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香港交易及結算所有限公司  
HONG KONG EXCHANGES AND CLEARING LIMITED

(Incorporated in Hong Kong with limited liability)  
(Stock Code: 388)

(Financial figures in this announcement are expressed in Hong Kong dollar (HKD) unless otherwise stated)

## **2021 FINAL RESULTS, DIVIDEND AND CLOSURE OF REGISTER OF MEMBERS**

# STRATEGIC AND FINANCIAL HIGHLIGHTS

## Nicolas Aguzin, Chief Executive Officer said:

"HKEX had a strong year in 2021, despite a turbulent macro backdrop and the ongoing pandemic. Revenue and other income, and profit both reached record highs. Turnover on our Cash Market and volumes on both Stock Connect and Bond Connect achieved new highs, helping to offset the impact of the low interest rate environment on investment income. With a strong IPO pipeline, a new listing regime for SPACs and overseas issuers, an expanding product portfolio, as well as a range of new market microstructure enhancements, including holiday trading, I am confident that HKEX is well-positioned as a super-connector to play an increasingly important role in the fast-evolving global capital markets of the future."

## Strategic & Operational Highlights

### Corporate

5 Feb	Invested in Guangzhou Futures Exchange, the first equity investment in a domestic futures exchange by a non-Mainland Chinese investor
30 Apr	3rd Anniversary of listing reforms
24 May	Appointment of new Group Chief Executive, Mr Nicolas Aguzin
27 Jun	21st Anniversary of HKEX as a listed company
8 Jul	Established Mainland China Advisory Group and Mainland Markets Panel

### Products and Services

18 Jan	Launched Hang Seng TECH Index Options
1 Feb	Eligible A-shares listed on SSE's STAR Market, and corresponding H-shares, included in Stock Connect
26 Apr	Launched Mini USD/CNH Futures contract
10 May	OTC Clear launched clearing services for Cross Currency Swaps referencing Secured Overnight Financing Rate and Hong Kong Dollar Overnight Index Average
31 May	Introduced ETP trading fee exemption tiered structure for market makers, and fee waivers for Hong Kong-listed fixed income and money market ETFs
1 Jun	First ETF listings in Hong Kong and Shanghai under the Hong Kong-Mainland ETF Cross-listing Scheme
19 Jul	LME launched six new cash settled futures contracts
23 Aug	Launched Hang Seng Index Futures Options and Hang Seng China Enterprises Index Futures Options
18 Oct	Launched MSCI China A 50 Connect Index Futures, the first A-share derivatives product in Hong Kong
13 Dec	Launched the first batch of ETFs tracking the MSCI China A 50 Connect Index

### Market Operations

1 Mar	LME introduced a new electronic warranting solution, replacing paper warrants
29 Mar	Second phase enhancement of Volatility Control Mechanism implemented in the Cash Market
12 Apr	Volatility Control Mechanism and Pre-Market Opening Session enhancements implemented in the Derivatives Market
26 Apr	Completed upgrade of OTC Clearing and Settlement System
8 Jun	LME published discussion paper outcomes on future market structure
6 Jul	Published conclusions to 2020 Concept Paper on Fast Interface for New Issuance, targeting launch of a new platform to streamline and digitalise Hong Kong's IPO settlement process in Q4 2022
2 Aug	Completed system infrastructure resilience improvements to the Hong Kong Futures Automated Trading System
31 Aug	LMEpassport launched, providing a centralised digital register that stores electronic Certificates of Analysis and sustainability credentials for LME-listed metals
27 Sep	Completed upgrade of Orion Central Gateway for the Cash Market
9 Nov	Published a consultation paper on the operational model for Derivatives Holiday Trading, with consultation conclusions published on 6 January 2022

### Regulation

20 May	Published consultation conclusions on the Main Board Profit Requirement and Review of Listing Rules relating to Disciplinary Powers and Sanctions
19 Nov	Published consultation conclusions on Listing Regime for Overseas Issuers
10 Dec	Published consultation conclusions on Review of Corporate Governance Code and related Listing Rules, and Housekeeping Rule Amendments
17 Dec	Published consultation conclusions on Special Purpose Acquisition Companies

### Corporate Social Responsibility and ESG

7 May	Launched inaugural HKEX ESG Academy webinar
1 Jun	Launched 2021 HKEX Charity Partnership Programme
5 Jul	Launched new HKEX Foundation Impact Funding Scheme
27 Aug	Signed Memorandum of Understanding with Guangzhou Futures Exchange, supporting China's pledge for peak carbon emissions by 2030 and carbon neutrality by 2060
12 Oct	First sustainability disclosures listed on LMEpassport, LME's digital credential register
3 Nov	Joined the Glasgow Financial Alliance for Net Zero, making HKEX Group commitment to Net Zero by latest, 2050
2 Dec	Published Practical Net-Zero Guide for Business and announced new ESG data display
6 Dec	Awarded Most Sustainable Companies/Organisations Gold Award by the HKICPA

## Financial Highlights

- 2021 revenue and other income of \$20,950 million, up 9 per cent against the previous record set in 2020
  - Core business revenue up 10 per cent compared with 2020, reflecting higher trading and clearing fees driven by record Headline ADT
  - Stock Connect revenue and other income reached a record high of \$2,724 million, up 41 per cent against 2020, accounting for 13 per cent of Group total revenue and other income
  - Net investment income from Corporate Funds down 16 per cent compared with 2020, reflecting reduced interest income and lower fair value gains of collective investment schemes
- Operating expenses up 2 per cent compared with 2020, attributable to higher IT costs and marketing expenses
- EBITDA<sup>1</sup> up 11 per cent compared with 2020 at \$16,269 million, with EBITDA margin<sup>1</sup> at 78 per cent, 1 per cent higher than 2020
- In 2021, there was a one-off deferred tax charge on acquired LME intangible assets of \$160 million arising from the approval of the change in the UK statutory corporate tax rate from 19 per cent to 25 per cent, effective April 2023
- Profit attributable to shareholders up 9 per cent, to a record high of \$12,535 million

## Key Financials

	2021 \$m	2020 \$m	Change
Revenue and other income			
Core business revenue	<b>20,103</b>	18,242	10%
HKEX Foundation donation income	<b>139</b>	106	31%
Net investment income of Corporate Funds	<b>708</b>	842	(16%)
	<b>20,950</b>	19,190	9%
Operating expenses	<b>4,529</b>	4,439	2%
EBITDA	<b>16,269</b>	14,641	11%
Profit attributable to shareholders	<b>12,535</b>	11,505	9%
Capital expenditure	<b>1,127</b>	1,388	(19%)
Basic earnings per share	<b>\$9.91</b>	\$9.11	9%
First interim dividend per share	<b>\$4.69</b>	\$3.71	26%
Second interim dividend per share	<b>\$4.18</b>	\$4.46	(6%)
	<b>\$8.87</b>	\$8.17	9%
Dividend payout ratio	<b>90%</b>	90%	-

## Key Market Statistics

	2021	2020	Change
ADT of equity products traded on the Stock Exchange <sup>2</sup> (\$bn)	<b>146.6*</b>	110.9	32%
ADT of DWs, CBBCs and warrants traded on the Stock Exchange (\$bn)	<b>20.1</b>	18.6	8%
ADT traded on the Stock Exchange <sup>2,3</sup> (Headline ADT) (\$bn)	<b>166.7*</b>	129.5	29%
ADT of Northbound Trading of Stock Connect <sup>2</sup> (RMBbn)	<b>120.1*</b>	91.3	32%
ADT of Southbound Trading of Stock Connect <sup>2</sup> (\$bn)	<b>41.7*</b>	24.4	71%
ADV <sup>4</sup> of derivatives contracts traded on the Futures Exchange ('000 contracts)	<b>538</b>	612	(12%)
ADV of stock options contracts traded on the Stock Exchange ('000 contracts)	<b>637*</b>	526	21%
Chargeable ADV <sup>4,5</sup> of metals contracts traded on the LME ('000 lots)	<b>547</b>	571	(4%)
ADT of Northbound Bond Connect (RMBbn)	<b>26.6*</b>	19.8	34%

\* New record high in 2021

1 For the purposes of this announcement, 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. EBITDA margin is calculated based on EBITDA divided by revenue and other income less transaction-related expenses.

2 Includes buy and sell trades under Stock Connect

3 ADT of Southbound Trading is included within Headline ADT.

4 In prior years, ADV of derivatives contracts traded on the Futures Exchange and ADV of metals contracts traded on the LME were calculated based on total number of contracts traded divided by total number of trading days during the period. From 2021 onwards, the calculation is revised to the sum of ADV of the individual products. Comparative figures have been restated throughout this announcement to conform with the revised calculation.

5 Chargeable ADV excludes administrative trades (Admin Trades) and other non-chargeable trades.

## CHAIRMAN'S STATEMENT

2021 marked another year of good performance and growth for HKEX, despite challenges from the ongoing pandemic and the increased uncertainty over the global economic outlook. The continued resilience and strength of our businesses, together with various accomplishments and progress we achieved in 2021, enable us to stay competitive and relevant, and reinforce our leadership role in the regional and global capital markets. We are confident that our resolute focus on driving connectivity, innovation and sustainability across markets will continue to underpin our future success and promote long-term collective prosperity in Hong Kong and beyond.

### Our Performance

Amid continuing market volatility in 2021 and a slowdown in the fourth quarter, our securities market in Hong Kong recorded strong average daily performance for the year; and our derivatives market also saw new highs in trading across various individual products. Both Stock Connect and Bond Connect continued to show robust growth, achieving new record levels in trading activity. Despite some softness in the second half reflecting the macro environment, Hong Kong's IPO market had another solid year, raising a total of \$331.4 billion for new listings, and the IPO pipeline remains very good as we move into 2022.

The LME continued to operate robust and efficient markets during the pandemic. As world metal trading remained under pressure, the chargeable average daily volume of metals contracts traded on the LME decreased by 4 per cent from 2020.

Total revenue and other income of the Group for the year ended 31 December 2021 reached a record high of \$21.0 billion, up 9 per cent from 2020, resulting in a record profit attributable to shareholders of \$12.5 billion, up 9 per cent.

### Dividend

The Board declared payment of a second interim dividend of \$4.18 per share which, together with the first interim dividend of \$4.69 per share paid in September 2021, results in a full-year dividend of \$8.87 per share.

### Strategic Update

In 2021, we continued to make good progress in enhancing competitiveness and attractiveness of our markets, with new product offerings across asset class, as well as a range of new market enhancements. Among the notable achievements were the successful launch of the MSCI China A 50 Connect Index Futures as Hong Kong's first A-share derivative product and a cash settled Mini USD/CNH Futures contract, which added further choices and vibrancy to our markets; the enhancement and streamlining of the listing regime for overseas issuers and the introduction of the Hong Kong listing regime for special purpose acquisition companies (SPACs) in January 2022, which enhanced the channels available for fundraising on our markets and reinforced our position as a world leading capital-raising venue; the plan to roll out the FINI (Fast Interface for New Issuance) platform in the fourth quarter of 2022 to streamline Hong Kong's IPO settlement process; and the announcement of the outcomes of the LME's discussion paper on market structure, facilitating the modernisation of our service offering both reflected our continual commitment to progressing our markets and adapting to our customer's needs.

In support of HKEX's vision to become the Marketplace of the Future, we will continue to focus on our strategy on leveraging our strategic China-anchored advantage, expanding our capabilities in market connectivity, and driving product and market innovation, to capture future growth opportunities and strengthen our value proposition as a gateway to China for global investors.

### Market Quality and Sustainability

As a leading international exchange group, we aspire to become a sustainability leader in the region and globally, which is inextricably intertwined with our responsibility in promoting the long-term sustainable development of global financial markets.

We joined the Glasgow Financial Alliance for Net Zero (GFANZ) and the Net Zero Financial Service Providers Alliance (NZFSPA) in November to underscore our commitment to building a climate resilient global economy. We also signed a Memorandum of Understanding with the Guangzhou Futures Exchange in August to support Mainland China to peak carbon emissions by 2030 and reach carbon neutrality by 2060.

As part of our ongoing efforts in building a green and sustainable financial ecosystem and cementing Hong Kong's position as a green financial hub in Asia, we continued to support listed issuers and the wider business community in their sustainability journeys through various initiatives in 2021. These included the launch of the ESG Academy; the display of HKEX listed companies' ESG metrics on STAGE, our sustainable and green platform; the publication of a Net-Zero Guide and guidance on climate disclosures to facilitate TCFD-aligned reporting; and active engagements with regulators, industry practitioners and other stakeholders to drive market education and increase investors' awareness of ESG.

The LME continued to elevate its sustainability agenda through the launch of LMEpassport, an online digital register enabling participants to disclose their metals' sustainability credentials. The LME is also collaborating with Metalshub to establish an online base metals spot trading platform, aiming to bring greater transparency to the physical market through digitalisation and standardisation, and better access to sustainable products.

To uphold market quality, we issued the revised Corporate Governance Code for enhancing listed issuers' corporate governance and diversity practices, and other amendments to the Listing Rules in relation to the profit requirement for Main Board listings and disciplinary powers and sanctions. We also worked on a range of new market microstructure enhancements, including plans to introduce non-Hong Kong dollar denominated futures and options trading and clearing on Hong Kong public holidays in 2022.

Specific details of the Group's performance, achievements and market initiatives in 2021 are set out in the Chief Executive Officer's Review and Business Review sections of this announcement.

## **Corporate Responsibility**

At HKEX, we believe that our success as a business and as a market is underpinned by our strong governance and positive and progressive corporate culture, and by our purpose: "To promote and progress our financial markets and the communities they support for the prosperity of all." As a company, regulator and market operator, we look to lead by example, promoting sustainability and best-in-class governance and CSR practices in all we do, across our business, markets and communities.

During 2021, we completed an independent holistic risk review of the Group's risk organisation, processes and practices to ensure that our risk management function remains resilient and effective with respect to our evolving strategy. We conducted internal evaluations of the performance of the boards of HKEX and its subsidiaries, OTC Clear, the LME and LME Clear, which have concluded that all four boards operate effectively and identified areas for enhancement. We also performed an external brand audit to collect views from a wide range of stakeholders for assessment of our brand's position, helping to inform our strategic decision making process, better understand our core stakeholders' needs and support the development of our CSR approach going forward.

The HKEX Foundation raised \$139 million in 2021, deployed to support a wide range of projects and charities in need in our communities. Through our two key charitable programmes - the HKEX Charity Partnership Programme and our newly established HKEX Impact Funding Scheme, and partnerships with local charities, we continued to support community projects focusing on financial literacy, diversity and inclusion, poverty relief and environmental sustainability, to deepen our connectivity with our communities and also our commitment to our collective future. The LME also donated \$5.6 million to the charities Pact and The Impact Facility, with the aim of tackling child labour and children's rights issues in African mining communities.

As a responsible corporate leader, we continue to work on a detailed plan to reduce the environmental impact of our business in support of carbon neutrality goals in Mainland China and Hong Kong and to achieve the target of net-zero emissions by 2050. Details can be found in our 2021 CSR Report, which will be available on the HKEX Group website together with the 2021 Annual Report.

## Outlook

The global economic recovery is expected to continue throughout 2022, although numerous challenges posed by uncertainty surrounding the pandemic recovery, ongoing geopolitical risks, restrictions on travel and upcoming interest rate hikes will all affect our business in the year ahead.

As Asia's premier exchange group, we are in a privileged position to promote sustainability and prosperity across our markets and communities in partnership with our customers, partners, regulators and other stakeholders. Our robust business and clear strategic focus make us well positioned for capturing the opportunities ahead and helping us to deepen our leadership role in shaping the global capital markets of the future.

On behalf of the Board, I would like to express gratitude to members of the International Advisory Council and the Mainland China Advisory Group for their invaluable advice and guidance. I also thank my fellow Board members, including our new CEO, Mr Nicolas Aguzin, for their support and commitment throughout 2021.

Last but not least, I would like to thank our shareholders and other stakeholders for their unwavering confidence and support in another challenging year. I would also like to express my heartfelt thanks for all our employees for their dedication and hard work. Their professionalism and commitment enable us to keep delivering resilient performance and ensure that we are doing all we can to support a sustainable future.

**Laura M CHA**  
Chairman

## CHIEF EXECUTIVE OFFICER'S REVIEW

In my first year as HKEX CEO I am delighted to report a strong year for HKEX and record financials. Despite the ongoing pandemic, continued geopolitical tensions and often volatile trading markets, throughout the year HKEX remained resolutely focused on delivering on its strategy through expanding its role as an international capital raising centre; developing Hong Kong as Asia's preferred risk management hub; growing its offshore China A-share ecosystem; and strengthening the overall quality and attractiveness of Hong Kong's markets. HKEX's role in 2021 as Asia's global marketplace became ever stronger and more relevant.

At a time in history when access to and from China is front and centre for investors, business and entrepreneurs the world over, HKEX has remained committed to continuing to leverage our unique advantages and our super-connector role. We have done this by continuing to facilitate the vital two-way capital flow between East and West, whilst supporting the capital raising needs of businesses and looking to capture the opportunities presented by the megatrends that are shaping our markets and our societies. This positions us well for the next phase of our development and growth, with an ambition to build HKEX into the *Marketplace of the Future*.

Market highlights
<ul style="list-style-type: none"><li>• Headline ADT set new record in 2021, reaching \$166.7 billion, up 29 per cent year-on-year.</li><li>• Stock Connect Northbound and Southbound reached record annual turnover of RMB27.6 trillion and \$9.3 trillion, up 31 per cent and 70 per cent year-on-year, respectively, and record ADT of RMB120.1 billion and \$41.7 billion, up 32 per cent and 71 per cent year-on-year, respectively, for 2021.</li><li>• Northbound Bond Connect turnover also saw record highs with ADT reaching RMB26.6 billion, up 34 per cent year-on-year.</li><li>• IPO market remained robust against a challenging macro environment, with a total of \$331.4 billion funds raised in 2021. Our pipeline remains strong.</li><li>• We expanded our China A-share ecosystem with the successful launch of the MSCI China A 50 Connect Index Futures contract in October 2021 - Hong Kong's first A-share derivatives product.</li><li>• We reinforced HKEX as Asia's risk management hub with new products and microstructure enhancements and we took the crown as the world's largest structured products market for the 15th consecutive year.</li><li>• ADT of Hong Kong equity ETFs nearly doubled from \$2.8 billion in 2020 to \$5.4 billion in 2021. The market capitalisation of ETPs listed on HKEX reached a record high of \$429 billion at 31 December 2021.</li></ul>

Whilst the ongoing global pandemic continued to impact global economies, our primary and secondary markets have remained vibrant, robust and resilient.

### Primary market

HKEX's primary market had a robust year. Against the turbulent geopolitical backdrop, HKEX remained one of the world's leading fundraising centres, with a total of 98 company listings<sup>6</sup> raising \$331.4 billion, down from the strong 2020 (154 company listings<sup>6</sup> raising \$400.2 billion) and 5 per cent higher than 2019 (\$314.2 billion).

New Economy and biotech continued to be our sweet spots: During the year, we welcomed 59 new economy companies, including 31 Weighted Voting Rights (WVR), healthcare and biotech firms (including Chapter 18A listings only) and/or secondary-listed companies, to our markets, accounting for 88 per cent of IPO funds raised in Hong Kong during the period. Hong Kong once again ranked as Asia's largest and the world's second largest biotech fundraising centre in 2021. Hong Kong's new economy and biotech fundraising and investment ecosystem also kept growing.

Our pipeline remains very strong, with notable activity from companies in the New Economy space and those seeking homecoming listings.

<sup>6</sup> Includes 2 (2020: 8) transfers of listings from GEM to Main Board



## Secondary market

Our secondary market remained deep, diverse and liquid. Headline ADT in the Cash Market set a new annual record of \$166.7 billion, up 29 per cent from a year earlier. Total market turnover in 2021 reached \$41.2 trillion, up 28 per cent compared with 2020. The market capitalisation of the securities market reached \$42,381.1 billion at the end of December 2021, down 11 per cent compared with the end of December 2020.

Robust growth in our product ecosystem strengthened our position as Asia's derivatives trading hub, resulting in healthy growth of 3 per cent in average daily volume for HKEX's derivatives market during the year. Total turnover of securitised derivatives (DWs, CBBCs and Inline Warrants) reached \$4,956.8 billion, up 8 per cent compared with 2020 and we retained our position as the world's largest structured products market for the 15th consecutive year.

On the product front, our Hang Seng TECH Index derivative products continued to gain traction. ADV of Hang Seng TECH Index Futures reached 14,718 contracts, with daily trading volume reaching a record high of 89,967 contracts on 28 December 2021. The trading volume of Hang Seng TECH Index Options reached a daily record high of 3,329 contracts on 19 August 2021, with open interest (OI) reaching record high of 29,584 contracts on 29 December 2021. We further broadened our product suite launching Mini USD/CNH Futures contract in April 2021, introducing Options on Futures Contracts on Hang Seng Index Futures and Hang Seng China Enterprises Index Futures in August 2021. We also grew our MSCI product suite to over 40 futures products and, most notably, we launched the MSCI A 50 Connect Index Futures contract in October 2021 – Hong Kong's first China A-share futures product. The new MSCI A 50 Connect Index Futures contract provides global investors and risk managers with a new and effective tool to trade and manage their China exposure and the market response to the launch has been overwhelming – with the best notional Day 1 turnover of any futures contract launched ever on the HKEX market.

## Strategic Development Review

During the year, HKEX continued to deliver on its strategic priorities that position us as the region's premier international financial market. While many of these priorities are built upon successes in past years, we also developed and progressed a range of new opportunities that will help shape the future of HKEX. Our focus throughout has been on leveraging our unique China advantage; growing our global connections and product offering; and creating a platform that positions us well to embrace the key megatrends and opportunities that will support our future development and growth.

### Leveraging China advantage

During the year, HKEX further expanded its China access and product offering and strengthened its role as a gateway to China for global investors. China's future growth trajectory, opening of its capital markets and innovation and technological prowess, ensures that there is strong global appetite for access to this key market; and at HKEX we are uniquely placed to play a key role in that future ecosystem.

### Expanding connectivity

Our pioneering mutual market access programmes - Connect Schemes - have gone from strength to strength since launch seven years ago. Stock Connect once again set new records, with Northbound and Southbound reaching record annual turnover of RMB27.6 trillion and \$9.3 trillion, up 31 per cent and 70 per cent year-on-year, respectively, and record ADT of RMB120.1 billion and \$41.7 billion, up 32 per cent and 71 per cent year-on-year, respectively, for the year.

We further expanded the Stock Connect programme in 2021, including Shanghai STAR Market A-shares and their corresponding H-shares, and are preparing to add eligible ETFs. Following the launch of the Hong Kong-Mainland ETF Cross-listing Scheme last year, HKEX announced on 24 December the Stock Connect inclusion arrangements for eligible ETFs, providing investors in both Hong Kong and Mainland markets with more choice and more diversification tools.



Northbound Bond Connect's annual turnover reached a record high of RMB6.5 trillion in 2021, with ADT of RMB26.6 billion, growing 34 per cent compared with 2020. We also made multiple enhancements to Bond Connect, such as adding MarketAxess as a third trading platform on the Northbound channel; launching CNYPlus to support investors' foreign exchange (FX) risk management needs; and introducing a new dealer pay model.

### Beyond Connect

It was a year where we made real progress in expanding our China A-share product suite: In addition to expanding the Stock Connect programmes, the launch of MSCI A 50 Connect Index Futures and Mini USD/CNH Futures contracts provided global investors and risk managers with new and effective tools to manage their China exposure. These, together with the existing suite of China A-share ETFs available on our markets, make HKEX home to the world's most complete and competitive offshore China A-share product ecosystem.

To further grow our onshore China capabilities, we completed a 7 per cent minority stake investment in Guangzhou Futures Exchange and signed a MOU for strategic cooperation. As the first exchange outside of Mainland China to invest in a domestic futures exchange, this signified our commitment to developing the green and low-carbon and derivatives markets in China, helping us grow our presence in the Greater Bay Area and adding to our existing capabilities through the Qianhai Mercantile Exchange (QME), our commodities trading platform, which continued to see robust turnover in 2021. We, this year, also established a Mainland China Advisory Group and Mainland Markets Panel to guide our future China initiatives.

### **Growing our global relevance**

We took numerous steps to further grow our global connectivity, focused on fuelling the growth needs of the businesses of tomorrow and increasing HKEX's competitiveness and attractiveness as a platform for global investors to trade and manage risk in Asia.

### Global capital raising venue of choice

Building on the success of HKEX's 2018 listing reforms, we continued to make new enhancements to our listing framework, striking a balance between delivering appropriate investor protections and the promotion of market quality and market attractiveness. Through the year, we enhanced and streamlined the listing regime for overseas issuers; and introduced new rules for special purpose acquisition companies (SPACs), effective from January 2022. A taskforce was also built to look at further enhancing the structure of our IPO regime. These efforts have helped to support Hong Kong's reputation as a global listing venue of choice, whilst further broadening investment opportunities for investors.

Our product ecosystem expanded with the growing popularity of the Hang Seng Hong Kong-listed Biotech Index and their associated ETFs, as well as other futures and options products. Our local expertise grew, and we signed an MOU with Hong Kong Science and Technology Parks Corporation (HKSTP) to explore new biotech and fintech initiatives, applying HKSTP's deep expertise to our listing review process.

### Trading Asia, in Asia

We continued to focus on building a competitive and resilient market for global investors to trade and manage risk in Asia. During the year, we broadened our derivatives offering with physically-settled Options on Futures Contracts (OOF) on Hang Seng Index Futures and Hang Seng China Enterprises Index Futures and added two new product offerings to our suite of MSCI futures.

To bolster HKEX's position as Asia's derivatives trading hub, HKEX worked on a range of new market microstructure enhancements, including Volatility Control Mechanism (VCM) and Pre-Opening Session enhancements, as well as plans to launch holiday trading for non-Hong Kong dollar denominated futures and options products in 2022 (announced in January 2022).

LME introduced a new electronic warranting process, ensuring that all LME warrants are now lodged almost immediately and stored digitally. The new system has increased operational efficiency and increased the number of warrants that can be lodged at any one time.

Following the successful introduction of a range of market microstructure enhancements, our ETP product ecosystem grew exponentially with the listings of 33 new products and \$80 billion of net capital inflow this year. ADT of ETPs, which includes ETFs and L&I Products, increased 20 per cent to \$7.7 billion in 2021 (2020: \$6.4 billion). In particular, ADT of Hong Kong equity ETFs nearly doubled from \$2.8 billion in 2020 to \$5.4 billion in 2021. Our Fixed Income, Currency and Commodities (FICC) business was also active, with the number of new listings of debt securities in 2021 reaching a record high of 508 and total issuance amounting to \$1,552 billion, up 18 per cent and 2 per cent respectively, compared with 2020. Total turnover value of debt securities reached \$104 billion, an increase of 58 per cent, compared with 2020.

## **Embracing megatrends and opportunities for growth**

HKEX continued to expedite its digital transformation journey to raise our global competitiveness and position ourselves for the future and throughout the year looked to embrace some of the key megatrends shaping global markets.

### Technology and Innovation

We continued to invest in modernising our operations and introduced new platforms and technologies, with upgrades to multiple core trading systems. Our Innovation Lab continued to apply innovative technologies to core business functions. We announced the launch of a new platform FINI (Fast Interface for New Issuance) in Q4 2022, which we expect will comprehensively streamline and digitalise Hong Kong's IPO settlement process and address the issue of excessive liquidity lock-up in heavily oversubscribed IPOs. We made good progress on HKEX Synapse, our new solution that uses Digital Asset Modeling Language (DAML) smart contracts to streamline post-trade workflow on Northbound Stock Connect, with the launch of pilot programme. We also announced a new measure to enhance communications on issuers' corporate actions in a timely manner.

LME continued to invest in its global ecosystem, leveraging technology to accelerate its sustainability journey. During the year, LME launched LMEpassport, an online service and centralised digital provenance register, which enables participants to disclose their metals' sustainability credentials. It also announced its collaboration with Metalshub to establish an online base metals spot trading platform, starting with low carbon aluminium in early 2022, to help further its sustainability agenda functions.

### Sustainability

Sustainability is front and centre of our agenda, and at HKEX we are committed to growing the sustainable finance ecosystem that supports the low-carbon transition journey in Asia and beyond, capitalising on the significant potential brought by the demand for green investments across the globe.

As a regulator, HKEX remained focused on supporting the more than 2,500 HKEX-listed companies on their ESG strategies implementation through listing rules, guidance, and market education. We launched Guidance on Climate Disclosures to facilitate TCFD-aligned reporting, which will become mandatory by 2025. We also upgraded the Corporate Governance Code with the focus on enhancing listed issuers' corporate governance and diversity practices, including prohibiting single gender Boards.

Our sustainable finance investment ecosystem expanded during the year. Green, social and sustainable (GSS) bond listings on HKEX also grew, with 95 listings raising over \$280 billion, compared with 18 GSS listings raising \$66.7 billion in 2020. LME also launched six new cash-settled futures contracts in July 2021, offering pricing and risk management solutions for metals that support the electric vehicle (EV) transition and circular economy.

In terms of market education and advocacy, we published a Net-Zero Guide for listed issuers and other corporations looking for guidance on charting their net zero carbon journey. We also launched a new service displaying Hong Kong-listed companies' ESG metrics on STAGE, our multi-asset sustainable finance platform. And as a Group we sought to lead by example by becoming a signatory to the Glasgow Financial Alliance for Net Zero (GFANZ) and the Net Zero Financial Service Providers Alliance (NZFSPA), as part of the global financial community's commitment to accelerating the transition to a net-zero global economy, supporting global efforts to meet the goals of the Paris Agreement on climate change.

## Strategic Outlook

Ongoing geopolitical tensions and the emergence of the Omicron variant of Covid-19 will be two of the challenges shaping the year ahead. But the opportunities in terms of leveraging our China connectivity, diversifying our product offering and capitalising on areas such as sustainability and developments in the new economy all present sizable opportunities for us.

With China's capital markets expected to grow from their current size of around US\$30 trillion to more than US\$100 trillion within a decade or so, we expect to see the release of Mainland domestic savings, increasing investment flow in and out of China, and accelerating corporate innovations in China in years to come. International participation in the China economy and capital markets is expected to increase at a faster rate than ever. Given this, we see HKEX's role as ever more vital to the ongoing development of capital markets both in the region and around the world.

## Appreciation

The Group has delivered an outstanding set of results in 2021 and this would not have been possible without HKEX staff, who have demonstrated unwavering commitment to both our business and the communities in which we operate in the last year. I sincerely thank each of them for their dedication and contributions in another unprecedented and challenging year. We were delighted to welcome a number of new executives to HKEX, including Mr John Buckley as Head of Exchange Operations and Transformation, Mr Paul Chow as Group General Counsel, Mr Adam Singer as HKEX Group Chief Compliance Officer and, in January 2022, Ms Kerry Rooks as Group Chief People Officer who all joined the Management Committee. We also welcomed Ms Winsome Ng as Group Head of Internal Audit.

I would also like to express our appreciation and gratitude to the SFC, the Hong Kong Monetary Authority, market participants, our customers, partners and stakeholders around the world for their continued support during another difficult year for many.

We are proud that together we have continued to strengthen the robustness and competitiveness of Hong Kong's financial markets and we look forward to working closely with you in the months and years ahead. Finally, I would like to thank my fellow members of the Board for their trust and unwavering support.

**Nicolas AGUZIN**

Director and Chief Executive Officer

# MANAGEMENT DISCUSSION AND ANALYSIS

## BUSINESS REVIEW

### Overview

#### Quarterly Results, Q1 2020 – Q4 2021

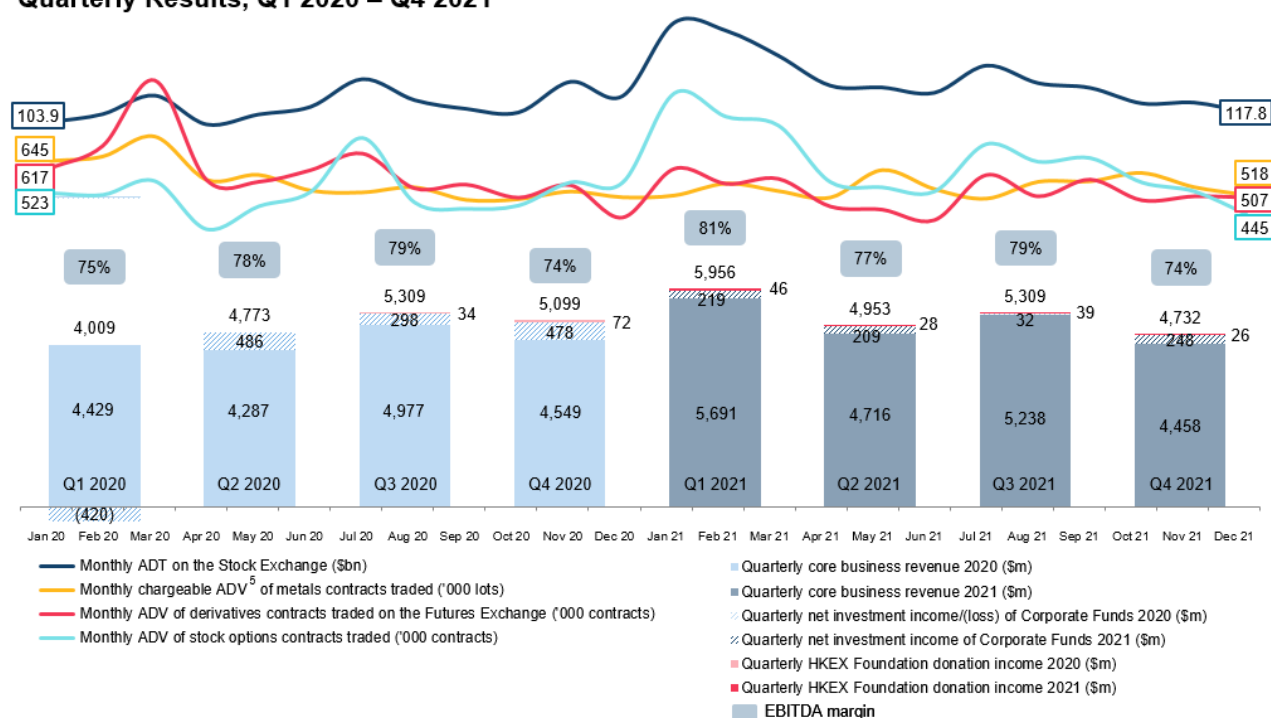


Fig. 1 – Market activity and Group's revenue and other income/(loss)

2021 started exceptionally well, and the year overall was good for HKEX. Revenue and other income, and profit, both reached record highs. Driven by an exceptionally buoyant first quarter with record quarterly Headline ADT of \$224.4 billion, the full year's Headline ADT reached a record high of \$166.7 billion, 29 per cent above the previous record set in 2020. Stock Connect trading volumes also saw record highs with Northbound and Southbound ADT 32 per cent and 71 per cent higher than 2020 respectively. The Hong Kong IPO market had a strong year, driven by an especially positive first half, and the very strong IPO pipeline was boosted by a range of homecoming overseas-listed Chinese stocks and new economy and biotech companies in particular.

Revenue and other income reached a record high of \$21.0 billion, up 9 per cent against 2020. The increase in trading and clearing fees was partly offset by lower net investment income, arising from both lower interest income and fair value gains on collective investment schemes (2021: \$364 million; 2020: \$487 million). Operating expenses increased by 2 per cent compared with 2020, mainly due to higher IT and computer maintenance expenses and higher product marketing expenses and cash incentives for new products. EBITDA margin was 78 per cent, 1 per cent higher than 2020.

Looking ahead to 2022, there are positive signs of global economic growth, despite continued uncertainty and challenges including those related to the unwinding of extraordinary levels of fiscal stimulus, persistent inflationary pressures, and the ongoing pandemic. Despite these challenges, HKEX remains very well-positioned to play an increasingly important role in the fast-evolving, interconnected global markets of the future. Looking forward, the Group will look to capitalise on regional and sector growth opportunities by leveraging its position as a super-connector, participating in technological and industry developments and driving the ongoing diversification of its offering, whilst also continuing to ensure the long-term stability, resiliency and sustainability of its markets and its business.

## Cash Segment

### Key Market Indicators

	2021	2020	Change
ADT of equity products traded on the Stock Exchange <sup>1,2</sup> (\$bn)	<b>146.6<sup>4</sup></b>	110.9	32%
ADT of Northbound Trading – Shanghai-Hong Kong Stock Connect <sup>2</sup> (RMBbn)	<b>55.1<sup>4</sup></b>	39.1	41%
ADT of Northbound Trading – Shenzhen-Hong Kong Stock Connect <sup>2</sup> (RMBbn)	<b>65.0<sup>4</sup></b>	52.2	25%
ADT of Southbound Trading – Shanghai-Hong Kong Stock Connect <sup>2</sup> (\$bn)	<b>20.1<sup>4</sup></b>	13.1	53%
ADT of Southbound Trading – Shenzhen-Hong Kong Stock Connect <sup>2</sup> (\$bn)	<b>21.6<sup>4</sup></b>	11.3	91%
ADT of Northbound Bond Connect (RMBbn)	<b>26.6<sup>4</sup></b>	19.8	34%
Average daily number of trades of equity products traded on the Stock Exchange <sup>1,2</sup> ('000)	<b>1,949<sup>4</sup></b>	1,618	20%
Number of newly listed companies on Main Board <sup>3</sup>	<b>97</b>	146	(34%)
Number of newly listed companies on GEM	<b>1</b>	8	(88%)
Number of companies listed on Main Board at 31 Dec	<b>2,219</b>	2,170	2%
Number of companies listed on GEM at 31 Dec	<b>353</b>	368	(4%)
Total	<b>2,572</b>	2,538	1%
Market capitalisation of companies listed on Main Board at 31 Dec (\$bn)	<b>42,273</b>	47,392	(11%)
Market capitalisation of companies listed on GEM at 31 Dec (\$bn)	<b>108</b>	131	(18%)

1 Excludes \$20.1 billion (2020: \$18.6 billion) of ADT of DWs, CBBCs and warrants (which are included under the Equity and Financial Derivatives segment) and includes ADT of Southbound Trading under Stock Connect

2 Includes buy and sell trades under Stock Connect

3 Includes 2 transfers from GEM (2020: 8)

4 New record high in 2021

	2021 \$bn	2020 \$bn	Change
Total equity funds raised on Main Board			
– IPOs	<b>331.3</b>	399.6	(17%)
– Post-IPO	<b>438.7</b>	343.8	28%
Total equity funds raised on GEM			
– IPOs	<b>0.1</b>	0.6	(83%)
– Post-IPO	<b>3.2</b>	3.0	7%
Total	<b>773.3</b>	747.0	4%

### Stock Connect – New Record Highs in 2021

	2021	2020	Change
Northbound Trading value (RMBbn)	<b>27,630</b>	21,089	31%
Southbound Trading value (\$bn)	<b>9,343</b>	5,508	70%
Total revenue and other income <sup>1</sup> (\$m)	<b>2,724</b>	1,926	41%

1 \$2,123 million of which arose from trading and clearing activities (2020: \$1,485 million)

# Analysis of Results

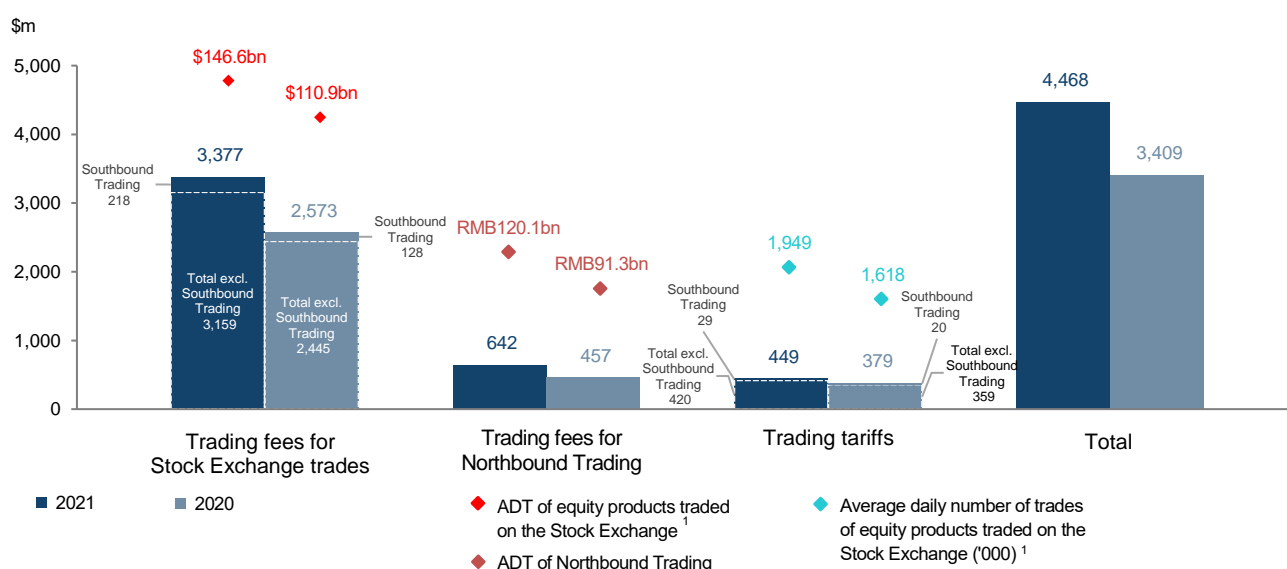
## Summary

	2021 \$m	2020 \$m	Change
Trading fees and trading tariffs <sup>1</sup>	4,468	3,409	31%
Stock Exchange listing fees <sup>1</sup>	968	930	4%
Market data fees <sup>1</sup>	635	565	12%
Other revenue and sundry income	60	87	(31%)
Total revenue and other income	6,131	4,991	23%
Operating expenses <sup>2</sup>	(614)	(595)	3%
EBITDA	5,517	4,396	26%
EBITDA margin	90%	88%	2%

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

<sup>2</sup> Includes Listing Division costs apportioned to equity products listed on the Stock Exchange

## Trading Fees and Trading Tariffs



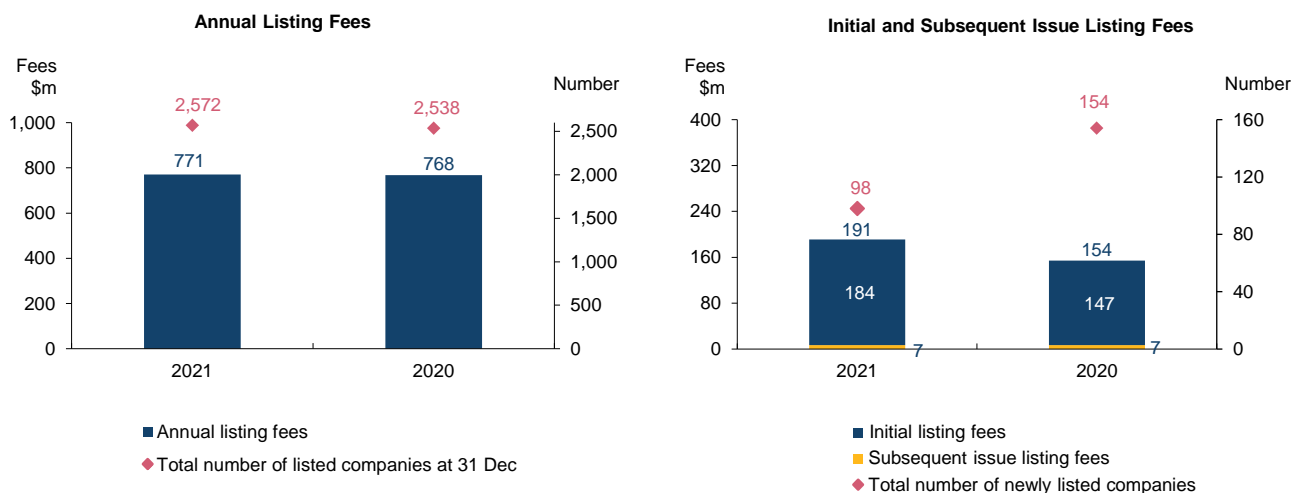
<sup>1</sup> Excludes DWs, CBBCs and warrants (which are included under the Equity and Financial Derivatives segment)

Trading fees increased by \$989 million (33 per cent), from \$3,030 million to \$4,019 million, attributable to the 32 per cent increase in equity products' ADT, and record trading fees from Northbound and Southbound Trading through Stock Connect. Trading tariffs increased by 18 per cent due to the increase in number of trades of equity products.

## Stock Exchange Listing Fees

	2021 \$m	2020 \$m	Change
Annual listing fees	771	768	0%
Initial and subsequent issue listing fees	191	154	24%
Others	6	8	(25%)
Total	968	930	4%





Annual listing fees rose in line with the increase in the total number of listed companies.

Despite the drop in number of newly listed companies, initial and subsequent issue listing fees increased by 24 per cent mainly due to an increase in forfeitures.

## EBITDA

Operating expenses increased by 3 per cent due to higher staff costs associated with new initiatives, and an increase in IT maintenance costs as a result of upgrades to systems and networks. EBITDA margin rose from 88 per cent to 90 per cent due to the increase in revenue.

## Business Update

The Hong Kong Cash Market was very active with record trading activities in 2021, with record high Headline ADT and record high ADT of equity products of \$166.7 billion and \$146.6 billion respectively, up 29 per cent and 32 per cent from 2020. On 27 July 2021, trading turnover reached an all-time daily high of \$361 billion.

## Stock Connect

Stock Connect experienced strong flows on both Northbound and Southbound Trading in 2021, with ADT reaching record highs of RMB120.1 billion (up 32 per cent against 2020) and \$41.7 billion (up 71 per cent against 2020) respectively. Southbound Trading reached a daily record high of \$102.2 billion on 27 July 2021. As a result, Stock Connect generated record revenue and other income for the fifth consecutive year of \$2,724 million, and accounted for 13 per cent of the Group's total revenue and other income.

Stock Connect was further enhanced during the year, with expansion in the scope of eligible stocks for both Northbound and Southbound Trading. On 1 February 2021, eligible A-shares listed on the Sci-Tech Innovation Board (STAR Market) of the SSE were included in Northbound Trading through Shanghai-Hong Kong Stock Connect, and the corresponding H-shares were also included in Stock Connect Southbound Trading. This expansion was warmly welcomed by the market and trading has been active since the inclusion of the new eligible stocks.

## Market Structure Development

Throughout the year HKEX has continued to enhance its market microstructure to increase its competitiveness and attractiveness. Examples of this include, the second phase enhancement of the Volatility Control Mechanism (VCM), which was successfully implemented in March 2021, allowing multiple triggers of the VCM per applicable security in the same trading session. The enhanced VCM mechanism provides more opportunities for market participants to review their position and reassess their trading strategies during periods of extreme price movements.

Following the SFC's publication of its consultation conclusions on the introduction of the Hong Kong investor identification regime (HKIDR), HKEX published an information paper and relevant technical specification in August 2021. The HKIDR is expected to be launched in 2H 2022.

## Issuer Business

During 2021, HKEX welcomed 98 new listings, raising a total of \$331.4 billion. The IPO pipeline remained very robust throughout the year, with over 150 active listing applications at the end of 2021. New economy listings continued to dominate Hong Kong's IPO market in 2021, with HKEX welcoming 59 new economy company listings, accounting for 88 per cent of IPO funds raised during the year.

New economy sectors in information technology and healthcare have become the fastest-growing IPO sectors in Hong Kong, contributing 38 per cent and 24 per cent of IPO funds raised respectively in 2021. In particular, the robust biotech ecosystem in Hong Kong attracted 34 biotech and healthcare companies listings in 2021, including 20 companies listed under Chapter 18A of the Main Board Listing Rules.

In 2021, eight US-listed Chinese companies completed homecoming listings in Hong Kong, consisting of five secondary listings: Baidu, Bilibili, Weibo, Trip.com, Autohome, and three dual-primary listings: XPeng, Li Auto and HUTCHMED (China).

During the year, HKEX consulted on, and then announced, the launch of a new listing regime for special purpose acquisition companies (SPACs), which took effect on 1 January 2022. The regime allows simultaneous listed SPAC shares and warrants to be traded, accessible to any eligible SPAC EPs or investors.

With the enhanced listing regime for overseas issuers and the introduction of a listing regime for SPACs, HKEX is well-positioned to be a global listing venue of choice for international and regional issuers. HKEX continues to focus on expanding its outreach and engagement overseas to strengthen its competitiveness as a premier capital raising centre.

## ETF Market Development

ADT of ETPs, which includes ETFs and L&I Products, increased 20 per cent to \$7.7 billion in 2021 (2020: \$6.4 billion). In particular, ADT of Hong Kong equity ETFs nearly doubled from \$2.8 billion in 2020 to \$5.4 billion in 2021. The market capitalisation of ETPs listed on HKEX has continued to grow, reaching a record high of \$429 billion at 31 December 2021 (31 December 2020: \$393 billion).

### Key initiatives for the ETP market in 2021

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- HKEX expanded its product suite, welcoming a range of new ETPs in the Hong Kong market, including 18 new thematic ETFs, and the first batch of ETPs tracking the MSCI China A 50 Connect Index and FTSE China A 50 Index
  - HKEX introduced fee waivers for Hong Kong-listed fixed income and money market ETFs, helping to reduce transaction costs for investors
  - HKEX introduced a new tiered structure for ETP trading fee exemptions for market makers, which was adjusted to be based on their ADT over a 12-month period and their relevant investment exposure
  - HKEX welcomed the first ETF listings in Hong Kong and Shanghai under the Hong Kong-Mainland ETF Cross-listing Scheme, marking another milestone in the development of cross-border ETFs and collaboration between Hong Kong and Mainland exchanges
- 

## Bond Connect

In 2021, turnover in Bond Connect grew significantly, and is now a preferred channel for international investors, with robust growth in trading volume, net inflows, foreign holdings, as well as the number of newly registered investors.

ADT of Northbound Bond Connect has been setting record highs every year since its launch in 2017, reaching RMB26.6 billion in 2021, up 34 per cent compared with 2020. Trading volume in November 2021 reached a monthly record high of RMB644 billion, and single-day trading volume recorded an all-time high of RMB51.0 billion on 16 December 2021. In addition, the highest number of daily trading tickets of 1,113 was recorded on 30 November 2021.

Net inflows of Northbound Bond Connect amounted to RMB319 billion in 2021, with a monthly record high of RMB96 billion in January. As at 31 December 2021, the overall foreign investor holdings of

domestic debt securities in the China Interbank Bond Market rose to RMB4,003 billion, up 23 per cent from RMB3,255 billion as at 31 December 2020.

Market participation in Northbound Bond Connect continued to grow throughout 2021. As at 31 December 2021, a total of 3,233 institutional investors from 35 jurisdictions globally participated in Bond Connect, up 37 per cent from 2,352 institutional investors as at 31 December 2020.

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#### **Key developments of Bond Connect in 2021**

- Southbound Bond Connect was launched in September, enabling Mainland institutional investors to invest in the Hong Kong and global bond markets
  - MarketAxess became the third trading platform under Northbound Bond Connect
  - Chinese government bonds were included in the FTSE World Government Bond Index (WGBI) from October 2021, marking another major milestone of China's integration with global markets
  - A new Bond Connect filing arrangement was introduced to further facilitate overseas institutional investors' participation in China's inter-bank bond market. The new arrangement enables filing to be submitted by the investment manager at entity level, with one filing for multiple products allowed
  - Bond Connect launched a new dealer pay model, which allows global investors to get price quotations from market makers with trading fee built into the bond price
  - CNYPlus, a web-based system, was launched to provide Bond Connect investors with currency conversion options and facilitate their foreign exchange (FX) risk management needs.
  - Bond Connect launched a web-based third-party FX registration service on the E-Filing portal to facilitate investors registering their Hong Kong FX settlement banks online
  - The policy to exempt overseas institutional investors from corporate income tax and value-added tax on their domestic bond investments is extended till 31 December 2025
- 

#### **Listed Bond Market Development**

In 2021, there were 508 new listings of debt securities on the Stock Exchange, with total issuance amounting to \$1,552 billion, up 18 per cent and 2 per cent respectively, compared with 2020. Among these were a total of 95 new green/ESG-related bond listings, raising a total of \$282.6 billion in 2021 (2020: 18 listings raising \$66.7 billion). Total turnover value of debt securities reached \$104 billion, an increase of 58 per cent, compared with 2020.

#### **Sustainable Finance**

HKEX's Sustainable and Green Exchange (STAGE) has continued to gain traction since its launch in December 2020. As at 31 December 2021, there were a total of 87 sustainable-focused products from leading issuers displayed on STAGE, including green, social, sustainable or similar bonds from issuers across different sectors, as well as ESG-related ETPs.

To support businesses and investors in their sustainability journey, a new equities section has been introduced on STAGE, following the introduction of Bonds and ETPs. ESG metrics on over 600 Hong Kong-listed companies published by leading ESG data providers are displayed as of 31 December 2021. HKEX published the Practical Net-Zero Guide for Business in December 2021, introducing the essential steps for businesses to develop a pathway to net-zero, providing support to companies to facilitate their net-zero transition, and encouraging more net-zero commitments.

The inaugural HKEX Green Asia Summit was hosted in December 2021, with over 900 attendees. Senior executives, policy makers and sustainability experts from across the globe shared their insights on the role of capital markets in supporting the transition to a low-carbon and sustainable economy, and discussed how opportunities presented in the fast-changing technology and regulatory landscape can be collectively leveraged.

#### **Emerging Business Development**

HKEX continues to explore a range of new opportunities to create value for the Group's stakeholders, with a focus in particular on expanding our digital expertise and consolidating our role as Asia's leading ESG hub.

## Key developments of Emerging Business in 2021

- Established a new Emerging Business Development Team, cross leveraging the latest financial technologies and partnerships, to develop successful ecosystems in emerging business areas
- Participation in Project Genesis, a project led by the Bank for International Settlements (BIS), Innovation Hub Hong Kong Centre and the Hong Kong Monetary Authority (HKMA). Prototypes on tokenised green bonds were announced in November 2021, which provided potential solutions that may help market participants in achieving their environmental and sustainability goals
- Participation in the Multiple Central Bank Digital Currency (m-CBDC) Bridge project for cross-border payments jointly run by the HKMA, Bank of Thailand, Central Bank of the United Arab Emirates and the Digital Currency Institute of the People's Bank of China (PBC DCI). HKEX is one of the participating parties which provided business use case to facilitate the development of proof-of-concept prototype for transactions of multilateral central bank digital currencies

## Market Surveillance and Compliance

Throughout 2021, HKEX has continued its efforts in promoting transparency and strong compliance culture of our marketplace, with a number of key initiatives set out below.

### Key initiatives on promoting market surveillance and compliance in 2021

- New surveillance measures have been introduced to support the launch of new products, trading and related business initiatives, and more ad-hoc investigations were conducted in 2021 to maintain market fairness and orderliness
- HKEX conducted its 2021 Annual Attestation and Inspection Programme with a focus on three areas: (1) manual trades (2) risk management and (3) China Connect rules
- HKEX conducted thematic reviews of (1) Block Trade Order Aggregation (2) Broker-to-Client-Assigned Number under the Investor ID Model for Stock Connect Northbound Trading and (3) Investor Eligibility in bonds listed under Chapter 37 of the Main Board Listing Rules
- HKEX issued its first quarterly compliance bulletin in August 2021, which seeks to provide the industry with a better understanding of the Group's enforcement work and regulatory expectations
- Four compliance roundtables with the industry were held to discuss topical issues around market surveillance and monitoring practices, as well as observations from the 2020 Annual Programme

## Listing Regulation

In 2021, the Stock Exchange issued various proposals and conclusions on Listing Rules amendments as set out in the following table. Details of the consultations and other main policy changes and updates arising in 2021, as well as the proposals under review in 2022 and beyond, will be set out in the 2021 Listing Committee Report.

### Key Proposals and Conclusions in 2021

	Consultation paper <sup>1</sup>	Consultation conclusions <sup>1</sup>	Effective date of changes (if any)
• Review of Listing Rules relating to Disciplinary Powers and Sanctions	August 2020	May 2021	3 July 2021
• The Main Board Profit Requirement	November 2020	May 2021	1 January 2022
• Listing Regime for Overseas Issuers	March 2021	November 2021	1 January 2022
• Review of Corporate Governance Code and related Listing Rules, and Housekeeping Rule Amendments	April 2021	December 2021	1 January 2022
• Special Purpose Acquisition Companies	September 2021	December 2021	1 January 2022
• Proposed Amendments to Listing Rules relating to Share Schemes of Listed Issuers	October 2021	1H 2022 (tentative)	-

<sup>1</sup> All the consultation papers and conclusions are available under the News (Market Consultations) section of the HKEX Market website.

### Key Initiatives by the Stock Exchange to Promote Issuers' Self-compliance with the Listing Rules

- Issued two new listing decisions to provide guidance on the application of the reverse takeovers rules
- Published new guidance letter on pre-vetting for placing to connected clients in an initial public offering; and updated guidance letters on (i) disclosure in listing documents for biotech companies; (ii) placing to connected clients, and existing shareholders or their close associates; and (iii) sufficiency of operations
- Published semi-annual (i) Listing Division Newsletter; (ii) Listed Issuer Regulation Newsletter; and (iii) Enforcement Bulletin
- Published revised Enforcement Policy Statement and Enforcement Sanctions Statement to reflect both recent developments and the Stock Exchange's view of current enforcement priorities
- Published (i) Corporate Governance Guide for Boards and Directors; (ii) Analysis of IPO Applicants' Corporate Governance and ESG Practice Disclosure in 2020/2021; and (iii) Guidance on Climate Disclosures
- Launched three e-Learning modules on (i) equity fundraising rules; (ii) continuing obligations of listed issuers; and (iii) continuing disclosure obligations and trading halt as part of the new e-learning series on ongoing compliance requirements under the Listing Rules

### IPO Processing, Compliance and Monitoring

The following tables illustrate the work of the Stock Exchange in processing new listings and monitoring issuers' compliance for the purposes of maintaining an orderly, informed, and fair market under Section 21 of the SFO.

#### Stock Exchange's IPO Work

	2021	2020
• Number of listing applications vetted <sup>1</sup>	408	357
• Number of applications brought to the Listing Committees (or their delegates) for decisions <sup>2</sup>	118	154
– within 120 calendar days	48	52
– between 121 to 180 calendar days	47	39
– after more than 180 calendar days	23	63
• Number of applications for which approval was granted in principle <sup>3</sup>	153	179
• Number of requests for guidance from listing applicants or their advisers seeking clarifications of listing matters	209	181
– Average response time (in business days)	14	10
• Number of listing applications for transfer of listing from GEM to Main Board accepted	5	12
• Applications listed <sup>4</sup>	132	181
• New listing applications rejected <sup>5</sup>	1	1
• New listing applications withdrawn	9	6
• New listing applications returned	2	-
• Application in process at year-end	131	92

1 Comprises 316 (2020: 231) new applications and 92 (2020: 126) existing applications brought forward from previous year

2 Refers to listing applications heard by the Listing Committees (or their delegates) for the first time and excludes Chapter 20 listing applications

3 Includes 35 (2020: 26) investment vehicles. At the end of 2021, 23 (2020: 20) approved applications had not yet been listed, and 15 (2020: 4) approved applications had lapsed during the year.

4 Includes 34 investment vehicles listed on Main Board and no deemed new listings (2020: 27)

5 No rejection decision in 2021 (2020: nil) was subsequently reversed upon review.

#### Number of Compliance and Monitoring Actions

	2021	2020
• Announcements of issuers vetted	65,315	68,522
• Circulars of issuers vetted	3,296	2,696
• Share price and trading volume monitoring actions undertaken <sup>1</sup>	12,541	10,535
• Complaints handled	1,075	475
• Cases (including complaints) referred to Listing Enforcement Department for investigation	93	78

1 In 2021, monitoring actions undertaken included 608 enquiries (2020: 360) on unusual share price and trading volume movements, and the actions undertaken led to 30 resumption announcements (2020: 19) on trading suspensions.

## Long Suspension

Status of Long Suspended Companies	Main Board		GEM	
	2021	2020	2021	2020
Resumption of trading of securities during the year	26	12	6	3
Cancellation of listing after expiry of prescribed remedial periods during the year	18	15	12	7
Cancellation of listing under grandfathered provisions during the year (Main Board Rule 6.01A(2)(a) or (c) or GEM Rule 9.14A(2)(b))	3	8	1	1
Voluntary withdrawal of listing during the year	2	-	-	-
Companies suspended for 3 months or more at year-end	90	64	16	17

Updates on the work in respect of listed companies' compliance, and insights and observations that may assist listed companies in their own compliance, can be found in the semi-annual "Listed Issuer Regulation Newsletter".

## Listing Enforcement

The enforcement statistics set out below represent a high level overview of the enforcement work undertaken in 2021 by the Stock Exchange.

Further details and information relating to enforcement work (including the Stock Exchange's general approach, disciplinary procedures and recent cases) can be found on the HKEX Market website and via the semi-annual "Enforcement Bulletin", and will be included in the 2021 Listing Committee Report.

### Enforcement Statistics

	2021	2020
Cases <sup>1, 2, 3</sup>	164	128
Public sanctions <sup>4</sup>	35	13
Regulatory letters <sup>5</sup>	12	9

1 Figures represent cases handled by Listing Enforcement in 2021 (including those carried over from the previous year and those ongoing at year-end).

2 At the end of 2021, there were 61 ongoing investigations (2020: 54).

3 In 2021, 3 enforcement cases (2020: 4) originating from complaints were subject to enforcement investigation.

4 The number of investigation cases that resulted in a public sanction. Actions taken at a lower level in the same case, e.g., private reprimand, are not included.

5 The number of cases involving issuance of at least one regulatory letter (i.e., a warning or guidance letter) where, following investigation, disciplinary proceedings before the Listing Committee were not considered appropriate against any party. These letters are recorded as part of the compliance history for the relevant party.

## Costs of the Listing Function

The costs associated with the front line regulation of listed issuers, performed by the Listing Committee and the Listing Division, are absorbed by the Cash and Equity and Financial Derivatives segments in proportion to the listing fee income of the two segments.



## Equity and Financial Derivatives Segment

### Key Market Indicators

	2021	2020	Change
ADT of DWs, CBBCs and warrants traded on the Stock Exchange (\$bn)	20.1	18.6	8%
Average daily number of trades of DWs, CBBCs and warrants traded on the Stock Exchange ('000)	416 <sup>2</sup>	344	21%
ADV of derivatives contracts traded on the Futures Exchange <sup>1</sup> ('000 contracts)	536	610	(12%)
ADV of stock options contracts traded on the Stock Exchange ('000 contracts)	637 <sup>2</sup>	526	21%
Number of newly listed DWs	16,684 <sup>2</sup>	12,128	38%
Number of newly listed CBBCs	42,807 <sup>2</sup>	38,039	13%
Number of newly listed Inline Warrants	83	780	(89%)
ADV of contracts traded during After-Hours Trading <sup>1</sup> ('000 contracts)	68	95	(28%)

	At 31 Dec 2021	At 31 Dec 2020	Change
Open interest of futures and options <sup>1</sup> ('000 contracts)	9,916	11,260	(12%)

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

<sup>2</sup> New record high in 2021

### Analysis of Results

#### Summary

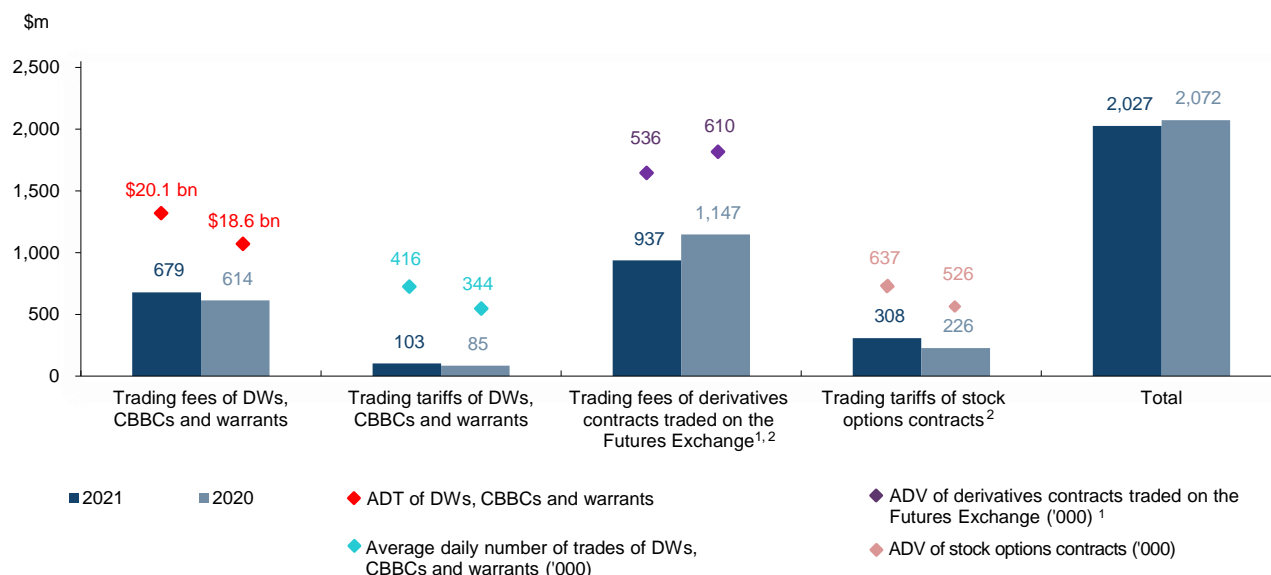
	2021 \$m	2020 \$m	Change
Trading fees and trading tariffs <sup>1</sup>	2,027	2,072	(2%)
Stock Exchange listing fees	1,217	969	26%
Market data fees <sup>1</sup>	183	192	(5%)
Other revenue and sundry income	9	8	13%
Total revenue and other income	3,436	3,241	6%
Less: Transaction-related expenses	(126)	(85)	48%
Total revenue and other income less transaction-related expenses	3,310	3,156	5%
Operating expenses <sup>2</sup>	(665)	(607)	10%
EBITDA	2,645	2,549	4%
EBITDA margin <sup>3</sup>	80%	81%	(1%)

<sup>1</sup> Excludes cash equities (which are included under the Cash segment)

<sup>2</sup> Includes Listing Division costs apportioned to DWs, CBBCs and warrants listed on the Stock Exchange

<sup>3</sup> EBITDA margin is calculated based on EBITDA divided by total revenue less transaction-related expenses.

## Trading Fees and Trading Tariffs



1 Excludes London Metal Mini Futures, Gold Futures, Silver 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 (Derivatives contracts traded on the Futures Exchange – 2021: \$260 million; 2020: \$303 million; stock options contracts – 2021: \$104 million; 2020: \$86 million)

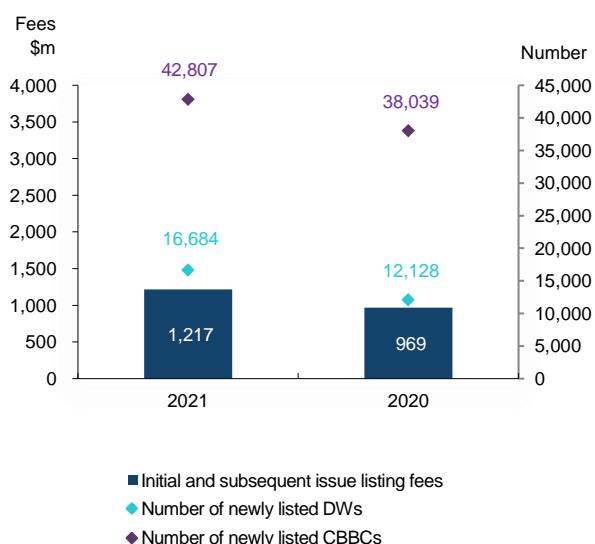
Trading fees and trading tariffs for the segment are generated from the trading of derivatives on the Stock Exchange (i.e., DWs, CBBCs, warrants, and stock options) and trading of futures and options on the Futures Exchange. A portion of the trading fees and trading tariffs for futures and options contracts is allocated to the Post Trade segment, as the trading and clearing fees of these products are bundled together.

Trading fees and trading tariffs from DWs, CBBCs and warrants increased by \$83 million, or 12 per cent, to \$782 million (2020: \$699 million), attributable to the 8 per cent increase in ADT and the 21 per cent increase in the average daily number of trades.

Derivatives trading fees of the Futures Exchange decreased by \$210 million, or 18 per cent, attributable to the 12 per cent decrease in ADV of derivatives contracts traded, and a lower fee per contract attributable to fee waivers for certain newly launched products and a lower proportion of higher fee contracts (including HSI futures and options) being traded during 2021.

ADV of stock options contracts was up 21 per cent and reached record high in 2021. Trading tariffs rose by \$82 million or 36 per cent, more than the 21 per cent increase in ADV, as a larger proportion of higher fee contracts was traded during 2021.

## Stock Exchange Listing Fees



Stock Exchange listing fees for the segment are mainly derived from initial and subsequent issue listing fees for DWs and CBBCs. The fees increased by \$248 million or 26 per cent, as the number of newly listed DWs and CBBCs both reached record highs in 2021.

## EBITDA

Transaction-related expenses include licence fees and other costs which directly vary with trading transactions. These expenses increased by \$41 million, or 48 per cent, partially driven by the licence fees for the MSCI index futures contracts launched in July 2020.

Operating expenses increased by \$58 million (10 per cent) due to higher allocated costs of the Listing Division, reflecting the relatively higher increase in listing fees from DWs and CBBCs, and increase in marketing expenses and incentives relating to new products. EBITDA increased by 4 per cent year-on-year, while EBITDA margin decreased from 81 per cent to 80 per cent, reflecting the higher percentage increase in transaction-related expenses and operating expenses compared to the percentage increase in revenue.

## Business Update

The Hong Kong Derivatives Market showed moderate growth in 2021. The total number of futures and options contracts traded in 2021 was 287,642,407<sup>7</sup>, up 2 per cent on 2020. Stock options were the major contributor to growth, with ADV reaching a record high of 637,246 contracts, a 21 per cent increase compared with 2020. In addition, a number of key futures and options contracts reached new record highs in 2021 (see below).

### New Record Highs – Full Year Trading Volume

	2021 Number of contracts	Pre-2021 record Number of contracts
Weekly Hang Seng Index Options	2,078,915	1,191,533 (2020)
Stock Futures	2,382,772	1,141,729 (2020)
Stock Options	158,036,999	131,021,660 (2020)

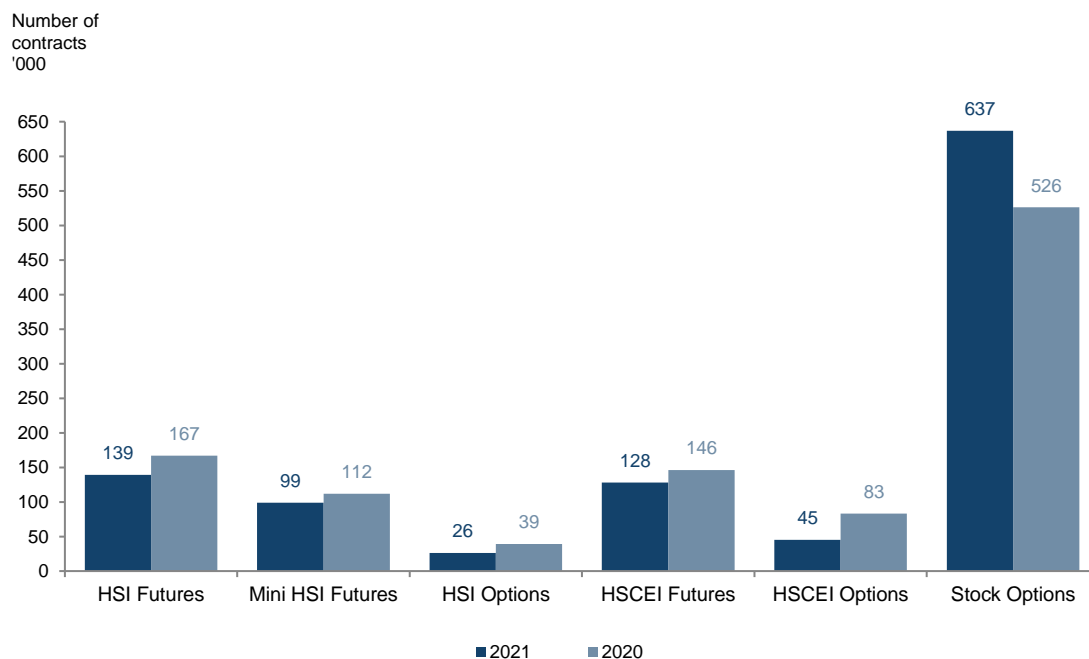
### New Record Highs – Single-day Trading Volume and Open Interest

	Single-day Trading Volume		Open interest	
	Date (2021)	Number of contracts	Date (2021)	Number of contracts
HSI Options	11 Jan	140,628	N/A	N/A
Mini HSI Futures	N/A	N/A	22 Dec	25,814
Weekly HSI Options	8 Jul	20,628	2 Jul	14,887
HSCEI Futures	27 Jul	545,816	N/A	N/A
HSCEI Options	11 Jan	389,483	N/A	N/A
HSCEI Futures Options <sup>1</sup>	26 Nov	30,988	16 Dec	108,574
Hang Seng TECH Index Futures	28 Dec	89,967	28 Dec	69,944
Hang Seng TECH Index Options <sup>1</sup>	19 Aug	3,329	29 Dec	29,584
MSCI Japan Net Total Return (USD) Index Futures	15 Sep	30,260	17 Sep	17,793
MSCI Thailand Net Total Return (USD) Index Futures	16 Jun	23,200	16 Jun	25,873
MSCI China A 50 Connect (USD) Index Futures <sup>1</sup>	13 Dec	38,610	16 Dec	34,016
Stock Futures	9 Mar	36,944	22 Mar	61,238
Stock Options	N/A	N/A	29 Mar	15,625,280

<sup>1</sup> Launched in 2021

<sup>7</sup> Excludes London Metal Mini Futures, Gold Futures, Silver Futures and Iron Ore Futures contracts (which are included under the Commodities segment)

## Average Daily Volume of Major Futures and Options Contracts



## Equity Futures and Options Market Development

The new Hang Seng TECH Index derivative products continued to gain traction with investors during the year. Since launch in November 2020, both trading volume and open interest (OI) of Hang Seng TECH Index Futures continued to grow in 2021 with ADV reaching 14,718 contracts. Daily trading volume and OI reached record highs of 89,967 contracts and 69,944 contracts respectively on 28 December 2021. Hang Seng TECH Index Options, which was introduced in January 2021, reached a daily record high of 3,329 contracts on 19 August 2021, and OI reached record high of 29,584 contracts on 29 December 2021.

To broaden HKEX's derivatives product offering and complement the existing Hang Seng product suite, two physically settled Options on Futures Contracts (OOF) were introduced, namely the HSI Futures Options and HSCEI Futures Options, in August 2021. ADV of these two contracts since launch was 4,072 contracts and OI reached 90,201 contracts as at the end of December. The introduction of OOF introduced additional new trading and risk management tools for investors.

HKEX launched the first A-share derivatives product in Hong Kong, MSCI China A 50 Connect Index Futures, in October 2021. The contract tracks the performance of top 50 large cap China A-shares using a sector-neutral approach via Stock Connect, and provides international investors with a new and effective risk management tool for their portfolio of Stock Connect eligible A-shares. The product offers better correlation to the market than others and the launch marks a key step forward for HKEX in building as risk management centre in Hong Kong. The launch was very well received by the market with a record high first-month ADV and open interest for index futures. ADV since launch was 11,558 contracts and OI reached 31,710 contracts as of the end of December. In addition, to strengthen HKEX's MSCI derivatives product suite, MSCI China Free (USD) Index Options and MSCI Taiwan (USD) Index Options were introduced in March 2021 while MSCI China (USD) Index Futures and MSCI China Net Total Return (USD) Index Futures were introduced in November 2021.

## Market Structure Development

Throughout 2021, HKEX continued to enhance its market microstructure, with the roll-out of a number of key initiatives. In April 2021, both the VCM and Pre-Opening Session (POS) enhancements in the Derivatives Market were introduced. The VCM enhancement allows multiple VCM triggers per trading session helping to better safeguard market integrity; and the POS enhancement introduces a random cut-off mechanism to the pre-opening session and the pre-open allocation session, aiming to deter manipulation of the Calculated Opening Price near the end of the auction process.

In November 2021, a new version of the Pre-Trade Risk Management System (PTRM 2.0) was rolled out to provide investors with additional risk management tools to support the management of their intraday exposures, further improving and safeguarding stability in the Derivatives Market.

On 6 January 2022, HKEX published consultation conclusions for Derivatives Holiday Trading, after receiving positive responses from a broad spectrum of market stakeholders on its consultation paper published in November 2021. The initiative will enable investors to actively manage their derivatives portfolios during Hong Kong holidays, when the markets of their underlying securities holdings may be open. The proposal is part of HKEX's ongoing commitment to enhance Hong Kong's market microstructure to support the needs of global investors.

## Fixed Income and Currency (FIC) Development

The RMB currency derivatives market gained strong momentum in 2021, supported by the continued appreciation of the RMB. A total of 1,561,949 USD/CNH Futures and USD/CNH Options contracts were traded in 2021.

In April 2021, HKEX introduced the Mini USD/CNH Futures contract, complementing the existing USD/CNH contract with a smaller contract size of US\$20,000. Since its launch, trading demand for the contract experienced strong momentum, with a total of 792,196 contracts traded for the period to 31 December 2021.

## Structured Products

Hong Kong was again the world's largest structured products market, for the 15th consecutive year. In June 2021, HKEX was awarded the "Best Structured Product and Derivatives Exchange" in the "Asia-Pacific Awards 2021" organised by Structured Retail Products<sup>8</sup>, for the second consecutive year.

The structured products market experienced solid growth in 2021, both in terms of listing and trading activities. The number of new listings reached a record high of 59,574, and ADT of CBBCs, DWs, and warrants was \$20.1 billion, up 8 per cent from 2020, and accounted for 12 per cent of total market turnover.

In August 2021, HKEX welcomed our 16th structured products issuer to the market, bringing in new products and further improving market liquidity.

## Commodities Segment

### Key Market Indicators

	2021	2020	Change
ADV of metals contracts traded on the LME ('000 lots)			
Aluminium	229	237	(3%)
Copper	120	128	(6%)
Zinc	87	90	(3%)
Nickel	65	67	(3%)
Lead	41	42	(2%)
Others	5	7	(29%)
Total chargeable ADV excluding Admin Trades <sup>1</sup>	547	571	(4%)
Chargeable Admin Trades <sup>1</sup>	25	37	(32%)
Other non-chargeable trades	1	2	(50%)
Total ADV	573	610	(6%)

<sup>1</sup> Admin Trades are chargeable at lower fee rate of US\$0.04 per contract.

	At 31 Dec 2021	At 31 Dec 2020	Change
Total futures market open interest ('000 lots)	1,702	2,044	(17%)

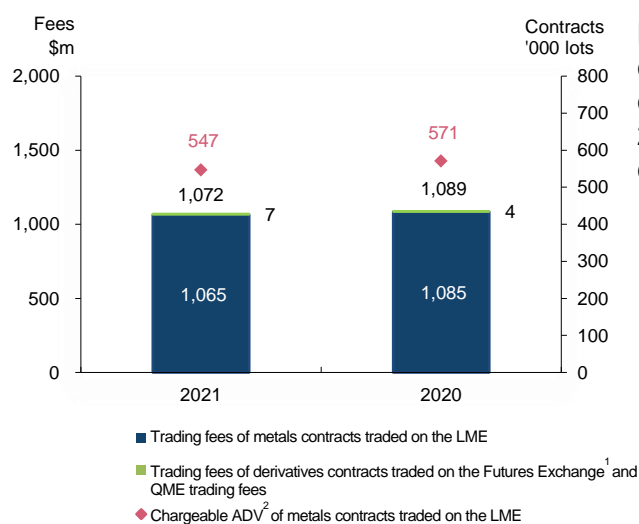
<sup>8</sup> An organisation providing data and market intelligence on structured products

# Analysis of Results

## Summary

	2021 \$m	2020 \$m	Change
Trading fees and trading tariffs	1,072	1,089	(2%)
Market data fees	216	196	10%
Other revenue and sundry income:			
Commodities stock levies and warehouse listing fees	78	67	16%
Financial OTC booking fees	53	49	8%
Others	59	53	11%
Total revenue and other income	1,478	1,454	2%
Operating expenses	(695)	(692)	0%
EBITDA	783	762	3%
EBITDA margin	53%	52%	1%

## Trading Fees and Trading Tariffs



LME trading fees dropped by \$20 million (2 per cent) due to the 4 per cent decrease in chargeable ADV of metals contracts traded in 2021, partly offset by a higher average fee per contract.

- 1 Includes London Metal Mini Futures, Gold Futures, Silver Futures and Iron Ore Futures contracts
- 2 Chargeable ADV excludes Admin Trades and other non-chargeable trades.

## EBITDA

Operating expenses were broadly flat against 2020 despite the appreciation of pound sterling, reflecting strong management of the business and targeted cost controls. The EBITDA margin increased from 52 per cent to 53 per cent due to the increase in market data fees and other revenue.

## Business Update

### LME

Building on the groundwork of the principles identified in the 2017 Strategic Pathway, in June 2021 the LME published the outcomes of its discussion paper on market structure. Key outcomes of the paper covered the reopening of the Ring for Official Prices on 6 September 2021, with Closing Prices moving permanently to the LME's electronic trading platform (LMEselect), measures to enhance liquidity, exploring the possibility of a hybrid Contingent Variation Margin/Realised Variation Margin methodology and enhancements to off-warrant stock reporting.



Throughout 2021, the LME has continued to invest in its global physical ecosystem and successfully launched its electronic warranting solution in March 2021, replacing paper warrants. This new model streamlines the lodgement and withdrawal process for warrants, introducing more efficiency and reducing the cost of operations.

In August 2021, the LME launched LMEpassport, a centralised digital register that stores electronic Certificates of Analysis (CoAs) and sustainability credentials for LME-listed metals. Moving the physical transfer of these documents to a digital service provides efficiencies and digitisation to stakeholders throughout the metals trading and warehousing lifecycle. LMEpassport has seen strong uptake from the market with more than 1 million records created in the system from more than 17,000 CoAs.

LMEpassport also provides a platform for sustainability certifications and disclosures, which allows valuable information relating to the ethical and metallurgical provenance and production of metal to be robustly stored and distributed. The LME launched the first publication of such disclosures in LME Week, with nine producers of LME-listed brands choosing to publicise aspects of their sustainability work. To support this, the LME has developed a sustainability taxonomy, which provides LMEpassport users with a straightforward categorisation framework, making it easier to navigate the wide range of sustainability-related focus areas in the industry.

In October 2021, the LME announced its partnership with Metalshub, a digital procurement platform for raw materials. This partnership focuses on helping promote sustainability, transparency and increased efficiency in the base metals markets. The LME intends to use the Metalshub platform as a price discovery venue for premiums to LME prices, helping further embed LME prices and creating new price indices to facilitate enhanced risk management.

The LME launched six new cash settled futures in July 2021, and four of the contracts (including LME Aluminium Premium Duty Paid European (Fastmarkets MB), LME Steel Scrap CFR Taiwan (Argus), LME Steel Scrap CFR India (Platts) and LME Steel HRC NW Europe (Argus)), have seen active trading.

## **HKFE Commodities Product Development**

In Hong Kong, USD London Metal Mini Futures volumes continued to grow, with a total of 417,545 lots traded in 2021, more than doubling that of 2020. USD London Aluminium Mini Futures and USD London Zinc Mini Futures reached daily record highs of 2,129 lots on 28 September 2021 and 2,231 lots on 18 October 2021 respectively.

LME Asia Metals Seminar 2021 was successfully hosted in May 2021, bringing together more than 1,000 industry leaders and investors to discuss the latest development in the global commodities market and opportunities emerging from Covid-19.

## **QME**

In 2021, QME's trading turnover reached a record high of RMB32.5 billion, more than double the turnover of 2020. The base metals product suite was further expanded during 2021, with the launch of aluminium coil to provide comprehensive services for industry players. QME's alumina benchmark price gained further recognition, after being included in all three major alumina price indices in the Mainland's domestic market. QME's unique position as the nation's most recognised physical commodities exchange gained increasing support from regulatory authorities and the market, as China's Vice Premier Han Zheng paid a visit to QME in September for research on the subject of construction of a physical commodities trading platform.

## Post Trade Segment

### Key Market Indicators

	2021	2020	Change
ADT on the Stock Exchange (\$bn)	166.7 <sup>3</sup>	129.5	29%
Average daily number of Stock Exchange trades ('000)	2,365 <sup>3</sup>	1,962	21%
Average value per Stock Exchange trade (\$)	70,506	65,984	7%
Average daily value of Settlement Instructions (SIs) for Stock Exchange trades (\$bn)	403.2	346.1	16%
Average daily number of SIs for Stock Exchange trades ('000)	127	115	10%
Average value per SI for Stock Exchange trades (\$)	3,171,204	3,011,015	5%
ADT of Northbound Trading of Stock Exchange <sup>1</sup> (RMBbn)	120.1 <sup>3</sup>	91.3	32%
Average daily value of SIs for Northbound Trading of Stock Connect (RMBbn)	32.5 <sup>3</sup>	21.1	54%
Chargeable ADV <sup>2</sup> of metals contracts traded on the LME ('000 lots)	547	571	(4%)

1 Includes buy and sell trades under Stock Connect

2 Chargeable ADV excludes Admin Trades (which are chargeable at a lower clearing fee rate of US\$0.02 per contract) and other non-chargeable trades.

3 New record high in 2021

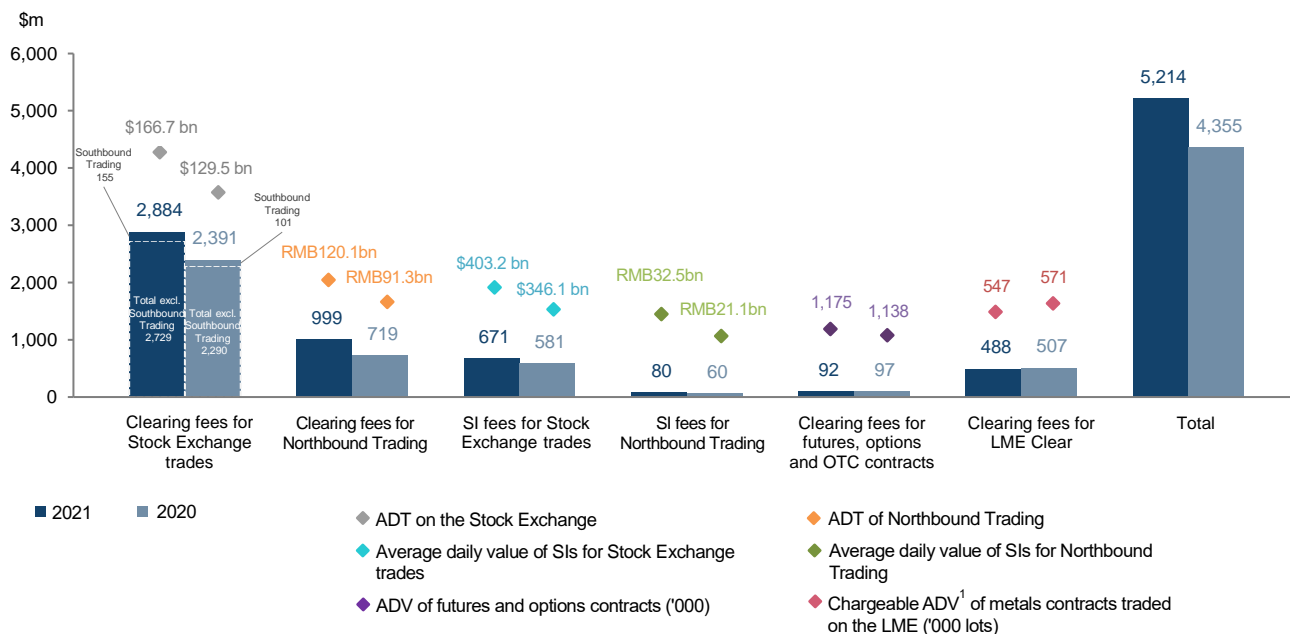
### Analysis of Results

#### Summary

	2021 \$m	2020 \$m	Change
Clearing and settlement fees	5,214	4,355	20%
Depository, custody and nominee services fees	1,543	1,264	22%
Trading fees and trading tariffs – allocated from Equity and Financial Derivatives segment	364	389	(6%)
Other revenue and sundry income	278	243	14%
	7,399	6,251	18%
Net investment income	596	1,386	(57%)
Total revenue and other income	7,995	7,637	5%
Less: Transaction-related expenses	(26)	(25)	4%
Total revenue and other income less transaction-related expenses	7,969	7,612	5%
Operating expenses	(844)	(860)	(2%)
EBITDA	7,125	6,752	6%
EBITDA margin <sup>1</sup>	89%	89%	-

1 EBITDA margin is calculated based on EBITDA divided by total revenue and other income less transaction-related expenses.

## Clearing and Settlement Fees



1 Chargeable ADV excludes Admin Trades (which are chargeable at a lower clearing fee rate of US\$0.02 per contract) and other non-chargeable trades.

Clearing and settlement fees for the Cash Market (i.e., including Stock Exchange trades and Northbound Trading) increased by 25 per cent to \$3,883 million in 2021 (2020: \$3,110 million) and total fees for SIs increased by 17 per cent to \$751 million in 2021 (2020: \$641 million). The increases were primarily driven by a higher number of transactions, and record fees from Stock Connect Northbound Trading of \$1,079 million (2020: \$779 million).

Clearing fees for LME Clear decreased by 4 per cent compared with 2020, in line with the decrease in chargeable ADV of metals contracts traded on the LME.

## Depository, Custody and Nominee Services Fees

Depository, custody and nominee services fees do not directly vary with changes in market activity. The fees rose by \$279 million or 22 per cent to \$1,543 million in 2021 (2020: \$1,264 million), mainly due to higher Stock Connect portfolio fees from increase in portfolio values, higher scrip fees from more companies having their book close in 2021, and increase in stock withdrawal fees.

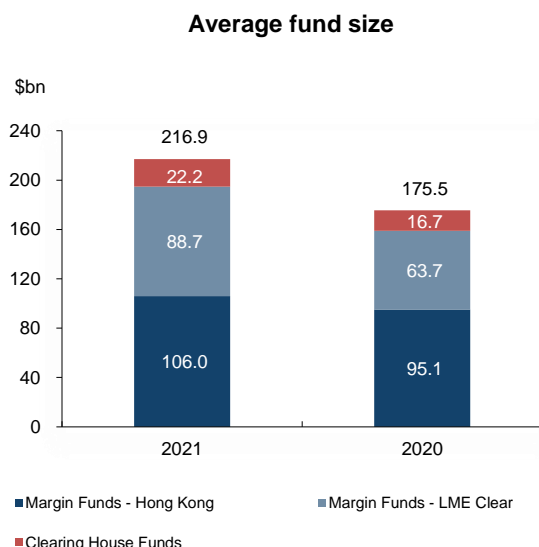
## Trading Fees and Trading Tariffs

Trading fees and trading tariffs allocated from the Equity and Financial Derivatives segment for clearing derivatives products dropped by 6 per cent, due to a 12 per cent decrease in ADV of derivatives contracts traded on the Futures Exchange, partly offset by a 21 per cent increase in ADV of stock options traded (see commentary in the Equity and Financial Derivatives segment).

## Other Revenue and Sundry Income

Other revenue increased by \$35 million, mainly due to higher interest shortfall collected from LME Clear CPs on cash collateral, as USD investment returns fell below the benchmark interest rate stipulated in the rules of LME Clear, but was partly offset by a drop in accommodation income received from HKCC CPs for placing less Euro and Japanese Yen as collateral.

## Net Investment Income



The increase in the average size of Margin Funds during the year was attributable to higher average Margin Fund size of LME Clear due to higher margin requirements per contract reflecting heightened volatility, and higher SEOCH Margin Fund size due to increase in open interests and margin requirements per contract.

The increase in the average size of Clearing House Funds during the year was attributable to higher average fund sizes of LME Clear and HKSCC due to changes in risk exposures.

The analysis of net investment income is as follows:

	2021			2020		
	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	538	16	554	1,255	78	1,333
- Debt securities	37	1	38	56	-	56
- Exchange gains/(losses)	4	-	4	(3)	-	(3)
<b>Total net investment income</b>	<b>579</b>	<b>17</b>	<b>596</b>	<b>1,308</b>	<b>78</b>	<b>1,386</b>
<b>Net investment return</b>	<b>0.30%</b>	<b>0.08%</b>	<b>0.27%</b>	<b>0.82%</b>	<b>0.47%</b>	<b>0.79%</b>

Net investment income dropped by \$790 million mainly due to lower investment returns as a result of the low interest rate environment, partly offset by higher average Margin Fund and Clearing House Fund sizes.

## EBITDA

Operating expenses decreased by \$16 million (2 per cent), reflecting lower staff costs, due to lower headcount. EBITDA margin remained stable at 89 per cent.

## Business Update

### Cash and Derivatives Clearing

Trading activities remained strong in 2021, with the average daily number of Stock Exchange trades and SIs settled by CCASS increasing by 21 per cent and 10 per cent respectively, compared with 2020.

The average daily value of Northbound SIs increased by 54 per cent in 2021 compared with 2020. In addition, Northbound and Southbound portfolio values of Stock Connect at 31 December 2021 increased by 18 per cent and 7 per cent to RMB2,760 billion (31 December 2020: RMB2,339 billion) and \$2,250 billion (31 December 2020: \$2,096 billion) respectively.

In July 2021, HKEX published the conclusions to its 2020 Concept Paper on its new platform, FINI, a comprehensive solution for the modernisation and shortening of Hong Kong's IPO settlement cycle. Since then, a series of market readiness campaigns have been rolled out for HKSCC participants, Designated Banks and Share Registrars to provide further implementation details of the new e-IPO pre-funding model, optional use of Broker-to-Client Assigned Number (BCAN) and paperless preferential offerings. The FINI platform is in development with market rehearsals scheduled to be held throughout 2022.

HKEX plans to launch VaR Platform, a new risk management platform in 2022 which adopts Value-at-Risk models to replace the current flat-rate methodology to calculate initial margin and Default Fund of HKSCC CPs. Familiarisation programme of VaR Platform commenced in 2021, where an online margin simulator as well as margin and default fund contribution requirement under the new risk models are made available to CPs to enhance their understanding on the changes brought by the new platform.

## OTC Clear

OTC Clear's USD/CNH Cross Currency Swaps (CCS) clearing volume remained strong in 2021 and reached a record high, with US\$52.3 billion notional cleared, up 26 per cent compared with 2020. OTC Clear's USD Interest Rate Swaps clearing volume also continued to grow and was up 8 per cent from the previous record of US\$18.3 billion notional cleared in 2020.

In May 2021, OTC Clear launched clearing services for CCS referencing Secured Overnight Financing Rate (SOFR) and Hong Kong Dollar Overnight Index Average (HONIA) to provide a full suite of Risk-Free Rate (RFR) based clearing products, supporting the market adoption of new risk-free reference rate in Hong Kong before cessation of LIBOR. In addition, OTC Clear continues to expand its membership base through onboarding new direct members and clients via the Sponsored Settlement Membership model.

## Technology Segment

### Analysis of Results

#### Summary

	2021 \$m	2020 \$m	Change
Network, terminal user, data line and software sub-license fees	720	610	18%
Hosting services fees	257	230	12%
BayConnect sales and service revenue and other income	73	70	4%
Total revenue and other income	1,050	910	15%
Operating expenses	(305)	(304)	0%
EBITDA	745	606	23%
EBITDA margin	71%	67%	4%

#### Network, Terminal User, Data Line and Software Sub-license Fees

Network fees rose by \$110 million (18 per cent) due to increased usage of the Orion Central Gateway and China Connect Central Gateway by EPs, and higher fees from the sale of new throttles.

#### Hosting Services Fees

Hosting services fees increased by 12 per cent due to organic growth from both new customer subscriptions and increased usage by existing customers, with over 20 racks newly subscribed in 2021. As at 31 December 2021, 102 EPs were using HKEX's Hosting Services. These EPs generated, in aggregate, approximately 58 per cent of the Cash Market turnover and 67 per cent of the trading volume of the Derivatives Market in 2021.

#### EBITDA

Operating expenses were broadly flat against 2020, reflecting good cost discipline. As a result, EBITDA margin rose from 67 per cent in 2020 to 71 per cent in 2021 and EBITDA increased by 23 per cent year-on-year.

## Business Update

### Trading and Clearing Systems

During 2021, despite market volatility and challenges posed by the pandemic on work arrangements, all of HKEX's major trading, clearing, settlement and market data dissemination systems for the Cash, Derivatives and Commodities Markets continued to perform robustly.

The upgrade of the OTC Clearing and Settlement System (OCASS) was completed in April 2021. This further enhanced system performance, flexibility and stability, and at the same time brought significant functional and technical improvements (in particular the new risk engine, low-latency technical architecture and market data catch-up processes) to both OTC Clear and its Clearing Members.

HKEX improved the system infrastructure resilience of the Hong Kong Futures Automated Trading System (HKATS), by adding two new Matching Engines in August 2021, and by reallocating products of a similar nature into the new Matching Engines to facilitate the introduction of new product initiatives.

To refresh the technology of the securities market access platform, both software and hardware of Orion Central Gateway – Securities Market (OCG-C) were upgraded in September 2021. The new OCG-C adopted the same technology stack and fully integrates with Orion Trading Platform – Securities Market (OTP-C), providing greater flexibility and stability, to implement new functionalities in the future.

The project for hardware obsolescence replacement for various trading and clearing systems, together with the relocation of one of HKEX secondary data centre sites, was successfully completed in December 2021.

### Hosting Services

To meet customer demands, Hosting Services in 2022, will offer high power density racks to enrich the hosting product portfolio and to fit-out the new data hall. The new high power density racks and the new data hall will be ready for service in Q2 2022 and Q4 2022 respectively.

### Innovation Lab

The HKEX Innovation Lab continued its mission to explore, incubate and apply new technologies to modernise HKEX's business and drive technological enhancements for Hong Kong's markets.

In 2021, the Innovation Lab played a key role in the design and architecture of the FINI platform (refer to details in the Post Trade segment). The Innovation Lab also concluded its three-year Robotic Process Automation (RPA) programme, which has streamlined more than 100 operational processes across HKEX's businesses. This programme was recognised by Blue Prism, with its Asia Pacific Pinnacle Award for implementation excellence in June. Further investments were also made throughout the year in applications of big data and artificial intelligence, including new partnerships with local startups Gekko Lab and DeepTranslate.

## Corporate Items

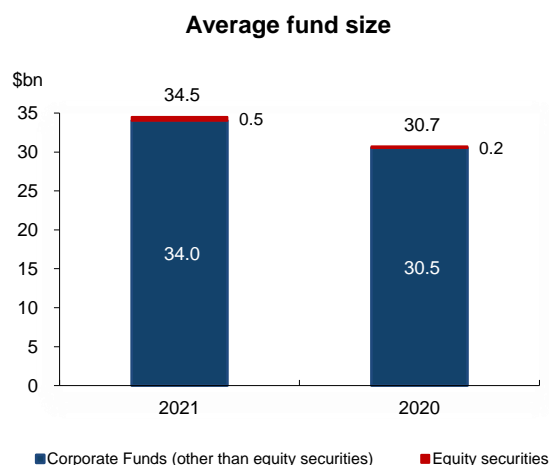
"Corporate Items" is not a business segment but comprises central income (including net investment income of the Corporate Funds and HKEX Foundation donation income), the costs of central support functions that provide services to all operating segments, HKEX Foundation charitable donations and other costs not directly related to any operating segments.



## Summary

	2021 \$m	2020 \$m	Change
Net investment income	708	842	(16%)
HKEX Foundation donation income	139	106	31%
Others	13	9	44%
Total revenue and other income	860	957	(10%)
Operating expenses:			
- HKEX Foundation charitable donations	(105)	(112)	(6%)
- Others	(1,301)	(1,269)	3%
EBITDA	(546)	(424)	29%

## Net Investment Income



Average fund size of Corporate Funds increased principally due to cash generated and retained by the business after payment of cash dividends and the increase in fair values of collective investment schemes.

The analysis of net investment income is as follows:

	Corporate Funds	
	2021 \$m	2020 \$m
Net investment income from:		
- Collective investment schemes	364	487
- Cash and bank deposits	172	376
- Equity securities <sup>1</sup>	121	-
- Debt securities	2	8
- Exchange gains/(losses)	49	(29)
Total net investment income	708	842
Net investment return	2.06%	2.75%

<sup>1</sup> Investments in minority stakes of unlisted companies

Net investment income of Corporate Funds decreased by \$134 million compared with 2020 due to lower interest income reflecting the low interest rate environment and lower fair value gains on collective investment schemes, partly offset by gains on valuation of long-term equity investments.

The fair value gains on collective investment schemes came from funds invested in the following strategies:

Strategy	2021 \$m	2020 \$m
Public equities	222	79
Diversifiers <sup>1</sup>	113	278
Government Bonds and Mortgage-backed Securities	29	130
Total fair value gains	364	487

<sup>1</sup> Diversifiers comprise Absolute Return and Multi-Sector Fixed Income asset classes.

## EBITDA

Excluding HKEX Foundation charitable donations, operating expenses increased by 3 per cent against 2020, due to higher IT maintenance costs on upgraded systems, and higher professional fees for strategic projects.

EBITDA decreased by \$122 million mainly due to the decrease in total revenue and other income.

## Business Update

### Equity Investment

In 2021, HKEX completed a minority stake investment in the newly-established Guangzhou Futures Exchange (GFE) for a total consideration of RMB210 million, the first investment in a domestic futures exchange by a non-Mainland Chinese investor. Anchored in the Greater Bay Area, GFE was launched in April, and aims to become an innovative and market-oriented exchange with international influence, focusing on serving the real economy and green development initiatives. This investment provides HKEX with the opportunity to help build and promote the development of China's derivatives market, alongside our Mainland partners and customers. In August 2021, HKEX signed a Memorandum of Understanding with GFE for strategic cooperation, supporting China's pledge for peak carbon emissions by 2030 and carbon neutrality by 2060.

### Corporate Social Responsibility

Throughout 2021, HKEX continued to play an active role in shaping the long-term sustainability of global financial markets. HKEX, as a corporate, regulator and market operator, was committed to promoting good corporate governance and ESG stewardship through the ongoing publication of training and guidance materials, industry knowledge sharing and leadership on best practices. HKEX was pleased to launch the ESG Academy in 2021 and associated website in November 2021, a new centralised portal providing ESG guidance and educational materials; the ESG Academy webinar series aims to deepen the understanding of ESG-related disclosure and stewardship among listed companies.

To reinforce its commitment to tackling climate change, the Group continued to make efforts in facilitating the transition to a net-zero global economy across its markets, business and operations. During 2021 the Group focused on the ongoing development of sustainable and green finance in the region through HKEX's Sustainable and Green Exchange, STAGE, and sought to enhance sustainability transparency for the LME's traded metals via its newly launched digital register, LMEpassport. To provide more practical guidance for listed companies in addressing climate change, HKEX published two guides to assist listed companies in preparing climate change disclosures that are aligned with the Task Force on Climate-Related Financial Disclosures (TCFD), and sharing the essential steps for businesses to develop a pathway to net-zero. HKEX as a corporate joined the Glasgow Financial Alliance for Net Zero and made a pledge to support global efforts to meet the goals of the Paris Agreement.

Other key CSR and sustainability initiatives implemented throughout 2021 included a group-wide 'Go Green with HKEX' campaign promoting environmental stewardship across our markets and operations; the launch of HKEX's new Diversity Networks which seek to foster a healthy, diverse and inclusive workplace with a focus on Women, Families, Abilities and the LGBT+ community; a staff 'Big Day Out' programme supporting partner charities; and the rollout of an artificial intelligence (AI)-powered online learning platform, iLearn, which enables tailored learning resources for our employees. Further information on HKEX's CSR activities can be found in HKEX's 2021 CSR Report.

### HKEX Foundation

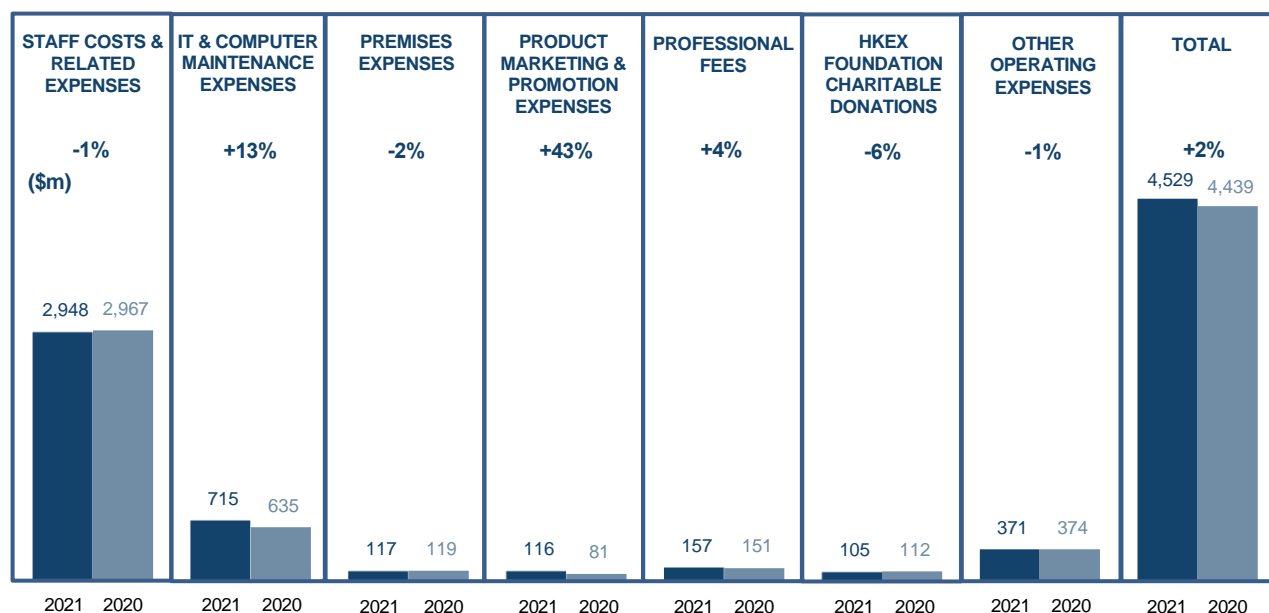
HKEX Foundation continued to act as HKEX's dedicated charitable channel facilitating and advocating for meaningful change through programmes that build better lives and a better community. Through the Foundation, HKEX seeks to deepen its relationship with its communities, and promote a shared prosperous sustainable future. During the year, HKEX Foundation funded a wide range of projects and charities focusing on financial literacy, diversity and inclusion, poverty relief and environmental

sustainability. HKEX also strengthened its partnerships with local charitable bodies through the HKEX Charity Partnership Programme and the newly launched HKEX Impact Funding Scheme.

In 2021, HKEX Foundation raised \$139 million principally from HKEX's Stock Code for Charity Scheme, and made a total of \$105 million charitable donations to various causes in the community. As at 31 December 2021, the Foundation had a cumulative surplus of \$28 million for future donations and expenditures.

## Expenses, Other Costs and Taxation

### Operating Expenses



Staff costs and related expenses decreased by \$19 million (1 per cent) mainly due to a decrease in headcount during the year, and special gratuity payments paid to the then HKEX's Chief Executive in 2020.

IT and computer maintenance expenses consumed by the Group, excluding costs of services and goods directly consumed by participants of \$81 million (2020: \$84 million), were \$634 million (2020: \$551 million). The increase was mainly attributable to higher maintenance expenses for new IT systems, upgraded networks and higher IT costs for cloud-based IT systems.

Product marketing and promotion expenses increased by \$35 million (43 per cent), due to higher marketing expenses and cash incentives relating to newly introduced derivatives products.

### Depreciation and Amortisation

	2021 \$m	2020 \$m	Change
Depreciation and amortisation	1,354	1,197	13%

Depreciation and amortisation increased by \$157 million (13 per cent), attributable to an increase in depreciation and amortisation of new IT systems and upgrades completed in 2H 2020 and 2021.

## Finance Costs

	2021 \$m	2020 \$m	Change
Finance costs	154	181	(15%)

Finance costs decreased due to lower negative interest charges, as smaller amounts of Euro and Japanese Yen deposits were lodged by CPs as collateral.

## Taxation

	2021 \$m	2020 \$m	Change
Taxation	2,343	1,845	27%

Taxation increased due to higher profit before taxation in 2021, and a one-off deferred tax charge of \$160 million on acquired LME intangible assets arising from approval of the change of statutory UK tax rate in 2021 from 19 per cent to 25 per cent effective from April 2023.

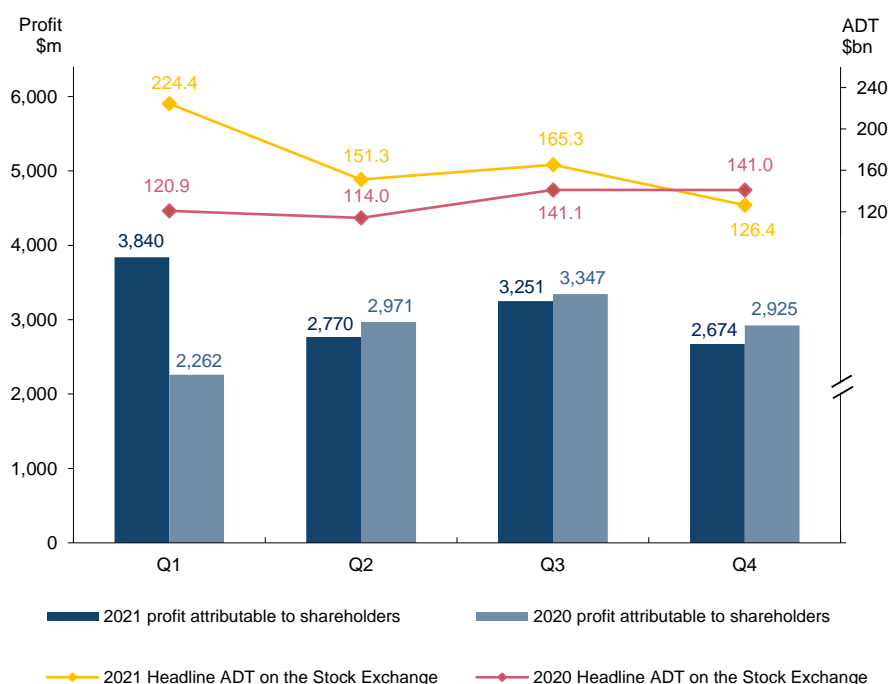
# FINANCIAL REVIEW

## Analysis of Results by Quarter

### Quarterly Results

	Q1 2021 \$m	Q2 2021 \$m	Q3 2021 \$m	Q4 2021 \$m	Total 2021 \$m
Revenue and other income	5,956	4,953	5,309	4,732	20,950
Less: Transaction-related expenses	(45)	(36)	(37)	(34)	(152)
Revenue and other income less transaction-related expenses	5,911	4,917	5,272	4,698	20,798
Operating expenses	(1,102)	(1,119)	(1,108)	(1,200)	(4,529)
EBITDA	4,809	3,798	4,164	3,498	16,269
Depreciation and amortisation	(327)	(335)	(344)	(348)	(1,354)
Operating profit	4,482	3,463	3,820	3,150	14,915
Finance costs	(39)	(38)	(39)	(38)	(154)
Share of profits less losses of joint ventures	16	22	20	22	80
Profit before taxation	4,459	3,447	3,801	3,134	14,841
Taxation	(632)	(685)	(563)	(463)	(2,343)
Profit for period / year	3,827	2,762	3,238	2,671	12,498
Loss attributable to non-controlling interests	13	8	13	3	37
Profit attributable to shareholders	3,840	2,770	3,251	2,674	12,535
	Q1 2020 \$m	Q2 2020 \$m	Q3 2020 \$m	Q4 2020 \$m	Total 2020 \$m
Revenue and other income	4,009	4,773	5,309	5,099	19,190
Profit attributable to shareholders	2,262	2,971	3,347	2,925	11,505

## Analysis of Quarterly Results



2021 started exceptionally well with Headline ADT reaching record quarterly high of \$224.4 billion in Q1, and quarterly Headline ADTs were higher than 2020 except for the fourth quarter.

2021 Q2 and Q3 profits were lower than 2020 despite higher Headline ADT due to lower net investment income impacted by the low interest rate environment and lower fair value gains on collective investment schemes, and the one-off deferred tax charge of \$160 million recorded in Q2 arising from change in UK tax rate.

## Changes to Key Items in Consolidated Statement of Financial Position

### (A) Significant Financial Assets and Financial Liabilities by Funds

	At 31 Dec 2021 \$m	At 31 Dec 2020 \$m	Change
<b>Financial assets</b>			
Cash and cash equivalents	181,361	157,996	15%
Financial assets measured at fair value through profit or loss	100,861	100,597	0%
Financial assets measured at fair value through other comprehensive income	9,755	7,942	23%
Financial assets measured at amortised cost	51,828	62,688	(17%)
<b>Total</b>	<b>343,805</b>	<b>329,223</b>	<b>4%</b>

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 31 Dec 2021 \$m	At 31 Dec 2020 \$m	Change
<b>Financial assets</b>			
Corporate Funds <sup>1</sup>	33,794	33,747	0%
Margin Funds <sup>2</sup>	191,240	175,129	9%
Clearing House Funds	19,975	21,251	(6%)
Base, ferrous, and precious metals derivatives contracts cleared through LME Clear	91,424	92,884	(2%)
Cash prepayments and collateral for A-shares	7,372	6,212	19%
<b>Total</b>	<b>343,805</b>	<b>329,223</b>	<b>4%</b>

1 Includes \$1,267 million (31 December 2020: \$1,241 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 \$12,764 million (31 December 2020: \$11,879 million), which are included in accounts receivable, prepayments and other deposits

	At 31 Dec 2021 \$m	At 31 Dec 2020 \$m	Change
<b>Financial liabilities</b>			
Base, ferrous, and precious metals derivatives contracts cleared through LME Clear	91,424	92,884	(2%)
Margin deposits, Mainland security and settlement deposits, and cash collateral from CPs	203,536	187,008	9%
CPs' contributions to Clearing House Funds	19,182	20,439	(6%)
<b>Total</b>	<b>314,142</b>	<b>300,331</b>	<b>5%</b>

The increase in financial assets and financial liabilities of Margin Funds at 31 December 2021 compared with 31 December 2020 was mainly attributable to increased contributions from members of LME Clear and SEOCH CPs due to higher margin requirements.

Financial assets and financial liabilities of Clearing House Funds at 31 December 2021 were 6 per cent lower than the balance at 31 December 2020, as lower contributions required from members of LME Clear and HKSCC CPs were partly offset by higher contributions from HKCC and SEOCH CPs, in response to changes in risk exposures.

Financial assets of Corporate Funds at 31 December 2021 were broadly flat compared with 31 December 2020, as retention of cash generated by the business over the past year and the increase in fair value of collective investment scheme investments were offset by the cash paid for the 2020 second interim dividend and 2021 first 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 31 December 2021, the fair value of the Group's collective investment schemes by strategy employed was as follows:

Strategy	At 31 Dec 2021 \$m	At 31 Dec 2020 \$m	Change
Public Equities	1,774	1,684	5%
Diversifiers <sup>1</sup>	4,949	4,130	20%
Government Bonds and Mortgage-backed Securities	2,020	1,679	20%
<b>Total</b>	<b>8,743</b>	<b>7,493</b>	<b>17%</b>

<sup>1</sup> Diversifiers comprise Absolute Return and Multi-Sector Fixed Income asset classes.

## (B) Fixed Assets, Intangible Assets, Right-of-use Assets and Capital Commitments

The total net book value of the Group's fixed assets and intangible assets rose by \$183 million from \$20,394 million at 31 December 2020 to \$20,577 million at 31 December 2021. The increase was mainly due to additions of assets<sup>9</sup> of \$1,127 million and exchange differences arising mainly from appreciation of USD of \$100 million relating to translation of fixed and intangible assets of the LME Group, but was partly offset by depreciation and amortisation of \$1,044 million. Additions during the year were mainly related to the development and upgrade of various trading and clearing systems (notably trading systems for Commodities Market and software for cash clearing systems), and the setup of a new secondary data centre.

In accordance with HKFRS 16, the Group's operating leases are recognised as right-of-use assets. At 31 December 2021, the carrying amounts of these assets amounted to \$1,896 million (31 December 2020: \$2,193 million), and were mainly related to leases of office premises.

The Group's capital commitments<sup>9</sup> at 31 December 2021, including those authorised by the Board but not yet contracted for, amounted to \$815 million (31 December 2020: \$890 million). They were mainly related to the development and upgrade of IT systems including the cash, derivatives and commodities trading and clearing systems, and the development of a new data hall for hosting services.

<sup>9</sup> Exclude right-of-use assets recognised under HKFRS 16: Leases

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

In 2021, HKEX completed a minority stake investment in the newly established Guangzhou Futures Exchange Co. Ltd. (GFE) for a total consideration of RMB210 million.

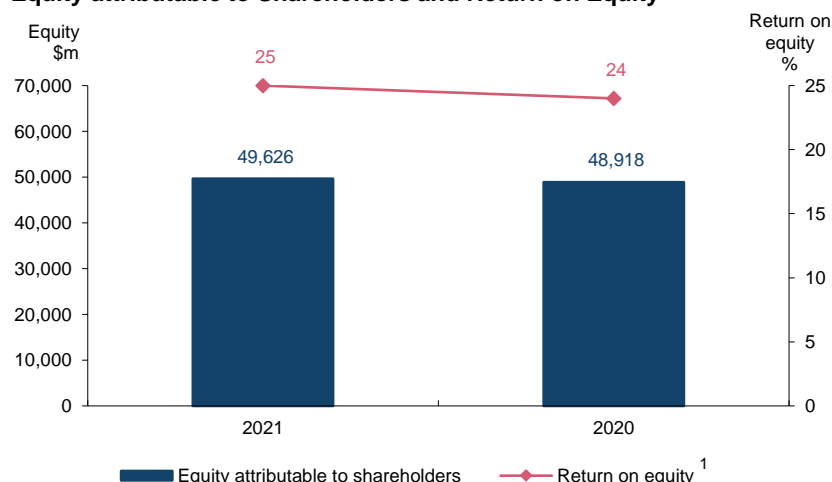
HKEX also made a further capital injection of \$100 million in Fusion Bank Limited in 2021, bringing the total investment in the bank to \$200 million.

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

### (D) Equity attributable to Shareholders and Return on Equity

Equity attributable to shareholders increased by \$708 million to \$49,626 million at 31 December 2021 (31 December 2020: \$48,918 million). This arose principally from the increase in retained earnings of \$959 million mainly attributable to profit for the year less dividends declared or paid, the increase in reserve arising from share-based compensation expenses of \$324 million, and the exchange gains arising from translation of foreign subsidiaries of \$101 million, but was partly offset by shares purchased for Share Award Scheme of \$681 million.

**Equity attributable to Shareholders and Return on Equity**



Return on equity rose by 1 per cent due to record high profit attributable to shareholders in 2021.

<sup>1</sup> Based on equity attributable to shareholders at year-end

### Liquidity, Financial Resources and Gearing

Working capital decreased by \$254 million to \$29,105 million at 31 December 2021 (31 December 2020: \$29,359 million). The decrease was mainly due to payment of 2020 second interim dividend and 2021 first interim dividend of \$11,580 million, net increase in non-current assets of \$822 million, partly offset by profit attributable to shareholders of \$12,535 million.

At 31 December 2021, the Group had the following outstanding borrowings:

	At 31 Dec 2021		At 31 Dec 2020	
	Carrying value \$m	Maturity	Carrying value \$m	Maturity
Written put options to non-controlling interests	426	N/A	423	N/A

At 31 December 2021, the Group had a gross gearing ratio (i.e., gross debt divided by adjusted capital) of 1 per cent (31 December 2020: 1 per cent), and a net gearing ratio (i.e., net debt divided by adjusted capital) of zero per cent (31 December 2020: zero per cent). For this purpose, gross debt is defined as



total borrowings (excluding lease liabilities) and net debt<sup>10</sup> is defined as gross debt 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 of HKEX other than designated reserves.

At 31 December 2021, the Group's total available banking facilities for its daily operations amounted to \$21,249 million (31 December 2020: \$21,223 million), which included \$14,748 million (31 December 2020: \$14,722 million) of committed banking facilities and \$6,500 million (31 December 2020: \$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 31 December 2021, the total amount of the facilities was \$31,041 million (31 December 2020: \$30,244 million).

In addition, the Group has arranged contingency banking facilities amounting to RMB13,000 million (31 December 2020: RMB13,000 million) for settling payment obligations to ChinaClear should there be events that disrupt normal settlement arrangements for Stock Connect.

At 31 December 2021, 83 per cent (31 December 2020: 82 per cent) of the Group's cash and cash equivalents were denominated in HKD or USD.

## **Pledges of Assets**

LME Clear receives securities and gold bullion as non-cash collateral for margins posted by its CPs. The total fair value of this non-cash collateral was US\$971 million (HK\$7,570 million) at 31 December 2021 (31 December 2020: US\$2,241 million (HK\$17,376 million)). LME Clear is obliged to return this non-cash collateral upon request when the CPs' collateral obligations have been substituted with cash collateral or otherwise discharged. LME Clear is permitted to sell or pledge such collateral in the event of the default of a CP. Any non-cash collateral lodged at central securities depositories or custodians is subject to a lien or pledge for the services they provide in respect of the collateral held.

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\$13,513 million (HK\$105,351 million) at 31 December 2021 (31 December 2020: US\$11,486 million (HK\$89,061 million)). Such non-cash collateral, together with certain financial assets amounting to US\$400 million (HK\$3,117 million) at 31 December 2021 (31 December 2020: US\$496 million (HK\$3,845 million)), have been pledged to LME Clear's investment agent and custodian banks under security arrangements for the settlement and depository services they provide in respect of the collateral and investments held.

Non-cash collateral is not recorded on the consolidated statement of financial position of the Group.

## **Exposure to Fluctuations in Exchange Rates and Related Hedges**

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

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<sup>10</sup> Net debt is 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 higher than gross debt.

The aggregate net open foreign currency positions (excluding collective investment schemes) at 31 December 2021 amounted to \$2,524 million, of which \$545 million were non-USD exposures (31 December 2020: \$2,750 million, of which \$382 million were non-USD exposures).

## **Contingent Liabilities**

At 31 December 2021, 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 repealed Securities Ordinance up to an amount not exceeding \$71 million (31 December 2020: \$71 million). Up to 31 December 2021, 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 638 trading Participants (31 December 2020: 635) covered by the indemnity at 31 December 2021 defaulted, the maximum contingent liability of the Group under the indemnity would amount to \$128 million (31 December 2020: \$127 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.

# **CONSOLIDATED INCOME STATEMENT FOR THE YEAR ENDED 31 DECEMBER 2021**

	Note	2021 \$m	2020 \$m
Trading fees and trading tariffs		7,931	6,959
Clearing and settlement fees		5,214	4,355
Stock Exchange listing fees		2,185	1,899
Depository, custody and nominee services fees		1,543	1,264
Market data fees		1,034	953
Other revenue	3	1,564	1,405
<b>Revenue</b>		<b>19,471</b>	<b>16,835</b>
Investment income		1,351	2,577
Interest rebates to Participants		(47)	(349)
Net investment income	4	1,304	2,228
HKEX Foundation donation income		139	106
Sundry income		36	21
<b>Revenue and other income</b>		<b>20,950</b>	<b>19,190</b>
Less: Transaction-related expenses		(152)	(110)
<b>Revenue and other income less transaction-related expenses</b>		<b>20,798</b>	<b>19,080</b>
<b>Operating expenses</b>			
Staff costs and related expenses		(2,948)	(2,967)
Information technology and computer maintenance expenses		(715)	(635)
Premises expenses		(117)	(119)
Product marketing and promotion expenses		(116)	(81)
Professional fees		(157)	(151)
HKEX Foundation charitable donations		(105)	(112)
Other operating expenses	5	(371)	(374)
		<b>(4,529)</b>	<b>(4,439)</b>
<b>EBITDA</b>		<b>16,269</b>	<b>14,641</b>
Depreciation and amortisation		(1,354)	(1,197)
<b>Operating profit</b>		<b>14,915</b>	<b>13,444</b>
Finance costs	6	(154)	(181)
Share of profits less losses of joint ventures		80	69
<b>Profit before taxation</b>		<b>14,841</b>	<b>13,332</b>
<b>Taxation</b>	7	<b>(2,343)</b>	<b>(1,845)</b>
<b>Profit for the year</b>		<b>12,498</b>	<b>11,487</b>
<b>Profit/(loss) attributable to:</b>			
Shareholders of HKEX		12,535	11,505
Non-controlling interests		(37)	(18)
<b>Profit for the year</b>		<b>12,498</b>	<b>11,487</b>
<b>Basic earnings per share</b>	8(a)	<b>\$9.91</b>	<b>\$9.11</b>
<b>Diluted earnings per share</b>	8(b)	<b>\$9.89</b>	<b>\$9.09</b>

# **CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME FOR THE YEAR ENDED 31 DECEMBER 2021**

	2021 \$m	2020 \$m
<b>Profit for the year</b>	<b>12,498</b>	<b>11,487</b>
<b>Other comprehensive income</b>		
<b>Items that may be reclassified subsequently to profit or loss:</b>		
Currency translation differences of foreign subsidiaries	104	(29)
Cash flow hedges	(2)	(6)
Changes in fair value of financial assets measured at fair value through other comprehensive income, net of tax	(8)	28
<b>Other comprehensive income/(loss)</b>	<b>94</b>	<b>(7)</b>
<b>Total comprehensive income</b>	<b>12,592</b>	<b>11,480</b>
<b>Total comprehensive income/(loss) attributable to:</b>		
Shareholders of HKEX	12,626	11,490
Non-controlling interests	(34)	(10)
<b>Total comprehensive income</b>	<b>12,592</b>	<b>11,480</b>

# CONSOLIDATED STATEMENT OF FINANCIAL POSITION

## AT 31 DECEMBER 2021

		At 31 Dec 2021			At 31 Dec 2020		
	Note	Current \$m	Non-current \$m	Total \$m	Current \$m	Non-current \$m	Total \$m
<b>Assets</b>							
Cash and cash equivalents	10	181,361	-	181,361	157,996	-	157,996
Financial assets measured at fair value through profit or loss	10	99,915	946	100,861	100,081	516	100,597
Financial assets measured at fair value through other comprehensive income	10	9,755	-	9,755	7,942	-	7,942
Financial assets measured at amortised cost	10	51,302	526	51,828	62,589	99	62,688
Accounts receivable, prepayments and deposits	11	32,717	21	32,738	47,059	21	47,080
Tax recoverable		19	-	19	26	-	26
Interests in joint ventures		-	244	244	-	164	164
Goodwill and other intangible assets		-	18,972	18,972	-	18,737	18,737
Fixed assets		-	1,605	1,605	-	1,657	1,657
Right-of-use assets		-	1,896	1,896	-	2,193	2,193
Deferred tax assets		-	25	25	-	26	26
<b>Total assets</b>		<b>375,069</b>	<b>24,235</b>	<b>399,304</b>	<b>375,693</b>	<b>23,413</b>	<b>399,106</b>
<b>Liabilities and equity</b>							
<b>Liabilities</b>							
Financial liabilities at fair value through profit or loss		91,424	-	91,424	92,884	-	92,884
Margin deposits, Mainland security and settlement deposits, and cash collateral from CPs		203,536	-	203,536	187,008	-	187,008
Accounts payable, accruals and other liabilities	12	28,335	-	28,335	42,974	-	42,974
Deferred revenue		1,100	354	1,454	1,049	371	1,420
Taxation payable		1,153	-	1,153	1,174	-	1,174
Other financial liabilities		513	-	513	48	-	48
CPs' contributions to Clearing House Funds		19,182	-	19,182	20,439	-	20,439
Lease liabilities		299	1,760	2,059	304	2,054	2,358
Borrowings	13	340	86	426	340	83	423
Provisions		82	98	180	114	98	212
Deferred tax liabilities		-	1,132	1,132	-	930	930
<b>Total liabilities</b>		<b>345,964</b>	<b>3,430</b>	<b>349,394</b>	<b>346,334</b>	<b>3,536</b>	<b>349,870</b>
<b>Equity</b>							
Share capital				31,896			31,891
Shares held for Share Award Scheme				(901)			(485)
Employee share-based compensation reserve				306			232
Hedging and revaluation reserves				15			25
Exchange reserve				(117)			(218)
Designated reserves				623			628
Reserve relating to written put options to non-controlling interests				(369)			(369)
Retained earnings	14			18,173			17,214
<b>Equity attributable to shareholders of HKEX</b>				<b>49,626</b>			<b>48,918</b>
Non-controlling interests				284			318
<b>Total equity</b>				<b>49,910</b>			<b>49,236</b>
<b>Total liabilities and equity</b>				<b>399,304</b>			<b>399,106</b>
<b>Net current assets</b>				<b>29,105</b>			<b>29,359</b>

# NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

## 1. Basis of Preparation and Accounting Policies

These consolidated financial statements have been prepared in accordance with HKFRSs issued by the HKICPA.

The financial information relating to the years ended 31 December 2021 and 2020 included in this preliminary announcement of annual results 2021 does not constitute the Company's statutory annual consolidated financial statements for those years but is derived from those financial statements. Further information relating to these statutory financial statements required to be disclosed in accordance with section 436 of the Companies Ordinance is as follows:

The Company has delivered the financial statements for the year ended 31 December 2020 to the Registrar of Companies as required by section 662(3) of, and Part 3 of Schedule 6 to, the Companies Ordinance and will deliver the financial statements for the year ended 31 December 2021 in due course.

The Company's auditor has reported on the financial statements of the Group for both years. The auditor's reports were unqualified; did not include a reference to any matters to which the auditor drew attention by way of emphasis without qualifying its reports; and did not contain a statement under sections 406(2), 407(2) or (3) of the Companies Ordinance.

### (a) Adoption of new/revised HKFRSs

In 2021, the Group has adopted the following amendment to HKFRSs which is pertinent to the Group's operations:

Amendments to HKFRS 16	Leases: COVID-19-Related Rent Concessions <sup>1</sup>
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<sup>1</sup> Effective for accounting periods beginning on or after 1 June 2020

The adoption of the amendment did not have any financial impact on the Group.

### (b) New/revised HKFRSs issued before 31 December 2021 but not yet effective and not early adopted

The Group has not applied the following amendments to HKFRSs which were issued before 31 December 2021 and are pertinent to its operations but not yet effective:

Amendments to HKAS 1	Presentation of Financial Statements: Classification of Liabilities as Current or Non-current <sup>3</sup>
Amendments to HKAS 1	Presentation of Financial Statements: Disclosure of Accounting Policies <sup>3</sup>
Amendments to HKAS 8	Accounting Policies, Changes in Accounting Estimates and Errors: Definition of Accounting Estimates <sup>3</sup>
Amendments to HKAS 12	Income Taxes: Deferred Tax related to Assets and Liabilities arising from a Single Transaction <sup>3</sup>
Amendments to HKAS 16	Property, Plant and Equipment: Proceeds before Intended Use <sup>2</sup>
Amendments to HKAS 37	Provisions, Contingent Liabilities and Contingent Assets: Onerous Contracts – Cost of Fulfilling a Contract <sup>2</sup>
Amendments to HKFRS 3	Business combinations: Reference to the Conceptual Framework <sup>2</sup>
Amendments to HKFRS 16	Leases: COVID-19-Related Rent Concessions beyond 30 June 2021 <sup>1</sup>
Annual Improvements to HKFRSs 2018-2020:	
Amendments to HKFRS 9	Financial Instruments: Fees in the "10 per cent" Test for Derecognition of Financial Liabilities <sup>2</sup>
Amendments to Illustrative Examples accompanying HKFRS 16	Leases: Lease Incentives <sup>2</sup>

<sup>1</sup> Effective for accounting periods beginning on or after 1 April 2021

<sup>2</sup> Effective for accounting periods beginning on or after 1 January 2022

<sup>3</sup> Effective for accounting periods beginning on or after 1 January 2023

The adoption of the amendments to HKFRSs would not have any financial impact on the Group.

There are no other new/revised HKFRSs not yet effective that are expected to have any financial impact on the Group.

## 2. Operating Segments

The Group determines its operating segments in a manner consistent with internal management reports that are used to make strategic decisions provided to 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 IT systems and marketing strategies.

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 of the Stock Exchange, the Shanghai Stock Exchange and the Shenzhen Stock Exchange through 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.

The **Equity and Financial Derivatives** segment refers to derivatives products traded on the Stock Exchange and 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, DWs, CBBs 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 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 QME, the commodity trading platform in the Mainland. It also covers the commodities 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, 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, and services provided by BayConnect. Its major sources of revenue are network, terminal user, data line and software sub-license fees and hosting services fees.

Central income (including net investment income of Corporate Funds and HKEX Foundation donation income) and central costs (including costs of central support functions that provide services to all operating segments, HKEX Foundation charitable donations, 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.

An analysis by operating segment of the Group’s EBITDA, profit before taxation and other selected financial information (including analysis of revenue by timing of revenue recognition) for the year, is set out as follows:



2021							
	Cash \$m	Equity and Financial Derivatives \$m	Commodities \$m	Post Trade \$m	Technology \$m	Corporate Items \$m	Group \$m
Timing of revenue recognition:							
Point in time	4,494	2,030	1,176	6,656	86	3	14,445
Over time	1,636	1,405	288	731	960	6	5,026
Revenue	6,130	3,435	1,464	7,387	1,046	9	19,471
Net investment income	-	-	-	596	-	708	1,304
HKEX Foundation donation income	-	-	-	-	-	139	139
Sundry income	1	1	14	12	4	4	36
Revenue and other income	6,131	3,436	1,478	7,995	1,050	860	20,950
Less: Transaction-related expenses	-	(126)	-	(26)	-	-	(152)
Revenue and other income less transaction-related expenses	6,131	3,310	1,478	7,969	1,050	860	20,798
Operating expenses	(614)	(665)	(695)	(844)	(305)	(1,406)	(4,529)
Reportable segment EBITDA	5,517	2,645	783	7,125	745	(546)	16,269
Depreciation and amortisation	(169)	(142)	(346)	(358)	(72)	(267)	(1,354)
Finance costs	(12)	(12)	(8)	(66)	(2)	(54)	(154)
Share of profits less losses of joint ventures	80	-	-	-	-	-	80
Reportable segment profit before taxation	5,416	2,491	429	6,701	671	(867)	14,841
2020							
	Cash \$m	Equity and Financial Derivatives \$m	Commodities \$m	Post Trade \$m	Technology \$m	Corporate Items \$m	Group \$m
Timing of revenue recognition:							
Point in time	3,460	2,079	1,171	5,667	62	1	12,440
Over time	1,531	1,162	278	575	844	5	4,395
Revenue	4,991	3,241	1,449	6,242	906	6	16,835
Net investment income	-	-	-	1,386	-	842	2,228
HKEX Foundation donation income	-	-	-	-	-	106	106
Sundry income	-	-	5	9	4	3	21
Revenue and other income	4,991	3,241	1,454	7,637	910	957	19,190
Less: Transaction-related expenses	-	(85)	-	(25)	-	-	(110)
Revenue and other income less transaction-related expenses	4,991	3,156	1,454	7,612	910	957	19,080
Operating expenses	(595)	(607)	(692)	(860)	(304)	(1,381)	(4,439)
Reportable segment EBITDA	4,396	2,549	762	6,752	606	(424)	14,641
Depreciation and amortisation	(133)	(114)	(340)	(322)	(38)	(250)	(1,197)
Finance costs	(13)	(13)	(8)	(84)	(2)	(61)	(181)
Share of profits less losses of joint ventures	68	1	-	-	-	-	69
Reportable segment profit before taxation	4,318	2,423	414	6,346	566	(735)	13,332

(a) Geographical information

The Group's revenue is derived from its operations in Hong Kong, the UK and Mainland China. Such information and the Group's non-current assets (excluding financial assets and deferred tax assets) by geographical location are detailed below:

	Revenue		Non-current assets	
	2021 \$m	2020 \$m	At 31 Dec 2021 \$m	At 31 Dec 2020 \$m
Hong Kong (place of domicile)	17,220	14,641	5,307	5,374
United Kingdom	2,179	2,124	17,137	17,096
Mainland China	72	70	294	302
	19,471	16,835	22,738	22,772

(b) Information about major customers

In 2021 and 2020, the revenue from the Group's largest customer amounted to less than 10 per cent of the Group's total revenue.

### 3. Other Revenue

	2021 \$m	2020 \$m
Network, terminal user, data line and software sub-license fees	720	610
Hosting services fees	257	230
Commodities stock levies and warehouse listing fees	78	67
Participants' subscription and application fees	87	112
Accommodation income (note (a))	201	160
Sales of Trading Rights	22	24
LME financial over-the-counter booking fees	53	49
BayConnect sales and service revenue	69	66
Brokerage on IPO direct allotments	5	26
Miscellaneous revenue	72	61
	1,564	1,405

- (a) Accommodation income mainly comprises income from CPs on securities deposited as alternatives to cash deposits of Margin Funds, or depositing currencies whose relevant bank deposit rates are negative, and interest shortfall collected from LME Clear CPs on cash collateral where the investment return on the collateral is below the benchmarked interest rates stipulated in the clearing rules of LME Clear.

### 4. Net Investment Income

	2021 \$m	2020 \$m
Gross interest income from financial assets measured at amortised cost	775	2,066
Gross interest income from financial assets measured at fair value through other comprehensive income	38	56
Interest rebates to Participants	(47)	(349)
Net interest income	766	1,773
Net gains on financial assets mandatorily measured at fair value through profit or loss and financial liabilities at fair value through profit or loss		
- collective investment schemes	364	487
- other investments	121	-
	485	487
Others	53	(32)
Net investment income	1,304	2,228

## 5. Other Operating Expenses

	2021 \$m	2020 \$m
Bank charges	15	14
Communication expenses	11	13
Custodian and fund management related fees	37	28
Financial data subscription fees	52	49
Insurance	12	10
Non-executive directors' fees	22	21
Office demolition and relocation expenses	11	9
Provision for impairment losses of receivables	7	12
Repairs and maintenance expenses	62	69
Security expenses	21	23
Travel expenses	16	19
UK regulatory fees	22	18
Other miscellaneous expenses	83	89
	<b>371</b>	<b>374</b>

## 6. Finance Costs

	2021 \$m	2020 \$m
Interest on borrowings	3	5
Interest on lease liabilities	79	89
Banking facility commitment fees	54	53
Negative interest on Euro and Japanese Yen deposits	18	34
	<b>154</b>	<b>181</b>

## 7. Taxation

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

	2021 \$m	2020 \$m
Current tax - Hong Kong Profits Tax		
- Provision for the year	1,969	1,537
- Over provision in respect of prior years	-	(2)
	<b>1,969</b>	<b>1,535</b>
Current tax - Overseas Tax		
- Provision for the year	174	177
- Under provision in respect of prior years	2	1
	<b>176</b>	<b>178</b>
Total current tax (note (a))	<b>2,145</b>	<b>1,713</b>
Deferred tax		
- Provision for temporary differences	38	71
- Impact of changes in UK Corporate Tax rate (note (b))	160	61
Total deferred tax	<b>198</b>	<b>132</b>
Taxation charge	<b>2,343</b>	<b>1,845</b>

- (a) Hong Kong Profits Tax has been provided at the rate of 16.5 per cent (2020: 16.5 per cent) on the estimated assessable profit for the year. Taxation on overseas profits has been calculated on the estimated assessable profit 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 (2020: 19 per cent).
- (b) Through the enactment of the Finance Act 2021, the UK Corporate Tax rate would increase from 19 per cent to 25 per cent from 1 April 2023. As a result, a one-off deferred tax charge on acquired LME intangible assets of \$160 million was recognised during the year ended 31 December 2021 (2020: \$61 million deferred tax charge was recognised as the UK Corporate Tax rate remained at 19 per cent from 1 April 2020 instead of reducing to 17 per cent as previously enacted).

## 8. Earnings Per Share

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

### (a) Basic earnings per share

	2021	2020
Profit attributable to shareholders (\$m)	12,535	11,505
Weighted average number of shares in issue less shares held for Share Award Scheme (in '000)	1,265,431	1,262,746
Basic earnings per share (\$)	9.91	9.11

### (b) Diluted earnings per share

	2021	2020
Profit attributable to shareholders (\$m)	12,535	11,505
Weighted average number of shares in issue less shares held for Share Award Scheme (in '000)	1,265,431	1,262,746
Effect of Awarded Shares (in '000)	2,140	3,057
Weighted average number of shares for the purpose of calculating diluted earnings per share (in '000)	1,267,571	1,265,803
Diluted earnings per share (\$)	9.89	9.09

## 9. Dividends

	2021 \$m	2020 \$m
First interim dividend paid:		
\$4.69 (2020: \$3.71) per share	5,946	4,704
Less: Dividend for shares held by Share Award Scheme (note (a))	(12)	(12)
	5,934	4,692
Second interim dividend declared (note (b)):		
\$4.18 (2020: \$4.46) per share based on issued share capital at 31 Dec	5,300	5,655
Less: Dividend for shares held by Share Award Scheme at 31 Dec (note (a))	(10)	(9)
	5,290	5,646
	11,224	10,338

- (a) The results and net assets of the Share Award Scheme are included in HKEX's financial statements. Therefore, dividends for shares held by the Share Award Scheme were deducted from the total dividends.
- (b) The second interim dividend declared after 31 December was not recognised as a liability at 31 December as it had not been approved by the Board.

## 10. Financial Assets

The Group classifies the financial assets into the following measurement categories:

Cash for A-shares includes:

- (a) RMB cash prepayments received by HKSCC from its CPs for releasing their allocated A-shares on the trade day. Such prepayments will be used to settle HKSCC's CNS obligations payable on the next business day; and
- (b) HKD/USD cash collateral received by HKSCC from its CPs for releasing their allocated A-shares on the trade day. Such collateral will be refunded to the CPs when they settle their RMB CNS obligations on the next business day.

Margin Funds - the Margin Funds are established by cash received or receivable from CPs in respect of margin deposits, Mainland security and settlement deposits, and cash collateral of the five clearing houses to cover their open positions. Part of the Mainland security and settlement deposits is used by HKSCC to satisfy its obligations as a clearing participant of ChinaClear in respect of trades transacted through Stock Connect. These funds are held in segregated accounts of the respective clearing houses for this specified purpose and cannot be used by the Group to finance any other activities.

Clearing House Funds - the Clearing House Funds, or default funds, are established under the Clearing House Rules. Assets contributed by the CPs and the Group are held by the respective clearing houses (together with the accumulated income less related expenses for the clearing houses in Hong Kong) expressly for the purpose

of ensuring that the respective clearing houses are able to fulfil their counterparty obligations in the event that one or more of the CPs fail to meet their obligations to the clearing houses. The HKSCC Guarantee Fund also provides resources to enable HKSCC to discharge its liabilities and obligations if defaulting CPs deposit defective securities into CCASS. The amounts earmarked for contribution to the Rates and FX Guarantee Resources of OTC Clear and its accumulated investment income was also included in Clearing House Funds for presentation purpose. These funds are held in segregated accounts of the respective clearing houses for this specified purpose and cannot be used by the Group to finance any other activities. 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.

Metals derivatives contracts represent the fair value of the 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.

Financial assets held by the Group which are funded by share capital and funds generated from operations are classified as Corporate Funds (i.e., other than financial assets of Cash for A-shares, Margin Funds, Clearing House Funds and metals derivatives contracts).

The financial assets are invested into the cash and cash equivalents, financial assets measured at fair value through profit or loss, financial assets measured at fair value through other comprehensive income, and financial assets measured at amortised cost, details of which are as follows:

	At 31 Dec 2021 \$m	At 31 Dec 2020 \$m
Cash and cash equivalents	181,361	157,996
Financial assets measured at fair value through profit or loss	100,861	100,597
Financial assets measured at fair value through other comprehensive income	9,755	7,942
Financial assets measured at amortised cost	51,828	62,688
	<b>343,805</b>	<b>329,223</b>

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

	At 31 Dec 2021 \$m	At 31 Dec 2020 \$m
<u>Cash for A-shares</u>		
Cash and cash equivalents	7,372	6,212
<u>Margin Funds<sup>1</sup></u>		
Cash and cash equivalents	145,586	122,184
Financial assets measured at fair value through other comprehensive income	5,283	5,538
Financial assets measured at amortised cost	40,371	47,407
	<b>191,240</b>	<b>175,129</b>
<u>Clearing House Funds</u>		
Cash and cash equivalents	15,503	18,847
Financial assets measured at fair value through other comprehensive income	4,472	2,404
	<b>19,975</b>	<b>21,251</b>
<u>Metals derivatives contracts</u>		
Financial assets measured at fair value through profit or loss	91,424	92,884
<u>Corporate Funds (note (a))</u>		
Cash and cash equivalents	12,900	10,753
Financial assets measured at fair value through profit or loss	9,437	7,713
Financial assets measured at amortised cost	11,457	15,281
	<b>33,794</b>	<b>33,747</b>
	<b>343,805</b>	<b>329,223</b>

1 Excludes Settlement Reserve Fund and Settlement Guarantee Fund paid to ChinaClear and margin receivable from CPs of \$12,764 million (31 December 2020: \$11,879 million), which are included in accounts receivable, prepayments and other deposits. If such amounts are included, total Margin Funds would be \$204,004 million (31 December 2020: \$187,008 million).

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

	At 31 Dec 2021						At 31 Dec 2020					
	Cash for A-shares \$m	Margin Funds \$m	Clearing House Funds \$m	Metals derivatives contracts \$m	Corporate Funds \$m	Total \$m	Cash for A-shares \$m	Margin Funds \$m	Clearing House Funds \$m	Metals derivatives contracts \$m	Corporate Funds \$m	Total \$m
Within 12 months	7,372	191,240	19,975	91,424	32,322	342,333	6,212	175,129	21,251	92,884	33,132	328,608
Over 12 months	-	-	-	-	1,472	1,472	-	-	-	-	615	615
	7,372	191,240	19,975	91,424	33,794	343,805	6,212	175,129	21,251	92,884	33,747	329,223

- (a) At 31 December 2021, financial assets of Corporate Funds of \$1,267 million (31 December 2020: \$1,241 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.

## 11. Accounts Receivable, Prepayments and Deposits

	At 31 Dec 2021 \$m	At 31 Dec 2020 \$m
The breakdown of accounts receivable, prepayments and deposits, net of provision for impairment losses, are as follows:		
CNS money obligations receivable	17,921	32,910
Settlement Reserve Fund and Settlement Guarantee Fund held by ChinaClear	12,757	11,862
Other receivables, prepayments and deposits	2,060	2,308
	32,738	47,080

CNS money obligations receivable mature within two days after the trade date. The balance of Settlement Reserve Fund and Settlement Guarantee Fund with ChinaClear is rebalanced on a monthly basis. 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.

## 12. Accounts Payable, Accruals and Other Liabilities

The Group's accounts payable, accruals and other liabilities mainly represented the Group's CNS money obligations payable, which accounted for 89 per cent (31 December 2020: 91 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.

### 13. Borrowings

	At 31 Dec 2021 \$m	At 31 Dec 2020 \$m
Written put options to non-controlling interests	426	423
Analysed as:		
Non-current liabilities	86	83
Current liabilities	340	340
	426	423

At 31 December 2021, OTC Clear has issued 3,541 non-voting ordinary shares to certain third party shareholders at a total consideration of \$433 million. As part of the arrangement, put options were written by HKEX to the non-controlling interests to sell part or all of their non-voting ordinary shares in OTC Clear to HKEX at the initial subscription prices less accumulated dividends received by the non-controlling interests. The put options are exercisable by the non-controlling interests at any time following the date falling five years after the shares were issued if the non-controlling interests can demonstrate to HKEX that they have used reasonable endeavours for at least three months to find a suitable purchaser for their shares at a price equal to or more than their fair market values. The carrying amount of written put options represents the present value of the amount payable by HKEX to acquire the shares held by non-controlling interests at the date at which the written put options first become exercisable.

At 31 December 2021, \$340 million of the written put options were exercisable (31 December 2020: \$340 million) and the remaining \$86 million of the options will become exercisable in October 2023. During the year ended 31 December 2021, none of the written put options was exercised (2020: none).

The effective interest rate of the options before they are exercisable was 3.0 per cent (2020: 3.0 per cent) per annum.

### 14. Retained Earnings

	2021 \$m	2020 \$m
At 1 Jan	17,214	14,204
Profit attributable to shareholders	12,535	11,505
Transfer from/(to) Clearing House Funds reserves	16	(41)
Transfer to PRC statutory reserve	(11)	-
Dividends:		
2020/2019 second interim dividend	(5,646)	(3,761)
2021/2020 first interim dividend	(5,934)	(4,692)
Unclaimed HKEX dividends forfeited	12	21
Vesting of shares of Share Award Scheme	(20)	(31)
UK tax relating to Share Award Scheme	7	9
At 31 Dec	18,173	17,214



## **SCOPE OF WORK OF PRICEWATERHOUSECOOPERS HONG KONG**

The financial figures in this announcement of the Group's results for the year ended 31 December 2021 have been agreed by the Group's external auditor, PricewaterhouseCoopers Hong Kong (PwC), to the amounts set out in the Group's draft consolidated financial statements for the year. The work performed by PwC in this respect did not constitute an assurance engagement in accordance with Hong Kong Standards on Auditing, Hong Kong Standards on Review Engagements or Hong Kong Standards on Assurance Engagements issued by the HKICPA, and consequently no assurance has been expressed by PwC on this announcement.

## **REVIEW OF 2021 CONSOLIDATED FINANCIAL STATEMENTS**

The Audit Committee (AC) reviewed the 2021 Consolidated Financial Statements in conjunction with HKEX's external auditor. Based on this review and discussions with management, the AC was satisfied that the Consolidated Financial Statements were prepared in accordance with applicable accounting standards and fairly present the Group's financial position and results for the year ended 31 December 2021.

## **DISTRIBUTABLE RESERVES**

As at 31 December 2021, HKEX's distributable reserves, calculated under Part 6 of the Companies Ordinance (Chapter 622 of the Laws of Hong Kong), amounted to \$9.9 billion (31 December 2020: \$8.1 billion).

## **DIVIDEND**

The Board has declared a second interim dividend of \$4.18 per share for 2021 (2020 second interim dividend: \$4.46 per share), which will be payable in cash, to Shareholders whose names appear on HKEX's Register of Members on Monday, 14 March 2022. Dividend warrants are expected to be despatched to Shareholders on Wednesday, 23 March 2022.

Including the first interim dividend, the total dividends for 2021 amount to \$8.87 per share (2020: \$8.17 per share), which represents a payout ratio of 90 per cent (2020: 90 per cent) of the profit attributable to Shareholders, excluding the financial results of HKEX Foundation, for the year ended 31 December 2021. Dividends for shares held in trust under the Share Award Scheme amount to \$22 million (2020: \$21 million).

## CLOSURE OF HKEX'S REGISTER OF MEMBERS

For the purposes of determining Shareholders' eligibility to attend and vote at the 2022 AGM, and entitlement to the 2021 second interim dividend, HKEX's Register of Members will be closed as set out below:

- (i) For determining eligibility to attend and vote at the 2022 AGM:
  - Latest time to lodge transfer documents for registration with HKEX's registrar At 4:30 pm on 21 April 2022
  - Closure of HKEX's Register of Members 22 April 2022 to 27 April 2022  
(both dates inclusive)
  - Record date 27 April 2022
- (ii) For determining entitlement to the 2021 second interim dividend:
  - Ex-dividend date 9 March 2022
  - Latest time to lodge transfer documents for registration with HKEX's registrar At 4:30 pm on 10 March 2022
  - Closure of HKEX's Register of Members 11 March 2022 to 14 March 2022  
(both dates inclusive)
  - Record date 14 March 2022

During the above closure periods, no transfer of shares will be registered. To be eligible to attend and vote at the 2022 AGM, and to qualify for the 2021 second interim dividend, all properly completed transfer forms accompanied by the relevant share certificates must be lodged for registration with HKEX's registrar, Hong Kong Registrars Limited, at Shops 1712-1716, 17th Floor, Hopewell Centre, 183 Queen's Road East, Wan Chai, Hong Kong no later than the aforementioned latest time.

## ANNUAL GENERAL MEETING

The 2022 AGM will be held on Wednesday, 27 April 2022 at 4:30 pm at the HKEX Connect Hall on the 1st Floor, One and Two Exchange Square, Central, Hong Kong. The Notice of the 2022 AGM, which constitutes part of a circular to Shareholders, will be sent together with the 2021 Annual Report. The Notice, the circular which sets out details of the business to be conducted at the 2022 AGM, and the proxy form will be available under the Investor Relations section of the HKEX Group website. The results of the voting on the proposed resolutions will be published on the HKEX Group website shortly after the 2022 AGM is held.

In light of the uncertain development of the current Covid-19 situation, Shareholders are encouraged to appoint the chairman of the 2022 AGM as their proxy to vote on the resolutions, instead of attending the meeting in person. In accordance with prevailing guidelines published by the Government and/or regulatory authorities, HKEX will implement additional precautionary measures at the 2022 AGM to ensure the safety of the Shareholders attending the meeting. Details of the measures will be set out in the circular to Shareholders, and any further updates will be announced as appropriate.

## ELECTION OF DIRECTOR

The service term of Apurv Bagri (Elected Director) will expire at the conclusion of the 2022 AGM. On 23 February 2022, the Nomination and Governance Committee (NGC) nominated Apurv Bagri to the Board for it to recommend to Shareholders for re-election at the 2022 AGM. The nomination was made in accordance with the Nomination Policy and took into account the approved selection criteria for Non-executive Director candidate(s). These include, among others, the candidates' market knowledge and experience, reputation for integrity, and the diversity aspects (including without limitation, gender, age, cultural and educational background, ethnicity, professional experience, skills, knowledge and length of service), with due regard for the benefits of diversity, as set out in the Board Diversity Policy. The NGC also took into account Mr Bagri's vast experience in the non-ferrous metals futures trading business, as well as his contribution to the Board and firm commitment to his role. The NGC was satisfied with the independence of Mr Bagri with reference to the criteria laid down in the Main Board Listing Rules. Mr Bagri, who is a member of the NGC, abstained from voting at the Committee meeting when his own nomination was being considered.

On 24 February 2022, the Board accepted the nomination by the NGC and recommended Mr Bagri to stand for re-election at the 2022 AGM. Mr Bagri does not hold any cross-directorships or have any significant links with other Directors through involvement in other companies or bodies. He does not have any service contracts with any member of the Group that are not determinable by the Group within one year without compensation (other than statutory compensation). His particulars will be set out in the circular to Shareholders.

## **COMPLIANCE WITH CORPORATE GOVERNANCE CODE**

Throughout 2021, HKEX complied with all code provisions and, where appropriate, adopted the recommended best practices set out in the Corporate Governance Code in force during the year, 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 Officer in his capacity as a Director is not subject to retirement by rotation, as his term on the Board is coterminous with his employment as the Chief Executive Officer with HKEX under HKEX's Articles of Association.

HKEX has applied the principles of the Corporate Governance Code to its corporate governance structure and practices as described in the Corporate Governance Report contained in the 2021 Annual Report and on the HKEX Group website.

## **PURCHASE, SALE OR REDEMPTION OF HKEX'S LISTED SECURITIES**

During 2021, 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 1,454,300 HKEX shares at a total consideration of \$681 million.

## **PUBLICATION OF 2021 FINAL RESULTS AND ANNUAL REPORT**

This announcement is published on the HKEXnews website at [www.hkexnews.hk](http://www.hkexnews.hk) and the HKEX Group website at [www.hkexgroup.com/Investor-Relations/Regulatory-Disclosure/Announcements/2022](http://www.hkexgroup.com/Investor-Relations/Regulatory-Disclosure/Announcements/2022). The 2021 Annual Report will be available on the HKEXnews and HKEX Group websites and despatched to Shareholders on or about Wednesday, 16 March 2022.

By Order of the Board  
**Hong Kong Exchanges and Clearing Limited**  
**David Fu**  
Group Company Secretary

Hong Kong, 24 February 2022

As at the date of this announcement, HKEX's Board of Directors comprises 12 Independent Non-executive Directors, namely Mrs Laura May-Lung CHA (Chairman), Mr Nicholas Charles ALLEN, Mr Apurv BAGRI, Mr CHEAH Cheng Hye, Ms CHEUNG Ming Ming, Anna, Mrs CHOW WOO Mo Fong, Susan, Mr Rafael GIL-TIENDA, Mr HUNG Pi Cheng, Benjamin, Ms LEUNG Nisa Bernice Wing-Yu, Mr LEUNG Pak Hon, Hugo, Mr YIU Kin Wah, Stephen and Mr ZHANG Yichen, and one Executive Director, Mr Alejandro Nicolas AGUZIN, who is also the Chief Executive of HKEX.

## GLOSSARY

2022 AGM	AGM to be held on 27 April 2022
ADT	Average daily turnover value
ADV	Average daily volume (in number of contracts/lots)
AGM(s)	HKEX's annual general meeting(s)
Autohome	Autohome Inc.
Awarded Shares	Shares awarded under the Share Award Scheme
Baidu	Baidu, Inc.
BayConnect	BayConnect Technology Company Limited
Bilibili	Bilibili Inc.
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 enables Mainland institutional investors to invest in offshore bonds through the Hong Kong bond market
Cash Market	HKEX's securities related business excluding stock options
CBBCs	Callable Bull/Bear Contracts
CCASS	Central Clearing and Settlement System
Chief Executive Officer or CEO	HKEX's Chief Executive
ChinaClear	China Securities Depository and Clearing Corporation Limited
CNH	Offshore RMB traded outside Mainland China
CNS	Continuous Net Settlement
CNY	Onshore RMB traded in Mainland China
Corporate Governance Code	Refers to Appendix 14 to the Main Board Listing Rules
CPs	Clearing Participants
CSR	Corporate Social Responsibility
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
Elected Directors	Directors elected by the Shareholders at general meetings
EPs	Exchange Participants
ESG	Environmental, Social and Governance
ETF(s)	Exchange Traded Fund(s)
ETP(s)	Exchange Traded Product(s), which include(s) ETFs and L&I Products
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
FICC	Fixed income, currency, and commodities
Financial Secretary	Financial Secretary of the HKSAR
FINI	Fast Interface for New Issuance
Fintech	Financial technology
Futures Exchange or HKFE	Hong Kong Futures Exchange Limited
GEM Listing Rules	Rules Governing the Listing of Securities on GEM of The Stock Exchange of Hong Kong Limited
Government	HKSAR Government
Government Appointed Director(s)	Director(s) appointed by the Financial Secretary pursuant to Section 77 of the SFO
Greater Bay Area	Guangdong-Hong Kong-Macao Greater Bay Area
Group or HKEX Group	HKEX and its subsidiaries
Headline ADT	ADT of equity products, DWs, CBBCs and warrants traded on the Stock Exchange
HKCC	HKFE Clearing Corporation Limited

HKEX Foundation	HKEX Foundation Limited
HKEX or the Company	Hong Kong Exchanges and Clearing Limited
HKEX's Articles	HKEX's Articles of Association
HKFRS(s)	Hong Kong Financial Reporting Standard(s)
HKICPA	Hong Kong Institute of Certified Public Accountants
HKSAR	Hong Kong Special Administrative Region of the People's Republic of China
HKSCC	Hong Kong Securities Clearing Company Limited
HSCEI	Hang Seng China Enterprises Index
HSI	Hang Seng Index
HUTCHMED (China)	HUTCHMED (China) Limited
INED(s)	Independent Non-executive Director(s) of HKEX
Innovation Lab	HKEX Innovation and Data Lab
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
LGBT+	Lesbian, gay, bisexual and transgender plus
Li Auto	Li Auto Inc.
Listing Committee	Listing Committee of the Main Board and GEM
Listing Rule(s)	Main Board Listing Rules and GEM Listing Rules
LME	The London Metal Exchange
LME Clear	LME Clear Limited
LME Group	HKEX Investment (UK) Limited, LME Holdings Limited, the LME and LME Clear
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
MSCI	MSCI Inc.
Northbound Trading or Stock Connect Northbound	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
PRC	The People's Republic of China
QME	Qianhai Mercantile Exchange Co., Ltd.
RMB	Renminbi
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	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 HKEX Employees' Share Award Scheme
Shenzhen-Hong Kong Stock 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 or Stock Connect Southbound	Mainland investors trading in eligible securities that are listed on the Stock Exchange through Stock Connect
SPAC(s)	Special purpose acquisition companies
SSE	Shanghai Stock Exchange
STAGE	HKEX's Sustainable and Green Exchange
STAR Market	Sci-Tech Innovation Board of SSE

Stock Connect	Shanghai-Hong Kong Stock Connect and Shenzhen-Hong Kong Stock Connect
SZSE	Shenzhen Stock Exchange
TCFD	The Task Force on Climate-related Financial Disclosures
Trip.com	Trip.com Group Limited
UK	United Kingdom
US	United States of America
US\$/USD	United States dollar
Weibo	Weibo Corporation
XPeng	XPeng Inc.
\$/HK\$/HKD	Hong Kong dollar
\$bn/bn	Hong Kong dollar in billion/billion
\$m	Hong Kong dollar in million
£/GBP	Pound sterling
1H, 2H	First half, second half (of the year)
Q1, Q2, Q3, Q4	First quarter, second quarter, third quarter, fourth quarter (of the year)