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Where this document refers to Shanghai-Hong Kong Stock Connect and/or Shenzhen-Hong Kong Stock Connect (together, the “Stock Connect” programs), please note that currently, access to northbound trading is only available to intermediaries licensed or regulated in Hong Kong; southbound trading is only available to intermediaries licensed or regulated in Mainland China. Direct access to the Stock Connect is not available outside Hong Kong and Mainland China.

Where this document refers to Bond Connect, please note that currently, access to northbound trading is only available to foreign investors that are able to trade onshore bonds on the China Foreign Exchange Trade System & National Interbank Funding Centre.

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Agenda

1. HKEX Group Financial and Market Update
2. HKEX Business and Strategic Update
3. China Connectivity Update
4. Appendix
   Financial supplement
YTD 2019 – Key Highlights

Revenue and PAT growth
Revenue of $8.6bn (+5% YoY) and PAT of $5.2bn (+3% YoY) in 1H

Macro-driven softness in Cash and Derivatives Markets
Cash Market headline ADT -23% YoY, Futures and Options ADV -7% YoY, LME chargeable ADV -6% YoY through July 2019

Continued strong IPO market
As of July, 100 IPOs (No.1 globally); Fourth in IPO funds raised ($84bn)

Record half-yearly Stock Connect revenue
Revenue of $508mn (+39% YoY) and record half-yearly Northbound ADT following the successful inclusion of China A-shares in global indexes; Announced inclusion arrangements of A+H companies listed on the STAR Market in July; Mainland exchanges consulted the market on their proposals to include WVR companies in Southbound Connect in August

Significant growth in Bond Connect
ADT of RMB6.9bn (+87% YoY) as of July following the inclusion of Chinese RMB-denominated bonds in Bloomberg Barclays Global Aggregate Indices from April; The number of approved international investors reached 1,134 as of July (+190% YoY)

Solid contribution from Commodities
EBITDA +5% YoY in 1H despite a slight drop in revenue due to lower costs; Expanded commodities capabilities by launching new products on the LME, HKFE and QME

Leveraging new technology
Completed acquisition of Shenzhen Ronghui Tongjin; Innovation Lab has been actively exploring new technology to further improve the Group’s efficiency
Volumes Slightly Softening Amid Weakening Global Market Sentiment

Securities ADT (HK$ billion)

Total Funds Raised (HK$ billion)

Derivatives ADV (‘000 contracts)

Commodities ADV (‘000 lots)

Source: HKEX & LME data

(1) 2019 YTD as of Jul
(2) Excluding Admin Trades, Commodities Jul YTD 2019 is 618,070 lots.
Hong Kong is Consistently the World’s Largest IPO Market

Ranked No. 1 in 6 of the Past 10 Years

Global Ranking in 2019(1)

Source: HKEX, Dealogic data
(1) As of Jul 2019
(2) # of IPOs for HKEX includes 8 transfers from GEM

# of IPOs
IPO Funds Raised (US$ bn)

- Total IPO funds raised (US$bn)
- # of IPOs
# 1H 2019 – Solid Financial Performance; Earnings Per Share Up 2% YoY

## Revenue and Other Income

<table>
<thead>
<tr>
<th></th>
<th>1H 2018</th>
<th>1H 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>($ million)</td>
<td>+ 5%</td>
<td>+ 5%</td>
</tr>
<tr>
<td>ADT</td>
<td>$126.6bn</td>
<td>$97.9bn</td>
</tr>
</tbody>
</table>
| Net investment income **↑** from external portfolio & interest income
| Depository fees **↑** due to **↑** scrip fees
| Partly offset by: Trading & clearing fees **↓** from **↓** ADT

## Operating Expenses (1)

<table>
<thead>
<tr>
<th></th>
<th>1H 2018</th>
<th>1H 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>↑</strong> + 2%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Excl. HKFRS 16 impact</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Excl. HKFRS 16 impact</td>
<td>+ 10%(2)</td>
<td></td>
</tr>
<tr>
<td>Staff and IT costs</td>
<td>1,198</td>
<td>1,953</td>
</tr>
<tr>
<td>Partly offset by:</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| Premises expenses **↓**: impact of adopting HKFRS 16(2)

## EBITDA

<table>
<thead>
<tr>
<th></th>
<th>1H 2018</th>
<th>1H 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>↑</strong> + 6%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Excl. HKFRS 16 impact</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EBITDA margin maintained at 77%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EBITDA margin <strong>↓</strong> 2% to 75%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EBITDA margin <strong>↓</strong> 2% to 75%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## Profit Attributable to HKEX Shareholders

<table>
<thead>
<tr>
<th></th>
<th>1H 2018</th>
<th>1H 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>↑</strong> + 3%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Excl. HKFRS 16 impact</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PAT % <strong>↓</strong> less than EBITDA due to <strong>↑</strong> in finance costs and D&amp;A as a result of adopting HKFRS 16(2)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>↑</strong> + 4%(2)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## Basic Earnings Per Share

<table>
<thead>
<tr>
<th></th>
<th>1H 2018</th>
<th>1H 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>↑</strong> + 2%</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>↑</strong> + 3%(2)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

(1) Excludes depreciation and amortisation, finance costs, and share of profits less losses of joint ventures

(2) As a result of adopting HKFRS 16: Leases, operating lease rentals are no longer recognised under opex. Instead, they are recognised as right-of-use (RoU) assets and lease liabilities in the consolidated statement of financial position, and they are subsequently charged to the consolidated income statement under finance costs and depreciation & amortisation.
**Investment Income and Depository Fees Offset the Impact of Lower Trading and Clearing Fees**

Segmental revenue

($ million)

<table>
<thead>
<tr>
<th>Segment</th>
<th>1H 2018</th>
<th>1H 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash Equity</td>
<td>8,194</td>
<td></td>
</tr>
<tr>
<td>Equity and Financial Derivatives</td>
<td></td>
<td>8,578</td>
</tr>
<tr>
<td>Commodities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Post Trade</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Technology</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corporate Items</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Change year-on-year**

- Cash Equity: -11%
- Equity and Financial Derivatives: -6%
- Commodities: -2%
- Post Trade: +4%
- Technology: +14%
- Corporate Items: +302%
- 1H 2019: +5%

---

1. Headline ADT down 23% (1H 2019: $97.9bn; 1H 2018: $126.6bn); ADT of cash equity down 25% (1H 2019: $75.1bn; 1H 2018: $100.4bn); ADT of DWs, CBBCs and warrants included under equity and financial derivatives down 13% (1H 2019: $22.8bn; 1H 2018: $26.2bn).
## Lower EBITDA in Cash and Derivatives Segments, Reflecting Lower Volumes

### Segmental EBITDA

<table>
<thead>
<tr>
<th>Cash Equity</th>
<th>Equity &amp; Financial Derivatives</th>
<th>Commodities</th>
<th>Post Trade</th>
<th>Technology</th>
<th>Group Total (incl. Corp. Items)</th>
</tr>
</thead>
<tbody>
<tr>
<td>($ million)</td>
<td>($ million)</td>
<td>($ million)</td>
<td>($ million)</td>
<td>($ million)</td>
<td>($ million)</td>
</tr>
<tr>
<td>1H 2018</td>
<td>1H 2019</td>
<td>1H 2018</td>
<td>1H 2019</td>
<td>1H 2018</td>
<td>1H 2019</td>
</tr>
<tr>
<td>1,817</td>
<td>1,561</td>
<td>1,454</td>
<td>1,340</td>
<td>2,740</td>
<td>6,276</td>
</tr>
<tr>
<td>87%</td>
<td>84%</td>
<td>84%</td>
<td>82%</td>
<td>87%</td>
<td>77%</td>
</tr>
<tr>
<td>28%</td>
<td>24%</td>
<td>22%</td>
<td>21%</td>
<td>41%</td>
<td>100%</td>
</tr>
</tbody>
</table>

### Operating Expenses (Opex)
- Trading fees & tariffs from ADT of equity products
- Listing fees due to listed companies and forfeitures
- Opex due to staff costs, partly offset by premises expenses

### Share of Group EBITDA

<table>
<thead>
<tr>
<th>Cash Equity</th>
<th>Equity &amp; Financial Derivatives</th>
<th>Commodities</th>
<th>Post Trade</th>
<th>Technology</th>
<th>Group Total (incl. Corp. Items)</th>
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</thead>
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<td>84%</td>
<td>82%</td>
<td>87%</td>
<td>77%</td>
</tr>
</tbody>
</table>

### Notes
1. As a result of adopting HKFRS 16: Leases, operating lease rentals are no longer recognised under opex. Instead, they are recognised as right-of-use (RoU) assets and lease liabilities in the consolidated statement of financial position, and they are subsequently charged to the consolidated income statement under finance costs and depreciation & amortisation.
2. iLab opex was previously included under Corporate Items in 1H 2018, and it is now included under Technology segment as a result of the Group’s reorganisation in 1H 2019.
Revenue growth coupled with good cost discipline drove solid earnings in 1H 2019

(1) Excludes depreciation and amortisation, finance costs, and share of profits less losses of joint ventures.
(2) Dotted trend lines are illustrative and do not constitute a forward forecast.
Agenda

1. HKEX Group Financial and Market Update

2. HKEX Business and Strategic Update

3. China Connectivity Update

Appendix
A. Financial supplement
B. Market indicators
Our Journey So Far

1980s
- Merger of four stock exchanges
- Launched flagship product suite: HSI Futures
- Growing international investors participation but Hong Kong market wasn’t globally significant

1990s
- H-Share listings
- Electronification of trading
- Structured products expansion

2000s
- Demutualisation
- Technology consolidation
- Major Chinese SOE and private enterprise IPOs

2010s
- China Connectivity
- FICC Expansion
- Listing Reforms

2019–
- **Largest** Listed Exchange Group in Asia Pacific
- #1 in IPO Funds Raised Globally in 2018, #4 in the first 7 months of 2019
- **Pioneer** in China Connectivity
- **Multi-asset Class:** Equities, FIC, Commodities
Our 2019-2021 Strategic Vision

The Global Markets Leader in the Asian Time Zone – Connecting China, Connecting the World

Facilitating China's internationalisation and investment diversification
Leveraging new technology for modernisation and growth
Bringing global liquidity to China and Asia Pacific underlying
Strategic Plan 2019-2021

Key Objectives

1. Expand Northbound capital inflows

2. Expand Southbound capital allocation

3. Expand post-trade infrastructure

1H 2019 Achievements

- Welcomed Bloomberg as a second trading platform for Bond Connect; inclusion of Chinese RMB-denominated bonds in Bloomberg Barclays Global Aggregate Indices
- Signed agreement with MSCI to launch China A index futures (currently in the process of obtaining regulatory approval)
- Announced inclusion arrangements of A+H companies listed on the STAR Market
- Mainland exchanges consulted the market on their proposals to include WVR companies in Southbound Connect
- Launched two new products on QME
Strategic Plan 2019-2021

Key Objectives

1. Enhance our product ecosystem across asset classes

2. Improve our market microstructure

3. Expand our international footprint further

1H 2019 Achievements

- Launched first Active ETF and -2x Inverse Product
- Launched Inline Warrants
- Launched six gold indexes and USD-denominated London Metal Mini Futures for six base metals in HK
- Launched seven new cash-settled metals futures on the LME
- Extension of Derivatives Market after-hour trading to up to 3 a.m.
- Further expansion of Closing Auction Session
- Launched a new buy-in exemption for Exchange Traded Product (ETP)
Strategic Plan 2019-2021

Key Objectives

1. Modernise core systems

2. Leverage new technology

3. Expand our horizons

1H 2019 Achievements

- Launched Client Connect
- Upgraded our derivatives market platform
- Completed the acquisition of 51% of Shenzhen Ronghui Tongjin
- Established a consortium with Tencent, ICBC and Hillhouse Capital and obtained virtual banking licence (Fusion Bank)
- Continued development of HKEX Innovation Lab
Enhancing Our IT Resources – Strategic Investment

Brings expertise in advanced technology and reduces vendor dependence risk

Enhanced Capabilities
• 200 staff, with 80%+ R&D and Engineering
• Specialises in financial exchanges, regulation technologies and data applications.

Reduced Implementation Risk
• Tested delivery capability, with 200+ projects delivered
• Reduce vendor outsourcing and timing risk

Long-Term Value
• Depth of knowledge in Artificial Intelligence and DLT
• A self-sustaining business with positive cash-flow and earnings
2019-2021 Strategy – Expanding Our Core Equities Business

The key strategies for growing our equities business are:

Clients
- Improve ease of access
- Expand client base through Stock Connect enhancements and remote participation
- Expand our international footprint

Products
- Grow breadth of underlying through Listing Rule enhancements & working with ETP issuers
- Coordinated approach on building product ecosystem to promote liquidity
- Market microstructure improvements

Market Microstructure
- Listing: IPO settlement cycle, listing requirements, corporate action enhancement
- Trading: lower frictional costs e.g. tick size reduction, block trade enhancement
- Post-trade: improve capital efficiency e.g. cross-margining, widen collateral scope
Robust IPO Market Focusing on New Economy & Biotech

1H 2019 Fund Raising Summary

$71.8b  IPO Funds Raised  +39%

20 New Economy & Biotech Companies Listed...  $26.5b  +73%

New Economy(1) & Biotech(2)

<table>
<thead>
<tr>
<th>No. of IPO</th>
<th>Total</th>
<th>New Economy</th>
<th>Biotech</th>
</tr>
</thead>
<tbody>
<tr>
<td>174</td>
<td>14</td>
<td>160</td>
<td>14</td>
</tr>
<tr>
<td>218</td>
<td>27</td>
<td>191</td>
<td>27</td>
</tr>
<tr>
<td>84</td>
<td>17</td>
<td>67</td>
<td>17</td>
</tr>
</tbody>
</table>

IPO Funds Raised (HKD bn)

- 128.5
- 288.0
- 71.8

2017  2018  1H2019

- New Economy
- Biotech
- Others

- Hong Kong has developed a thriving IPO platform for New Economy & Biotech companies, supported by strong valuation levels
- Hong Kong is now the world’s second-largest fund raising hub for biotech companies
- In May 2019, organised “HKEX Biotech Week 2019” which attracted over 1,000 scientists, biotech entrepreneurs, investors, technology experts and policymakers, to share industry insights and trends

Source: HKEX, as at Jun 2019
(1) Include Non-18A Biotech companies
(2) Only include Chapter 18A Biotech companies
Growth in Our Core Equites Business

Historical Growth Initiatives

Key Drivers

- IPOs

Cash Market ADT (HK$ bn)

Factors Supporting Future Growth

Stock Connect

- Increased relevance of the HK market to global investors

Focused Client Marketing

- Increased awareness of HK market
- Targeted client support
- Improved incentives package
- Singapore office presence

Comprehensive Product Ecosystem

- Product cross-selling
- Cross-product arbitrage

Continuous work on optimizing market structure for our customers and developing new growth initiatives will support and drive ADT going forward

Source: HKEX
(1) 2019 YTD as of Jul 2019.
Overview of Our Product Offering

<table>
<thead>
<tr>
<th></th>
<th>CASH</th>
<th>DERIVATIVES</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Stocks</td>
<td>Structured Products</td>
</tr>
<tr>
<td># of Products¹</td>
<td>2,382</td>
<td>9,865</td>
</tr>
<tr>
<td>ADT / ADV²</td>
<td>HK$69.0 bn</td>
<td>HK$22.8 bn</td>
</tr>
<tr>
<td>Listing &amp; Trading Revenue²,³</td>
<td>HK$1.3 bn</td>
<td>HK$643 mil</td>
</tr>
<tr>
<td>5-year Revenue Growth (2014-18)</td>
<td>+62%</td>
<td>+89%</td>
</tr>
<tr>
<td>Concentration of ADT / ADV in Top Products²</td>
<td>Top 100: 75%</td>
<td>Top 10⁴: 91%</td>
</tr>
<tr>
<td>Mainland Underlying Share of ADT / ADV²,⁷</td>
<td>77%</td>
<td>35%</td>
</tr>
</tbody>
</table>

We have seen strong growth in cash and derivatives revenues in recent years, but our liquidity remains highly concentrated.

Source: HKEX, Bloomberg
(1) As of 1H2019. Equities-related products in derivatives markets.
(2) 1H2019. Equities-related products in derivatives markets.
(3) Excluding trading tariffs, Northbound trading revenue, and clearing income.
(4) Based on underlying.
(5) Top 3 futures products include HSI Futures: 228,413, HSCEI Futures: 149,471, Mini-HSI Futures: 95,872.
(6) Top 3 options products include Stock Options: 508,206, HSCEI Options: 95,454, HSI Options: 51,206.
(7) Mainland underlying for derivatives markets refers to products of Mainland-related indices (e.g. HSCEI, CES120) and single-stock products with Mainland underlying.
HKEX signed a license agreement with MSCI to introduce futures contracts on the MSCI China A Index, subject to regulatory approval and market conditions.

The launch of A-share derivatives will further integrate our ecosystem of HK and onshore underlying.

(1) HKEX signed a license agreement with MSCI to introduce futures contracts on the MSCI China A Index, subject to regulatory approval and market conditions.
Driving Breadth and Depth of Liquidity in Our Market

*Improving efficiency at each level of the trade cycle*

- Improve Ease of Access
  - Streamline onboarding process
  - Review incentives packages
  - Enhance market making programmes
  - Remote participantship

- Reduce Frictional Trading Costs
  - Expand short selling eligibility
  - Review board lot and tick sizes
  - Block trading enhancements

- Improve Capital Efficiency
  - Position limit enhancements
  - Improved cross-margining capabilities
  - Broader non-cash collateral scope

- Enhance Risk Management & Market Integrity
  - Market-wide circuit breaker
  - Volatility Control Mechanism enhancements
  - Self-trade prevention

---

Attracting a broader client base and improving market efficiency will encourage more liquidity across the whole market.
2019-2021 Strategy – FICC Themes

**Fixed Income and Currency**

- Facilitate CNY access
- Enhance Bond Connect
- Expand suite of offshore rates / FX derivatives on onshore underlying
- Build post-trade infrastructure (custody, settlement, collateral management, FX)

**Commodities**

- Expand product suite
- Pricing evolution
- Mainland China warehouses
- Commodity Connect
Key Components of Our FIC Strategy

Expand Existing Platform
- Bond Connect enhancements
- Listed bonds and derivatives
- Southbound Bond Connect

Capture CNY Opportunities
- CNY accessibility – repository, tracking and monitoring
- IRS and repo + Derivatives Connect
- CNY trading platform

Invest in Post-Trade Infrastructure
- Custody, settlement and collateral management
- Trade repository and monitoring
- International linkages
LME Group Integration Process Complete…

Post-acquisition integration and LME Clear launch

Commercialisation of the platform

Strategic pathway, future platform development and revised fee structure

Source: LME data
(1) Excluding Admin Trades, 2018: 629,556 lots.
…with Commodities Now a Core Part of the HKEX Strategic Plan

GLOBALLY CONNECTED

- Expand commodities product suite

CHINA ANCHORED

- Pricing evolution

- Commodity Connect

- Mainland China warehouses

TECHNOLOGY EMPOWERED

- New market data and trading platform

Business underpinned by culture, values and corporate social responsibility ("CSR")
Investing in HKEX’s Culture and Community

- **Renewed focus on organisational culture and talent**
  - Launch of refreshed **Purpose, Vision & Values**
  - Talent mapping and succession planning
  - Talent development programmes across the organisation for all levels of seniority

- **Elevated and consolidated approach to sustainability and community**
  - **New Group-wide CSR Strategy** focused on People, Markets, Operations: Financial Literacy and Diversity core campaigns
  - LME consultation on **Responsible Sourcing standards** for all traded metals
  - HKEX Listing consultation on **ESG Reporting**
  - Enhanced **CSR and ESG corporate advocacy programme**: United Nations Women Empowerment Principles; Taskforce for Climate Related Financial Disclosure; Belt & Road Green Investment Principle signatory; IFE – HK Financial Literacy Charter, HK Racial & Diversity Inclusion Charter
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The Penetration Level of Equity Market through Stock Connect

Stock Connect Coverage
(% of all Mainland & HK listed companies)

- 83% of total market cap
- 67% of total turnover
- 29% of total number of companies

Stock Connect covers the majority of the market by market cap and turnover

Source: SSE, SZSE, HKEX
Data as of Jun 2019.
Market Activity in Mainland and Hong Kong Markets

ADT RMB bn

Index

2018
- Major volatility in 2018 due to geopolitical risk and escalating US/China tensions.
- Despite weakening sentiment, cash market reached highest full-year ADT partly due to new listing reform and Stock Connect.
- Continue to enhance product portfolio by capitalizing on A shares inclusion in MSCI indices.

ADT HKD bn

Index

2019
- Market remained volatile YTD due to geopolitical risk and prolonged US/China trade tensions.
- Northbound trading volumes significantly improved after the inclusion of A-shares in MSCI. NB record high of RMB84.3bn on 27 Aug.

Source: HKEX, SSE, SZSE & Bloomberg
Note: Data as of Jul 2019.
Stock Connect – Trading Trends

Stock Connect revenue contribution: 1H 2019 ($508m, +39% YoY), FY 2018 ($678m, +65% YoY)

Stock Connect Average Daily Trading Volume (HKD bn)

- Northbound turnover has been significantly higher in 2019, continuing on the strong performance in 2018 especially after the MSCI A-shares inclusion
- Southbound trading in 2019 picked up versus 2H 2018 due to better market conditions

Further index inclusions in 2019 are expected to stimulate Northbound turnover

Source: HKEX; data as of Jul 2019
*NB record high of RMB84.3bn on 27 Aug.
(1) Northbound (NB) trading is conducted in RMB; The NB figures in the chart are converted to HKD based on the month-end exchange rate.
# Roadmap of Major Index Inclusion of A-shares

## China A-shares Inclusion

### MSCI

<table>
<thead>
<tr>
<th>Year</th>
<th>Inclusion Factor</th>
<th>IF</th>
</tr>
</thead>
<tbody>
<tr>
<td>TODAY $^{(1)}$</td>
<td>2.46%</td>
<td>15% $^{(2)}$</td>
</tr>
<tr>
<td>2019</td>
<td>3.83% $^{(1)}$</td>
<td>20% $^{(2)}$</td>
</tr>
<tr>
<td>2020</td>
<td>3.83% $^{(1)}$</td>
<td>20% $^{(2)}$</td>
</tr>
</tbody>
</table>

### FTSE Russell

<table>
<thead>
<tr>
<th>Year</th>
<th>Inclusion Factor</th>
<th>IF</th>
</tr>
</thead>
<tbody>
<tr>
<td>TODAY $^{(1)}$</td>
<td>1.20%</td>
<td>5% $^{(2)}$</td>
</tr>
<tr>
<td>2019</td>
<td>3.48%</td>
<td>15% $^{(2)}$</td>
</tr>
<tr>
<td>2020</td>
<td>5.62%</td>
<td>25% $^{(2)}$</td>
</tr>
</tbody>
</table>

### Further inclusion – some determining factors

- Access to hedging and derivatives products
- Short settlement cycle of China A shares
- Trading holidays of Stock Connect
- Availability of Omnibus trading mechanism in Stock Connect
- Increase in the aggregate QFII and RQFII quota levels
- Increase in the breadth of Stock Connect coverage
- Availability of DVP via QFII and RQFII
- Availability of CNH

Source: HKEX, MSCI and FTSE Russell

$^{(1)}$ MSCI data as of 18 Jul 2019; FTSE Russell data as of 30 Apr 2019.

$^{(2)}$ IF = Inclusion Factor. Roadmap – MSCI: 2018 (5%), May19 (10%), Aug19 (15%), Nov19 (20%); FTSE Russell: Jun19 (5%), Sep19 (15%), Mar20 (25%).
Stock Connect (Northbound)

### Average Daily Turnover

<table>
<thead>
<tr>
<th>Year</th>
<th>Jan</th>
<th>Feb</th>
<th>Mar</th>
<th>Apr</th>
<th>May</th>
<th>Jun</th>
<th>Jul</th>
<th>Aug</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>202</td>
<td>233</td>
<td>253</td>
<td>270</td>
<td>301</td>
<td>347</td>
<td>366</td>
<td>404</td>
</tr>
<tr>
<td>2017</td>
<td>437</td>
<td>491</td>
<td>502</td>
<td>530</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2018</td>
<td>568</td>
<td>611</td>
<td>679</td>
<td>668</td>
<td>491</td>
<td>502</td>
<td>530</td>
<td></td>
</tr>
<tr>
<td>2019</td>
<td>719</td>
<td>796</td>
<td>798</td>
<td>804</td>
<td>719</td>
<td>798</td>
<td>796</td>
<td>719</td>
</tr>
</tbody>
</table>

### Portfolio Value

<table>
<thead>
<tr>
<th>Year</th>
<th>Jan</th>
<th>Feb</th>
<th>Mar</th>
<th>Apr</th>
<th>May</th>
<th>Jun</th>
<th>Jul</th>
<th>Aug</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>4.7</td>
<td>9.6</td>
<td>20.5</td>
<td>38.9</td>
<td>49.7</td>
<td>31.9</td>
<td>39.5</td>
<td>34.7</td>
</tr>
<tr>
<td>2017</td>
<td>31.7</td>
<td>34.7</td>
<td>39.5</td>
<td>77.3</td>
<td>84.3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2018</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2019</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: HKEX
Data as of Aug 2019.
A-Shares Inclusion Drives Demand for Hedging Tools

MSCI

A-Shares weighting in MSCI EM Index

TODAY(1) NOV 2019(1)

2.46% ➞ 3.83%

IF=15%² IF=20%²

The MSCI China A Index represents the A-share portion of the MSCI Emerging Markets Index upon the completion of MSCI’s inclusion process in 2019

HKEX signed a license agreement with MSCI to introduce futures contracts on the MSCI China A Index, subject to regulatory approval and market conditions

➢ Complement Stock Connect access to Mainland China’s equity markets with an effective risk management tool

➢ HKEX/MSCI partnership directly responds to international trading communities’ need

➢ 268 index constituents as at Aug 2019 (increasing to 437 in Nov 2019³) comprising large cap and mid cap A-shares accessible via Stock Connect

➢ Detailed product specifications to be announced following regulatory approval

Source: MSCI
(1) As of 18 Jul 2019.
(2) IF = Inclusion Factor. Roadmap – MSCI: 2018 (5%), May19 (10%), Aug19 (15%), Nov19 (20%).
(3) On a pro forma basis, as of 17 Apr 2019.
Index Futures on China Underlying

ADV (‘000 contracts)

### Hang Seng Index Futures (50)³

<table>
<thead>
<tr>
<th>Year</th>
<th>Mainland China</th>
<th>Others</th>
<th>Jul 2019 YTD</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>85</td>
<td>47%</td>
<td>53%</td>
</tr>
<tr>
<td>2011</td>
<td>94</td>
<td>47%</td>
<td>53%</td>
</tr>
<tr>
<td>2012</td>
<td>83</td>
<td>47%</td>
<td>53%</td>
</tr>
<tr>
<td>2013</td>
<td>80</td>
<td>47%</td>
<td>53%</td>
</tr>
<tr>
<td>2014</td>
<td>69</td>
<td>47%</td>
<td>53%</td>
</tr>
<tr>
<td>2015</td>
<td>86</td>
<td>47%</td>
<td>53%</td>
</tr>
<tr>
<td>2016</td>
<td>131</td>
<td>47%</td>
<td>53%</td>
</tr>
<tr>
<td>2017</td>
<td>127</td>
<td>47%</td>
<td>53%</td>
</tr>
<tr>
<td>2018</td>
<td>234</td>
<td>47%</td>
<td>53%</td>
</tr>
<tr>
<td>2019</td>
<td>222</td>
<td>47%</td>
<td>53%</td>
</tr>
</tbody>
</table>

**NOTIONAL VALUE¹**

<table>
<thead>
<tr>
<th>Year</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>US$177k</td>
</tr>
</tbody>
</table>

### HSCEI Futures (50)³

<table>
<thead>
<tr>
<th>Year</th>
<th>Mainland China</th>
<th>Others</th>
<th>Jul 2019 YTD</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>50</td>
<td>47%</td>
<td>53%</td>
</tr>
<tr>
<td>2011</td>
<td>61</td>
<td>47%</td>
<td>53%</td>
</tr>
<tr>
<td>2012</td>
<td>65</td>
<td>47%</td>
<td>53%</td>
</tr>
<tr>
<td>2013</td>
<td>86</td>
<td>47%</td>
<td>53%</td>
</tr>
<tr>
<td>2014</td>
<td>89</td>
<td>47%</td>
<td>53%</td>
</tr>
<tr>
<td>2015</td>
<td>135</td>
<td>47%</td>
<td>53%</td>
</tr>
<tr>
<td>2016</td>
<td>134</td>
<td>47%</td>
<td>53%</td>
</tr>
<tr>
<td>2017</td>
<td>117</td>
<td>47%</td>
<td>53%</td>
</tr>
<tr>
<td>2018</td>
<td>152</td>
<td>47%</td>
<td>53%</td>
</tr>
<tr>
<td>2019</td>
<td>143</td>
<td>47%</td>
<td>53%</td>
</tr>
</tbody>
</table>

**NOTIONAL VALUE¹**

<table>
<thead>
<tr>
<th>Year</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>US$68k</td>
</tr>
</tbody>
</table>

### FTSE China A50 Index Futures (SGX) (50)³

<table>
<thead>
<tr>
<th>Year</th>
<th>Mainland China</th>
<th>Others</th>
<th>Jul 2019 YTD</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>2</td>
<td>47%</td>
<td>53%</td>
</tr>
<tr>
<td>2011</td>
<td>12</td>
<td>47%</td>
<td>53%</td>
</tr>
<tr>
<td>2012</td>
<td>39</td>
<td>47%</td>
<td>53%</td>
</tr>
<tr>
<td>2013</td>
<td>84</td>
<td>47%</td>
<td>53%</td>
</tr>
<tr>
<td>2014</td>
<td>159</td>
<td>47%</td>
<td>53%</td>
</tr>
<tr>
<td>2015</td>
<td>369</td>
<td>47%</td>
<td>53%</td>
</tr>
<tr>
<td>2016</td>
<td>270</td>
<td>47%</td>
<td>53%</td>
</tr>
<tr>
<td>2017</td>
<td>260</td>
<td>47%</td>
<td>53%</td>
</tr>
<tr>
<td>2018</td>
<td>339</td>
<td>47%</td>
<td>53%</td>
</tr>
<tr>
<td>2019</td>
<td>444</td>
<td>47%</td>
<td>53%</td>
</tr>
</tbody>
</table>

**NOTIONAL VALUE¹**

<table>
<thead>
<tr>
<th>Year</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>US$14k</td>
</tr>
</tbody>
</table>

### CSI 300 Index Futures (CFFEX) (300)³

<table>
<thead>
<tr>
<th>Year</th>
<th>Mainland China</th>
<th>Others</th>
<th>Jul 2019 YTD</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>251</td>
<td>47%</td>
<td>53%</td>
</tr>
<tr>
<td>2011</td>
<td>207</td>
<td>47%</td>
<td>53%</td>
</tr>
<tr>
<td>2012</td>
<td>432</td>
<td>47%</td>
<td>53%</td>
</tr>
<tr>
<td>2013</td>
<td>812</td>
<td>47%</td>
<td>53%</td>
</tr>
<tr>
<td>2014</td>
<td>884</td>
<td>47%</td>
<td>53%</td>
</tr>
<tr>
<td>2015</td>
<td>1,136</td>
<td>47%</td>
<td>53%</td>
</tr>
<tr>
<td>2016</td>
<td>17</td>
<td>47%</td>
<td>53%</td>
</tr>
<tr>
<td>2017</td>
<td>17</td>
<td>47%</td>
<td>53%</td>
</tr>
<tr>
<td>2018</td>
<td>31</td>
<td>47%</td>
<td>53%</td>
</tr>
<tr>
<td>2019</td>
<td>104</td>
<td>47%</td>
<td>53%</td>
</tr>
</tbody>
</table>

**NOTIONAL VALUE¹**

<table>
<thead>
<tr>
<th>Year</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>US$167k</td>
</tr>
</tbody>
</table>

Source: HKEX, SGX, CFFEX, FIA.

(1) As at Jul 2019.

(2) CSI 300 Index Futures was launched in Apr 2010.

(3) Numbers in brackets represent the number of constituents within the underlying index.
Tapping into China’s Vast Bond Market

Key Policy Drivers
- Risk migration from banking sector to bond market
- Greater credit differentiation amid ongoing market reforms
- Funding needs for economic transition and infrastructure projects – e.g. Belt & Road; Panda bonds
- Enhanced bond issuance and disclosure standards

Growing International Demand
- Yield differential against developed markets
- Inclusion in emerging market bond indices
- Geographical and asset class diversification
- Growing convertibility of RMB / SDR inclusion
- More efficient access – Bond Connect

Source: CBIRC (Mar 2019), World Bank, PBOC, BIS, IMF
Bond Connect Has Significantly Grown Foreign Participation in China’s Bond Market

Bond Connect July 2019 YTD ADT: RMB 6.9bn

Foreign Participation in the CIBM (1)

<table>
<thead>
<tr>
<th>Year</th>
<th>Foreign Holdings in Chinese Bonds (US$ bn)</th>
<th>Foreign Ownership (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>0</td>
<td>0.0%</td>
</tr>
<tr>
<td>2011</td>
<td>0</td>
<td>0.0%</td>
</tr>
<tr>
<td>2012</td>
<td>0</td>
<td>0.0%</td>
</tr>
<tr>
<td>2013</td>
<td>0</td>
<td>0.0%</td>
</tr>
<tr>
<td>2014</td>
<td>0</td>
<td>0.0%</td>
</tr>
<tr>
<td>2015</td>
<td>0</td>
<td>0.0%</td>
</tr>
<tr>
<td>2016</td>
<td>0</td>
<td>0.0%</td>
</tr>
<tr>
<td>2017</td>
<td>0</td>
<td>0.0%</td>
</tr>
<tr>
<td>2018</td>
<td>0</td>
<td>0.0%</td>
</tr>
<tr>
<td>2019</td>
<td>0</td>
<td>0.0%</td>
</tr>
</tbody>
</table>

Growth Drivers

- Inclusion of Mainland bonds in global fixed income indices (6% of Bloomberg index weighting by 2020)
- Greater adoption of RMB globally and need to reinvest in RMB assets
- Improving access to the Mainland bond market

Achievable Target: 15%

Foreign participation in the CIBM increased by 139% since launch of Bond Connect in July 2017

Number of Bond Connect participants has grown to 1,134

Source: ChinaBond + SCH, Bloomberg, BIS

(1) Foreign participation in the CIBM data as of Jul 2019
Agenda

1. HKEX Group Financial and Market Update
2. HKEX Business and Strategic Update
3. China Connectivity Update
4. Appendix
   Financial supplement
Financial Highlights – Income Statement

<table>
<thead>
<tr>
<th>($ million, unless stated otherwise)</th>
<th>1H 2019</th>
<th>% of Revenue &amp; Other Income</th>
<th>1H 2018</th>
<th>% of Revenue &amp; Other Income</th>
<th>Y-o-Y Change</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Results</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Revenue and other income</td>
<td>8,578</td>
<td>100%</td>
<td>8,194</td>
<td>100%</td>
<td>5%</td>
</tr>
<tr>
<td>Operating expenses</td>
<td>(1,953)</td>
<td>(23%)</td>
<td>(1,918)</td>
<td>(23%)</td>
<td>2%</td>
</tr>
<tr>
<td>EBITDA</td>
<td>6,625</td>
<td>77%</td>
<td>6,276</td>
<td>77%</td>
<td>6%</td>
</tr>
<tr>
<td>Depreciation and amortisation</td>
<td>(495)</td>
<td>(6%)</td>
<td>(378)</td>
<td>(5%)</td>
<td>31%</td>
</tr>
<tr>
<td>Operating profit</td>
<td>6,130</td>
<td>71%</td>
<td>5,898</td>
<td>72%</td>
<td>4%</td>
</tr>
<tr>
<td>Finance costs and share of profits less losses of joint ventures</td>
<td>(80)</td>
<td>(1%)</td>
<td>(51)</td>
<td>(1%)</td>
<td>57%</td>
</tr>
<tr>
<td>Profit before taxation</td>
<td>6,050</td>
<td>71%</td>
<td>5,847</td>
<td>71%</td>
<td>3%</td>
</tr>
<tr>
<td>Taxation</td>
<td>(847)</td>
<td>(10%)</td>
<td>(822)</td>
<td>(10%)</td>
<td>3%</td>
</tr>
<tr>
<td>Loss attributable to non-controlling interests</td>
<td>2</td>
<td>0%</td>
<td>16</td>
<td>0%</td>
<td>(88%)</td>
</tr>
<tr>
<td><strong>Profit attributable to HKEX shareholders</strong></td>
<td>5,205</td>
<td>61%</td>
<td>5,041</td>
<td>61%</td>
<td>3%</td>
</tr>
<tr>
<td>Basic earnings per share (HK$)</td>
<td>$4.16</td>
<td></td>
<td>$4.07</td>
<td></td>
<td>2%</td>
</tr>
<tr>
<td><strong>Headline ADT on the Stock Exchange</strong></td>
<td>$97.9 bn</td>
<td></td>
<td>$126.6 bn</td>
<td></td>
<td>(23%)</td>
</tr>
<tr>
<td><strong>Capex</strong></td>
<td>$368 m</td>
<td></td>
<td>$339 m</td>
<td></td>
<td>9%</td>
</tr>
</tbody>
</table>

(1) % does not add up due to roundings
## Performance by Operating Segment

<table>
<thead>
<tr>
<th>$ million</th>
<th>Cash Equity</th>
<th>Equity &amp; Financial Derivatives</th>
<th>Commodities</th>
<th>Post Trade</th>
<th>Technology</th>
<th>Corporate Items</th>
<th>Group 1H 2019</th>
<th>Group 1H 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue and other income</td>
<td>1,863</td>
<td>1,631</td>
<td>694</td>
<td>3,262</td>
<td>373</td>
<td>755</td>
<td>8,578</td>
<td>8,194</td>
</tr>
<tr>
<td>% of Group Total</td>
<td>22%</td>
<td>19%</td>
<td>8%</td>
<td>38%</td>
<td>4%</td>
<td>9%</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>Operating expenses</td>
<td>(302)</td>
<td>(291)</td>
<td>(324)</td>
<td>(420)</td>
<td>(102)</td>
<td>(514)</td>
<td>(1,953)</td>
<td>(1,918)</td>
</tr>
<tr>
<td>EBITDA</td>
<td>1,561</td>
<td>1,340</td>
<td>370</td>
<td>2,842</td>
<td>271</td>
<td>241</td>
<td>6,625</td>
<td>6,276</td>
</tr>
<tr>
<td>% of Group Total (1)</td>
<td>23%</td>
<td>20%</td>
<td>6%</td>
<td>43%</td>
<td>4%</td>
<td>4%</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>EBITDA margin</td>
<td>84%</td>
<td>82%</td>
<td>53%</td>
<td>87%</td>
<td>73%</td>
<td>32%</td>
<td>77%</td>
<td>77%</td>
</tr>
<tr>
<td>Depreciation and amortisation</td>
<td>(64)</td>
<td>(48)</td>
<td>(158)</td>
<td>(120)</td>
<td>(19)</td>
<td>(86)</td>
<td>(495)</td>
<td>(378)</td>
</tr>
<tr>
<td>Finance costs</td>
<td>(8)</td>
<td>(6)</td>
<td>(4)</td>
<td>(39)</td>
<td>(1)</td>
<td>(28)</td>
<td>(86)</td>
<td>(55)</td>
</tr>
<tr>
<td>Share of profits less losses of joint ventures</td>
<td>9</td>
<td>(3)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>Profit before taxation</td>
<td>1,498</td>
<td>1,283</td>
<td>208</td>
<td>2,683</td>
<td>251</td>
<td>127</td>
<td>6,050</td>
<td>5,847</td>
</tr>
</tbody>
</table>

(1) % Share of Group EBITDA (including Corporate Items)
### Operating Expenses and Depreciation & Amortisation

Total opex excluding depreciation and amortisation – 1H 2019: $1,953m (1H 2018: $1,918m)

<table>
<thead>
<tr>
<th>Staff costs and related expenses</th>
<th>IT &amp; computer maintenance exp</th>
<th>Premises expenses</th>
<th>Professional fees</th>
<th>Other operating expenses (1)</th>
<th>Depreciation and amortisation</th>
</tr>
</thead>
<tbody>
<tr>
<td>($ million)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1H 2018</td>
<td>1,205</td>
<td>241</td>
<td>202</td>
<td>42</td>
<td>228</td>
</tr>
<tr>
<td>1H 2019</td>
<td>1,328</td>
<td>282</td>
<td>210</td>
<td>37</td>
<td>249</td>
</tr>
</tbody>
</table>

- **↑ 10%** due to headcount and annual payroll adjustments
- **↑ 15%** (2) due to maintenance expenses for new IT systems and network upgrades
- **↓ 68%**
- **↓ 12%**
- **↑ 8%** (2)
- **↑ 31%** (2)

(1) Includes product marketing and promotion expenses
(2) As a result of adopting HKFRS 16: Leases, operating lease rentals are no longer recognised under opex. Instead, they are recognised as right-of-use (RoU) assets and lease liabilities in the consolidated statement of financial position, and they are subsequently charged to the consolidated income statement under finance costs and depreciation & amortisation.

Proforma amount before adoption of HKFRS 16

<table>
<thead>
<tr>
<th>1H 2018</th>
<th>1H 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>278</td>
<td>282</td>
</tr>
<tr>
<td>202</td>
<td>210</td>
</tr>
<tr>
<td>42</td>
<td>37</td>
</tr>
<tr>
<td>228</td>
<td>249</td>
</tr>
<tr>
<td>378</td>
<td>364</td>
</tr>
</tbody>
</table>

1H 2018: $1,918m

1H 2019: $1,953m

1H 2019: 15%

1H 2019: 17% (2)

1H 2019: 68%

1H 2019: 4% (2)

1H 2019: 12%

1H 2019: 8% (2)

1H 2019: 31% (2)
Revenue by Operating Segment
Relationship between headline ADT and overall trading and clearing income is not linear

<table>
<thead>
<tr>
<th>Cash Equity</th>
<th>Equity &amp; Financial Derivatives</th>
<th>Commodities</th>
<th>Post Trade</th>
</tr>
</thead>
<tbody>
<tr>
<td>($ million)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- **Cash Equity**
  - 1H 2017: $100.4bn
  - 1H 2018: $1,863
  - ADT: $1,220
  - 1H 2019: $1,094

- **Equity & Financial Derivatives**
  - 1H 2017: $296.2bn
  - 1H 2018: $262bn
  - ADT: $659k
  - 1H 2019: $619k

- **Commodities**
  - LME chargeable ADV (2)
  - 1H 2018: $296.2bn
  - 1H 2019: $254.4bn

- **Post Trade**
  - 1H 2017: $1,747
  - 1H 2018: $1,747

| (1) Excludes London Metal Mini Futures, Gold Futures and Iron Ore Futures |
| (2) Chargeable ADV excludes Admin Trades (which became chargeable from May 2019 at a lower trading fee rate of US$0.04 per contract) and other non-chargeable trades; Total LME ADV: 715k (1H 2018: 764k) |
Trading and Clearing Revenue by Market

- **2012**
  - Acquisition of LME in Dec 2012
  - Significance growth in commodities
- **2014/2015**
  - LME Clear commenced operation since Sep 2014
  - LME fee commercialization since Jan 2015
- **2016**
  - Improved sentiment in Cash Market
  - $66.9bn
- **2017**
  - $88.2bn
- **2018**
  - $107.4bn

**Trading and Clearing Revenue**

- **2012**: $3,854m
- **2014/2015**: $6,786m
- **2016**: $7,547m
- **2018**: $9,620m

- **Cash**
  - 2012: 77%
  - 2014/2015: 54%
  - 2016: 27%
  - 2018: 61%

- **Commodities**
  - 2012: 18%
  - 2014/2015: 17%
  - 2016: 2%
  - 2018: 17%

- **HKFE Futures & Options, and OTC contracts**
  - 2012: 1%
  - 2014/2015: 2%
  - 2016: 15%
  - 2018: 3%

- **Stock Options**
  - 2012: 4%
  - 2014/2015: 2%
  - 2016: 17%
  - 2018: 19%

**Revenue diversification following acquisition of LME, growing Derivatives Market and Stock Connect trading**

(1) Includes all products traded on Cash Market platform (ie, equity products, DWs, CBBCs and warrants)
Net investment income for 1H 2019 increased by 91% versus 1H 2018 mainly due to:

1. Higher fair value gains of collective investment schemes
2. Higher interest income from Corporate Funds and Margin Funds as a result of increased interest rates partly offset by reduced Margin Fund size