The background of the cover is a low-angle photograph of a suspension bridge, likely the Tsing Ma Bridge, during sunset. The bridge's massive concrete pylons and suspension cables are silhouetted against a bright orange and yellow sky that transitions into a clear blue sky with scattered white clouds. The bridge deck is visible in the foreground, extending from the bottom left towards the top right.

HKEX
香港交易所

**HONG KONG EXCHANGES
AND CLEARING LIMITED**

Stock Code: 388

**INTERIM REPORT
2019**

Connecting
China

Connecting
the World



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(Financial figures in this Interim Report are expressed in HKD unless otherwise stated)



Highlights

Financial Highlights

- Revenue and other income up 5 per cent compared with 1H¹ 2018, driven by:
 - An increase in net investment income, including fair value gains on collective investment schemes and higher interest income, and record half-yearly revenue and other income from Stock Connect;
 - These more than offset a reduction in trading and clearing fees driven by lower Cash Market turnover
- Operating expenses up 2 per cent against 1H 2018 due to higher staff and IT costs, partly offset by lower premises expenses as a result of adopting the new accounting standard for leases²
- EBITDA³ margin was 77 per cent, the same as in 1H 2018 and 3 per cent higher than the full 2018 fiscal year

Strategic Highlights

- Stock Connect Northbound ADT saw a record half-yearly high in 1H 2019, more than double that of the previous record achieved in 2H 2018. This follows the successful inclusion of China A shares in MSCI and FTSE Russell indexes
- MSCI licence agreement signed for the launch of MSCI China A index futures
- Derivatives Markets trading hours extension, from 1 a.m. to 3 a.m., was rolled out in June 2019
- Bond Connect ADT grew significantly to RMB6.6 billion, 94 per cent higher than 1H 2018
- Successful completion of the acquisition of a majority stake in Ronghui Tongjin, a Shenzhen-based financial markets technology firm, in June 2019

1 Q1 = first quarter, Q2 = second quarter, Q3 = third quarter, Q4 = fourth quarter, 1H = first half, 2H = second half

2 As a result of the adoption of HKFRS 16: Leases, operating lease rentals are no longer recognised under operating expenses. Please refer to note 2 to the Unaudited Condensed Consolidated Financial Statements for further details.

3 For the purposes of this Interim Report, EBITDA is defined as earnings before interest expenses and other finance costs, taxation, depreciation and amortisation. It excludes the Group's share of results of the joint ventures.

Revenue and other income  5%
\$8,578 Million

Profit attributable to shareholders  3%
\$5,205 Million

Basic earnings per share  2%
\$4.16

Charles Li, Chief Executive said:

“HKEX had a solid first half in 2019 despite a more challenging political and economic backdrop. Record Stock Connect revenue, a robust IPO pipeline and good returns from investment income offset some macro-driven softness in Cash Market volumes. We were also pleased to see encouraging performances from Bond Connect and our Derivatives Market. We continue to focus on executing our 3-year strategic plan, maintaining good cost discipline and capturing further growth opportunities.”

Key Financials

	Six months ended 30 Jun 2019 \$m	Six months ended 30 Jun 2018 \$m	Change
Revenue and other income	8,578	8,194	5%
Operating expenses	1,953	1,918	2%
EBITDA	6,625	6,276	6%
Profit attributable to shareholders	5,205	5,041	3%
Basic earnings per share	\$4.16	\$4.07	2%
Interim dividend per share	\$3.72	\$3.64	2%

Key Market Statistics

	Six months ended 30 Jun 2019	Six months ended 30 Jun 2018	Change
ADT of equity products traded on the Stock Exchange (\$bn)	75.1	100.4	(25%)
ADT of DWs, CBBCs and warrants traded on the Stock Exchange (\$bn)	22.8	26.2	(13%)
ADT of the Stock Exchange (Headline ADT) (\$bn)	97.9	126.6	(23%)
ADV of derivatives contracts traded on the Futures Exchange ('000 contracts)	672	659	2%
ADV of stock options contracts traded on the Stock Exchange ('000 contracts)	508	574	(11%)
Chargeable ADV ⁴ of metals contracts traded on the LME ('000 lots)	619	659	(6%)

⁴ Chargeable ADV excludes administrative trades (Admin Trades) and other non-chargeable trades. Admin Trades were introduced in 2017 to meet requirements resulting from Markets in Financial Instruments Directive (MiFID) II.

Chairman's Statement

Laura M CHA
Chairman



Global financial markets in the first half of 2019 remained volatile against the backdrop of the Sino-US trade dispute and the slowing global economic growth momentum. Markets continued to be sensitive to uncertainties in the US interest rate outlook, a potential no-deal Brexit, heightened geopolitical tensions, especially in the Middle East, and recent social unrest in Hong Kong.

Amid this more challenging environment, the average daily turnover in Hong Kong's securities market (\$97.9 billion) and the average daily volume of futures and options trading in the derivatives market (1,180,169 contracts) represented a drop of 23 per cent and 4 per cent respectively, compared with the same period last year. IPO funds raised in the first six months of 2019 totalled \$71.8 billion, up 39 per cent year-on-year, though there was a fall in the number of new listing applications and an increase in withdrawn cases. The LME saw the chargeable average daily volume of metals contracts traded on the LME decrease by 6 per cent.

For the six months ended 30 June 2019, the Group recorded consolidated revenue and other income of \$8,578 million and profit attributable to shareholders of \$5,205 million, up 5 per cent and 3 per cent, respectively, against the corresponding period in 2018. The Board declared an interim dividend of \$3.72 per share, which is 90 per cent of the profit attributable to shareholders.

Building on our successes and solid foundations established over the years, I am confident that HKEX Group is well positioned for the next chapter of growth and the opportunities and challenges ahead.

Since the launch of HKEX's Strategic Plan 2019-2021 in February 2019, our focus has been on reinforcing our position as the global markets leader in the Asian time zone and expanding our preeminent role in connecting China and the rest of the world. We were pleased to see continued strong growth in Stock Connect Northbound Trading and increased weighting of A-shares in global benchmark indices. We signed a licence agreement with MSCI Limited in March for the introduction of futures contracts on the MSCI China A Index, further helping support the hedging of A-shares by international investors. The proposed contracts will be launched subject to regulatory approval and market conditions. Consensus has been reached with the two Mainland Chinese exchanges on the criteria for Hong Kong listed companies with weighted voting rights to be included for the first time in Stock Connect Southbound Trading.

HKEX remains Asia's largest new issuer market and we have been very encouraged by the growing number of new economy companies listing on the Exchange following the implementation of our new listing regime in April 2018. We are now exploring measures to further optimise our IPO process to enhance the ongoing competitiveness of our market. To maintain market quality and efficiency, the Exchange announced in the first half of 2019 consultation conclusions on backdoor listings, shell activities and issuers publishing financial statements with disclaimer or adverse audit opinions, as well as the streamlining of the documentary requirements for listed issuers. The Exchange issued a consultation paper in May seeking market views on proposed enhancements to ESG reporting and disclosure by listed issuers. The Exchange also published a consultation paper in August on codification of general waivers and principles relating to IPOs and listed issuers and minor Rule amendments. The LME published a consultation paper in July on proposals to enhance the efficiency of its warehousing network and market transparency. Building on the broad market engagement to its 2018 position paper, the LME also launched a formal market-wide consultation in April on the introduction of responsible sourcing standards across all LME-listed brands.

Aligning with our strategic plan growth focus, we continued to expand our product range across asset classes. To promote further development of Hong Kong's Exchange Traded Products market, we introduced the first two-time Inverse Product in May and the first active ETF in June. We also entered into a partnership with Euroclear Bank, an international central securities depository, to enhance the cross-listing of international ETFs in Hong Kong. Hong Kong is the world's largest equity structured products market, and in July 2019 we launched Inline Warrants to further enrich our structured product offerings.

Chairman's Statement

We introduced US dollar-denominated London Metal Mini Futures for six base metals in August, to complement our existing RMB-denominated futures products. We also extended the Hong Kong After-Hours Trading Session by two hours to 3 a.m. in mid-June to meet our customers' investment and risk management needs. At the LME, seven new cash-settled futures contracts were rolled out in March to capture, in part, increased interest in ferrous metals hedging and trading. An electronic closing price trial for nickel contracts was successfully completed between March and June.

In support of our commitment to future growth in the evolving technology and business landscape, the first phase of the Next Generation Post Trade Programme, Client Connect, was rolled out in May to improve our customers' Post Trade experience. The completion of our acquisition of a 51 per cent equity interest in Shenzhen Ronghui Tongjin Technology Co. Ltd., a specialist financial markets technology firm based in Shenzhen, also expanded our technology capabilities, supporting the acceleration of many of our IT projects and initiatives. We are also delighted to be part of the Infinium team which received a virtual banking licence from the Hong Kong Monetary Authority in May. We look forward to further contributing to the development of virtual banking and financial technology in Hong Kong.

Details of our progress in various initiatives are set out in the Business Review section of this Interim Report.

To contribute to HKEX's understanding of the global environment and the advanced technology landscape, an International Advisory Council was established in February, which comprises experts in economics, business, technology and the financial sector from around the world. The Council provides the Board with advice and insights from a global perspective. Two Council meetings were held in the first half of this year.

Building on our successes and solid foundations established over the years, I am confident that HKEX Group is well positioned for the next chapter of growth and the opportunities and challenges ahead. We continue to promote the highest standards of market integrity and governance in all that we do. We also continue to work closely with our regulators and stakeholders in implementing our strategic plan and fulfilling our responsibilities as an exchange controller, a regulator, as well as a listed company, to drive sustainable growth in our industry and community. As part of the wider Hong Kong community, we are focused on working together with our stakeholders for the long-term success of our marketplace, and upholding Hong Kong's long-standing status as a world-leading financial centre.

Last but not least, I extend my sincere thanks for the support and guidance of my fellow Directors, and the devotion and hard work of all our employees.

Laura M CHA

Chairman

Hong Kong, 14 August 2019



Management
Discussion
and Analysis

Business Review
Financial Review

Business Review

Overview

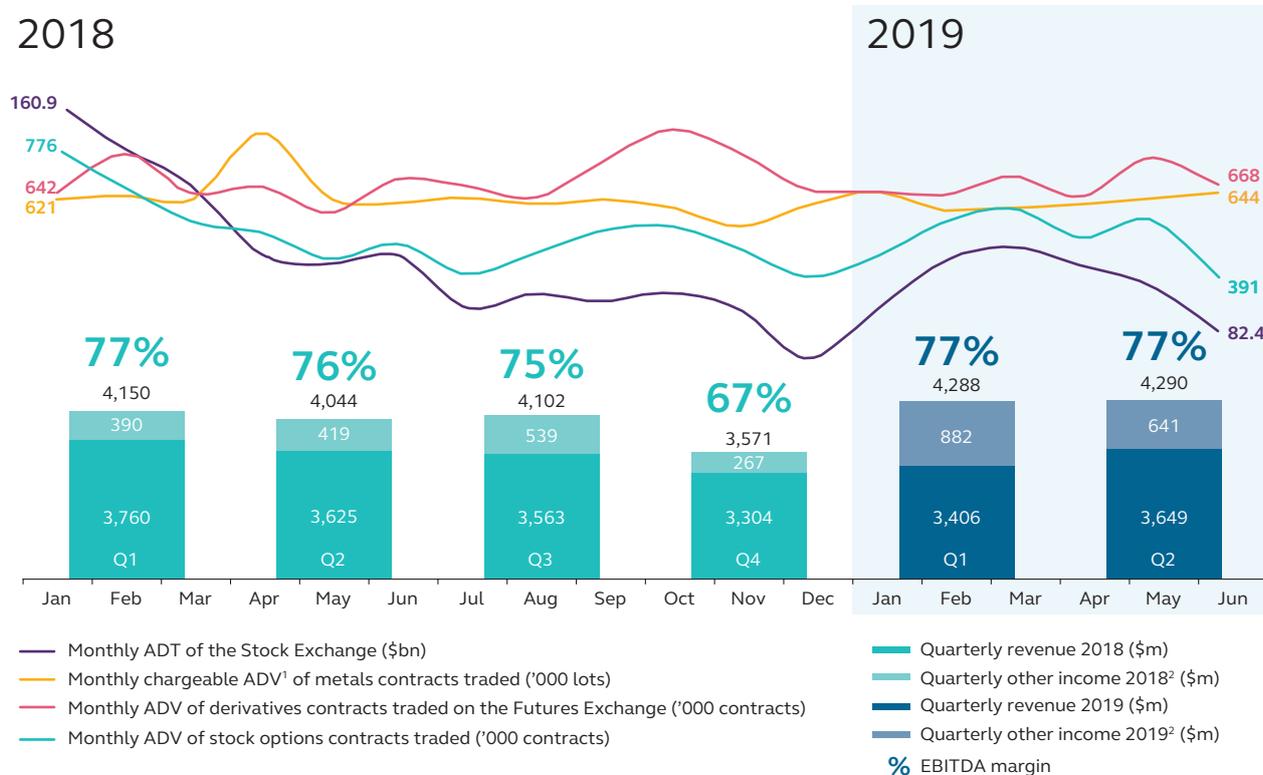


Fig. 1 – Market activity and Group's revenue and other income

HKEX's business held up well in Q2³ 2019 despite weakening global market sentiment driven by escalating trade tensions between China and the US. Whilst headline ADT⁴ dropped to \$94.7 billion, 6 per cent below Q1 2019 and 11 per cent below Q2 2018, Northbound Stock Connect ADT reached a record quarterly high in Q2 2019, up 29 per cent compared with Q1 2019. This was boosted by the further inclusion of China A shares in MSCI and FTSE Russell indexes.

Revenue and other income in Q2 2019 was \$2 million higher than Q1 2019. The seasonal increases in depository, custody and nominee services fees compensated for the smaller fair value gains on collective investment schemes, lower trading and clearing revenue, and a reduction in listing fees from newly listed DWs and CBBCs.

Revenue and other income for 1H 2019 rose by 5 per cent against 1H 2018 and reached a half-yearly record of \$8.6 billion. Despite a drop in Cash Market headline ADT and a modest decline in trading volumes in the Derivatives and Commodities Markets against 1H 2018, the reduction in trading and clearing fees was more than offset by an increase in net investment income from fair value gains on collective investment schemes and higher net interest income from Corporate Funds and Margin Funds.

Operating expenses for 1H 2019 increased by 2 per cent against 1H 2018. This was attributable to increased headcount and annual payroll adjustments, higher maintenance expenses for new IT systems and upgraded networks, which were partly offset by lower premises expenses as a result of adopting the new accounting standard for leases⁵. Excluding the impact of this accounting change, operating expenses increased by 10 per cent against 1H 2018.

- 1 Chargeable ADV excludes administrative trades (Admin Trades) and other non-chargeable trades. Admin Trades were introduced in 2017 to meet requirements resulting from Markets in Financial Instruments Directive (MiFID) II.
- 2 Includes net investment income and sundry income
- 3 Q1 = first quarter, Q2 = second quarter, Q3 = third quarter, Q4 = fourth quarter, 1H = first half, 2H = second half
- 4 ADT of equity products, DWs, CBBCs and warrants traded on the Stock Exchange
- 5 As a result of the adoption of HKFRS 16: Leases, operating lease rentals are no longer recognised under operating expenses. Please refer to note 2 to the Unaudited Condensed Consolidated Financial Statements for further details.

Business Update and Analysis of Results by Operating Segment

	Six months ended 30 Jun 2019		Six months ended 30 Jun 2018	
	Revenue and other income \$m	EBITDA \$m	Revenue and other income \$m	EBITDA \$m
Results by segment:				
Cash	1,863	1,561	2,099	1,817
Equity and Financial Derivatives	1,631	1,340	1,734	1,454
Commodities	694	370	706	352
Post Trade	3,262	2,842	3,140	2,740
Technology	373	271	327	252
Corporate Items	755	241	188	(339)
	8,578	6,625	8,194	6,276

To optimise resources to successfully deliver the initiatives set out in the Group's Strategic Plan 2019-2021, the Group's operating segments have been reorganised. As a result, since April 2019, the "Clearing segment" has been renamed the "Post Trade segment", and the "Platform and Infrastructure segment" has been renamed the "Technology segment".

As set out in the Group's Strategic Plan 2019-2021, our vision is to be **the Global Markets Leader in the Asian Time Zone – Connecting China, Connecting the World**. To support this vision, HKEX's focus has been on the following areas: China Anchored, Globally Connected, and Technology Empowered.

Progress made up to the date of this Interim Report is set out in the table below and further elaborated upon in the Business Update sections in each of the operating segments:



China Anchored

- **Expand Northbound capital inflows:** In the process of obtaining regulatory approval and preparing for launch of MSCI China A Index futures contracts
- **WVR Inclusion in Southbound Stock Connect:** Consensus reached with the two Mainland Chinese exchanges on the criteria for Hong Kong listed companies with weighted voting rights (WVR) to be included for the first time in Stock Connect Southbound Trading



Globally Connected

- **Improve our market microstructure:** Further expansion of Closing Auction Session; extension of after-hours trading in our Derivatives Market to 3 a.m.; and introduction of Exchange Traded Product (ETP) buy-in exemption
- **Expanding our product ecosystem across asset classes:** Launch of the International Central Securities Depository settlement model for ETPs; expansion of ETP product suite; launch of Inline Warrants; six gold indexes and USD-denominated London Metal Mini Futures for six base metals in Hong Kong; and seven new cash-settled metals futures contracts on the LME



Technology Empowered

- **Modernise our core systems:** Upgrade of Derivatives Market platform; and launch of Client Connect
- **Leverage new technology:** Continued development of HKEX Innovation Lab
- **Expand our horizons:** Completed acquisition of a 51 per cent equity interest in Ronghui Tongjin

Cash Segment

Analysis of Results

Trading fees decreased by 21 per cent compared with 1H 2018. This was less than the 25 per cent drop in equity products ADT, primarily due to record high fees from Northbound Trading of Stock Connect. Trading tariffs fell by 9 per cent, in line with the decrease in equity products trading.

Stock Exchange listing fees were up by \$30 million, reflecting an \$11 million increase in annual listing fees as a result of the higher overall number of listed companies on the Stock Exchange, and a \$19 million increase in initial listing fees, due mainly to more forfeitures.

Operating expenses rose by 7 per cent due to additional headcount for strategic projects and annual payroll adjustments, partly offset by lower premises expenses (\$21 million) as a result of adopting the new accounting standard for leases⁵.

1H 2019 vs 1H 2018



- Trading fees
- Trading tariffs
- Stock Exchange listing fees
- Market data fees
- Other revenue
- EBITDA margin (%)

¹ Excludes DWs, CBBCs and warrants (which are included under the Equity and Financial Derivatives segment)

Business Update

The Cash Market saw a more modest level of trading in 1H 2019 as compared with 1H 2018, with headline ADT dropping by 23 per cent to \$97.9 billion. Trading activities in Q2 2019 also recorded a 6 per cent decrease compared with Q1 2019.

Stock Connect generated record half-yearly revenue and other income of \$508 million in 1H 2019 (1H 2018: \$365 million), of which \$356 million (1H 2018: \$221 million) arose from trading and clearing activities. In particular, Northbound Trading turnover reached a record half-yearly high, with record monthly turnover in March and a new daily record turnover of RMB77.4 billion on 6 May 2019.

On 28 February 2019, MSCI announced that it would further increase the weighting of China A shares (including ChiNext shares) in MSCI Indexes from the initial 5 per cent inclusion, using a 3-step inclusion process, in May, August and November 2019. The May 2019 MSCI rebalancing was completed smoothly on 28 May 2019. In addition, FTSE Russell announced the phased inclusion of China A shares in its global benchmark indexes in three tranches, with the first tranche completed on 21 June 2019. These inclusions are expected to further stimulate Northbound Trading.

On 8 May 2019, HKEX launched the International Central Securities Depository (ICSD) settlement model for its ETPs (which comprise ETFs and L&I Products) in collaboration with Euroclear Bank. The ICSD model enhances the fungibility of ETPs that are issued using the ICSD settlement model and cross-listed on the Stock Exchange. In addition, the first two-time Inverse Product and the first actively-managed ETF were listed on the Stock Exchange on 28 May 2019 and 18 June 2019, respectively. On 4 July 2019, HKEX introduced a new buy-in exemption for ETP transactions to give Securities Market Makers one extra day to cover any short positions resulting from their market making activities under a one-year pilot programme.

HKEX continues its focus on improving market microstructure. On 5 July 2019, HKEX announced the further expansion of its Closing Auction Session (CAS) to standardise closing hours for all equities, improve trading liquidity at market close, and simplify trading operations for market participants. Effective 8 October 2019, the same CAS model (including the price limit of 5 per cent of the reference price during CAS) will be expanded to cover all equities (including depositary receipts, equities of investment companies, preference shares and stapled securities) and funds (including ETFs and real estate investment trusts).

Key Market Indicators

	Six months ended 30 Jun 2019	Six months ended 30 Jun 2018
ADT of equity products traded on the Stock Exchange ^{1,2} (\$bn)	75.1	100.4
ADT of Northbound Trading ² – Shanghai-Hong Kong Stock Connect (RMB bn)	23.5 ⁴	11.2
ADT of Northbound Trading ² – Shenzhen-Hong Kong Stock Connect (RMB bn)	20.4 ⁴	8.6
ADT of Bond Connect (RMB bn)	6.6 ⁴	3.4
Average daily number of trades of equity products traded on the Stock Exchange ^{1,2} ('000)	1,245	1,340
Number of newly listed companies on the Main Board ³	78	58
Number of newly listed companies on GEM	6	50
Total equity funds raised		
– IPOs (\$bn)	71.8	51.6
– Post-IPOs (\$bn)	77.4	141.1
Number of companies listed on the Main Board at 30 Jun	1,996	1,848
Number of companies listed on GEM at 30 Jun	386	367
Number of trading days	119	121

1 Excludes DWs, CBBCs and warrants (which are included under the Equity and Financial Derivatives segment) and includes \$7.1 billion (1H 2018: \$10.6 billion) of ADT of Southbound Trading under Shanghai-Hong Kong Stock Connect and \$4.0 billion (1H 2018: \$5.7 billion) under Shenzhen-Hong Kong Stock Connect

2 Includes buy and sell trades under Stock Connect

3 Includes 8 transfers from GEM (1H 2018: 7)

4 New record half-yearly high in 1H 2019

On 26 July 2019, HKEX, Shanghai Stock Exchange (SSE) and Shenzhen Stock Exchange (SZSE) announced that Stock Connect inclusion arrangements for companies with A shares listed on the SSE's Sci-Tech Innovation Board (STAR Market) and H shares listed in Hong Kong, have been agreed. A date for inclusion will be announced in due course.

On 2 August 2019, in preparation for the inclusion of companies with WVR in Southbound Trading of Stock Connect, SSE and SZSE, after agreeing the inclusion criteria for WVR companies with HKEX, consulted the market on their proposals for the corresponding changes to their respective rules. Following the end of their respective consultations on 9 August 2019, and subject to relevant regulatory approvals, WVR companies meeting the inclusion criteria will be included for Southbound Trading of Stock Connect.

Bond Connect saw significant growth in 1H 2019, with a record monthly ADT in June of RMB9.1 billion and record daily high of RMB16.2 billion on 12 June 2019. As compared with 1H 2018, ADT in 1H 2019 increased by 94 per cent due to the expansion of the market participant base and increased trading demand for Chinese bonds following inclusion of Chinese RMB-denominated bonds in the Bloomberg Barclays Global Aggregate Indices from April 2019. In March 2019, the Central Bank of Ireland gave approval for Irish Undertakings for Collective Investments in Transferable Securities and Alternative Investment Funds to invest in the Chinese interbank bond market via Bond Connect. As of 30 June 2019, there were 1,038 approved investors from 29 jurisdictions, up 106 per cent from 503 as of 31 December 2018.

Several enhancements were made in 1H 2019 to further strengthen trading on Bond Connect:

- Bloomberg was welcomed as a second trading platform on 17 January 2019;
- Primary Market Information Platform, the first English language portal for the dissemination of Chinese primary bond market information, was launched on 22 February 2019; and
- Negotiable Certificate of Deposit (NCD) primary subscription service was launched on 29 April 2019.

Hong Kong continues to be an attractive listing and fund raising venue for new economy and traditional sector companies from Hong Kong, China and other jurisdictions. In 1H 2019, 84 companies were newly listed in Hong Kong with total funds raised of \$71.8 billion, representing a 39 per cent increase compared with 1H 2018.

The positive impact of introducing the Biotech Companies chapter (Chapter 18A of the Main Board Listing Rules) continued in 2019. In 1H 2019, the Stock Exchange welcomed seven biotech and healthcare companies (including three biotech companies listed under Chapter 18A), raising a total of \$19 billion. In Q2 2019, HKEX organised “HKEX Biotech Week 2019”, its flagship biotech event, which attracted over 1,000 scientists, biotech entrepreneurs, investors, technology experts and policymakers, to share industry insights and trends on the Stock Exchange.

The Stock Exchange published consultation conclusions along with related guidance materials during 2019 on the following topics:

Consultation conclusions	Effective date of changes
<ul style="list-style-type: none"> • Proposed Changes to Documentary Requirements relating to Listed Issuers and Other Minor Rule Amendments 	1 March 2019
<ul style="list-style-type: none"> • Review Structure in relation to Listing Committee Decisions 	6 July 2019
<ul style="list-style-type: none"> • Proposal relating to Listed Issuers with Disclaimer or Adverse Audit Opinion on Financial Statements 	1 September 2019 ¹
<ul style="list-style-type: none"> • Backdoor Listing, Continuing Listing Criteria and other Rule Amendments 	1 October 2019

¹ The new Listing Rule will apply to issuers' preliminary annual results announcements for financial years commencing on or after 1 September 2019.

On 17 May 2019, the Stock Exchange published (i) a consultation paper on “Review of the Environmental, Social and Governance Reporting Guide and related Listing Rules”; (ii) ESG guidance materials (including e-training and Frequently Asked Questions); and (iii) an updated guidance letter for new applicants on ESG and diversity disclosures. The key focus of the Stock Exchange’s latest ESG consultation is to support and improve issuers’ governance and disclosure of ESG activities and metrics. The consultation period closed on 19 July 2019. The Stock Exchange is currently reviewing and analysing the responses to the consultation paper.

On 2 August 2019, the Stock Exchange published a consultation paper on Codification of General Waivers and Principles relating to IPOs and Listed Issuers and Minor Rule Amendments to seek view on the proposed codification of certain waivers, the principles and conditions underpinning certain waivers and minor Rule amendments. The consultation period will close on 27 September 2019.

The Stock Exchange also published the following guidance materials during 2019:

Guidance materials
<ul style="list-style-type: none"> • New guidance letters on (i) sanctions risks; (ii) competition between the businesses of a new applicant and its controlling shareholder; (iii) accounting policies and stock-taking procedures performed by the reporting accountants; and (iv) presentation of the non-GAAP financial measures in a listing document, and updated ten guidance letters as part of its continuous effort to streamline guidance materials
<ul style="list-style-type: none"> • A new listing decision to provide guidance on why the Stock Exchange rejected certain listing applications in 2018
<ul style="list-style-type: none"> • An updated “Guide on Trading Arrangements for Selected Types of Corporate Actions” outlining key issues and best practices in relation to schedule setting, provision of information and trading arrangements for selected types of corporate actions
<ul style="list-style-type: none"> • A “Review of Issuers’ Annual Report Disclosure – Report 2018” covering findings and recommendations from a review of issuers’ annual reports for the financial year that ended between January and December 2017

Equity and Financial Derivatives Segment

Analysis of Results

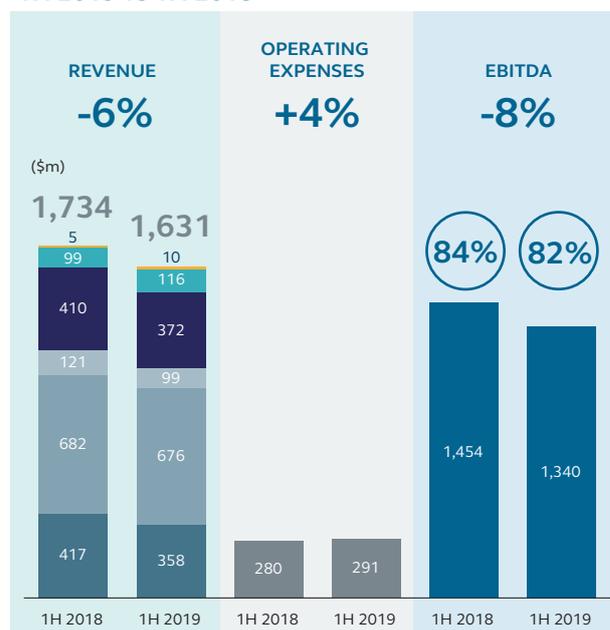
ADV of derivatives contracts traded on the Futures Exchange⁶ was 2 per cent higher than 1H 2018. Fewer trading days in the period, however, resulted in derivatives trading fees of the Futures Exchange decreasing marginally by 1 per cent. On a quarterly basis, ADV in Q2 2019 increased by 4 per cent against Q1 2019 and 6 per cent against Q2 2018.

Trading fees and trading tariffs of DWs, CBBCs and warrants dropped by 14 per cent compared with 1H 2018, reflecting the 13 per cent decrease in ADT and fewer trading days.

Stock Exchange listing fees dropped by 9 per cent, due to fewer newly listed DWs and CBBCs compared with 1H 2018.

Operating expenses rose by 4 per cent due to additional headcount for strategic projects and annual payroll adjustments, partly offset by lower premises expenses (\$18 million) as a result of adopting the new accounting standard for leases⁵.

1H 2019 vs 1H 2018



- Trading fees and trading tariffs of DWs, CBBCs and warrants
- Stock Exchange listing fees
- Trading fees of derivatives contracts traded on the Futures Exchange^{1,2}
- Market data fees
- Trading tariffs of stock options contracts²
- Other revenue
- EBITDA margin (%)

- 1 Excludes London Metal Mini Futures, Gold Futures and Iron Ore Futures contracts (which are included under the Commodities segment)
- 2 Excludes trading fees and trading tariffs allocated to the Post Trade segment

⁶ Excludes London Metal Mini Futures, Gold Futures and Iron Ore Futures contracts (which are included under the Commodities segment)

Business Update

After the inclusion in the After-Hours Trading (T+1) Session on 14 May 2018, ADV of equity index options increased to 10,714 contracts in 1H 2019, 66 per cent higher than 2018⁷. Equity index options volume in the T+1 Session reached 7 per cent of the T Session volume in 1H 2019, compared with 4 per cent in 2018⁷. The number of equity index options traded in the T+1 Session reached a daily record high of 43,348 contracts on 18 June 2019. To further enhance market liquidity of equity index options in the T+1 Session, HKEX increased the required minimum quoted series by market makers in the T+1 Session in June 2019.

On 17 June 2019, HKEX successfully extended trading hours from 1 a.m. to 3 a.m. for 27 products including equity index futures and options, currency futures and commodity futures, which provided investors the opportunity to trade and risk manage their positions during the extended hours. The volume of equity index products traded during the extended hours reached 30 per cent of the total volume in the T+1 Session on 19 June 2019 during the extended hours.

RMB currency derivatives volume expanded in 1H 2019, with over 1 million USD/CNH Futures contracts traded during 1H 2019, 48 per cent higher than 1H 2018. On the back of intensified two-way volatility of RMB against the USD in Q2 2019, ADV of USD/CNH Futures surged to 10,782 contracts (notional value of US\$1.08 billion) in June 2019, an increase of 29 per cent as compared with the first five months of 2019. New liquidity providers were recruited for USD/CNH Futures and its calendar spread contracts in 1H 2019 to further enhance market liquidity.

Following the signing of a licence agreement on 11 March 2019 between HKFE and MSCI Limited to facilitate the introduction of MSCI China A Index futures contracts (subject to regulatory approval and market conditions), HKEX continues to engage with the SFC, system developers and market participants to facilitate the introduction.

Hong Kong is the world's leading structured products market and on 18 July 2019, HKEX was pleased to add Inline Warrants to our offering. This product gives investors the opportunity to receive a pre-determined fixed payment, depending on whether the price of the underlying asset falls within or outside the upper and lower strikes at the expiry of the warrant. These complement HKEX's existing structured products suite that includes DWs and CBBCs. Inline Warrants were initially issued on the Hang Seng Index and the five most actively-traded stocks on the Stock Exchange. 129 Inline Warrants have been listed on the Stock Exchange in July since launch.

The sixth annual HKEX RMB FIC Pan-Asian Conference was hosted in Hong Kong and Singapore in April 2019, attracting over 1,200 industry experts and professionals across Asia. Key regulatory and business issues were discussed, including China's bond market development, inclusion of Chinese bonds in global indices and the development of the bond issuance business in Hong Kong.

⁷ For the period from 14 May 2018 to 31 December 2018

Key Market Indicators

	Six months ended 30 Jun 2019	Six months ended 30 Jun 2018
ADT of DWs, CBBCs and warrants traded on the Stock Exchange (\$bn)	22.8	26.2
Average daily number of trades of DWs, CBBCs and warrants traded on the Stock Exchange ('000)	358	390
ADV of derivatives contracts traded on the Futures Exchange ¹ ('000 contracts)	670	658
ADV of stock options contracts traded on the Stock Exchange ('000 contracts)	508	574
Number of newly listed DWs	5,048	5,785
Number of newly listed CBBCs	12,503	12,811
ADV of contracts traded during After-Hours Trading ¹ ('000 contracts)	85	79
Number of trading days	119	121
	At 30 Jun 2019	At 30 Jun 2018
Open interest of futures and options contracts ¹ ('000 contracts)	11,452	13,074

¹ Excludes London Metal Mini Futures, Gold Futures and Iron Ore Futures contracts (which are included under the Commodities segment)

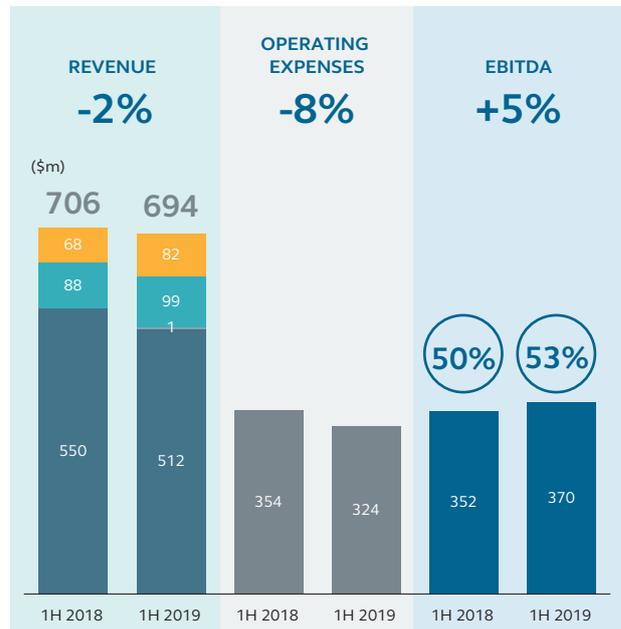
Commodities Segment

Analysis of Results

EBITDA was up 5 per cent although revenue was marginally down by 2 per cent, due to a reduction in operating expenses. The fall in revenue was due to the decline in chargeable ADV of metals contracts traded in 1H 2019, being 6 per cent lower compared with 1H 2018, resulting in a drop in LME trading fees of \$38 million (7 per cent). Chargeable ADV excludes Admin Trades (which became chargeable from May 2019 at a lower fee rate of US\$0.04 per contract) and other non-chargeable trades.

Operating expenses dropped by 8 per cent primarily due to lower premises expenses (\$17 million) as a result of adopting the new accounting standard for leases⁵ and lower costs at QME.

1H 2019 vs 1H 2018



- Trading fees of metals contracts traded on the LME
- Trading fees of derivatives contracts traded on the Futures Exchange¹
- Market data fees
- Other revenue
- EBITDA margin (%)

1 Includes London Metal Mini Futures, Gold Futures and Iron Ore Futures contracts

Business Update

The LME launched seven new cash-settled futures contracts on 11 March 2019 across three product suites: aluminium, ferrous and minor metals.

The new ferrous hot-rolled coil (HRC) contracts and one of the aluminium premium contracts have attracted good early volumes, notably the HRC Free On Board (FOB) China contract which has seen peak daily volume of close to 1,500 lots.

On 10 June 2019, the LME announced its lithium pricing partnership with the price reporting agency, Fastmarkets, to promote market uptake of a transparent and representative global lithium price. Adoption of reference pricing across the industry will pave the way for a future launch of a LME lithium contract, subject to market readiness.

The LME recently completed its three-month electronic closing price trial for LME Nickel which began on 18 March 2019. During the trial, the three-month LME Nickel closing price was determined using a volume weighted average price of trades on the LME's electronic trading platform. Relevant data throughout the trial will be published in due course and feedback from market participants will be sought before determining appropriate next steps.

The LME introduced a new membership model for Registered Intermediating Brokers (RIB) in Q1 2019. RIBs arrange trades between market counterparties and bring these on exchange for registration and clearing, and can be crucial to liquidity development, particularly in smaller or newer markets.

During 1H 2019, the LME published the following:

- A response notice to the market discussion paper on pre-trade transparency (PTT) published by The European Securities and Markets Authority (ESMA). The LME is working towards the implementation of a market-wide solution to the PTT requirement, with target compliance date of 31 December 2019;
- A formal consultation on the implementation of its responsible sourcing standards for all its listed brands. The consultation closed on 30 June 2019 and the LME received 33 written responses which are now being analysed; and
- A discussion paper requesting market feedback on proposals for possible warehousing reform, to which the LME received 46 written responses. On 25 July 2019, the LME published its analysis of the feedback to the discussion paper, and a consultation on the reform proposals which it believes would be positive for its warehouse network.

Key Market Indicators

	Six months ended 30 Jun 2019	Six months ended 30 Jun 2018
ADV of metals contracts traded on the LME ('000 lots)		
Aluminium	240	247
Copper	133	142
Zinc	116	125
Nickel	80	87
Lead	41	46
Ferrous	1	2
Precious	2	4
Others	6	6
Total chargeable ADV excluding Admin Trades ¹	619	659
Chargeable Admin Trades ¹	28	-
Non-chargeable Admin Trades ¹ and other non-chargeable trades	68	105
Total ADV	715	764
Number of trading days	124	125
	At 30 Jun 2019	At 30 Jun 2018
Total futures Market Open Interest ('000 lots)	2,146	2,177

¹ Admin Trades were introduced in 2017 to meet requirements resulting from MiFID II. These trades were not chargeable prior to 1 May 2019, but became chargeable at US\$0.04 per contract thereafter.

In Hong Kong, six gold indexes (Gold Futures Excess Return Index, Total Return Index and Spot Price Index in both USD and CNH) were successfully launched on 24 June 2019. In addition, USD-denominated London Metal Mini Futures for six base metals were launched on 5 August 2019, to complement the existing CNH-denominated London Metal Mini Futures.

HKEX hosted the seventh LME Asia Week in Hong Kong from 6 to 9 May 2019, attended by more than 2,000 metals industry professionals and media.

In Shenzhen, QME continues to grow its client and participant network, and its alumina trading volumes have maintained steady growth with increasing recognition from key industry players. On 25 April 2019, QME signed an MOU with Beijing Antaika Information Co Ltd (Antaika), one of China’s leading information providers in metals, to include QME’s alumina price into Antaika’s alumina price benchmark. On 28 June 2019, QME launched two new products, aluminium ingot and aluminium rod, expanding its product portfolio and offering to better serve physical market needs.

Post Trade Segment

Analysis of Results

Revenue and other income, and EBITDA, during 1H 2019 were both up 4 per cent compared with 1H 2018. Clearing and settlement fees for Cash Market and Settlement Instructions (SIs) decreased by 5 per cent and 9 per cent respectively, primarily driven by a lower number of transactions.

Depository, custody and nominee services fees rose by \$57 million due to higher scrip fees and stock withdrawal fees, partly offset by lower e-IPO service fees. The higher scrip fees were attributable to more companies having their first book close or declaring a dividend in 1H 2019 compared with 1H 2018.



Net investment income increased by \$152 million or 24 per cent, attributable to an increase in Margin Fund investment income, as follows:

	Six months ended 30 Jun 2019			Six months ended 30 Jun 2018		
	Margin Funds \$m	Clearing House Funds \$m	Total \$m	Margin Funds \$m	Clearing House Funds \$m	Total \$m
Net investment income from:						
– Cash and bank deposits	679	45	724	567	23	590
– Debt securities	51	–	51	29	–	29
– Exchange (losses)/gains	(1)	–	(1)	3	–	3
Total net investment income	729	45	774	599	23	622
Average fund size (\$bn)	130.1	12.2	142.3	162.1	20.3	182.4
Annualised net investment return	1.12%	0.75%	1.09%	0.74%	0.23%	0.68%

The increase in net investment income of Margin Funds in 1H 2019 arose from higher interest income from rising interest rates, partly offset by lower average Margin Fund size of HKCC and SEOCH due to lower margin requirements per contract reflecting reduced volatility.

Operating expenses rose by 5 per cent due to additional headcount for strategic projects and annual payroll adjustments, partly offset by lower premises expenses (\$27 million) as a result of adopting the new accounting standard for leases⁵.

Business Update

With the increased China A shares weighting in MSCI Indexes in May 2019 and FTSE Russell Indexes in June 2019, Stock Connect clearing facilities usage continued to grow during 1H 2019. The number of Special Segregated Accounts increased by 17 per cent (8,296 accounts as at 30 June 2019 compared with 7,062 as at 31 December 2018) and the average daily value of Northbound SIs increased by 59 per cent in 1H 2019 as compared with 1H 2018. In addition, Northbound portfolio value of A shares reached a record high of RMB1,050 billion in April 2019.

In 1H 2019, the volume cleared by OTC Clear reached record half-yearly high, with a total of US\$105 billion of notional amount being cleared, 92 per cent higher than 1H 2018. For HKD interest rate swaps (IRS) a notional amount of US\$58 billion was cleared in 1H 2019, 242 per cent higher than 1H 2018. In addition, there was a good flow of USD/HKD cross currency swaps (CCS) with a total notional amount of US\$18 billion being cleared in 1H 2019, which was nearly double of the total USD/HKD CCS cleared volume in the full year of 2018. As a result of the increased volume, OTC Clear was profitable in 1H 2019.

Following comments received from the joint consultation on the uncertificated securities market (USM) in Hong Kong, the SFC, HKEX and the Federation of Share Registrars Limited are in discussion on the detailed implementation plan of USM and preparing for the consultation conclusion which will be issued in Q4 2019.

Work on changing LME Clear's existing current margin methodology to a Value-at-Risk model continues as LME Clear looks to bring a more efficient and accurate margin calculation methodology to the market.

Key Market Indicators

	Six months ended 30 Jun 2019	Six months ended 30 Jun 2018
ADT traded on the Stock Exchange (\$bn)	97.9	126.6
Average daily number of Stock Exchange trades ('000)	1,603	1,729
Average daily value of SIs (\$bn)	254.4	296.2
Average daily number of SIs ('000)	101	109

Technology Segment

Analysis of Results

Network fee income rose by 14 per cent due to increased usage of the Orion Central Gateway by new and existing EPs, additional fees arising from the newly introduced throttle monthly usage fees, and increased China Connect Central Gateway (CCCG) fees due to the completion of migration of China Connect EPs (CCEPs) from Open Gateway to CCCG in March 2018.

Hosting services fees increased by 15 per cent due to new customer subscriptions and increased usage by existing customers.

Operating expenses increased due to higher IT costs directly consumed by participants, and costs of the Innovation Lab (which were included in Corporate Items in 2018).

1H 2019 vs 1H 2018



Business Update

During 1H 2019, all major trading, clearing, settlement, and market data dissemination systems for the Cash and Derivatives Markets in Hong Kong continued to perform robustly. LME platforms also performed well with minor incidents on 15 May 2019 and 19 July 2019, both having limited market impact. The root cause of the incidents were identified and corrective measures have been put in place.

The upgrade of the derivatives platforms, the Hong Kong Futures Automated Trading System (HKATS) and the Derivatives Clearing and Settlement System (DCASS), was successfully rolled out in May 2019 to enhance the stability and reliability of infrastructure, enable the swift adaptation to future market developments, and reduce the hardware footprint required at participants' premises.

The pilot run for Client Connect was launched on 14 May 2019. After the launch, HKEX held three Client Connect Days in May 2019 to introduce the Client Connect functionalities and platform structure to the market.

Following the successful replacement of the Third Generation Automatic Order Matching and Execution System (AMS/3.8) by Orion Trading Platform – Securities Market (OTP-C) in February 2018, Orion Trading Platform – China Stock Connect (OTP-CSC) has been successfully rolled out on 5 August to replace the existing legacy proprietary platform to support Northbound Trading of Stock Connect. OTP-CSC offers a scalable, flexible and high performing trading platform based on open systems technology to meet the evolving business needs and future Northbound volume growth.

In June 2019, HKEX completed the acquisition of a 51 per cent equity interest in Ronghui Tongjin, a Shenzhen-based financial markets technology firm that specialises in financial exchanges, regulation technologies and data applications. The acquisition is expected to support HKEX's strategy to further build its financial markets technological capabilities and spearhead its future IT projects and initiatives.

With “Technology Empowered” as one of the three themes of the Group’s Strategic Plan 2019-2021, the HKEX Innovation Lab has been actively exploring and bringing new technologies into the Group’s operations. In 1H 2019, a number of products, including enhanced knowledge graphs for risk management and an Artificial intelligence (AI) assisted system for corporate actions processing, concluded successful prototypes en route to production deployment. A robotic process automation programme, incubated in the HKEX Innovation Lab, is being scaled up across the Group, and has started to deliver targeted efficiencies in daily business operations.

Corporate Items

	Six months ended 30 Jun 2019 \$m	Six months ended 30 Jun 2018 \$m
Revenue and other income		
Net investment income	745	173
Others	10	15
Total	755	188
Operating expenses	514	527

Analysis of Results

The analysis of net investment income of Corporate Funds is as follows:

	Six months ended 30 Jun 2019 \$m	Six months ended 30 Jun 2018 \$m
Net investment income from:		
– Collective investment schemes ¹	535	52
– Cash and bank deposits	199	134
– Debt securities	4	–
– Exchange gains/(losses)	7	(13)
Total net investment income	745	173
Average fund size (\$bn)	26.7	24.3
Annualised net investment return	5.59%	1.42%

¹ See Financial Review section for further details

Net investment income from Corporate Funds rose by \$572 million compared with 1H 2018, principally due to higher fair value gains on collective investment schemes held under the external portfolio, and higher interest income earned on cash and bank deposits from the increased fund size and higher deposit rates.

The increase in fair value gains on collective investment schemes principally came from funds invested in the public equities asset class (\$276 million) and funds invested in the US government bonds and mortgage-backed securities asset class (\$97 million). As the valuation of external portfolio reflects movements in market prices, fair value gains or losses may fluctuate or reverse until the investments are sold or mature.

Operating expenses decreased by 2 per cent against 1H 2018 due to lower premises expenses (\$55 million) as a result of adopting the new accounting standard for leases⁵, partly offset by higher maintenance expenses for new IT systems and upgraded networks, and increased staff costs from annual payroll adjustments.

Business Update

In 1H 2019, HKEX became a minority shareholder in Fusion Bank Limited (formerly known as Infinium Limited), which has been granted a virtual banking licence by the Hong Kong Monetary Authority. Fusion Bank Limited aims to leverage its advanced technology and the new applications of FinTech to promote financial inclusion in Hong Kong and to bring customers a brand-new, efficient and secure virtual banking experience, enabling them to enjoy better and more convenient financial services. HKEX holds 9.99 per cent in Fusion Bank Limited.

Expenses, Other Costs and Taxation

Operating Expenses

	Six months ended 30 Jun 2019 \$m	Six months ended 30 Jun 2018 \$m	Change
Staff costs and related expenses	1,328	1,205	10%
IT and computer maintenance expenses	278	241	15%
Premises expenses	64	202	(68%)
Product marketing and promotion expenses	29	22	32%
Professional fees	37	42	(12%)
Other operating expenses	217	206	5%
Total	1,953	1,918	2%

Staff costs and related expenses increased by \$123 million (10 per cent) mainly due to annual payroll adjustments and increased headcount for strategic initiatives.

IT and computer maintenance expenses increased by \$37 million (15 per cent), attributable to higher maintenance expenses for new IT systems and upgraded networks.

Premises expenses dropped by \$138 million (68 per cent) as office rental of \$146 million was no longer recognised as premises expense under the new accounting standard for leases⁵.

Depreciation and Amortisation

	Six months ended 30 Jun 2019 \$m	Six months ended 30 Jun 2018 \$m	Change
Depreciation and amortisation	495	378	31%

The “right-of-use assets” recognised under the new accounting standard for leases⁵ adopted in 2019 gave rise to depreciation and amortisation of \$131 million. Excluding such impact, depreciation and amortisation dropped by \$14 million, as certain IT systems became fully amortised in Q4 2018 and 1H 2019.

During 1H 2019, the Group incurred capital expenditure⁸ of \$368 million, an increase of 9 per cent from 1H 2018.

Finance Costs

	Six months ended 30 Jun 2019 \$m	Six months ended 30 Jun 2018 \$m	Change
Finance costs	86	55	56%

Finance costs increased due to the recognition of interest expense on lease liabilities of \$44 million under the new accounting standard for leases⁵, partly offset by the lower interest charge due to maturity of fixed rate notes in December 2018 and January 2019.

Taxation

	Six months ended 30 Jun 2019 \$m	Six months ended 30 Jun 2018 \$m	Change
Taxation	847	822	3%

Taxation increased due to a one-off \$47 million tax refund from the UK tax authority in 2018. Excluding the refund, taxation decreased by \$22 million or 3 per cent due to higher non-taxable income.

⁸ Capital expenditure excludes right-of-use assets recognised due to the adoption of HKFRS 16: Leases.

Financial Review

Financial Assets and Financial Liabilities by Funds

	At 30 Jun 2019 \$m	At 31 Dec 2018 \$m	Change
Financial assets			
Cash and cash equivalents	114,532	121,196	(5%)
Financial assets measured at fair value through profit or loss	48,673	61,004	(20%)
Financial assets measured at fair value through other comprehensive income	4,247	3,755	13%
Financial assets measured at amortised cost	41,900	31,885	31%
Total	209,352	217,840	(4%)

The Group's financial assets comprised financial assets of Corporate Funds, Margin Funds, Clearing House Funds, base, ferrous, and precious metals derivatives contracts, and cash prepayments and collateral for A shares traded under Stock Connect, as follows:

	At 30 Jun 2019 \$m	At 31 Dec 2018 \$m	Change
Financial assets			
Corporate Funds ¹	27,912	24,833	12%
Margin Funds ²	128,879	120,573	7%
Clearing House Funds	13,122	15,505	(15%)
Base, ferrous, and precious metals derivatives contracts cleared through LME Clear	39,439	53,915	(27%)
Cash prepayments and collateral for A shares	–	3,014	(100%)
Total	209,352	217,840	(4%)

1 Includes \$866 million (31 December 2018: \$724 million) solely used for supporting contributions to default funds and default fund credits for HKSCC Guarantee Fund, SEOCH Reserve Fund and HKCC Reserve Fund

2 Excludes Settlement Reserve Fund and Settlement Guarantee Fund paid to ChinaClear and margin receivable from CPs of \$5,248 million (31 December 2018: \$3,155 million), which are included in accounts receivable, prepayments and other deposits

	At 30 Jun 2019 \$m	At 31 Dec 2018 \$m	Change
Financial liabilities			
Base, ferrous, and precious metals derivatives contracts cleared through LME Clear	39,439	53,915	(27%)
Margin deposits, Mainland security and settlement deposits, and cash collateral from CPs	134,127	123,728	8%
CPs' contributions to Clearing House Funds	12,374	14,787	(16%)
Total	185,940	192,430	(3%)

The increase in financial assets and financial liabilities of Margin Funds at 30 June 2019 compared to 31 December 2018 was mainly attributable to increased contributions required from HKCC CPs due to higher margin requirements per contract.

The decrease in financial assets and financial liabilities of Clearing House Funds at 30 June 2019 compared to 31 December 2018 was mainly attributable to lower contributions required from LME Clear members in response to changes in risk exposures.

Financial assets of Corporate Funds increased by \$3,079 million during 1H 2019 due to the retention of cash generated by the business over the past 6 months, partly offset by the cash paid for the 2018 second interim dividend.

A portion of the Corporate Funds is invested in collective investment schemes which are designed to enhance returns and mitigate portfolio volatility and asset class concentration risk.

At 30 June 2019, the fair value of the Group's collective investment schemes by strategy employed was as follows:

	At 30 Jun 2019 \$m	At 31 Dec 2018 \$m	Change
Public Equities	2,620	2,021	30%
Absolute Return	1,587	1,312	21%
Multi-Sector Fixed Income	2,525	2,108	20%
US Government Bonds and Mortgage-backed Securities	2,452	1,648	49%
Total	9,184	7,089	30%

The increase in investment in collective investment schemes was mainly due to \$1.6 billion of additional funds invested and fair value gains generated by the schemes during 1H 2019.

Working Capital, Financial Resources and Gearing

Working capital rose by \$3,262 million or 15 per cent to \$25,464 million at 30 June 2019 (31 December 2018: \$22,202 million). The increase was primarily due to the profit of \$5,205 million generated during 1H 2019, partly offset by the 2018 second interim dividend (net of scrip dividend) of \$1,890 million paid in April 2019.

At 30 June 2019, the Group had the following outstanding borrowings:

	At 30 Jun 2019		At 31 Dec 2018	
	Carrying value \$m	Maturity	Carrying value \$m	Maturity
USD fixed rate note with coupon of 2.85 per cent	-	N/A	753	Jan 2019
Written put options to non-controlling interests	415	N/A	413	N/A
	415		1,166	

At 30 June 2019, the Group had a gross gearing ratio (ie, gross debt divided by adjusted capital) of 1 per cent (31 December 2018: 3 per cent), and a net gearing ratio (ie, net debt divided by adjusted capital) of zero per cent (31 December 2018: zero per cent). For this purpose, gross debt is defined as total borrowings and net debt¹ is defined as total borrowings less cash and cash equivalents of Corporate Funds (excluding those reserved for supporting contributions to default funds and default fund credits for Clearing House Funds), and adjusted capital as all components of equity attributable to shareholders other than designated reserves.

¹ Net debt will be zero when the amount of cash and cash equivalents of Corporate Funds (excluding those reserved for supporting contributions to default funds and default fund credits for Clearing House Funds) is greater than total borrowings.

Banking facilities have been put in place for contingency purposes. At 30 June 2019, the Group's total available banking facilities for its daily operations amounted to \$20,016 million (31 December 2018: \$20,024 million), which included \$13,515 million (31 December 2018: \$13,523 million) of committed banking facilities and \$6,500 million (31 December 2018: \$6,500 million) of repurchase facilities.

The Group has also put in place foreign exchange facilities for its daily clearing operations and for the RMB Trading Support Facility to support the trading of RMB stocks listed on the Stock Exchange. At 30 June 2019, the total amount of the facilities was RMB21,500 million (31 December 2018: RMB21,500 million).

In addition, the Group has arranged banking facilities amounting to RMB13,000 million (31 December 2018: RMB13,000 million) for settling payment obligations to ChinaClear should there be events that disrupt normal settlement arrangements for Stock Connect, eg, natural disasters or extreme weather conditions in Hong Kong.

At 30 June 2019, 79 per cent (31 December 2018: 83 per cent) of the Group's cash and cash equivalents were denominated in HKD or USD.

Capital Expenditure and Commitments

During 1H 2019, the Group incurred capital expenditure² of \$368 million (1H 2018: \$339 million) related to the development and upgrade of various trading and clearing systems.

The Group's capital expenditure commitments at 30 June 2019, including those authorised by the Board but not yet contracted for, amounted to \$1,092 million (31 December 2018: \$935 million). They were mainly related to the development and upgrade of IT systems including the cash, derivatives and commodities trading and clearing systems.

Significant Investments Held, Material Acquisitions and Disposals of Subsidiaries, and Future Plans for Material Investments or Capital Assets

On 28 June 2019, the Group completed the acquisition of a 51 per cent equity interest of Ronghui Tongjin for a total cash consideration of RMB233 million (HK\$262 million) through capital injection into Ronghui Tongjin. In addition, the Group subscribed for a 9.99 per cent equity interest in Fusion Bank Limited (formerly known as Infinium Limited) for a cash consideration of \$50 million during 1H 2019.

Save for those disclosed in this Interim Report, there were no other significant investments held, nor were there any material acquisitions or disposals of subsidiaries during the period under review. Apart from those disclosed in this Interim Report, there was no plan authorised by the Board for other material investments or additions of capital assets at the date of this Interim Report.

Pledge of Assets

Details of pledge of assets are included in note 27 to the Unaudited Condensed Consolidated Financial Statements of this Interim Report.

² Capital expenditure excludes right-of-use assets recognised due to the adoption of HKFRS 16: Leases.

Exposure to Fluctuations in Exchange Rates and Related Hedges

The functional currencies of the Hong Kong and PRC entities are either HKD or RMB and the functional currency of the LME entities is USD. Foreign currency risks arise mainly from the Group's investments and bank deposits in currencies other than HKD and USD and the GBP expenditure of the LME entities.

Forward foreign exchange contracts and foreign currency bank deposits may be used to hedge the currency exposure of the Group's non-HKD and non-USD assets and liabilities and highly probable forecast transactions to mitigate risks arising from fluctuations in exchange rates.

Foreign currency margin deposits received by the Group in Hong Kong are mainly hedged by investments in the same currencies, and unhedged investments in USD may not exceed 20 per cent of the Margin Funds. For LME Clear, investments of Margin Fund and Default Fund will generally take place in the currency in which cash was received.

The aggregate net open foreign currency positions (excluding collective investment schemes) at 30 June 2019 amounted to HK\$1,400 million, of which HK\$138 million were non-USD exposures (31 December 2018: HK\$3,235 million, of which HK\$584 million were non-USD exposures).

Contingent Liabilities

Details of contingent liabilities are included in note 25 to the Unaudited Condensed Consolidated Financial Statements of this Interim Report.

Changes since 31 December 2018

There were no other significant changes in the Group's financial position or from the information disclosed under Management Discussion and Analysis in the annual report for the year ended 31 December 2018.

Review of Financial Statements

The Audit Committee has reviewed the Group's Unaudited Condensed Consolidated Financial Statements for the six months ended 30 June 2019 in conjunction with HKEX's external auditor. Based on this review and discussions with the management, the Audit Committee was satisfied that the Unaudited Condensed Consolidated Financial Statements were prepared in accordance with applicable accounting standards and fairly present the Group's financial position and results for the six months ended 30 June 2019.

Corporate Governance and Other Information

Board and Committees

Board

Independent Non-executive Directors

Laura May-Lung CHA * GBM, GBS, JP (Chairman)
Apurv BAGRI ¹
CHAN Tze Ching, Ignatius BBS, JP
CHEAH Cheng Hye
FUNG Yuen Mei, Anita *² BBS, JP
Rafael GIL-TIENDA *²
HU Zulu, Fred
HUNG Pi Cheng, Benjamin * BBS, JP
LEUNG KO May Yee, Margaret *³ SBS, JP
LEUNG Pak Hon, Hugo
MA Xuezheng, Mary *⁴
John Mackay McCulloch WILLIAMSON
YIU Kin Wah, Stephen *²

Executive Director

LI Xiaojia, Charles (Chief Executive)

Group Company Secretary

MAU Kam Shing, Joseph

Committees

Audit Committee

YIU Kin Wah, Stephen ⁵ (Chairman)
CHAN Tze Ching, Ignatius
FUNG Yuen Mei, Anita ⁵
LEUNG Pak Hon, Hugo
MA Xuezheng, Mary ⁶
John Mackay McCulloch WILLIAMSON

Corporate Social Responsibility Committee

Laura May-Lung CHA (Chairman)
LEUNG Pak Hon, Hugo
LI Xiaojia, Charles
John Mackay McCulloch WILLIAMSON
YIU Kin Wah, Stephen ⁵

Executive Committee

Laura May-Lung CHA (Chairman)
CHEAH Cheng Hye
LEUNG KO May Yee, Margaret ³
LEUNG Pak Hon, Hugo
LI Xiaojia, Charles
John Mackay McCulloch WILLIAMSON ⁶

Committees (continued)

Investment Committee ⁷

(formerly known as Investment Advisory Committee)
CHEAH Cheng Hye (Chairman)
FUNG Yuen Mei, Anita ⁵
HU Zulu, Fred
HUNG Pi Cheng, Benjamin
LEUNG Pak Hon, Hugo ⁸

Nomination and Governance Committee

Laura May-Lung CHA (Chairman)
Apurv BAGRI ⁵
CHAN Tze Ching, Ignatius
CHEAH Cheng Hye
Rafael GIL-TIENDA ⁶
LEUNG KO May Yee, Margaret ³

Panel Member Selection Committee ⁹

(formerly known as Panel Member Nomination Committee)
CHAN Tze Ching, Ignatius (Chairman)
CHEAH Cheng Hye
FUNG Yuen Mei, Anita ⁵
Rafael GIL-TIENDA ⁵
LEUNG Pak Hon, Hugo

Remuneration Committee

Rafael GIL-TIENDA ⁵ (Chairman)
Laura May-Lung CHA
CHEAH Cheng Hye
HU Zulu, Fred
John Mackay McCulloch WILLIAMSON

Risk Committee

Laura May-Lung CHA (Chairman)
CHAN Tze Ching, Ignatius
Rafael GIL-TIENDA ¹⁰
LEUNG KO May Yee, Margaret ³
LEUNG Pak Hon, Hugo ⁶
MA Xuezheng, Mary ⁶
YIU Kin Wah, Stephen ⁵

Risk Management Committee (statutory) ^Δ

Laura May-Lung CHA ¹¹ (Chairman)
CHAN Tze Ching, Ignatius
GAO Yingxin ** ¹²
LAM Yuk Kun, Lawrence ** ¹³
LAU Chung Kin, Clement ** ¹⁴
LEUNG KO May Yee, Margaret ³
LUI Kei Kwong, Keith ** ¹⁵
MA Xuezheng, Mary ⁶
Barbara SHIU ** ¹³

* Government Appointed Director

** Appointed by the Financial Secretary

Δ Established under Section 65 of the SFO

1 Re-elected as Director from 24 April 2019 until the conclusion of the AGM to be held in 2022

2 Re-appointed as Director from 24 April 2019 until the conclusion of the AGM to be held in 2021

3 Retired on 24 April 2019

4 Appointed as Director from 24 April 2019 until the conclusion of the AGM to be held in 2021

5 Re-appointment effective 24 April 2019

6 Appointment effective 24 April 2019

7 Change of name effective 14 August 2019

8 Appointment effective 24 May 2019

9 Change of name effective 27 February 2019

10 Appointment ceased on 24 April 2019

11 Member by virtue of being HKEX's Chairman

12 Member by virtue of being the Chairman of Hong Kong Interbank Clearing Limited

13 Re-appointment effective 1 July 2019

14 Member by virtue of being Executive Director (Monetary Management) of the Hong Kong Monetary Authority

15 Member by virtue of being Executive Director (Supervision of Markets) of the SFC

Changes in Information

Changes in Directors' other major offices which are required to be disclosed under Rule 13.51B(1) of the Main Board Listing Rules are set out below.

	Appointment (effective)	Cessation (effective)
Laura M Cha		
• HKEX Foundation Limited – director	2 July 2019	–
T C Chan		
• Hong Kong Tourism Board – member	–	1 April 2019
• Rizal Commercial Banking Corporation (listed on the Philippine Stock Exchange) – non-executive director	–	25 June 2019
Anita Fung		
• SEHK – member of Listing Nominating Committee	24 April 2019	–
Fred Hu		
• Dalian Wanda Commercial Management Group Co Ltd (formerly listed on the Stock Exchange) – independent non-executive director	–	27 March 2019
• Industrial and Commercial Bank of China Limited * – independent non-executive director	1 April 2019	–
Benjamin Hung		
• Standard Chartered Bank (Hong Kong) Limited – chairman	–	1 June 2019
– executive director	1 June 2019	–
Hugo Leung		
• HKEX Foundation Limited – director	2 July 2019	–
Mary Ma		
• Schneider Electric SE (listed on the Euronext Paris) – independent director	25 April 2019	–
• Swire Pacific Limited * – independent non-executive director	1 August 2019	–
John Williamson		
• HKEX Foundation Limited – director	2 July 2019	–

* Listed on the Stock Exchange

The biographies of the current Directors are available in the About HKEX (Organisation) section of the HKEX Group website.

International Advisory Council

HKEX established the International Advisory Council in February 2019 to provide the Board with insight and expertise from around the world, on business, economics, technology and finance, drawing on the extensive skills and experience of its members. The Council now comprises five members, and is chaired by HKEX Chairman, Laura M Cha.

Members of International Advisory Council

- Laura M CHA (Chairman)
- Stuart GULLIVER
- Mary SCHAPIRO
- Joseph TSAI
- Marcus WALLENBERG

Consultative Panels

Taking into account the expiry of the terms of certain members of the three Consultative Panels, the Panel Member Selection Committee approved changes in the composition of the Cash Market Consultative Panel, the Clearing Consultative Panel and the Derivatives Market Consultative Panel in May 2019. The member lists of the Consultative Panels are available in the About HKEX (Organisation) section of the HKEX Group website.

Non-executive Directors' Remuneration

At the 2019 AGM, Shareholders approved the Board's recommendation to adjust the remuneration of Non-executive Directors of HKEX and members of certain Board committees to make the Non-executive Directors' remuneration more competitive for retention and recruitment purposes and also reflect differentiation in time commitment and workload of the committee members.

The current remuneration of the Non-executive Directors for their service on the Board and, where applicable, on certain Board Committees is set out below.

	\$
The Board	
- Chairman	3,300,000
- Other Non-executive Director	850,000
Audit Committee, Executive Committee, Investment Committee, Remuneration Committee and Risk Committee	
- Chairman	250,000
- Other member	160,000
Corporate Social Responsibility Committee, and Nomination and Governance Committee	
- Chairman	200,000
- Other member	160,000

The above remuneration is payable to the Non-executive Directors for services rendered by each of them for the period between the conclusion of each AGM and the conclusion of the AGM to be held in the immediately following year until Shareholders otherwise determine, provided that such remuneration be payable in proportion to the period of service in the case of a Non-executive Director who has not served the entire period.

Save as disclosed above, there is no other information required to be disclosed under Rule 13.51B(1) of the Main Board Listing Rules.

Compliance with Corporate Governance Code

Throughout the six months ended 30 June 2019, HKEX complied with all code provisions and, where appropriate, adopted the recommended best practices set out in the Corporate Governance Code, with the exceptions of Code Provisions A.4.1 (re-election of non-executive directors) and A.4.2 (retirement by rotation of directors).

The Government Appointed Directors, all being Non-executive Directors, are not subject to election or re-election by Shareholders as their appointments are governed by the SFO. HKEX's Chief Executive in his capacity as a Director is also not subject to retirement by rotation, as his term on the Board is coterminous with his employment with HKEX under HKEX's Articles of Association.

Compliance with Model Code

HKEX has adopted the Model Code as its own code of conduct regarding Directors' securities transactions. In response to a specific enquiry by the Company, all Directors confirmed that they complied with the Model Code at all applicable times during the six months ended 30 June 2019.

Directors' Interests and Short Positions in Shares and Underlying Shares of HKEX

The interests and short positions of Directors, including HKEX's Chief Executive, in the shares and underlying shares of HKEX (within the meaning of Part XV of the SFO) as at 30 June 2019 as recorded in the register required to be kept under Section 352 of the SFO, or as otherwise notified to HKEX and the SFC under the Model Code, are set out below.

Long Positions in Shares and Underlying Shares of HKEX

Name of Director	Number of shares/underlying shares held				Total	% of HKEX ¹ shares in issue
	Personal interests	Family interests	Corporate interests	Other interests		
Charles Li	1,048,288 ²	–	–	–	1,048,288	0.08
Stephen Yiu	–	2,000 ³	–	–	2,000	0.00

1 Based on 1,258,108,353 HKEX shares in issue as at 30 June 2019

2 It included Mr Li's interests in Awarded Shares and shares acquired out of the dividends from the Awarded Shares in an aggregate of 355,796 shares which remained unvested under the Share Award Scheme. Details of Mr Li's Awarded Shares are set out in "Share Award Scheme" below.

3 Mr Yiu's spouse was the beneficial owner of those shares.

Save as disclosed above, none of the Directors had any interests or short positions in the shares, underlying shares or debentures of HKEX or any of its associated corporations (within the meaning of Part XV of the SFO) as at 30 June 2019 as recorded in the register required to be kept under Section 352 of the SFO, or as otherwise notified to HKEX and the SFC under the Model Code.

Apart from the Share Award Scheme, during the six months ended 30 June 2019, neither HKEX nor any of its subsidiary undertakings was a party to any arrangements to enable the Directors to acquire benefits by means of the acquisition of shares in, or debentures of, HKEX or any other body corporate. Save as disclosed above, during the six months ended 30 June 2019, none of the Directors (including their spouses and children under the age of 18) had any interests in or was granted any right to subscribe for the securities of HKEX or its associated corporations (within the meaning of Part XV of the SFO), or had exercised any such rights.

Other Persons' Interests and Short Positions in Shares and Underlying Shares of HKEX

Minority Controllers

As at the date of this Interim Report, other than the Government which has been a Minority Controller since 7 September 2007, nine entities have been approved as Minority Controllers on the basis that they held HKEX shares in custody for their clients. According to the Participant Shareholding Report as at 30 June 2019, these Minority Controllers in aggregate held approximately 68 per cent of HKEX shares in issue. More information about Minority Controllers is set out in the Corporate Governance section of the HKEX Group website.

Other persons' interests and short positions in the shares and underlying shares of HKEX (within the meaning of Part XV of the SFO) as at 30 June 2019 as recorded in the register required to be kept under Section 336 of the SFO are set out below.

Long Positions in Shares and Underlying Shares of HKEX

Name	Capacity	Number of shares/ underlying shares held	Total	% of HKEX ¹ shares in issue
The Government of the Hong Kong Special Administrative Region (for the account of the Exchange Fund)	Beneficial owner	74,840,961 ²	74,840,961	5.94

¹ Based on 1,258,108,353 shares in issue as at 30 June 2019

² Based on Hong Kong Monetary Authority's notification to HKEX on 4 June 2018

Save as disclosed above, no other persons had any interests or short positions in the shares or underlying shares of HKEX as at 30 June 2019 as recorded in the register required to be kept under Section 336 of the SFO, or as otherwise notified to HKEX and the Stock Exchange.

Share Award Scheme

HKEX has adopted the Share Award Scheme to recognise the contributions of certain employees and help in retaining them for the Group's operations and further development. The Scheme was adopted by the Board on 14 September 2005 (Adoption Date) and shall be valid until 31 December 2025. The maximum number of shares which can be awarded under the Scheme is 3 per cent (ie, 31,871,575 shares) of the HKEX shares in issue as at the Adoption Date and the maximum number of shares which can be awarded to a selected employee in the Scheme is 1 per cent (ie, 10,623,858 shares). The rules and trust deed of the Scheme are available in the Corporate Governance section of the HKEX Group website.

From the Adoption Date to 30 June 2019, a total of 12,120,173 shares had been awarded under the Scheme, representing 1.1 per cent of the HKEX shares in issue on the Adoption Date. As at 30 June 2019, taking into account the shares acquired out of the dividends from the shares held under the trust, there were 3,097,490 shares held in trust under the Scheme (excluding shares vested but not yet transferred to awardees).

Non-executive Directors are not entitled to participate in the Share Award Scheme. Details of the interests of HKEX's Chief Executive in the Awarded Shares are set out below.

	Date of ² award	Number of Awarded Shares	Number of shares ¹				As at 30 Jun 2019	Vesting period ³
			As at 1 Jan 2019	Shares acquired during the six months ended 30 Jun 2019 out of the dividend	Vested during the six months ended 30 Jun 2019	Lapsed during the six months ended 30 Jun 2019		
Charles Li	31 Dec 2015	56,800 ⁴	61,486	390 ⁵	33,592 ⁵	28,284 ⁵	–	End of a performance period of 2016 – 2018
	30 Dec 2016	63,210	33,254	391	–	–	33,645	7 Dec 2018 – 7 Dec 2019
	30 Dec 2016	67,400 ⁴	70,915	834	–	–	71,749	End of a performance period of 2017 – 2019
	29 Dec 2017	58,853	60,505	712	–	–	61,217	8 Dec 2019 – 8 Dec 2020
	29 Dec 2017	62,123 ⁴	63,866	751	–	–	64,617	End of a performance period of 2018 – 2020
	31 Dec 2018	61,560	61,560	724	–	–	62,284	7 Dec 2020 – 7 Dec 2021
	31 Dec 2018	61,560 ⁴	61,560	724	–	–	62,284	End of a performance period of 2019 – 2021

1 This includes shares acquired out of the dividends from the Awarded Shares according to the Scheme.

2 This refers to the date on which the trustee allocated the Awarded Shares to Mr Li.

3 Save for those Senior Executive Awards referred to in note 4 below, the Awarded Shares and the related income are vested in two equal tranches in the second and third year after the grant.

4 The awards were granted under the Scheme as long-term incentives for selected senior executives of the Group (Senior Executive Awards). The Board has full discretion to determine the actual amount of the Senior Executive Awards to be vested at the end of a performance period in accordance with the performance criteria recommended by the Remuneration Committee and approved by the Board. These performance criteria include total shareholder return, achievements made in business development and sustaining the organisation's effectiveness.

5 Following the Board's approval of the vesting of 33,202 shares to Mr Li on 27 February 2019, the remaining 28,284 Awarded Shares lapsed on the same day, and 390 shares were acquired out of the 2018 second interim dividend in respect of these vested shares.

Purchase, Sale or Redemption of HKEX's Listed Securities

During the six months ended 30 June 2019, neither the Company nor any of its subsidiaries purchased, sold or redeemed any HKEX shares, except that the trustee of the Share Award Scheme, pursuant to the terms of the rules and trust deed of the Share Award Scheme, purchased on the Stock Exchange a total of 10,600 HKEX shares at a total consideration of \$3 million.

Sustainable Workplace

During the six months ended 30 June 2019, the Group organised 97 in-house courses for employees to enhance their job knowledge, skills and well-being. Moreover, the Group sponsored a total of 39 employees to attend external training.

As at 30 June 2019, the Group had 2,308 employees, including 144 temporary staff and 55 interns. HKEX's remuneration policy has remained unchanged since the date of the 2018 Annual Report. Information regarding employees' remuneration and benefits for the six months ended 30 June 2019 is set out in note 6 to the Unaudited Condensed Consolidated Financial Statements of this Interim Report.

Details of HKEX's principles and practices related to governance and sustainability are set out in the Corporate Governance and Corporate Social Responsibility sections of the HKEX Group website.

Shareholder Information

Interim Dividend

The Board has declared an interim dividend of \$3.72 per share (2018: \$3.64 per share) for the year ending 31 December 2019. The interim dividend will be payable in cash with a scrip alternative where a 3 per cent discount on the subscription price will be offered to Shareholders who elect to subscribe for shares. The scrip dividend alternative is conditional upon the SFC's granting the listing of, and permission to deal in, new shares of HKEX to be issued pursuant thereto. Details of the scrip dividend alternative will be set out in a circular to Shareholders.

Electronic Communication

This Interim Report is printed in English and Chinese, and is available in the Investor Relations (Regulatory Disclosure) section of the HKEX Group website (www.hkexgroup.com). Shareholders are encouraged to access HKEX's corporate communications electronically via the HKEX Group website to help protect the environment. Shareholders may at any time change their choice of language or means of receiving HKEX's corporate communications free of charge by giving not less than seven days' notice to HKEX's registrar.

Registration for News Alerts

Shareholders who would like to be notified when HKEX publishes its corporate communications on the HKEXnews website can register for the News Alerts service in the Market Data section of the HKEX Market website (www.hkex.com.hk).

The Investor Relations section of the HKEX Group website contains further information which may be of interest to Shareholders.

Relevant Dates for Interim Dividend Payment

Ex-dividend date	27 August 2019
Latest time to lodge transfer documents for registration with HKEX's registrar in order to qualify for the dividend	At 4:30 pm on 28 August 2019
Closure of HKEX's Register of Members	29 to 30 August 2019 (both dates inclusive)
Record date	30 August 2019
Despatch of scrip dividend circular and election form	On or about 4 September 2019
Announcement of scrip share subscription price	On or about 10 September 2019
Despatch of dividend warrants/ definitive share certificates	26 September 2019

HKEX's Registrar – Hong Kong Registrars Limited

For corporate communications:

By post: 17M Floor, Hopewell Centre
183 Queen's Road East
Wan Chai, Hong Kong

By email: hkex.ecom@computershare.com.hk

For transfer of shares:

Address: Shops 1712-1716, 17th Floor, Hopewell Centre
183 Queen's Road East
Wan Chai, Hong Kong

Tel: +852 2862 8555

Fax: +852 2865 0990/+852 2529 6087

Auditor's Independent Review Report

Report on Review of Interim Financial Information To the Board of Directors of Hong Kong Exchanges and Clearing Limited

(incorporated in Hong Kong with limited liability)

Introduction

We have reviewed the interim financial information set out on pages 37 to 66, which comprises the interim condensed consolidated statement of financial position of Hong Kong Exchanges and Clearing Limited (the "Company") and its subsidiaries (together, the "Group") as at 30 June 2019 and the interim condensed consolidated income statement, the interim condensed consolidated statement of comprehensive income, the interim condensed consolidated statement of changes in equity and the interim condensed consolidated statement of cash flows for the six-month period then ended, and a summary of significant accounting policies and other explanatory notes. The Rules Governing the Listing of Securities on The Stock Exchange of Hong Kong Limited require the preparation of a report on interim financial information to be in compliance with the relevant provisions thereof and Hong Kong Accounting Standard 34 "Interim Financial Reporting" issued by the Hong Kong Institute of Certified Public Accountants. The directors of the Company are responsible for the preparation and presentation of this interim financial information in accordance with Hong Kong Accounting Standard 34 "Interim Financial Reporting". Our responsibility is to express a conclusion on this interim financial information based on our review and to report our conclusion solely to you, as a body, in accordance with our agreed terms of engagement and for no other purpose. We do not assume responsibility towards or accept liability to any other person for the contents of this report.

Scope of Review

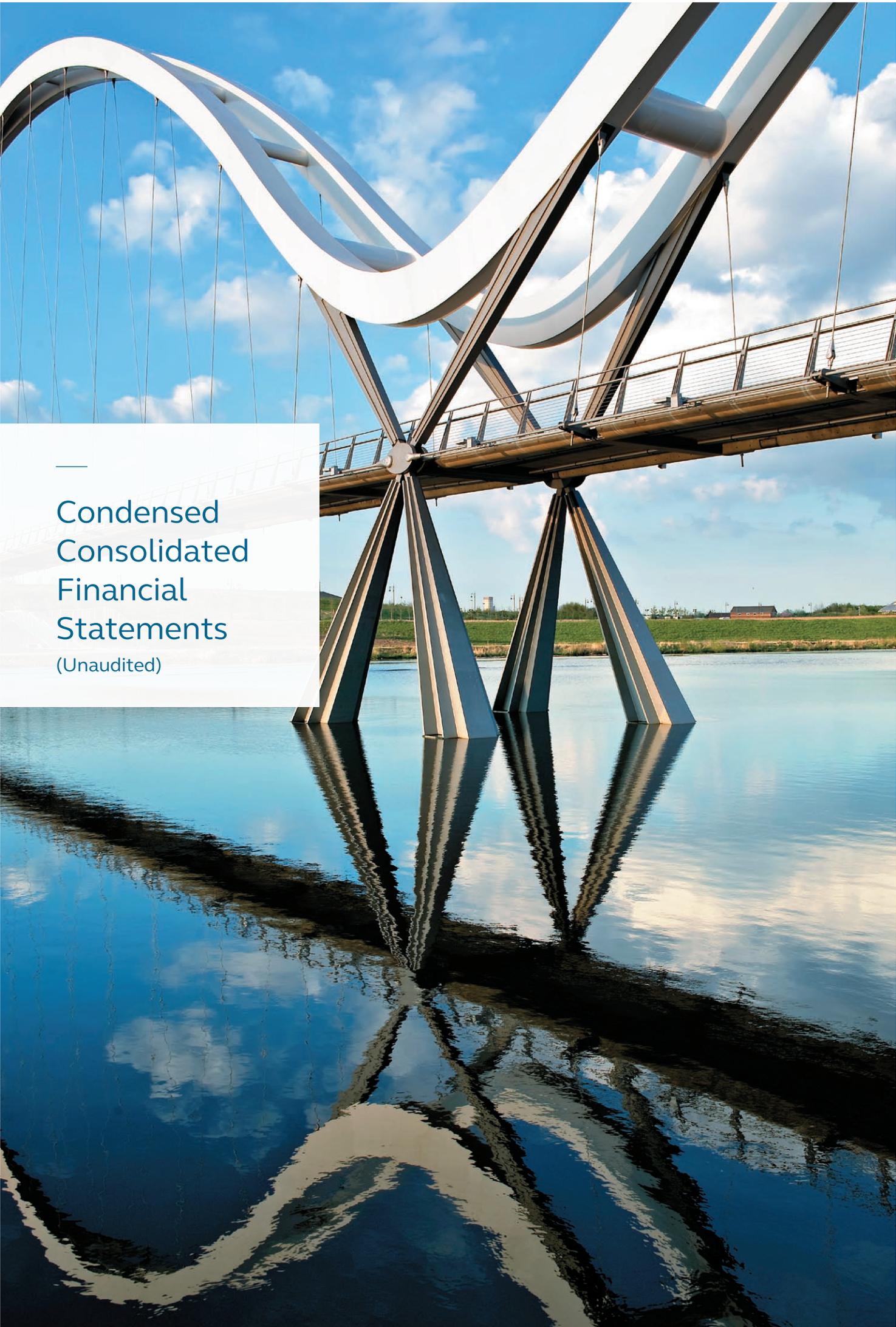
We conducted our review in accordance with Hong Kong Standard on Review Engagements 2410, "Review of Interim Financial Information Performed by the Independent Auditor of the Entity" issued by the Hong Kong Institute of Certified Public Accountants. A review of interim financial information consists of making inquiries, primarily of persons responsible for financial and accounting matters, and applying analytical and other review procedures. A review is substantially less in scope than an audit conducted in accordance with Hong Kong Standards on Auditing and consequently does not enable us to obtain assurance that we would become aware of all significant matters that might be identified in an audit. Accordingly, we do not express an audit opinion.

Conclusion

Based on our review, nothing has come to our attention that causes us to believe that the interim financial information of the Group is not prepared, in all material respects, in accordance with Hong Kong Accounting Standard 34 "Interim Financial Reporting".

PricewaterhouseCoopers
Certified Public Accountants

Hong Kong, 14 August 2019



Condensed
Consolidated
Financial
Statements
(Unaudited)

Condensed Consolidated Income Statement (Unaudited)

	Note	Six months ended 30 Jun 2019 \$m	Six months ended 30 Jun 2018 \$m
Trading fees and trading tariffs	4	2,940	3,334
Stock Exchange listing fees		847	855
Clearing and settlement fees		1,655	1,747
Depository, custody and nominee services fees		575	518
Market data fees		461	443
Other revenue		577	488
REVENUE		7,055	7,385
Investment income		2,142	1,300
Interest rebates to Participants		(623)	(505)
Net investment income	5	1,519	795
Sundry income		4	14
REVENUE AND OTHER INCOME		8,578	8,194
OPERATING EXPENSES			
Staff costs and related expenses	6	(1,328)	(1,205)
Information technology and computer maintenance expenses		(278)	(241)
Premises expenses		(64)	(202)
Product marketing and promotion expenses		(29)	(22)
Professional fees		(37)	(42)
Other operating expenses		(217)	(206)
		(1,953)	(1,918)
EBITDA*		6,625	6,276
Depreciation and amortisation		(495)	(378)
OPERATING PROFIT		6,130	5,898
Finance costs	7	(86)	(55)
Share of profits less losses of joint ventures		6	4
PROFIT BEFORE TAXATION		6,050	5,847
TAXATION	8	(847)	(822)
PROFIT FOR THE PERIOD		5,203	5,025
PROFIT/(LOSS) ATTRIBUTABLE TO:			
– Shareholders of HKEX		5,205	5,041
– Non-controlling interests		(2)	(16)
PROFIT FOR THE PERIOD		5,203	5,025
Basic earnings per share	9(a)	\$4.16	\$4.07
Diluted earnings per share	9(b)	\$4.15	\$4.06

* EBITDA represents earnings before interest expenses and other finance costs, taxation, depreciation and amortisation. It excludes the Group's share of results of the joint ventures.

Condensed Consolidated Statement of Comprehensive Income (Unaudited)

	Six months ended 30 Jun 2019 \$m	Six months ended 30 Jun 2018 \$m
PROFIT FOR THE PERIOD	5,203	5,025
OTHER COMPREHENSIVE INCOME		
Items that may be reclassified subsequently to profit or loss:		
Currency translation differences of foreign subsidiaries	(35)	67
Cash flow hedges	(2)	(3)
Changes in fair value of financial assets measured at fair value through other comprehensive income	3	(3)
OTHER COMPREHENSIVE INCOME	(34)	61
TOTAL COMPREHENSIVE INCOME	5,169	5,086
TOTAL COMPREHENSIVE INCOME ATTRIBUTABLE TO:		
– Shareholders of HKEX	5,168	5,100
– Non-controlling interests	1	(14)
TOTAL COMPREHENSIVE INCOME	5,169	5,086

Condensed Consolidated Statement of Financial Position (Unaudited)

	Note	At 30 Jun 2019			At 31 Dec 2018		
		Current \$m	Non- current \$m	Total \$m	Current \$m	Non- current \$m	Total \$m
ASSETS							
Cash and cash equivalents	11	114,532	-	114,532	121,196	-	121,196
Financial assets measured at fair value through profit or loss	11	48,623	50	48,673	61,004	-	61,004
Financial assets measured at fair value through other comprehensive income	11	4,247	-	4,247	3,755	-	3,755
Financial assets measured at amortised cost	11	41,502	398	41,900	31,487	398	31,885
Accounts receivable, prepayments and deposits	12	14,038	21	14,059	18,341	21	18,362
Interests in joint ventures		-	69	69	-	63	63
Goodwill and other intangible assets		-	18,193	18,193	-	18,019	18,019
Fixed assets		-	1,512	1,512	-	1,625	1,625
Right-of-use assets	13	-	2,328	2,328	-	-	-
Lease premium for land		-	20	20	-	20	20
Deferred tax assets		-	20	20	-	19	19
Total assets		222,942	22,611	245,553	235,783	20,165	255,948
LIABILITIES AND EQUITY							
Liabilities							
Financial liabilities at fair value through profit or loss	14	39,439	-	39,439	53,915	-	53,915
Margin deposits, Mainland security and settlement deposits, and cash collateral from Clearing Participants	15	134,127	-	134,127	123,728	-	123,728
Accounts payable, accruals and other liabilities	16	9,081	-	9,081	18,316	53	18,369
Deferred revenue		672	411	1,083	1,000	418	1,418
Taxation payable		1,202	-	1,202	678	-	678
Other financial liabilities		65	-	65	59	-	59
Participants' contributions to Clearing House Funds	17	12,374	-	12,374	14,787	-	14,787
Lease liabilities		163	2,223	2,386	-	-	-
Borrowings	18	252	163	415	1,005	161	1,166
Provisions		103	102	205	93	89	182
Deferred tax liabilities		-	743	743	-	743	743
Total liabilities		197,478	3,642	201,120	213,581	1,464	215,045
Equity							
Share capital	19			29,702			27,750
Shares held for Share Award Scheme	19			(681)			(682)
Employee share-based compensation reserve	20			318			218
Hedging and revaluation reserves				(5)			(6)
Exchange reserve				(122)			(84)
Designated reserves	21			547			523
Reserve relating to written put options to non-controlling interests				(369)			(369)
Retained earnings				14,730			13,379
Equity attributable to shareholders of HKEX				44,120			40,729
Non-controlling interests				313			174
Total equity				44,433			40,903
Total liabilities and equity				245,553			255,948
Net current assets				25,464			22,202

Condensed Consolidated Statement of Changes in Equity (Unaudited)

	Attributable to shareholders of HKEX									
	Share capital and shares held for Share Award Scheme	Employee share-based compensation reserve	Hedging and revaluation reserves	Exchange reserve	Designated reserves	Reserve relating to written put options to non-controlling interests	Retained earnings	Total	Non-controlling interests	Total equity
	(note 19)	(note 20)	reserves	reserve	(note 21)	interests	\$m	\$m	\$m	\$m
	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m
At 1 Jan 2019, as previously reported	27,068	218	(6)	(84)	523	(369)	13,379	40,729	174	40,903
Effect of adoption of HKFRS 16 (note 2)	-	-	-	-	-	-	(8)	(8)	-	(8)
At 1 Jan 2019, as restated	27,068	218	(6)	(84)	523	(369)	13,371	40,721	174	40,895
Profit for the period	-	-	-	-	-	-	5,205	5,205	(2)	5,203
Other comprehensive income	-	-	1	(38)	-	-	-	(37)	3	(34)
Total comprehensive income	-	-	1	(38)	-	-	5,205	5,168	1	5,169
Total transactions with shareholders of HKEX, recognised directly in equity:										
- 2018 second interim dividend at \$3.07 per share	-	-	-	-	-	-	(3,830)	(3,830)	-	(3,830)
- Unclaimed HKEX dividends forfeited	-	-	-	-	-	-	8	8	-	8
- Shares issued in lieu of cash dividends	1,940	-	-	-	-	-	-	1,940	-	1,940
- Shares purchased for Share Award Scheme	(3)	-	-	-	-	-	-	(3)	-	(3)
- Vesting of shares of Share Award Scheme	16	(15)	-	-	-	-	(1)	-	-	-
- Employee share-based compensation benefits	-	115	-	-	-	-	-	115	-	115
- Tax relating to Share Award Scheme	-	-	-	-	-	-	1	1	-	1
- Non-controlling interests on acquisition of a subsidiary (note 23)	-	-	-	-	-	-	-	-	138	138
- Transfer of reserves	-	-	-	-	24	-	(24)	-	-	-
	1,953	100	-	-	24	-	(3,846)	(1,769)	138	(1,631)
At 30 Jun 2019	29,021	318	(5)	(122)	547	(369)	14,730	44,120	313	44,433

	Attributable to shareholders of HKEX									
	Share capital and shares held for Share Award Scheme	Employee share-based compensation reserve	Hedging and revaluation reserves	Exchange reserve	Designated reserves	Reserve relating to written put options to non-controlling interests	Retained earnings	Total	Non-controlling interests	Total equity
	(note 19)	(note 20)	reserves	reserve	(note 21)	interests	\$m	\$m	\$m	\$m
	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m
At 1 Jan 2018, as previously reported	24,535	222	1	(104)	822	(293)	12,090	37,273	102	37,375
Effect of adoption of HKFRS 9 (2014)	-	-	(4)	-	-	-	4	-	-	-
Effect of adoption of HKFRS 15	-	-	-	-	-	-	(62)	(62)	-	(62)
At 1 Jan 2018, as restated	24,535	222	(3)	(104)	822	(293)	12,032	37,211	102	37,313
Profit for the period	-	-	-	-	-	-	5,041	5,041	(16)	5,025
Other comprehensive income	-	-	(6)	65	-	-	-	59	2	61
Total comprehensive income	-	-	(6)	65	-	-	5,041	5,100	(14)	5,086
Total transactions with shareholders of HKEX, recognised directly in equity:										
- 2017 final dividend at \$2.85 per share	-	-	-	-	-	-	(3,525)	(3,525)	-	(3,525)
- Unclaimed HKEX dividends forfeited	-	-	-	-	-	-	12	12	-	12
- Shares issued in lieu of cash dividends	1,750	-	-	-	-	-	-	1,750	-	1,750
- Shares purchased for Share Award Scheme	(3)	-	-	-	-	-	-	(3)	-	(3)
- Vesting of shares of Share Award Scheme	21	(20)	-	-	-	-	(1)	-	-	-
- Employee share-based compensation benefits	-	101	-	-	-	-	-	101	-	101
- Transfer of reserves	-	-	-	-	(314)	-	314	-	-	-
	1,768	81	-	-	(314)	-	(3,200)	(1,665)	-	(1,665)
At 30 Jun 2018	26,303	303	(9)	(39)	508	(293)	13,873	40,646	88	40,734

Condensed Consolidated Statement of Cash Flows (Unaudited)

	Note	Six months ended 30 Jun 2019 \$m	Six months ended 30 Jun 2018 \$m
CASH FLOWS FROM PRINCIPAL OPERATING ACTIVITIES			
Net cash inflow from principal operating activities	22	5,880	5,210
CASH FLOWS FROM OTHER OPERATING ACTIVITIES			
Net payments to external fund managers for purchases of financial assets measured at fair value through profit or loss		(1,796)	-
Net cash inflow from operating activities		4,084	5,210
CASH FLOWS FROM INVESTING ACTIVITIES			
Payments for purchases of fixed assets and intangible assets		(508)	(412)
Net increase in financial assets of Corporate Funds:			
Increase in time deposits with original maturities more than three months		(2,933)	(2,012)
Payments for purchase of financial assets measured at amortised cost (excluding time deposits)		(130)	-
Increase in financial assets measured at fair value through profit or loss		(50)	-
Interest received from financial assets measured at fair value through other comprehensive income		52	29
Cash acquired upon acquisition of a subsidiary	23	41	-
Net cash outflow from investing activities		(3,528)	(2,395)
CASH FLOWS FROM FINANCING ACTIVITIES			
Purchases of shares for Share Award Scheme		(3)	(3)
Repayment of borrowings		(744)	-
Payments of interest on borrowings		(11)	(21)
Payments of other finance costs		(38)	(28)
Dividends paid to shareholders of HKEX		(1,872)	(1,756)
Lease payments		(159)	-
Net cash outflow from financing activities		(2,827)	(1,808)
Net (decrease)/increase in cash and cash equivalents		(2,271)	1,007
Cash and cash equivalents at 1 Jan		11,180	13,546
Cash and cash equivalents at 30 Jun		8,909	14,553
Analysis of cash and cash equivalents			
Cash on hand and balances and deposits with banks and short-term investments of Corporate Funds	11	9,775	15,845
Less: Cash reserved for supporting Skin-in-the-Game and default fund credits of clearing houses	11(b)	(866)	(1,292)
		8,909	14,553

- (a) “Cash flows from principal operating activities” is a non-Hong Kong Financial Reporting Standard (non-HKFRS) measure used by management for monitoring cash flows of the Group and represents the cash flows generated from the trading and clearing operations of the four exchanges and five clearing houses and ancillary services of the Group. This non-HKFRS measure may not be comparable to similar measures presented by other companies. Cash flows from principal operating activities and cash flows from other operating activities together represent cash flows from operating activities as defined by Hong Kong Accounting Standard (HKAS) 7: Statement of Cash Flows.

1. Basis of Preparation and Accounting Policies

These unaudited condensed consolidated financial statements are prepared in accordance with HKAS 34: Interim Financial Reporting, issued by the Hong Kong Institute of Certified Public Accountants.

These unaudited condensed consolidated financial statements should be read in conjunction with the 2018 annual consolidated financial statements. Except as described in note 2 below, the accounting policies and methods of computation used in the preparation of these unaudited condensed consolidated financial statements are consistent with those used in the annual consolidated financial statements for the year ended 31 December 2018.

The financial information relating to the year ended 31 December 2018 that is included in these unaudited condensed consolidated financial statements for the six months ended 30 June 2019 as comparative information does not constitute the statutory annual consolidated financial statements of the Company for that year but is derived from those consolidated financial statements. Further information relating to these statutory financial statements required to be disclosed in accordance with section 436 of the Hong Kong Companies Ordinance (Chapter 622) is as follows:

The Company has delivered the consolidated financial statements for the year ended 31 December 2018 to the Registrar of Companies as required by section 662(3) of, and Part 3 of Schedule 6 to, the Hong Kong Companies Ordinance (Chapter 622).

The Company's auditor has reported on those consolidated financial statements. The auditor's report was unqualified; did not include a reference to any matters to which the auditor drew attention by way of emphasis without qualifying its report; and did not contain a statement under sections 406(2), 407(2) or (3) of the Hong Kong Companies Ordinance (Chapter 622).

2. Adoption of new/revised HKFRSs

In 2019, the Group has adopted the following new standard and interpretation to Hong Kong Financial Reporting Standards (HKFRSs) which are pertinent to the Group's operations and effective for accounting periods beginning on or after 1 January 2019:

HKFRS 16	Leases
HK(IFRIC) Interpretation 23	Uncertainty over Income Tax Treatments

(a) Adoption of HKFRS 16

(i) Impact of adoption

HKFRS 16 affects the accounting for the Group's operating leases. The adoption of HKFRS 16 resulted in changes in accounting policies and adjustments to amounts recognised in the financial statements. The new accounting policies are set out in (a)(ii) and the adjustments to the financial statements are set out below.

2. Adoption of new/revised HKFRSs (continued)

(a) Adoption of HKFRS 16 (continued)

(i) Impact of adoption (continued)

Prior to the adoption of HKFRS 16, leases where substantially all the rewards and risks of ownership of assets remained with the lessor were accounted for as operating leases. Operating lease rentals were recognised under operating expenses in the condensed consolidated income statement on a straight-line basis over the lease term. Commitments under operating leases for future periods were not recognised as liabilities.

Upon adoption of HKFRS 16, the majority of operating leases (except for short-term leases with lease terms of less than 12 months) are recognised in the condensed consolidated statement of financial position as lease liabilities and right-of-use assets (see note (a)(ii) below).

The Group has applied HKFRS 16 from 1 January 2019. As permitted by the transitional provision of HKFRS 16, comparatives for 2018 were not restated. The Group has used the following practical expedients permitted by the standard:

- the use of a single discount rate to a portfolio of leases with reasonably similar characteristics;
- the accounting for operating leases with a remaining lease term of less than 12 months as at 1 January 2019 as short-term leases;
- the exclusion of initial direct costs for the measurement of the right-of-use asset at the date of initial application; and
- the use of hindsight in determining the lease term where the contract contains options to extend or terminate the lease.

At initial application, right-of-use assets were measured at their carrying amounts as if HKFRS 16 had always been applied since the commencement date of the leases, discounted at the lessee's incremental borrowing rate at the date of initial application.

2. Adoption of new/revised HKFRSs (continued)

(a) Adoption of HKFRS 16 (continued)

(i) Impact of adoption (continued)

The following table shows the adjustments recognised for each individual line item in the opening condensed consolidated statement of financial position on 1 January 2019. Line items that were not affected by the changes have not been included, and therefore the line items disclosed do not add up to the sub-totals and totals below.

Condensed consolidated statement of financial position (extracts)	31 Dec 2018 As originally presented \$m	Impact from adoption of HKFRS 16 \$m	1 Jan 2019 Restated \$m
Non-current assets			
Fixed assets	1,625	(36)	1,589
Right-of-use assets	–	2,455	2,455
Total assets	255,948	2,419	258,367
Current liabilities			
Lease liabilities	–	235	235
Accounts payable, accruals and other liabilities	18,316	(32)	18,284
Non-current liabilities			
Lease liabilities	–	2,277	2,277
Accounts payable, accruals and other liabilities	53	(53)	–
Total liabilities	215,045	2,427	217,472
Equity			
Retained earnings	13,379	(8)	13,371
Equity attributable to shareholders of HKEX	40,729	(8)	40,721
Total equity	40,903	(8)	40,895
Total liabilities and equity	255,948	2,419	258,367
Net current assets	22,202	(203)	21,999

Note: The Group recognised right-of-use assets of \$2,419 million and current and non-current lease liabilities amounting to \$235 million and \$2,277 million respectively, and de-recognised provision for lease incentives included under current and non-current liabilities of \$32 million and \$53 million respectively, with the net difference of \$8 million being recognised as a reduction in retained earnings. In addition, reinstatement costs of \$36 million, which were previously included under fixed assets, were reclassified to right-of-use assets.

2. Adoption of new/revised HKFRSs (continued)

(a) Adoption of HKFRS 16 (continued)

(i) Impact of adoption (continued)

The following table shows the reconciliation from operating lease commitments disclosed under HKAS 17: Leases as at 31 December 2018 to lease liabilities upon adoption of HKFRS 16 as at 1 January 2019.

	\$m
Operating lease commitments disclosed under HKAS 17 as at 31 Dec 2018	3,240
Discount arising from conversion into present value by discounting cash flows using the Group's incremental borrowing rate at 1 Jan 2019 (weighted average of 3.42%)	(534)
Less: short-term leases recognised on a straight-line basis as expenses	(18)
Less: contracts not classified as leases under HKFRS 16	(176)
Lease liabilities recognised as at 1 Jan 2019	2,512
Current lease liabilities	235
Non-current lease liabilities	2,277
	2,512

2. Adoption of new/revised HKFRSs (continued)

(a) Adoption of HKFRS 16 (continued)

(i) Impact of adoption (continued)

The following tables show the impact on each individual line item of the condensed consolidated income statement and the condensed consolidated statement of cash flows for the six months ended 30 June 2019, and the condensed consolidated statement of financial position as of 30 June 2019 following the adoption of HKFRS 16. Line items that were not affected by the changes have not been included, and therefore the line items disclosed do not add up to the subtotals and totals below.

Condensed consolidated income statement (extracts)	Six months ended 30 Jun 2019		
	Before adoption of HKFRS 16 \$m	Impact from adoption of HKFRS 16 \$m	As reported \$m
OPERATING EXPENSES			
Information technology and computer maintenance expenses	(282)	4	(278)
Premises expenses	(210)	146	(64)
Other operating expenses	(220)	3	(217)
EBITDA	6,472	153	6,625
Depreciation and amortisation	(364)	(131)	(495)
OPERATING PROFIT	6,108	22	6,130
Finance costs	(42)	(44)	(86)
PROFIT BEFORE TAXATION	6,072	(22)	6,050
TAXATION	(847)	-	(847)
PROFIT FOR THE PERIOD	5,225	(22)	5,203
PROFIT ATTRIBUTABLE TO SHAREHOLDERS OF HKEX	5,227	(22)	5,205
Basic earnings per share (\$)	4.18	(0.02)	4.16

Condensed consolidated statement of cash flows (extracts)	Six months ended 30 Jun 2019		
	Before adoption of HKFRS 16 \$m	Impact from adoption of HKFRS 16 \$m	As reported \$m
Net cash inflow from operating activities	3,925	159	4,084
Net cash outflow from financing activities	(2,668)	(159)	(2,827)
Net decrease in cash and cash equivalents	(2,271)	-	(2,271)

2. Adoption of new/revised HKFRSs (continued)

(a) Adoption of HKFRS 16 (continued)

(i) Impact of adoption (continued)

Condensed consolidated statement of financial position (extracts)	At 30 Jun 2019		
	Before adoption of HKFRS 16 \$m	Impact from adoption of HKFRS 16 \$m	As reported \$m
Non-current assets			
Fixed assets	1,563	(51)	1,512
Right-of-use assets	-	2,328	2,328
Total assets	243,276	2,277	245,553
Current liabilities			
Lease liabilities	-	163	163
Accounts payable, accruals and other liabilities	9,110	(29)	9,081
Non-current liabilities			
Lease liabilities	-	2,223	2,223
Accounts payable, accruals and other liabilities	50	(50)	-
Total liabilities	198,813	2,307	201,120
Equity			
Retained earnings	14,760	(30)	14,730
Equity attributable to shareholders of HKEX	44,150	(30)	44,120
Total equity	44,463	(30)	44,433
Total liabilities and equity	243,276	2,277	245,553
Net current assets	25,598	(134)	25,464

(ii) Accounting policies applied from 1 January 2019

A contract is, or contains, a lease if the contract conveys a right to control the use of an identified asset for a period of time in exchange for consideration.

The Group recognises a right-of-use asset and a lease liability at the lease commencement date. The right-of-use asset is initially measured at cost (which comprises the initial measurement of lease liabilities, initial direct costs, reinstatement costs, any payments made at or before the commencement date less any lease incentives received), and subsequently at cost less any accumulated depreciation and impairment losses. The right-of-use asset is depreciated over the shorter of the asset's useful life and the lease term on a straight-line basis.

2. Adoption of new/revised HKFRSs (continued)

(a) Adoption of HKFRS 16 (continued)

(ii) Accounting policies applied from 1 January 2019 (continued)

The lease liability is initially measured at the present value of the lease payments that are not paid at the commencement date, discounted using the interest rate implicit in the lease or, if that rate cannot be readily determined, the lessee's incremental borrowing rate is used. Generally, the Group uses its incremental borrowing rate as the discount rate. The lease liability is subsequently increased by the interest cost on the lease liability and decreased by lease payments made.

The Group has applied judgement to determine the lease term for some lease contracts in which it is a lessee that include renewal options. The assessment of whether the Group is reasonably certain to exercise such options impacts the lease term, which significantly affects the amount of lease liabilities and right-of-use assets recognised.

Payments associated with short-term leases (ie, leases with a lease term of 12 months or less) and low value leases are recognised on a straight-line basis as an expense in the condensed consolidated income statement.

(b) Adoption of HK(IFRIC) Interpretation 23

The Interpretation clarifies how to apply the recognition and measurement requirements in HKAS 12: Income Taxes when there is uncertainty over income tax treatments. The adoption did not have any financial impact on the Group.

3. Operating Segments

The Group determines its operating segments based on the internal management reports that are used to make strategic decisions reviewed by the chief operating decision-maker.

The Group has five reportable segments ("Corporate Items" is not a reportable segment). The segments are managed separately as each segment offers different products and services and requires different information technology systems and marketing strategies.

To optimise resources to successfully deliver the initiatives set out in the Group's Strategic Plan 2019-2021, the Group's operating segments have been reorganised. As a result, since April 2019, the "Clearing segment" has been renamed the "Post Trade segment", and the "Platform and Infrastructure segment" has been renamed the "Technology segment".

The operations in each of the Group's reportable segments are as follows:

The **Cash** segment covers all equity products traded on the Cash Market platforms, the Shanghai Stock Exchange and the Shenzhen Stock Exchange through Shanghai-Hong Kong Stock Connect and Shenzhen-Hong Kong Stock Connect (Stock Connect), sales of market data relating to these products and other related activities. The major sources of revenue of the segment are trading fees, trading tariffs, listing fees of equity products and market data fees.

3. Operating Segments (continued)

The **Equity and Financial Derivatives** segment refers to derivatives products traded on The Stock Exchange of Hong Kong Limited (Stock Exchange) and Hong Kong Futures Exchange Limited (Futures Exchange) and other related activities. These include the provision and maintenance of trading platforms for a range of equity and financial derivatives products, such as stock and equity index futures and options, derivative warrants (DWs), callable bull/bear contracts (CBBCs) and warrants, and sales of related market data. The major sources of revenue are trading fees, trading tariffs, listing fees of derivatives products and market data fees.

The **Commodities** segment refers to the operations of The London Metal Exchange (LME), which operates an exchange in the UK for the trading of base, ferrous, and precious metals futures and options contracts, and the operations of Qianhai Mercantile Exchange Co., Ltd. (QME), the commodity trading platform in the Mainland. It also covers the Asia Commodities contracts and gold and iron ore futures contracts traded on the Futures Exchange. The major sources of revenue of the segment are trading fees of commodity products, commodity market data fees and fees from ancillary operations.

The **Post Trade** segment refers to the operations of the five clearing houses, namely Hong Kong Securities Clearing Company Limited (HKSCC), The SEHK Options Clearing House Limited (SEOCH), HKFE Clearing Corporation Limited (HKCC), OTC Clearing Hong Kong Limited (OTC Clear) and LME Clear Limited (LME Clear), which are responsible for clearing, settlement and custodian activities of the exchanges of the Group and Northbound trades under Stock Connect, and clearing and settlement of over-the-counter derivatives contracts. Its principal sources of revenue are derived from providing clearing, settlement, depository, custody and nominee services and net investment income earned on the Margin Funds and Clearing House Funds.

The **Technology** segment refers to all services in connection with providing users with access to the platform and infrastructure of the Group. It also includes the services provided by the Group's newly acquired subsidiary, Shenzhen Ronghui Tongjin Technology Co. Ltd. (note 23). Its major sources of revenue are network, terminal user, dataline and software sub-license fees and hosting services fees.

Central income (including net investment income of Corporate Funds) and central costs (costs of central support functions that provide services to all operating segments and other costs not directly related to any operating segment) are included as "Corporate Items".

The chief operating decision-maker assesses the performance of the operating segments principally based on their EBITDA.

4. Trading Fees and Trading Tariffs

	Six months ended 30 Jun 2019 \$m	Six months ended 30 Jun 2018 \$m
Equity securities traded on the Stock Exchange and through Stock Connect	1,094	1,359
DWs, CBBCs and warrants traded on the Stock Exchange	358	417
Futures and options contracts traded on the Stock Exchange and the Futures Exchange	976	1,008
Base, ferrous, and precious metals futures and options contracts traded on the LME	512	550
	2,940	3,334

5. Net Investment Income

	Six months ended 30 Jun 2019 \$m	Six months ended 30 Jun 2018 \$m
Gross interest income from financial assets measured at amortised cost	1,549	1,229
Gross interest income from financial assets measured at fair value through other comprehensive income	52	29
Interest rebates to Participants	(623)	(505)
Net interest income	978	753
Net gains including interest income on financial assets mandatorily measured at fair value through profit or loss and financial liabilities at fair value through profit or loss	535	52
Others	6	(10)
Net investment income	1,519	795

6. Staff Costs and Related Expenses

	Six months ended 30 Jun 2019 \$m	Six months ended 30 Jun 2018 \$m
Salaries and other short-term employee benefits	1,124	1,012
Employee share-based compensation benefits of HKEX Share Award Scheme (Share Award Scheme)	115	101
Termination benefits	3	14
Retirement benefit costs (note (a))	86	78
	1,328	1,205

- (a) The Group has sponsored a defined contribution provident fund scheme (ORSO Plan) and a Mandatory Provident Fund scheme (MPF Scheme) for the benefits of its employees in Hong Kong. The Group has also sponsored a defined contribution pension scheme for all employees of LME and LME Clear (LME Pension Scheme), and has joined defined contribution retirement schemes arranged by local government labour and security authorities for employees of its PRC subsidiaries and representative office (PRC Retirement Schemes). The retirement benefit costs charged to the condensed consolidated income statement represent contributions paid and payable by the Group to the ORSO Plan, the MPF Scheme, the LME Pension Scheme, the PRC Retirement Schemes and related fees.

7. Finance Costs

	Six months ended 30 Jun 2019 \$m	Six months ended 30 Jun 2018 \$m
Interest on borrowings	4	27
Interest on lease liabilities	44	–
Banking facility commitment fees	25	21
Negative interest on Euro and Japanese Yen deposits	13	7
	86	55

8. Taxation

Taxation charge/(credit) in the condensed consolidated income statement represents:

	Six months ended 30 Jun 2019 \$m	Six months ended 30 Jun 2018 \$m
Current tax – Hong Kong Profits Tax	744	762
Current tax – Overseas Tax	102	61
Total current tax	846	823
Deferred tax	1	(1)
Taxation charge	847	822

- (a) Hong Kong Profits Tax has been provided at the rate of 16.5 per cent (2018: 16.5 per cent) and overseas profits tax at the rates of taxation prevailing in the countries in which the Group operates, with the average corporation tax rate applicable to the subsidiaries in the UK being 19 per cent (2018: 19 per cent).

9. Earnings Per Share

The calculation of the basic and diluted earnings per share is as follows:

- (a) Basic earnings per share

	Six months ended 30 Jun 2019	Six months ended 30 Jun 2018
Profit attributable to shareholders (\$m)	5,205	5,041
Weighted average number of shares in issue less shares held for Share Award Scheme (in '000)	1,250,719	1,238,023
Basic earnings per share (\$)	4.16	4.07

9. Earnings Per Share (continued)

(b) Diluted earnings per share

	Six months ended 30 Jun 2019	Six months ended 30 Jun 2018
Profit attributable to shareholders (\$m)	5,205	5,041
Weighted average number of shares in issue less shares held for Share Award Scheme (in '000)	1,250,719	1,238,023
Effect of shares awarded under Share Award Scheme (in '000)	3,010	2,872
Weighted average number of shares for the purpose of calculating diluted earnings per share (in '000)	1,253,729	1,240,895
Diluted earnings per share (\$)	4.15	4.06

10. Dividends

	Six months ended 30 Jun 2019 \$m	Six months ended 30 Jun 2018 \$m
Interim dividend declared of \$3.72 (2018: \$3.64) per share at 30 Jun	4,680	4,538
Less: Dividend for shares held by Share Award Scheme at 30 Jun	(12)	(11)
	4,668	4,527

11. Financial Assets

	At 30 Jun 2019 \$m	At 31 Dec 2018 \$m
Cash and cash equivalents	114,532	121,196
Financial assets measured at fair value through profit or loss	48,673	61,004
Financial assets measured at fair value through other comprehensive income	4,247	3,755
Financial assets measured at amortised cost	41,900	31,885
	209,352	217,840

11. Financial Assets (continued)

The Group's financial assets comprised financial assets of cash prepayments and collateral for A shares (Cash for A shares), Corporate Funds, Margin Funds, Clearing House Funds and metals derivatives contracts as follows:

	At 30 Jun 2019 \$m	At 31 Dec 2018 \$m
<u>Cash for A shares</u> (note (a))		
Cash and cash equivalents	-	3,014
<u>Corporate Funds</u>		
Cash and cash equivalents (note (b))	9,775	11,904
Financial assets measured at fair value through profit or loss	9,234	7,089
Financial assets measured at amortised cost	8,903	5,840
	27,912	24,833
<u>Margin Funds</u> ¹		
Cash and cash equivalents	91,635	90,773
Financial assets measured at fair value through other comprehensive income	4,247	3,755
Financial assets measured at amortised cost	32,997	26,045
	128,879	120,573
<u>Clearing House Funds</u> (note 17)		
Cash and cash equivalents	13,122	15,505
<u>Metals derivatives contracts</u>		
Financial assets measured at fair value through profit or loss (note (d))	39,439	53,915
	209,352	217,840

1 Excludes Settlement Reserve Fund and Settlement Guarantee Fund paid to China Securities Depository and Clearing Corporation Limited (ChinaClear) and margin receivable from Clearing Participants of \$5,248 million (31 December 2018: \$3,155 million), which are included in accounts receivable, prepayments and deposits. If such amounts are included, total Margin Funds would be \$134,127 million (31 December 2018: \$123,728 million) (note 15).

The expected maturity dates of the financial assets are analysed as follows:

	At 30 Jun 2019						At 31 Dec 2018					
	Cash for A shares \$m	Corporate Funds \$m	Margin Funds \$m	Clearing House Funds \$m	Metals derivatives contracts \$m	Total \$m	Cash for A shares \$m	Corporate Funds \$m	Margin Funds \$m	Clearing House Funds \$m	Metals derivatives contracts \$m	Total \$m
Within twelve months	-	27,464	128,879	13,122	39,439	208,904	3,014	24,435	120,573	15,505	53,915	217,442
Over twelve months	-	448	-	-	-	448	-	398	-	-	-	398
	-	27,912	128,879	13,122	39,439	209,352	3,014	24,833	120,573	15,505	53,915	217,840

11. Financial Assets (continued)

- (a) Cash for A shares includes:
- (i) Renminbi (RMB) cash prepayments received by HKSCC from its Clearing Participants for releasing their allocated A shares on the trade day. Such prepayments will be used to settle HKSCC's Continuous Net Settlement (CNS) obligations payable on the next business day; and
 - (ii) Hong Kong Dollar/United States Dollar cash collateral received by HKSCC from its Clearing Participants for releasing their allocated A shares on the trade day. Such collateral will be refunded to the Clearing Participants when they settle their RMB CNS obligations on the next business day.
- (b) At 30 June 2019, cash and cash equivalents of Corporate Funds of \$866 million (31 December 2018: \$724 million) were solely used to support Skin-in-the-Game and default fund credits for HKSCC Guarantee Fund, SEOCH Reserve Fund and HKCC Reserve Fund (note 17(a)).
- (c) The cash and cash equivalents of Margin Funds, Clearing House Funds, Corporate Funds reserved for supporting Skin-in-the-Game and default fund credits of Clearing House Funds (note (b)), and Cash for A shares are held for specific purposes and cannot be used by the Group to finance other activities. These balances are not included in cash and cash equivalents of the Group for cash flow purpose in the condensed consolidated statement of cash flows.
- (d) Metals derivatives contracts represent the fair value of outstanding base, ferrous, and precious metals futures and options contracts cleared through LME Clear that do not qualify for netting under HKAS 32: Financial Instruments: Presentation, where LME Clear is acting in its capacity as a central counterparty to the contracts traded on the LME. A corresponding amount has been recognised under financial liabilities at fair value through profit or loss (note 14).

12. Accounts Receivable, Prepayments and Deposits

The Group's accounts receivable, prepayments and deposits mainly represent the Group's CNS money obligations receivable, and Settlement Reserve Fund and Settlement Guarantee Fund paid to ChinaClear, which accounted for 50 per cent (31 December 2018: 73 per cent) and 37 per cent (31 December 2018: 17 per cent) of the total accounts receivable, prepayments and deposits respectively. CNS money obligations receivable mature within two days after the trade date. Fees receivable are due immediately or up to 60 days depending on the type of services rendered. The majority of the remaining accounts receivable, prepayments and deposits were due within three months.

13. Right-of-Use Assets

Right-of-use assets relate to the following types of assets:

	At 30 Jun 2019 \$m	At 1 Jan 2019 \$m
Properties	2,279	2,398
Information technology facilities	33	38
Office equipment	16	19
	2,328	2,455

14. Financial Liabilities at Fair Value through Profit or Loss

	At 30 Jun 2019 \$m	At 31 Dec 2018 \$m
<u>Held by LME Clear in its capacity as a central counterparty</u>		
Derivative financial instruments:		
– base, ferrous, and precious metals futures and options contracts cleared through LME Clear (note 11(d))	39,439	53,915

15. Margin Deposits, Mainland Security and Settlement Deposits, and Cash Collateral from Clearing Participants

	At 30 Jun 2019 \$m	At 31 Dec 2018 \$m
Margin deposits, Mainland security and settlement deposits, and cash collateral from Clearing Participants comprised:		
SEOCH Clearing Participants' margin deposits	9,399	9,011
HKCC Clearing Participants' margin deposits	58,340	52,446
HKSCC Clearing Participants' margin deposits, Mainland security and settlement deposits, and cash collateral	11,116	7,982
OTC Clear Clearing Participants' margin deposits	4,683	3,395
LME Clear Clearing Participants' margin deposits	50,589	50,894
	134,127	123,728

16. Accounts Payable, Accruals and Other Liabilities

The Group's accounts payable, accruals and other liabilities mainly represent the Group's CNS money obligations payable, which accounted for 77 per cent (31 December 2018: 89 per cent) of the total accounts payable, accruals and other liabilities. CNS money obligations payable mature within two days after the trade date. The majority of the remaining accounts payable, accruals and other liabilities would mature within three months.

17. Clearing House Funds

	At 30 Jun 2019 \$m	At 31 Dec 2018 \$m
The Clearing House Funds comprised:		
Clearing Participants' cash contributions	12,374	14,787
Contribution to OTC Clear Rates and FX Guarantee Resources	156	156
Clearing House Funds reserves (note 21)	547	523
	13,077	15,466
The Clearing House Funds were invested in the following instruments for managing the obligations of the Funds:		
Financial assets of Clearing House Funds (note 11)	13,122	15,505
Less: Other financial liabilities of Clearing House Funds	(45)	(39)
	13,077	15,466
The Clearing House Funds comprised the following Funds:		
HKSCC Guarantee Fund	2,551	2,075
SEOCH Reserve Fund	763	957
HKCC Reserve Fund	1,750	1,167
OTC Clear Rates and FX Guarantee Fund	2,693	2,561
OTC Clear Rates and FX Guarantee Resources	166	164
LME Clear Default Fund	5,154	8,542
	13,077	15,466

- (a) Contributions by HKSCC, HKCC and SEOCH to their respective default funds (Skin-in-the-Game) are set at 10 per cent of the size of the respective funds, and such contributions, together with default fund credits granted to HKSCC and HKCC Participants, are included in Corporate Funds. At 30 June 2019, the Skin-in-the-Game and default fund credits amounted to \$866 million (31 December 2018: \$724 million) (note 11(b)), and are invested in overnight deposits and monitored on a daily basis.

18. Borrowings

	At 30 Jun 2019 \$m	At 31 Dec 2018 \$m
Notes	–	753
Written put options to non-controlling interests	415	413
Total borrowings	415	1,166
Analysed as:		
Non-current liabilities	163	161
Current liabilities	252	1,005
	415	1,166

During the six months ended 30 June 2019, the notes were fully repaid, and none of the written put options was exercised.

19. Share Capital and Shares Held for Share Award Scheme

Issued and fully paid – ordinary shares with no par:

	Number of shares '000	Number of shares held for Share Award Scheme '000	Share capital \$m	Shares held for Share Award Scheme \$m	Total \$m
At 1 Jan 2018	1,239,809	(2,994)	25,141	(606)	24,535
Shares issued in lieu of cash dividends (note (a))	10,823	(81)	2,605	(18)	2,587
Shares purchased for Share Award Scheme (note (b))	-	(1,288)	-	(300)	(300)
Vesting of shares of Share Award Scheme (note (c))	-	1,248	4	242	246
At 31 Dec 2018	1,250,632	(3,115)	27,750	(682)	27,068
At 1 Jan 2019	1,250,632	(3,115)	27,750	(682)	27,068
Shares issued in lieu of cash dividends (note (a))	7,476	(36)	1,950	(10)	1,940
Shares purchased for Share Award Scheme (note (b))	-	(11)	-	(3)	(3)
Vesting of shares of Share Award Scheme (note (c))	-	65	2	14	16
At 30 Jun 2019	1,258,108	(3,097)	29,702	(681)	29,021

- (a) 7,476,293 new fully paid HKEX shares were issued in April 2019 (year ended 31 December 2018: 10,822,583 shares) and allotted at \$260.77 per share (year ended 31 December 2018: weighted average price of \$240.76 per share) to the shareholders (including 36,539 shares (year ended 31 December 2018: 80,717 shares) allotted to the Share Award Scheme) who elected to receive HKEX shares in lieu of cash dividends pursuant to the scrip dividend scheme.
- (b) During the six months ended 30 June 2019, the Share Award Scheme acquired 10,600 HKEX shares (year ended 31 December 2018: 1,287,300 shares) through purchases on the open market. The total amount paid to acquire the shares during the period was \$3 million (year ended 31 December 2018: \$300 million).
- (c) During the six months ended 30 June 2019, the Share Award Scheme transferred 64,517 HKEX shares (year ended 31 December 2018: 1,247,793 shares) to the awardees upon vesting of certain Awarded Shares and the shares arising from related dividends reinvested. The total cost of the vested shares was \$14 million (year ended 31 December 2018: \$242 million), and \$2 million (year ended 31 December 2018: \$4 million) was credited to share capital in respect of vesting of certain shares whose fair values were higher than cost.

20. Employee Share-based Arrangements

The Group operates the Share Award Scheme as part of the benefits of its employees. It allows shares to be granted to employees under the following two categories of awards:

- (i) Employee Share Awards – for all employees of the Group (including the Executive Director); and
- (ii) Senior Executive Awards – for selected senior executives of the Group (including the Executive Director).

The employee share-based compensation expenses in relation to the share awards are charged to the condensed consolidated income statement under staff costs over the relevant vesting periods with a corresponding increase in employee share-based compensation reserve.

During the six months ended 30 June 2019, no Senior Executive Awards were granted and details of Employee Share Awards awarded are set out below:

Date of award	Number of shares awarded	Average fair value per share \$	Vesting period
13 Jun 2019	996	259.65	13 Jun 2019 – 12 Dec 2019
13 Jun 2019	9,603	259.65	8 Apr 2021 – 8 Apr 2022

21. Designated reserves

Clearing House Funds reserves (note 17)

	HKSCC Guarantee Fund reserve \$m	SEOCH Reserve Fund reserve \$m	HKCC Reserve Fund reserve \$m	OTC Clear Rates and FX Guarantee Fund reserve \$m	OTC Clear Rates and FX Guarantee Resources reserve \$m	Total \$m
At 1 Jan 2018	357	105	349	6	5	822
Contributions from clearing houses reappropriated to retained earnings of clearing houses (note (a))	(200)	–	(120)	–	–	(320)
Surplus of net investment income net of expenses of Clearing House Funds	4	1	2	11	3	21
Transfer (to)/from retained earnings	(196)	1	(118)	11	3	(299)
At 31 Dec 2018	161	106	231	17	8	523
At 1 Jan 2019	161	106	231	17	8	523
Surplus of net investment income net of expenses of Clearing House Funds transferred from retained earnings	1	2	4	15	2	24
At 30 Jun 2019	162	108	235	32	10	547

- (a) In June 2018, the contributions by HKSCC and HKCC to the HKSCC Guarantee Fund and HKCC Reserve Fund were changed from fixed contributions to 10 per cent of their respective fund size and are currently kept under Corporate Funds. Therefore, the fixed contributions of \$320 million from the two clearing houses to their respective Clearing House Funds were transferred to retained earnings of the respective clearing houses during the year ended 31 December 2018.

22. Notes to the Condensed Consolidated Statement of Cash Flows

Reconciliation of profit before taxation to net cash inflow from principal operating activities:

	Six months ended 30 Jun 2019 \$m	Six months ended 30 Jun 2018 \$m
Profit before taxation	6,050	5,847
Adjustments for:		
Net interest income	(978)	(753)
Net fair value gains including interest income on financial assets mandatorily measured at fair value through profit or loss and financial liabilities at fair value through profit or loss	(535)	(52)
Finance costs	86	55
Depreciation and amortisation	495	378
Employee share-based compensation benefits	115	101
Provision for impairment losses of receivables	7	5
Other non-cash adjustments	-	4
Net (increase)/decrease in financial assets of Margin Funds	(10,396)	3,674
Net increase/(decrease) in financial liabilities of Margin Funds	10,399	(3,674)
Net decrease/(increase) in Clearing House Fund financial assets	2,383	(3,889)
Net (decrease)/increase in Clearing House Fund financial liabilities	(2,407)	4,203
Net increase in financial assets measured at fair value through profit or loss less financial liabilities at fair value through profit or loss	-	(18)
Decrease in cash prepayments and collateral for A shares	3,014	1,689
Increase in Corporate Funds used for supporting Skin-in-the-Game and default fund credits	(142)	(1,292)
Decrease/(increase) in accounts receivable, prepayments and deposits	6,631	(1,634)
(Decrease)/increase in other liabilities	(9,446)	157
Net cash inflow from principal operations	5,276	4,801
Interest received from financial assets measured at amortised cost and cash and cash equivalents	1,549	1,229
Interest paid to Participants	(623)	(505)
Income tax paid	(322)	(315)
Net cash inflow from principal operating activities	5,880	5,210

23. Acquisition of a Subsidiary

On 28 June 2019, the Group completed the acquisition of a 51 per cent equity interest of Shenzhen Ronghui Tongjin Technology Co. Ltd. (Ronghui Tongjin) for a total cash consideration of RMB233 million (\$262 million) through capital injection into Ronghui Tongjin.

Ronghui Tongjin is a Shenzhen-based financial markets technology firm that specialises in financial exchanges, regulation technologies and data applications. The acquisition is expected to support the Group's strategy to further build its financial markets technological capabilities, at a time of rapid changes in the global exchange landscape.

The goodwill arising from the acquisition is attributable to the workforce and the synergies expected from integrating Ronghui Tongjin into the Group's technology business. It has been included under the Technology segment. The goodwill recognised is not expected to be deductible for income tax purposes.

23. Acquisition of a Subsidiary (continued)

The following table summarises the purchase consideration for Ronghui Tongjin, the fair value of assets acquired and liabilities assumed at the acquisition date.

	\$m
Cash and cash equivalents	41
Accounts receivable, prepayments and deposits	4
Deferred revenue	(15)
Provisions	(1)
Accounts payable, accruals and other liabilities	(9)
Net identifiable assets acquired (before capital injection by the Group)	20
Add: Capital injection by the Group	262
Net identifiable assets acquired (after capital injection by the Group)	282
Less: non-controlling interests	(138)
Add: goodwill and intangible assets	127
Total	271
Total cash consideration	262
Add: Net loss on cash flow hedges reclassified from hedging reserve	9
Total	271
Cash and cash equivalents acquired in respect of the acquisition of Ronghui Tongjin	41

Acquisition-related costs of less than \$1 million were included in “professional fees” in the condensed consolidated income statement for the six months ended 30 June 2019.

The accounts receivable, prepayments and deposits acquired included accounts receivable with fair value of \$3 million. The gross contractual amount for accounts receivable due is \$4 million, of which \$1 million is expected to be uncollectible.

The Group has chosen to recognise the non-controlling interests at its proportionate share of the acquired net identifiable assets.

The total revenue and net loss contributed by Ronghui Tongjin from its date of acquisition (ie, 28 June 2019) to 30 June 2019 and included in the condensed consolidated income statement were less than \$1 million.

Had Ronghui Tongjin been consolidated from 1 January 2019, the Group’s consolidated revenue and profit for the period up to 30 June 2019 would have been \$7,074 million and \$5,204 million respectively. These amounts have been calculated by adopting the Group’s accounting policies. In determining these amounts, it is assumed that the fair value adjustments that arose on the acquisition date would have been the same had the acquisition occurred on 1 January 2019.

24. Capital Expenditures and Commitments

During the six months ended 30 June 2019, the Group incurred capital expenditures of \$368 million (2018: \$339 million).

At 30 June 2019, the Group's commitments in respect of capital expenditure were as follows:

	At 30 Jun 2019 \$m	At 31 Dec 2018 \$m
Contracted but not provided for:		
– fixed assets	63	30
– intangible assets	118	64
Authorised but not contracted for:		
– fixed assets	425	270
– intangible assets	486	571
	1,092	935

25. Contingent Liabilities

At 30 June 2019, the Group's material contingent liabilities were as follows:

- (a) The Group had a contingent liability in respect of potential calls to be made by the SFC to replenish all or part of compensation less recoveries paid by the Unified Exchange Compensation Fund established under the Securities Ordinance up to an amount not exceeding \$71 million (31 December 2018: \$71 million). Up to 30 June 2019, no calls had been made by the SFC in this connection.
- (b) The Group had undertaken to indemnify the Collector of Stamp Revenue against any underpayment of stamp duty by its Participants of up to \$200,000 for each Participant. In the unlikely event that all of its 657 trading Participants (31 December 2018: 640) covered by the indemnity at 30 June 2019 defaulted, the maximum contingent liability of the Group under the indemnity would amount to \$131 million (31 December 2018: \$128 million).
- (c) HKEX had given an undertaking in favour of HKSCC to contribute up to \$50 million in the event of HKSCC being wound up while it is a wholly-owned subsidiary of HKEX or within one year after HKSCC ceases to be a wholly-owned subsidiary of HKEX, for payment of the liabilities of HKSCC contracted before HKSCC ceases to be a wholly-owned subsidiary of HKEX, and for the costs of winding up.

26. Material Related Party Transactions

(a) Key management personnel compensation

	Six months ended 30 Jun 2019 \$m	Six months ended 30 Jun 2018 \$m
Salaries and other short-term employee benefits	63	66
Employee share-based compensation benefits	32	31
Retirement benefit costs	4	4
	99	101

(b) Post-retirement benefit plans

The Group has sponsored an ORSO Plan and the LME Pension Scheme as its post-retirement benefit plans (note 6 (a)).

27. Pledge of Assets

LME Clear receives securities, gold bullion and warrants as collateral for margin posted by its Clearing Participants. The total fair value of this collateral was US\$1,649 million (HK\$12,883 million) at 30 June 2019 (31 December 2018: US\$1,490 million (HK\$11,666 million)). LME Clear is obliged to return this non-cash collateral upon request when the Clearing Participants' collateral obligations have been substituted with cash collateral or otherwise discharged.

LME Clear also holds securities as collateral in respect of its investments in overnight triparty reverse repurchase agreements under which it is obliged to return equivalent securities to the counterparties at maturity of the reverse repurchase agreements. The fair value of this collateral was US\$7,179 million (HK\$56,086 million) at 30 June 2019 (31 December 2018: US\$7,650 million (HK\$59,895 million)).

The above non-cash collateral, which LME Clear is permitted to sell or repledge in the absence of default by the counterparties, was not recorded on the condensed consolidated statement of financial position of the Group at 30 June 2019. Such non-cash collateral, together with certain financial assets amounting to US\$437 million (HK\$3,410 million) at 30 June 2019 (31 December 2018: US\$420 million (HK\$3,288 million)), have been repledged to LME Clear's investment agent and custodian banks under first floating charge and security arrangements for the settlement and depository services they provide in respect of the collateral and investments held. The floating charge could convert to a fixed charge in the event of contract termination, or default or insolvency of LME Clear.

28. Capital Management

At 30 June 2019, the Group had set aside \$4,000 million (31 December 2018: \$4,000 million) of shareholders' funds for the purpose of supporting the risk management regime of the clearing houses in their roles as central counterparties, of which \$2,160 million (31 December 2018: \$2,160 million) had been injected into HKSCC, HKCC and SEOCH as share capital.

29. Fair Value of Financial Assets and Financial Liabilities

(a) Financial assets and financial liabilities carried at fair value

The following tables present the carrying values of financial assets and financial liabilities measured at fair value according to the levels of the fair value hierarchy defined in HKFRS 13: Fair Value Measurement, with the fair value of each financial asset and financial liability categorised based on the lowest level of input that is significant to that fair value measurement. The levels are defined as follows:

- Level 1: fair values measured using quoted prices (unadjusted) in active markets for identical assets or liabilities.
- Level 2: fair values measured using valuation techniques in which all significant inputs other than quoted prices included within Level 1 are directly or indirectly based on observable market data.
- Level 3: fair values measured using valuation techniques in which any significant input is not based on observable market data.

Recurring fair value measurements:	At 30 Jun 2019				At 31 Dec 2018		
	Level 1 \$m	Level 2 \$m	Level 3 \$m	Total \$m	Level 1 \$m	Level 2 \$m	Total \$m
Financial assets							
Financial assets measured at fair value through profit or loss:							
– collective investment schemes	2,590	6,594	–	9,184	1,987	5,102	7,089
– equity securities	–	–	50	50	–	–	–
– base, ferrous, and precious metals futures and options contracts cleared through LME Clear	–	39,439	–	39,439	–	53,915	53,915
Financial assets measured at fair value through other comprehensive income:							
– debt securities	3,046	1,201	–	4,247	3,054	701	3,755
	5,636	47,234	50	52,920	5,041	59,718	64,759
Financial liabilities							
Financial liabilities at fair value through profit or loss:							
– base, ferrous, and precious metals futures and options contracts cleared through LME Clear	–	39,439	–	39,439	–	53,915	53,915

29. Fair Value of Financial Assets and Financial Liabilities (continued)

(a) Financial assets and financial liabilities carried at fair value (continued)

During the six months ended 30 June 2019 and 30 June 2018, there were no transfers of instruments between Level 1 and Level 2 or transfer into or out of Level 3.

Level 2 fair values of collective investment schemes, debt securities, base, ferrous, and precious metals futures and options contracts have been determined based on quotes from market makers, funds administrators or alternative pricing sources supported by observable inputs. The most significant input are market interest rates, market prices of metals, net asset values and latest redemption prices or transaction prices of the respective collective investment schemes.

The Group's policy is to recognise transfers into and out of fair value hierarchy levels as of the date of the event or change in circumstances that caused the transfer.

Fair value measurements using significant unobservable inputs (Level 3)

	\$m
At 1 Jan 2019	-
Investment in shares in an unlisted company	50
At 30 Jun 2019	50
Change in unrealised gains for the period included in profit or loss for assets held at 30 Jun 2019, under net investment income	-

The amount represents the investment in a 9.99 per cent equity interest in Fusion Bank Limited, which has been granted a virtual banking license by the Hong Kong Monetary Authority. As the investment is not traded in an active market and still at an early stage of development without incurring significant costs, its fair value is not expected to be significantly different from its investment cost of \$50 million.

29. Fair Value of Financial Assets and Financial Liabilities (continued)

(b) Fair values of financial assets and financial liabilities not reported at fair values

Summarised in the following table are the carrying amounts and fair values of financial assets and financial liabilities not presented in the condensed consolidated statement of financial position at their fair values, except for lease liabilities where disclosure of fair values is not required. These assets and liabilities were classified under Level 2 in the fair value hierarchy.

	At 30 Jun 2019		At 31 Dec 2018	
	Carrying amount in condensed consolidated statement of financial position \$m	Fair value \$m	Carrying amount in condensed consolidated statement of financial position \$m	Fair value \$m
Assets				
Financial assets measured at amortised cost:				
– debt securities maturing over one year ¹	301	301	301	301
– other financial assets maturing over one year ²	97	76	97	74
Liabilities				
Borrowings:				
– notes ³	–	–	753	753
– written put options to non-controlling interests ³	415	421	413	416
Financial guarantee to the Collector of Stamp Revenue ⁴	20	52	20	46

1 The fair values are provided by the custodian of the investments, a reputable independent third party custodian bank, or by the banks from whom the investments were purchased.

2 The fair values are based on cash flows discounted using Hong Kong Government bond rates of a tenor similar to the contractual maturity of the respective assets, adjusted by an estimated credit spread. The discount rates used ranged from 2.62 per cent to 2.85 per cent at 30 June 2019 (31 December 2018: 2.59 per cent to 2.74 per cent).

3 The fair values are based on cash flows discounted using the prevailing market interest rates for loans with similar credit rating and similar tenor of the respective loans. The discount rates used ranged from 2.60 per cent to 2.84 per cent at 30 June 2019 (31 December 2018: 3.03 per cent to 3.15 per cent).

4 The fair values are based on the fees charged by financial institutions for granting such guarantees discounted to perpetuity using a ten-year Hong Kong Government bond rate, adjusted by an estimated credit spread, but capped at the maximum exposure of the financial guarantee. The discount rate used was 3.17 per cent at 30 June 2019 (31 December 2018: 3.51 per cent).

The carrying amounts of short-term financial assets and receivables (eg, accounts receivable, financial assets measured at amortised cost and cash and cash equivalents) and short-term payables (eg, accounts payable and other liabilities) approximated their fair values, and accordingly no disclosure of the fair values of these items is presented.

Glossary

2019 AGM | AGM held on 24 April 2019

ADT | Average daily turnover value

ADV | Average daily volume (in number of contracts/lots)

AGM | HKEX's annual general meeting

Awarded Shares | Shares awarded under the Share Award Scheme

BBS | Bronze Bauhinia Star

Board | HKEX's board of directors

Bond Connect | A mutual bond market access programme between Hong Kong and Mainland China, under which Northbound trading enables overseas investors to invest in the China Interbank Bond Market, and Southbound trading will be explored at a later stage

Cash Market | HKEX's securities related business excluding stock options

CBBCs | Callable Bull/Bear Contracts

ChinaClear | China Securities Depository and Clearing Corporation Limited

CNH | Offshore RMB traded outside Mainland China

Corporate Governance Code | Refers to Appendix 14 to the Main Board Listing Rules

CP(s) | Clearing Participant(s)

Derivatives Market | HKEX's derivatives related business including stock options

Director(s) | HKEX's director(s)

DWs | Derivative warrants

e-IPO | Electronic Initial Public Offering

EP(s) | Exchange Participant(s)

ESG | Environmental, Social and Governance

ETF(s) | Exchange Traded Fund(s)

Euro | The official currency of the Eurozone

Exchange or SEHK or Stock Exchange | The Stock Exchange of Hong Kong Limited

FIC | Fixed income and currency

Financial Secretary | Financial Secretary of the Hong Kong Special Administrative Region of the People's Republic of China

Futures Exchange or HKFE | Hong Kong Futures Exchange Limited

GBM | Grand Bauhinia Medal

GBS | Gold Bauhinia Star

Government | The Government of the Hong Kong Special Administrative Region of the People's Republic of China

Government Appointed Director(s) | Director(s) appointed by the Financial Secretary pursuant to Section 77 of the SFO

Group or HKEX Group | HKEX and its subsidiaries

HKCC | HKFE Clearing Corporation Limited

HKEX or the Company | Hong Kong Exchanges and Clearing Limited

HKFRS(s) | Hong Kong Financial Reporting Standard(s)

HKSCC | Hong Kong Securities Clearing Company Limited

IPO(s) | Initial Public Offering(s)

Iron Ore Futures | TSI Iron Ore Fines 62 per cent Fe CFR China Futures

IT | Information Technology

L&I Products | Leveraged and Inverse Products

JP | Justice of the Peace

Listing Rule(s) | Main Board Listing Rules and Rules Governing the Listing of Securities on GEM of The Stock Exchange of Hong Kong Limited

LME | The London Metal Exchange

LME Clear | LME Clear Limited

London Metal Mini Futures | London Aluminium/Zinc/Copper/Nickel/Tin/Lead Mini Futures

Main Board Listing Rules | Rules Governing the Listing of Securities on The Stock Exchange of Hong Kong Limited

MOU | Memorandum of Understanding

Model Code | Model Code for Securities Transactions by Directors of Listed Issuers, Appendix 10 to the Main Board Listing Rules

MSCI | MSCI Inc.

Northbound Trading | Hong Kong and overseas investors trading in eligible securities that are listed on the Shanghai Stock Exchange or the Shenzhen Stock Exchange through Stock Connect

OTC | Over-the-counter

OTC Clear | OTC Clearing Hong Kong Limited

QME | Qianhai Mercantile Exchange Co., Ltd.

RMB | Renminbi

Ronghui Tongjin | Shenzhen Ronghui Tongjin Technology Co. Ltd.

SBS | Silver Bauhinia Star

SECH | The SEHK Options Clearing House Limited

SFC | Securities and Futures Commission

SFO | Securities and Futures Ordinance (Chapter 571 of the Laws of Hong Kong)

Shanghai-Hong Kong Stock Connect or Shanghai Connect | A mutual market access programme that links the stock markets in Shanghai and Hong Kong, enabling investors in Hong Kong and Mainland China to trade and settle shares listed on the other market via the exchange and clearing house in their home market

Shareholder(s) | HKEX's shareholder(s)

Share Award Scheme or the Scheme | The Employees' Share Award Scheme adopted by the Board on 14 September 2005 which was subsequently amended on 16 August 2006, 13 May 2010, 17 December 2013 and 17 June 2015

Shenzhen-Hong Kong Stock Connect or Shenzhen Connect | A mutual market access programme that links the stock markets in Shenzhen and Hong Kong, enabling investors in Hong Kong and Mainland China to trade and settle shares listed on the other market via the exchange and clearing house in their home market

Southbound Trading | Mainland investors trading in eligible securities that are listed on the Stock Exchange through Stock Connect

Stock Connect | Shanghai-Hong Kong Stock Connect and Shenzhen-Hong Kong Stock Connect

UK | United Kingdom

US | United States of America

US\$/USD | United States dollar

\$/HK\$/HKD | Hong Kong dollar

\$bn/bn | Hong Kong dollar in billion/billion

\$m | Hong Kong dollar in million

£/GBP | Pound sterling



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