**(c) Deferred long-term incentives scheme** (continued)

## (ii) Fair value of deferred long-term incentives shares (continued)

<b>FY2014 Award</b>			
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
<b>FY2013 Award</b>			
Date of award	← 15.08.2012 →		
Vesting date	02.09.2013	01.09.2014	01.09.2015
Number of shares at award date	348,092	348,092	348,216
Fair value per deferred long-term incentives share at grant date	\$6.68	\$6.65	\$6.61
<b>Assumption used in fair value model</b>			
<b>Risk-free interest rate</b>	0.22%	0.25%	0.28%
Date on which yield of Singapore government bond was based	14.08.2012	14.08.2012	14.08.2012
<b>Cost of funding</b>			
Risk-free interest rate	0.22%	0.25%	0.28%
<b>Expected dividend yield based on management's forecast</b>	4.44%	4.90%	5.54%
<b>Share price reference</b>	\$6.96	\$6.96	\$6.96



## 28. Dividends

	<b>The Group and The Company</b>	
	<b>2017</b>	<b>2016</b>
	<b>\$'000</b>	<b>\$'000</b>
Interim tax exempt dividends of 15.0 cents per share (2016: 15.0 cents)	<b>160,606</b>	160,697
Proposed final tax exempt dividends of 13.0 cents per share (2016: 13.0 cents)	<b>139,093</b>	139,082
	<b>299,699</b>	299,779

The directors have proposed a final tax exempt dividend for FY2017 of 13.0 cents (2016: 13.0 cents) per share amounting to a total of \$139,093,000 (2016: \$139,082,000). 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.

## 29. Segment information (continued)

	Equities and Fixed Income \$'000	Derivatives \$'000	Market Data and Connectivity \$'000	Corporate \$'000	The Group \$'000
<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 asset	–	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
<b>2016</b>					
<b>Operating Revenue</b>	405,763	325,304	87,042	–	818,109
Operating profits	225,633	138,224	45,283	–	409,140
Other gains - net	–	–	–	5,709	5,709
Share of results of associated company	–	–	–	1,112	1,112
Tax	–	–	–	(66,944)	(66,944)
<b>Net profit after tax</b>					<b>349,017</b>
<b>Segment Assets</b>	<b>911,405</b>	<b>235,164</b>	<b>37,979</b>	<b>920,936</b>	<b>2,105,484</b>
Segment assets includes:					
– Investment in associated company	–	–	–	9,387	9,387
– Additions to:					
– Property, plant and equipment and software	23,269	46,574	5,288	–	75,131
<b>Segment Liabilities</b>	<b>842,465</b>	<b>163,675</b>	<b>9,988</b>	<b>99,775</b>	<b>1,115,903</b>
<b>Other Information</b>					
Depreciation and amortisation	32,124	21,864	5,867	–	59,855

### 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

	The Group	
	2017 \$'000	2016 \$'000
Cash at bank - contributed by CDP	60,000	60,000

Cash contributions by CDP are denominated in SGD and placed in interest bearing accounts with one bank (2016: 2 banks). 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.

	The Group	
	2017 \$'000	2016 \$'000
Contributions by CDP clearing members – cash at bank, held in trust	46,120	45,328

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 (2016: \$30,000,000)).

### 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 (2016: \$200,021,000) (Note 12) to support the SGX-DC Clearing Fund. The SGX-DC Clearing Fund is made up of the following:

	2017 \$'000	2016 \$'000
SGX-DC share capital	152,000	152,000
Derivatives clearing fund reserve (Note a)	34,021	34,021
Other SGX-DC’s contributions	14,000	14,000
	<u>200,021</u>	<u>200,021</u>

Except for the \$200,021,000 (2016: \$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 2007, 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 2017 were approximately \$40,120,000 (2016: \$106,930,000).

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 30 June 2017, clearing members had lodged the following collateral with CDP:

	2017 \$'000	2016 \$'000
<b>Margin deposits</b>		
Cash	<u>165,203</u>	<u>157,393</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 2017 were approximately \$6,599,261,000 (2016: \$7,616,398,000).

As at 30 June 2017, clearing members had lodged the following collateral with SGX-DC:

	2017 \$'000	2016 \$'000
<b>Margin deposits</b>		
Cash	7,641,615	8,784,395
Quoted government securities, at fair value	<u>356,799</u>	<u>1,124,613</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.

### (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 30 June 2017, the following were lodged with SGX-DC for performance deposits purposes:

	2017 \$'000	2016 \$'000
<b>Performance deposits and deposits received for contract value</b>		
Cash	<u>154</u>	<u>—</u>

**32. Security, margin and other deposits** (continued)**(b) Singapore Exchange Derivatives Clearing Limited ("SGX-DC")** (continued)**(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\$1,000,000 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 30 June 2017, the following security and other deposits were lodged with SGX-DC for clearing fund purpose:

	2017 \$'000	2016 \$'000
<b>Security and other deposits</b>		
Cash	505,444	543,785
Quoted government securities, at fair value	37,552	6,453

**(iv) Collateral for Mutual Offset Settlement Agreement**

As at 30 June 2017, irrevocable letters of credit amounting to approximately \$392,616,000 (2016: \$1,026,001,000) 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 2017, clearing members had lodged the following collateral with CDP to support their financial requirements:

	2017 \$'000	2016 \$'000
Cash	10,000	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 2017, clearing members had lodged the following collateral with SGX-DC to support their financial requirements:

	2017 \$'000	2016 \$'000
Cash	834,407	510,835

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 Depository 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 30 June 2017, borrowers had lodged the following collateral with CDP for SBL purpose:

	<b>2017</b>	2016
	<b>\$'000</b>	\$'000
Cash	<b>26,762</b>	24,747
Securities, at fair value	<b>10,962</b>	19,022

None of these assets or contingent assets nor the corresponding liabilities are included in the statement of financial position of the Group.

### 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:

	<b>2017</b>	2016
	<b>\$'000</b>	\$'000
Securities Exchange Fidelity Fund	<b>36,086</b>	35,705
Derivatives Exchange Fidelity Fund	<b>24,527</b>	24,269
	<b>60,613</b>	59,974

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 2017 for contribution to be paid to the securities and derivatives fidelity funds as the minimum sum of \$20 million for each fund as currently required under the Securities and Futures Act has been met.

**35. Securities and Derivatives Fidelity Funds** (continued)

	2017 \$'000	2016 \$'000
The assets and liabilities of the Funds are as follows:		
<b>Assets</b>		
Fixed deposits with banks	60,300	59,700
Bank balance	482	417
Interest receivable	24	30
	<u>60,806</u>	<u>60,147</u>
<b>Liabilities</b>		
Other payables and accruals	3	3
Taxation	186	165
Deferred tax liabilities	4	5
	<u>193</u>	<u>173</u>
<b>Net assets</b>	<b>60,613</b>	<b>59,974</b>

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	
	2017 \$'000	2016 \$'000	2017 \$'000	2016 \$'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))	239,702	423,900	-	-

**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	
	2017 \$'000	2016 \$'000	2017 \$'000	2016 \$'000
Not later than one financial year	22,779	20,624	22,357	20,025
Later than one financial year but not later than five financial years	55,374	66,457	55,072	66,205
Later than five financial years	2,760	3,048	2,760	3,048
	<u>80,913</u>	<u>90,129</u>	<u>80,189</u>	<u>89,278</u>



**(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:

	<b>The Group</b>	
	<b>2017</b>	<b>2016</b>
	<b>\$'000</b>	<b>\$'000</b>
Not later than one financial year	<b>1,712</b>	–
Later than one financial year but not later than five financial years	<b>4,747</b>	–
Later than five financial years	<b>943</b>	–
	<b>7,402</b>	–

**(c) Capital commitments**

Capital commitments contracted for at year end but not recognised in the financial statements are as follows:

	<b>The Group</b>		<b>The Company</b>	
	<b>2017</b>	<b>2016</b>	<b>2017</b>	<b>2016</b>
	<b>\$'000</b>	<b>\$'000</b>	<b>\$'000</b>	<b>\$'000</b>
Property, plant and equipment	<b>30</b>	82	–	–
Software	<b>6,994</b>	8,305	<b>2,615</b>	–
	<b>7,024</b>	8,387	<b>2,615</b>	–

**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>2017</b>	<b>2016</b>
	<b>\$'000</b>	<b>\$'000</b>
Salaries and other short-term employee benefits	<b>11,996</b>	12,907
Employer's contribution to Central Provident Fund	<b>134</b>	121
Share-based payment to key management	<b>2,868</b>	2,114
	<b>14,998</b>	15,142

Included in the above is total remuneration to directors of the Company amounting to \$5,773,000 (2016: \$5,162,000).

During the financial year, 362,700 shares (2016: 237,300 shares) under SGX performance share plan and 362,700 shares (2016: 264,100 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.

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 30 June 2017 and 30 June 2016, there are no significant currency risk exposures arising from receivables. These receivables are also exposed to credit risks.

**(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 30 June 2017, there are no significant currency risk exposures arising from net assets in foreign operations.

**(c) Investment in available-for-sale financial asset**

The Company has previously invested in unlisted equity security in BSE. This investment is denominated in INR. Management monitors the Group's currency exposure by tracking the INR currency movement on a regular basis. As this investment is long-term in nature, the Group does not hedge the currency exposure of this investment. This investment is also exposed to price risk. During the financial year, SGX has divested all of its interest in BSE.

**(d) Cash and cash equivalents**

As at 30 June 2017 and 30 June 2016, 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 risks.

The Group and Company's currency exposures are as follows:

	The Group At 30 June 2017						
	SGD <sup>(a)</sup> \$'000	USD \$'000	GBP \$'000	INR \$'000	HKD \$'000	Others \$'000	Total \$'000
<b>Financial assets</b>							
Cash and cash equivalents	783,155	8,060	4,142	30	–	1,005	796,392
Trade and other receivables							
– Daily settlement of accounts for due contracts and rights	535,731	39,205	–	–	573	17	575,526
– Receivables under NEMS	130,270	–	–	–	–	–	130,270
– Others	77,891	4,217	4,268	–	261	257	86,894
<b>Financial liabilities</b>							
Trade and other payables							
– Daily settlement of accounts for due contracts and rights	(535,731)	(39,205)	–	–	(573)	(17)	(575,526)
– Payables under NEMS	(146,318)	–	–	–	–	–	(146,318)
– Others	(138,366)	(23,751)	(6,880)	(3)	(98)	(642)	(169,740)
Net financial assets/liabilities	706,632	(11,474)	1,530	27	163	620	697,498
<b>Net non-financial assets of foreign subsidiaries</b>							
	(40)	–	16,174	–	–	–	16,134
Currency exposure	706,592	(11,474)	17,704	27	163	620	713,632
Currency forward contracts <sup>(b)</sup>	–	81,140	–	–	–	1,360	82,500

<sup>(a)</sup> The SGD balances have been included for completeness.

<sup>(b)</sup> Currency forward contracts entered by the Group are to hedge future revenue receivables arising from clearing of various derivative products denominated in USD, interest receivables and capital expenditure denominated in USD.

	The Group At 30 June 2016						
	SGD <sup>(a)</sup> \$'000	USD \$'000	GBP \$'000	INR \$'000	HKD \$'000	Others \$'000	Total \$'000
<b>Financial assets</b>							
Cash and cash equivalents	860,970	4,489	135	27	–	685	866,306
Trade and other receivables							
– Daily settlement of accounts for due contracts and rights	686,409	73,527	–	–	2,942	–	762,878
– Receivables under NEMS	81,702	–	–	–	–	–	81,702
– Others	65,985	3,308	26	16	99	238	69,672
Available-for-sale financial asset	–	–	–	44,956	–	–	44,956
<b>Financial liabilities</b>							
Trade and other payables							
– Daily settlement of accounts for due contracts and rights	(686,409)	(73,527)	–	–	(2,942)	–	(762,878)
– Payables under NEMS	(89,904)	–	–	–	–	–	(89,904)
– Others	(135,128)	(24,162)	(556)	(4)	(72)	(260)	(160,182)
Currency exposure	783,625	(16,365)	(395)	44,995	27	663	812,550
Currency forward contracts <sup>(b)</sup>	–	81,675	–	–	–	1,155	82,830

<sup>(a)</sup> The SGD balances have been included for completeness.

<sup>(b)</sup> Currency forward contracts entered by the Group are to hedge future revenue receivables arising from clearing of various derivative products denominated in USD, interest receivables denominated in USD, JPY and EUR, and capital expenditure denominated in USD.

**39. Financial risk management** (continued)**Market risk – Currency risk** (continued)

## (d) Cash and cash equivalents (continued)

	<b>The Company</b> <b>At 30 June 2017</b>					
	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	30	223	393,754
Trade and other receivables	8,264	43	6,241	39	17	14,604
<b>Financial liabilities</b>						
Trade and other payables	(321,634)	(14)	(1)	(3)	(72)	(321,724)
Currency exposure	76,315	3,713	6,372	66	168	86,634

<sup>(a)</sup> The SGD balances have been included for completeness.

	<b>The Company</b> <b>At 30 June 2016</b>					
	SGD <sup>(a)</sup> \$'000	USD \$'000	GBP \$'000	INR \$'000	Others \$'000	Total \$'000
<b>Financial assets</b>						
Cash and cash equivalents	439,785	640	135	27	138	440,725
Trade and other receivables	7,722	27	26	16	43	7,834
Available-for-sale financial asset	–	–	–	44,956	–	44,956
<b>Financial liabilities</b>						
Trade and other payables	(370,554)	–	(221)	(4)	(113)	(370,892)
Currency exposure	76,953	667	(60)	44,995	68	122,623

<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 are not subject to significant price risk after disposal of its investment in BSE during the financial year.

**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 are not subject to significant cash flow and fair value interest rate risks as the Group's and the Company's fixed deposit placements are mainly short-term in nature. Fixed deposits are placed with banks that offer the most competitive interest rates.

The tables below set out the Group's 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	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	–	–	–	–	–	(891,584)	(891,584)
Net financial assets/(liabilities)	29,689	–	509,353	240,003	–	(81,547)	697,498
<b>At 30 June 2016</b>							
<b>Financial assets</b>							
Cash and cash equivalents	58,352	–	598,207	202,021	–	7,726	866,306
Trade and other receivables	–	–	8	2	–	914,242	914,252
Available-for-sale financial asset	–	–	–	–	–	44,956	44,956
<b>Financial liabilities</b>							
Trade and other payables	–	–	–	–	–	(1,012,964)	(1,012,964)
Net financial assets/(liabilities)	58,352	–	598,215	202,023	–	(46,040)	812,550

**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	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	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)	970	–	340,349	44,001	6,086	(304,772)	86,634
<b>At 30 June 2016</b>							
<b>Financial assets</b>							
Cash and cash equivalents	2,320	–	436,200	–	–	2,205	440,725
Trade and other receivables	–	–	3	1	–	7,830	7,834
Available-for-sale financial asset	–	–	–	–	–	44,956	44,956
<b>Financial liabilities</b>							
Trade and other payables	–	–	–	–	–	(370,892)	(370,892)
Net financial assets/(liabilities)	2,320	–	436,203	1	–	(315,901)	122,623

As the Group and the Company are not exposed to significant interest rate risks, a sensitivity analysis is not provided.

**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 67% (2016: 83%) of its cash and cash equivalents with 4 (2016: 4) banks. The Company placed 96% (2016: 99%) of its cash and cash equivalents with 4 (2016: 4) banks.

**(b) 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.

*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 2017, there were 26 (2016: 25) securities clearing members and 7 (2016: 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.

**(c) 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 2017 were in the form of bankers' guarantees and cash deposits and have an aggregate value of \$253,020,000 (2016: \$318,520,000). There is no significant concentration of credit risk for receivables under NEMS.

**39. Financial risk management** (continued)**Credit risk** (continued)**(d) 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.

**(e) 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 2017, 99.3% (2016: 99.7%) and 98.6% (2016: 93.0%) of the Group and the Company's trade receivables fall into this category.

**(f) 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	
	2017 \$'000	2016 \$'000	2017 \$'000	2016 \$'000
Past due up to 90 days	1,431	484	28	220
Past due 91 days to 360 days	3,033	483	25	147
	<b>4,464</b>	967	<b>53</b>	367

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	
	2017 \$'000	2016 \$'000	2017 \$'000	2016 \$'000
Gross amount	2,753	1,668	18	1
Less: Allowance for impairment	(2,753)	(1,668)	(18)	(1)
	–	–	–	–
Balance at beginning of financial year	1,668	1,654	1	5
Allowance made	1,848	1,084	18	27
Allowance utilised	(363)	(356)	–	(5)
Allowance written back	(400)	(714)	(1)	(26)
Balance at end of financial year	<b>2,753</b>	1,668	<b>18</b>	1



## 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 has minimal liquidity risk as it maintains sufficient cash for daily operations through prudent liquidity risk management. The Group has no external borrowings.

The financial liabilities of the Group and 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.

#### The Group

	Up to 3 months \$'000	> 3 months to 1 year \$'000	Above 1 year \$'000	Total \$'000
<b>At 30 June 2017</b>				
<b>Financial liabilities</b>				
Trade and other payables <sup>(a)</sup>	<b>891,545</b>	<b>21</b>	<b>18</b>	<b>891,584</b>

<sup>(a)</sup> 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.

	Up to 3 months \$'000	> 3 months to 1 year \$'000	Above 1 year \$'000	Total \$'000
<b>At 30 June 2016</b>				
<b>Financial liabilities</b>				
Trade and other payables <sup>(b)</sup>	<b>1,012,562</b>	<b>90</b>	<b>312</b>	<b>1,012,964</b>

<sup>(b)</sup> Included the following:

- \$762,878,000 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
- \$89,904,000 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 2017</b>				
<b>Financial liabilities</b>				
Trade and other payables	<b>321,724</b>	<b>–</b>	<b>–</b>	<b>321,724</b>

#### At 30 June 2016

<b>Financial liabilities</b>				
Trade and other payables	<b>370,892</b>	<b>–</b>	<b>–</b>	<b>370,892</b>

As at 30 June 2017, the gross notional value of outstanding currency forward contracts held by the Group was \$82,500,000 (2016: \$82,830,000). 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:

	At 30 June 2017			At 30 June 2016		
	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>The Group</b>						
<b>Currency forward contracts</b>						
– gross outflows	<b>39,957</b>	<b>36,643</b>	<b>76,600</b>	36,782	46,036	82,818
– gross inflows	<b>40,646</b>	<b>37,325</b>	<b>77,971</b>	38,206	47,211	85,417

**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:

	<b>The Group</b>		<b>The Company</b>	
	<b>2017</b>	<b>2016</b>	<b>2017</b>	<b>2016</b>
	<b>\$'000</b>	<b>\$'000</b>	<b>\$'000</b>	<b>\$'000</b>
Unsecured guarantees by SGX-DC to banks for standby letters of credit issued by the banks to Chicago Mercantile Exchange	<b>239,702</b>	423,900	–	–

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 secured sufficient committed bank credit facilities of \$366,848,000 (2016: \$567,400,000), 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:

- quoted prices (unadjusted) in active markets for identical assets or liabilities (Level 1);
- 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
- 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 2017</b>				
<b>Assets</b>				
Derivative financial instruments	–	1,450	–	1,450
<b>Liabilities</b>				
Derivative financial instruments	–	79	–	79
<b>At 30 June 2016</b>				
<b>Assets</b>				
Available-for-sale financial asset	–	–	44,956	44,956
Derivative financial instruments	–	2,665	–	2,665
<b>Liabilities</b>				
Derivative financial instruments	–	66	–	66
<b>The Company</b>				
<b>At 30 June 2017</b>				
<b>Assets</b>				
Available-for-sale financial asset	–	–	–	–
<b>At 30 June 2016</b>				
<b>Assets</b>				
Available-for-sale financial asset	–	–	44,956	44,956

There were no transfers between Level 1 and 2 during the year.

The fair values of currency forward contracts have been calculated using the rates quoted by the Group's bankers to terminate the contracts at the balance sheet date.

The available-for-sale financial asset consist of unlisted equity security which had been disposed during the financial year (Note 10). As the unlisted equity security is not traded in an active market, its fair value is determined by using discounted cash flow model in FY2016.

The unlisted equity security has been classified under Level 3 in the fair value measurement hierarchy as the valuation technique includes market premium on the discount rate, which is an unobservable market data. The movement in fair value arising from reasonably possible changes to the market premium on the discount rate is assessed to be insignificant.

The carrying amounts of cash and cash equivalents, trade and other receivables, and trade and other payables are assumed to approximate their fair values.

**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 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>(1)</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>

**As at 30 June 2016**

	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>(1)</sup> \$'000
Receivables from clearing members and settlement banks - Daily settlement of accounts for due contracts and rights	6,284,077	(5,521,199)	762,878

<sup>(1)</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 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>(1)</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>

**As at 30 June 2016**

	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>(1)</sup> \$'000
Payables to clearing members and settlement banks - Daily settlement of accounts for due contracts and rights	<b>6,284,077</b>	<b>(5,521,199)</b>	<b>762,878</b>

<sup>(1)</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**

Below are the mandatory standards, amendments and interpretations to existing standards that have been published, and are relevant for the Group's accounting periods beginning on or after 1 July 2017 or later periods and which the Group has not early adopted:

FRS	Title	Effective date (annual periods beginning on or after)
FRS 115	Revenue from Contracts with Customers	1 January 2018
FRS 109	Financial Instruments	1 January 2018
FRS 116	Leases	1 January 2019

The Group is presently assessing the impact of adopting these new accounting standards, amendments and interpretations. The Group has not considered the impact of accounting standards issued after the balance sheet date.

**42. Subsequent event**

On 17 July 2017, Singapore Exchange Regulation Pte Ltd ("SGX RegCo") issued and allotted to SGX 9,999,999 ordinary shares of \$1 each for a total cash consideration of \$9,999,999. Following the subscription of shares, SGX RegCo's issued and paid-up capital is \$10 million and SGX continues to hold 100% of the entire issued and paid-up capital of SGX RegCo.

**43. Authorisation of financial statements**

These financial statements have been authorised for issue by the Board of Directors on 27 July 2017.

# Statistics of Shareholdings

As at 1 August 2017

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	95	0.24	3,263	0.00
100 – 1,000	11,603	29.85	11,049,664	1.03
1,001 – 10,000	22,995	59.15	90,688,655	8.48
10,001 – 1,000,000	4,160	10.70	160,671,283	15.02
1,000,001 and above	24	0.06	807,535,778	75.47
<b>Total</b>	<b>38,877</b>	<b>100.00</b>	<b>1,069,948,643</b>	<b>100.00</b>

Based on information available to the Company as at **1 August 2017** approximately **99.92%** 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	222,051,883	20.75
3	DBS NOMINEES (PRIVATE) LIMITED	92,098,086	8.61
4	HSBC (SINGAPORE) NOMINEES PTE LTD	66,849,752	6.25
5	DBSN SERVICES PTE. LTD.	51,097,611	4.78
6	UNITED OVERSEAS BANK NOMINEES (PRIVATE) LIMITED	33,369,530	3.12
7	RAFFLES NOMINEES (PTE) LIMITED	26,048,399	2.43
8	PHILLIP SECURITIES PTE LTD	12,758,507	1.19
9	BNP PARIBAS SECURITIES SERVICES SINGAPORE BRANCH	10,332,810	0.97
10	DB NOMINEES (SINGAPORE) PTE LTD	9,995,470	0.93
11	UOB KAY HIAN PRIVATE LIMITED	4,882,000	0.46
12	DBS VICKERS SECURITIES (SINGAPORE) PTE LTD	4,824,500	0.45
13	OCBC NOMINEES SINGAPORE PRIVATE LIMITED	3,688,066	0.34
14	OCBC SECURITIES PRIVATE LIMITED	3,439,834	0.32
15	MACQUARIE CAPITAL SECURITIES (SINGAPORE) PTE LIMITED	2,440,304	0.23
16	MAYBANK KIM ENG SECURITIES PTE. LTD.	2,250,654	0.21
17	BNP PARIBAS NOMINEES SINGAPORE PTE LTD	1,970,457	0.18
18	CIMB SECURITIES (SINGAPORE) PTE. LTD.	1,853,000	0.17
19	WAN FOOK WENG	1,700,000	0.16
20	PHANG TAI TIM @ HENRY PHANG	1,343,949	0.13
<b>Total</b>		<b>802,985,996</b>	<b>75.04</b>

## Treasury Shares and Subsidiary Holdings

Number of treasury shares: **1,693,757**

Number of subsidiary holdings: **0**

Percentage of treasury shares against the total number of issued ordinary shares: **0.16%**<sup>2</sup>

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 2017**.

<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 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 Eighteenth Annual General Meeting of Singapore Exchange Limited (the “Company”) will be held at Level 3, Nicoll 1 – 3, Suntec Singapore International Convention & Exhibition Centre, 1 Raffles Boulevard, Suntec City, Singapore 039593 on Thursday, 21 September 2017 at 10.00 a.m. to transact the following business:

### ROUTINE BUSINESS

- |   |   |   |
|---|---|---|
| 1 | To receive and adopt the Directors' Statement and Audited Financial Statements for the financial year ended 30 June 2017 and the Auditor's Report thereon.  | <b>Ordinary Resolution 1</b>  |
| 2 | To declare a final tax exempt dividend of 13 cents per share for the financial year ended 30 June 2017 (“Final Dividend”).<br>(FY2016: 13 cents per share)  | <b>Ordinary Resolution 2</b>  |
| 3 | 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 as directors of the Company: <ul style="list-style-type: none"> <li>▪ Mr Kwa Chong Seng;</li> <li>▪ Mr Liew Mun Leong; and</li> <li>▪ Mr Thaddeus Beczak.</li> </ul> | <b>Ordinary Resolution 3(a)</b><br><b>Ordinary Resolution 3(b)</b><br><b>Ordinary Resolution 3(c)</b> |
| 4 | To approve (i) the sum of S\$750,000 to be paid to the Chairman as director's fees, and (ii) the provision to him of a car with a driver, for the financial year ending 30 June 2018.<br>(Same as for FY2017: S\$750,000 and a car with a driver)   | <b>Ordinary Resolution 4</b>  |
| 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 2018.<br>(Same as for FY2017: up to S\$1,600,000 for all directors other than the Chief Executive Officer)   | <b>Ordinary Resolution 5</b>  |
| 6 | To re-appoint PricewaterhouseCoopers LLP as Auditor of the Company and to authorise the directors to fix its remuneration.  | <b>Ordinary Resolution 6</b>  |

### SPECIAL BUSINESS

To consider and, if thought fit, to pass with or without modifications, the following resolutions, which will be proposed as Ordinary Resolutions:

- |   |  |                              |
|---|--|------------------------------|
| 7 | That Mr Lim Chin Hu be and is hereby appointed as a director of the Company pursuant to Article 103 of the Constitution of the Company.  | <b>Ordinary Resolution 7</b> |
| 8 | That authority be and is hereby given to the directors of the Company to: <ul style="list-style-type: none"> <li>(a) (i) issue shares of the Company (“shares”) whether by way of rights, bonus or otherwise; and/or</li> <li>(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,</li> </ul> <p style="margin-left: 40px;">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</p> <ul style="list-style-type: none"> <li>(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,</li> </ul> | <b>Ordinary Resolution 8</b> |



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.

9 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");

#### Ordinary Resolution 9

# Notice of Annual General Meeting

## Singapore Exchange Limited

Company Registration No. 199904940D

(Incorporated in the Republic of Singapore)

- (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:
- (i) in the case of a market purchase of a Share, 105 per cent. of the Average Closing Price of the Shares; and
  - (ii) in the case of an off-market purchase of a Share, 110 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.

### By Order of the Board

**Ding Hui Yun (Ms)**

**Seah Kim Ming Glenn (Mr)**

Company Secretaries

Singapore Exchange Limited

29 August 2017

## EXPLANATORY NOTES

### ROUTINE BUSINESS

**Ordinary Resolutions 3(a), 3(b) & 3(c)** are to re-elect Mr Kwa Chong Seng, Mr Liew Mun Leong and Mr Thaddeus Beczak who will be retiring by rotation under Article 97 of the Constitution of the Company.

Mr Kwa Chong Seng will, upon re-election, continue to serve as Chairman of the Board, as well as Chairman of the Nominating & Governance Committee and Remuneration & Staff Development Committee. Mr Liew Mun Leong will, upon re-election, continue to serve as a member of the Audit Committee, Nominating & Governance Committee and Remuneration & Staff Development Committee. Mr Thaddeus Beczak will, upon re-election, continue to serve as a member of the Regulatory Conflicts Committee and Risk Management Committee. Mr Kwa, Mr Liew and Mr Beczak are considered independent directors. Detailed information on these directors can be found under 'Board of Directors' in the Company's Annual Report 2017. 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.

**Ordinary Resolution 4** is to seek approval for (i) the payment for S\$750,000 to the Chairman as director's fees for undertaking duties and responsibilities as Chairman of the Board, and (ii) the provision to him of a car with a driver, for the financial year ending 30 June 2018 (which is the same as that approved for the preceding financial year). As in the preceding financial year, the sum of S\$750,000 does not include any director's fees payable for serving as chairman or member of any Board committee(s) or attendance fees for any Board committee meetings.

**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 the financial year ending 30 June 2018 (which is the same as that approved for the preceding financial year). The exact amount of director's fees received by each director for the financial year ended 30 June 2017 is disclosed in full in the Annual Report.

### SPECIAL BUSINESS

**Ordinary Resolution 7** is to appoint Mr Lim Chin Hu as an additional director pursuant to Article 103 of the Constitution of the Company. Mr Lim will be 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 the Company. Detailed information on Mr Lim can be found under 'Board of Directors' in the Annual Report. Save as disclosed therein, there are no material relationships (including immediate family relationships) between Mr Lim and the other directors or the Company.

**Ordinary Resolution 8** 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 8 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 8 is passed, and (b) any subsequent bonus issue or consolidation or subdivision of shares. As at 1 August 2017 (the "Latest Practicable Date"), the Company had 1,693,757 treasury shares and no subsidiary holdings.

# Notice of Annual General Meeting

## Singapore Exchange Limited

Company Registration No. 199904940D

(Incorporated in the Republic of Singapore)

**Ordinary Resolution 9** 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 106,994,864 Shares.

In the case of market purchases by the Company, assuming that the Maximum Price is S\$7.94 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\$428,031,000 and S\$393,754,000 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 49,591,184 Shares representing 4.63 per cent. of the total number of issued Shares (excluding treasury shares) as at the Latest Practicable Date.

In the case of off-market purchases by the Company, assuming that the Maximum Price is S\$8.32 for one Share (being the price equivalent to 10 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\$428,031,000 and S\$393,754,000 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 47,326,202 Shares representing 4.42 per cent. of the total number of issued Shares (excluding treasury shares) as at the Latest Practicable Date.

In the case of market purchases by the Company, assuming that the Maximum Price is S\$7.94 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\$330,798,000 and S\$393,754,000 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 41,662,217 Shares representing 3.89 per cent. of the total number of issued Shares (excluding treasury shares) as at the Latest Practicable Date.

In the case of off-market purchases by the Company, assuming that the Maximum Price is S\$8.32 for one Share (being the price equivalent to 10 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\$330,798,000 and S\$393,754,000 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 39,759,375 Shares representing 3.72 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 2017 based on the assumptions set out above are set out in paragraph 2.7 of the Letter to Shareholders dated 29 August 2017.

**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 Singapore Land Tower, 50 Raffles Place #32-01, 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.

# Notice of Annual General Meeting

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### **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.

### **BOOKS CLOSURE DATE AND PAYMENT DATE FOR FINAL DIVIDEND**

Subject to the approval of the shareholders for the Final Dividend being obtained at the Annual General Meeting, the Register of Members and the Transfer Books of the Company will be closed from 5.00 p.m. on 29 September 2017 (Friday) up to (and including) 2 October 2017 (Monday) for the purpose of determining shareholders' entitlements to the proposed Final Dividend. The Register of Members and the Transfer Books will re-open on 3 October 2017 (Tuesday).

Duly completed transfers in respect of ordinary shares of the Company received by the Company's Share Registrar, Boardroom Corporate & Advisory Services Pte. Ltd. at Singapore Land Tower, 50 Raffles Place #32-01, Singapore 048623 up to 5.00 p.m. on 29 September 2017 (Friday) will be registered before entitlements to the proposed Final Dividend are determined. Shareholders whose securities accounts with The Central Depository (Pte) Limited are credited with ordinary shares of the Company as at 5.00 p.m. on 29 September 2017 (Friday) will rank for the proposed Final Dividend.

The Final Dividend, if approved by shareholders at the Annual General Meeting, will be paid on 6 October 2017 (Friday).



**Singapore Exchange Limited**  
Company Reg. No. 199904940D

2 Shenton Way  
#02-02 SGX Centre 1  
Singapore 068804  
tel: +65 6236 8888  
fax: +65 6535 6994

**sgx.com**

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