

Connecting

Today with Tomorrow

HKEX

香港交易所

Annual Report 2023



Stock codes: 388 (HKD counter) and 80388 (RMB counter)

**At HKEX, our purpose is to connect,
promote and progress our markets
and the communities they support
for the prosperity of all. It underpins
everything we do.**





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Overview



Strategic and Financial Highlights

HKEX delivered a strong set of 2023 full-year results, fuelled by notable growth in its derivatives, fixed-income and currencies business. Despite the persistent challenging global backdrop and softer Cash Market, we are pleased to be reporting our second-best revenue and other income, and profits, on record, with profit attributable to shareholders for 2023 up 18 per cent.

Excellent strategic progress complemented the Group's financial performance, with delivery of new milestones in the Connect programme, including the launch of Swap Connect and HKEX Synapse; the opening of new Group offices in New York and London, better supporting our customers on-the-ground across time-zones; and the rollout of new enhancements to HKEX's listing franchise, including Chapter 18C and the launch of FINI. A particular highlight this year, has been the success of the Group's continued product diversification focus and market microstructure enhancements, which have been instrumental in driving new daily trading records in 2023 for HKEX's equity derivatives, RMB Currency Futures, OTC Clear and ETP markets.

Looking ahead, whilst the macroeconomic and geopolitical environment remains turbulent, we are cautiously optimistic that, as sentiment improves, we are well placed to capitalise on the global pivot to Asia, on Hong Kong's unique role as an East-West superconnector, on our unrivalled China advantage and on the megatrends, such as sustainability, that are shaping capital markets around the world.

Nicolas Aguzin
Chief Executive Officer

Strategic and Operational Highlights



Corporate

- 5 Feb**
MOU signed with the Saudi Tadawul Group
- 21 Jun**
Opening of New York office
- 29 Jun**
MOU signed with the Beijing Stock Exchange
- 26 Jul**
MOU signed with Indonesia Stock Exchange
- 22 Aug**
Celebration of 30th anniversary of H-share listings in Hong Kong
- 6 Sep**
Opening of London office
- 7 Dec**
Asia's first Future Investment Initiative (FII) Priority Summit hosted at HKEX Connect Hall, in partnership with the HKSAR Government and FII Institute

Regulation

- 31 Mar**
Chapter 18C Specialist Technology Companies listing regime took effect
- 14 Apr**
Consultation paper on Enhancement of Climate-related Disclosures under the Environmental, Social and Governance Framework published
- 15 Dec**
Consultation conclusions on GEM Listing Reforms published, with the enhancements effective from 1 January 2024
- 31 Dec**
Expansion of paperless listing regime took effect

Products and Services

- 13 Mar**
Expansion of eligible stocks under Stock Connect
- 30 Mar**
The LME introduced a fast-track listing approach and fee waiver for new nickel brands
- 15 May**
Swap Connect launched – a new mutual access programme between Hong Kong and Mainland China's interbank interest rate swap markets
- 19 Jun**
HKD-RMB Dual Counter Model and Dual Counter Market Making Programme launched
- 19 Oct**
US-listed stocks added to the list of eligible underlying assets for DW issuance
- 29 Nov**
Asia's first Saudi Arabian ETF listed



Market Operations

20 Mar

Hong Kong Investor Identification Regime (HKIDR) implemented

30 Mar

The LME Group announced a two-year strategic and operational programme to strengthen and enhance its markets

24 Apr

Stock Connect trading calendar enhancement took effect

11 Aug

Introduction of block trading under Stock Connect announced

14 Sep

The LME announced the intention to extend the use of volume-weighted average prices to determine Closing Prices in its most liquid contracts to enhance transparency

9 Oct

HKEX Synapse launched, accelerating the settlement process for Stock Connect Northbound Trading

9 Nov

The LME announced new requirements to improve visibility of unwarranted metal stocks

22 Nov

FINI launched, shortening the time between the pricing of an IPO and the trading of shares

29 Nov

UK Court ruled in favour of the LME and LME Clear in respect of the events in the nickel market in 2022

30 Nov

Consultation paper on Severe Weather Trading of Hong Kong Securities and Derivatives Markets published

22 Dec

Enhancements to Derivatives Market position limits took effect

31 Dec

LME's responsible sourcing requirements fully adopted by all of its listed brands

Corporate Social Responsibility and ESG

28 Mar

2023 HKEX Impact Funding Scheme launched

2 May

2023 HKEX Charity Partnership Programme launched

30 Jun

2022 HKEX Research Funding Scheme awardees announced

31 Oct

MOU signed with the China Emissions Exchange Shenzhen

27 Nov

HKEX commits to achieve carbon neutrality by 2024, and net zero by 2040

28 Nov

MOU signed with the China Beijing Green Exchange

Financial Highlights

Annual Results

Revenue and Other Income

+11%

Revenue and other income and profit in 2023 were second best on record, after exceptional 2021

2023 revenue and other income was \$20,516 million, 11 per cent higher than 2022

- Core business revenue was up 3 per cent against 2022, attributable to record net investment income from Margin Funds and Clearing House Funds; and increase in LME trading and clearing fees in 2023. The increase was partly offset by lower trading and clearing fees from lower Headline ADT and lower listing fees
- Net investment income from Corporate Funds was \$1,487 million (2022: loss of \$48 million), driven by net fair value gains on the External Portfolio of \$421 million (2022: losses of \$486 million) and higher investment income from internally-managed Corporate Funds, partly offset by the non-recurring losses on valuation of the Group's unlisted equity investments of \$246 million

EBITDA¹

+12%

EBITDA¹ was 12 per cent higher than 2022, at \$14,828 million, with EBITDA margin¹ at 73 per cent, 1 percentage point higher than 2022

Operating Expenses

+7%

Operating expenses were 7 per cent higher than 2022, attributable to higher staff costs and IT costs

Profit Attributable to Shareholders

+18%

Profit attributable to shareholders was \$11,862 million, 18 per cent higher than 2022

¹ For the purposes of this Annual Report, EBITDA is defined as earnings before interest expenses and other finance costs, taxation, depreciation and amortisation. It excludes the Group's share of results of the joint ventures. EBITDA margin is calculated based on EBITDA divided by revenue and other income less transaction-related expenses. EBITDA and EBITDA margin are non-HKFRS measures used by management for monitoring business performance and may not be comparable to similar measures presented by other companies.

Key Financials

	2023 \$m	2022 \$m	Change
Revenue and other income			
Core business revenue	18,941	18,374	3%
Donation income of HKEX Foundation	88	130	(32%)
Net investment income/(loss) of Corporate Funds	1,487	(48)	N/A
	20,516	18,456	11%
Operating expenses	5,441	5,095	7%
EBITDA (non-HKFRS measure)	14,828	13,185	12%
Profit attributable to shareholders	11,862	10,078	18%
Capital expenditure	1,381	1,184	17%
Basic earnings per share	\$9.37	\$7.96	18%
First interim dividend per share	\$4.50	\$3.45	30%
Second interim dividend per share	\$3.91	\$3.69	6%
	\$8.41	\$7.14	18%
Dividend payout ratio	90%	90%	-

Key Market Statistics

	2023	2022	Change
ADT of equity products traded on the Stock Exchange ¹ (\$bn)	93.2	109.0	(14%)
ADT of DWs, CBBCs and warrants traded on the Stock Exchange (\$bn)	11.8	15.9	(26%)
ADT traded on the Stock Exchange ^{1,2} (Headline ADT) (\$bn)	105.0	124.9	(16%)
ADT of Northbound Trading of Stock Connect ¹ (RMBbn)	108.3	100.4	8%
ADT of Southbound Trading of Stock Connect ¹ (\$bn)	31.1	31.7	(2%)
ADV of derivatives contracts traded on the Futures Exchange ('000 contracts)	742⁴	715	4%
ADV of stock options contracts traded on the Stock Exchange ('000 contracts)	612	588	4%
Chargeable ADV ³ of metals contracts traded on the LME ('000 lots)	562	506	11%
ADT of Northbound Bond Connect (RMBbn)	40.0⁴	32.2	24%

1 Includes buy and sell trades under Stock Connect

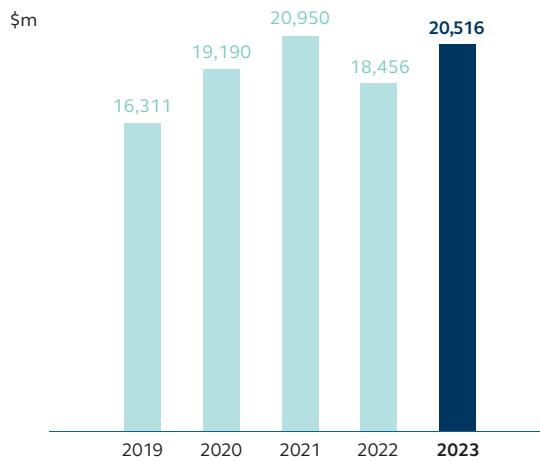
2 ADT of Southbound Trading is included within Headline ADT.

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

4 New record high in 2023

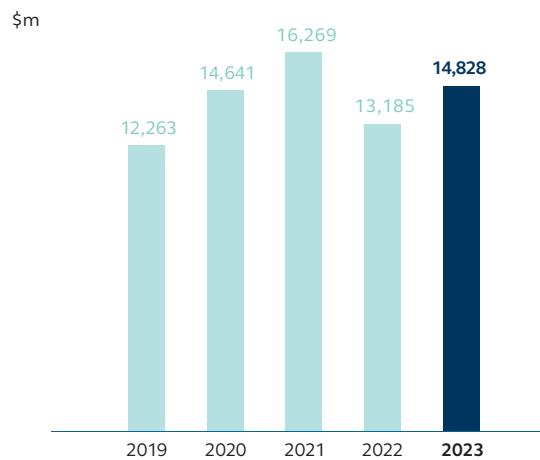
Revenue and Other Income

\$20,516 million
+11%



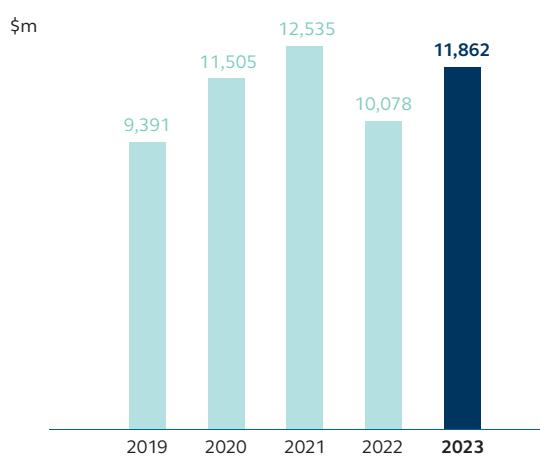
EBITDA

\$14,828 million
+12%



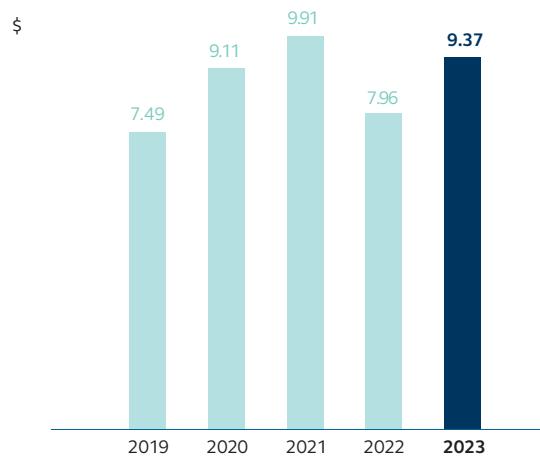
Profit Attributable to Shareholders

\$11,862 million
+18%



Basic Earnings Per Share

\$9.37
+18%



Financial Highlights

Comparison of Q4 2023 with Q4 2022 Results

Revenue and Other income

-7%

Q4 2023 revenue and other income was \$4,857 million, 7 per cent lower than Q4 2022

- Core business revenue was down 5 per cent against Q4 2022, attributable to reduced trading and clearing fees from Cash and Derivatives Markets, partly offset by an increase in LME trading and clearing fees and higher net investment income from Margin Funds and Clearing House Funds
- Net investment income from Corporate Funds was \$310 million, down 18 per cent compared with Q4 2022, as higher investment income from internally managed Corporate Funds and higher fair value gains on the External Portfolio of \$211 million (Q4 2022: \$173 million) were more than offset by non-recurring losses on valuation of the Group's unlisted equity investments of \$246 million

Operating Expenses

+12%

Operating expenses were 12 per cent higher than Q4 2022, attributable to higher staff costs and IT costs, partly offset by lower professional fees

EBITDA

-14%

EBITDA margin was 68 per cent, 6 percentage points lower than Q4 2022

Profit Attributable to Shareholders

-13%

Profit attributable to shareholders was \$2,597 million, 13 per cent lower than Q4 2022

Key Financials

	Q4 2023 \$m	Q4 2022 \$m	Change
Revenue and other income			
Core business revenue	4,516	4,772	(5%)
Donation income of HKEX Foundation	31	53	(42%)
Net investment income of Corporate Funds	310	376	(18%)
	4,857	5,201	(7%)
Operating expenses	1,515	1,348	12%
EBITDA (non-HKFRS measure)	3,263	3,807	(14%)
Profit attributable to shareholders	2,597	2,979	(13%)
Capital expenditure	551	411	34%
Basic earnings per share	\$2.05	\$2.35	(13%)

Key Market Statistics

	Q4 2023	Q4 2022	Change
ADT of equity products traded on the Stock Exchange ¹ (\$bn)	80.4	113.6	(29%)
ADT of DWs, CBBCs and warrants traded on the Stock Exchange (\$bn)	10.6	13.6	(22%)
ADT traded on the Stock Exchange ^{1,2} (Headline ADT) (\$bn)	91.0	127.2	(28%)
ADT of Northbound Trading of Stock Connect ¹ (RMBbn)	108.4	97.6	11%
ADT of Southbound Trading of Stock Connect ¹ (\$bn)	28.0	39.4	(29%)
ADV of derivatives contracts traded on the Futures Exchange ('000 contracts)	750	842	(11%)
ADV of stock options contracts traded on the Stock Exchange ('000 contracts)	593	641	(7%)
Chargeable ADV ³ of metals contracts traded on the LME ('000 lots)	623	482	29%
ADT of Northbound Bond Connect (RMBbn)	38.7	32.4	19%

1 Includes buy and sell trades under Stock Connect

2 ADT of Southbound Trading is included within Headline ADT.

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

► Chairman's Statement





2023 was another year of strong strategic progress for HKEX. We continued to demonstrate resilience and strength, successfully launching a range of important strategic initiatives and reinforcing our relevance and leadership at the heart of the global financial community.



2023 was another year of strong strategic progress for HKEX. Set against a challenging global economic and geopolitical backdrop, we continued to demonstrate resilience and strength, successfully launching a range of important strategic initiatives and reinforcing our relevance and leadership at the heart of the global financial community. With a clear vision, focused strategy and experienced leadership team, we are well-placed to capture future growth opportunities and help shape the long-term sustainable and successful future of our markets.

Our Performance

Global market fragility and a high interest rate environment continued to impact trading and volumes in securities markets in Hong Kong, and globally, during 2023. And, despite a slowdown in IPO activity in our markets, we saw continued momentum in listings in 2023 and the IPO pipeline remained robust. Driven by our continued strategic commitment to diversification, our derivatives and ETF markets saw good growth, with new trading records set across various products. Stock Connect trading remained resilient, while Northbound Bond Connect continued its solid momentum, reaching new highs in both trading volume and number of investors. We were also pleased to see that the chargeable average daily volume of metals contracts traded on the LME increased 11 per cent from 2022, reflecting improved market sentiment.

Total Group revenue and other income, for the year ended 31 December 2023, was \$20.5 billion and the profit attributable to shareholders was \$11.9 billion, up 11 per cent and 18 per cent respectively, from the prior year.

Dividend

The Board declared a second interim dividend payment of \$3.91 per share, wholly in cash, which, together with the first interim dividend of \$4.50 per share paid in September 2023, results in a full-year dividend of \$8.41 per share.

Strategic Update

During 2023, we made notable progress in strengthening our China and global connectivity, enhancing the liquidity and vibrancy of our markets, building future-ready technology and bolstering our operational capabilities. These efforts underscored our commitment to further reinforcing Hong Kong's role as Asia's premier international financial centre.

Notably, we made key enhancements to our Stock Connect Programme and listing framework, while introducing new technology that will make both trading and IPO settlement processes more efficient. We also strengthened our international presence and partnerships, while reinforcing Hong Kong's position as a premier offshore RMB hub.

Market Quality and Sustainability

As a leading international exchange group, we continued to work closely with our customers and other stakeholders throughout the year on implementing a range of initiatives to uphold and promote market quality and sustainability, to both drive our shared long-term success and support the wider sustainable development of global financial markets.

As part of our ongoing efforts to support investors and issuers in the acceleration of their sustainability journeys, we issued a consultation paper in April 2023 seeking market feedback on proposals to enhance issuers' disclosures under HKEX's ESG framework. This consultation seeks to help facilitate a smooth transition to corporate reporting that is in line with locally adopted International Sustainability Standards Board (ISSB) standards. We also entered into MOUs with the China Emissions Exchange Shenzhen and the China Beijing Green Exchange to explore opportunities in cross-border carbon market connectivity and the development of green and sustainable finance.

During the year, we conducted various reforms to enhance the quality and strength of Hong Kong's listing framework. These include the expansion of the paperless listing regime to improve the efficiency of our regulatory processes; the implementation of the "double dipping" reforms to enhance the IPO price discovery process; and a proposal to introduce a treasury share regime for listed issuers. Following market consultation and supportive feedback, we launched GEM listing reforms in January 2024 to our market for small and medium-sized companies, whilst at the same time maintaining our high standards of investor protection.

The LME and LME Clear announced in March 2023 a two-year action plan to strengthen and enhance their markets. To date, market consultations and a number of initiatives, including the evolution of the closing price methodology, introduction of a fast-track brand registration for nickel, and the enhancement of the scope of off-warrant stock reporting, have been launched. The LME also continued to enhance its digital credentials register, LMEpassport, delivering against its commitment to greater transparency across the whole ESG spectrum.

Specific details of the Group's performance, achievements and market initiatives in 2023 are set out in the Chief Executive Officer's Review and Business Review sections of this Annual Report.

Corporate Responsibility

At HKEX, we believe that strong corporate governance and ESG stewardship are core to our success. As a purpose-led company, market operator and regulator, we are fully committed to leading from the front, championing best-in-class governance and CSR practices, and embedding sustainability across our business, markets and communities.

In 2023, we conducted internal evaluations of the performance of the boards of HKEX and its subsidiaries, OTC Clear, the LME and LME Clear. The evaluations concluded that all four boards operate effectively. They also identified areas for enhancement.

Reflecting our commitment to supporting the global sustainability agenda and fighting climate change in a timely manner, HKEX announced, in November 2023, the acceleration of its commitment and plans to achieve carbon neutrality by 2024 and net zero by 2040 – ten years ahead of the original target date – through improving energy efficiency, using electricity from renewable sources, adopting low-carbon procurement policies and expanding the Group's carbon offsetting policy. This 2040 commitment aligns HKEX Group with the LME's own sustainability agenda, ensuring that the whole business can make good progress towards its overall net-zero goal this year and going forward.

Through the HKEX Foundation, we donated over \$94 million in 2023 to various charities and community projects focusing on financial literacy, diversity and inclusion, poverty relief and environmental stewardship. Through HKEX's ongoing flagship charitable and funding programmes, we continued to help those in need, support innovative, university-led research projects and bring positive change to our communities.

In advancing responsible supply chains in the metals industry, the LME continued to fund projects run by its charity partners, Pact and The Impact Facility, focusing on tackling child labour and children's rights issues in African mining communities. The LME also supported initiatives aiming to make a meaningful and positive impact on young people's lives, through its continued partnership with Inspire, a UK based education charity.

Further details can be found in our 2023 CSR Report, which is available on the HKEX Group website together with this Annual Report.

Outlook

Looking ahead, global financial markets will continue to be shaped by the prevailing conditions of the economic and geopolitical environment, as well as advancing megatrends such as technology innovation and climate change. These will bring challenges and new opportunities, and will continue to drive the long-term development, sustainability and prosperity of business, economies and society as a whole.

At HKEX we are well placed to play a key role in this dynamic landscape and, as a premier international exchange group, we remain resolutely focused on building on our unique role in connecting China and the world; connecting business and capital; enhancing the competitiveness and relevance of our markets; and embracing new technologies that will further enhance our business and markets in the future. We are confident that the efforts we have made will continue to position us strongly in the year ahead, as we foster greater connectivity and embrace new opportunities for growth.

Acknowledgements

My term as the Chairman of HKEX ends at the conclusion of the 2024 AGM pursuant to Article 109(2) of HKEX's Articles of Association. It has been a privilege to serve my second six-year term on the Board and work alongside my fellow Board members and the Group's management team in advancing HKEX's continued journey of connectivity, growth and sustainability. I am particularly pleased that, amid the global challenges of the past six years, a number of important milestones and initiatives were delivered that will be central to HKEX's future. These include the outstanding work of the now well-established HKEX Foundation; the significant development and enhancement of the HKEX Connect programmes; the enhancements made to our listing regime; the diversification of our product offering, the strengthening of our own culture; and the Group's significantly amplified visibility and influence in global dialogue and engagement.

On behalf of the Board, I would like to express gratitude to members of our International Advisory Council and Mainland China Advisory Group for their insight and guidance during the year. I would also like to thank Mr Benjamin Hung, who will also retire after the conclusion of the 2024 AGM, for his valuable contributions to HKEX during his tenure of service. I also thank my fellow Board members for their support and commitment during 2023 and throughout my tenure as Chairman.

On behalf of the Group, I would like to express gratitude to Mr Nicolas Aguzin, who retires as HKEX Chief Executive Officer in February 2024. During his tenure, Mr Aguzin has led HKEX through a very challenging period, shaped by the pandemic and weak global markets. Under his leadership, HKEX successfully launched a number of important strategic initiatives and made significant progress in the ongoing promotion of Hong Kong's financial markets internationally.

We also congratulate Ms Bonnie Y Chan, currently Co-Chief Operating Officer, who becomes HKEX Chief Executive Officer on 1 March 2024. HKEX will benefit from Ms Chan's extensive capital markets experience and her excellent understanding of HKEX's business and competitive landscape.

Finally, I would like to express my utmost appreciation to our staff, shareholders and other valued stakeholders for their continued support and trust. I am extremely grateful to all those who have helped us advance as a business and a market, allowing us to succeed in the execution of our strategy, serve our customers with excellence, and plan for future opportunities and growth.

Laura M CHA

Chairman

Hong Kong, 29 February 2024

► Chief Executive Officer's Review





In 2023, we continued to deliver against a clear Group strategy that seeks to leverage HKEX's unique role as an East-West superconnector, supporting the long-term development of our business and our markets, whilst also embracing the opportunities of global megatrends, such as sustainability and new technology.



2023 can be characterised by three things for HKEX – a challenging geopolitical backdrop, strong financial results and notable strategic delivery. HKEX's markets continued to demonstrate robustness and resilience despite the challenging macroeconomic environment and in particular our diversification strategy continued to pay off, with our derivatives and ETF trading volumes reaching record highs, and continuous enhancements to the primary and secondary markets further strengthening our position as a global trading and risk management centre, and capital raising centre of choice.

The implementation of a series of enhancements strengthening our connectivity between China and the world throughout 2023 was a major highlight. These included the launch of Swap Connect, the addition of international issuers into Southbound

Stock Connect, and the inclusion of additional eligible stocks in Northbound Stock Connect, as well as the launch of HKEX Synapse. Together with the launch of the HKD-RMB Dual Counter Model, these have reinforced Hong Kong's role as a unique global superconnector, supporting vital two-way capital flows between East and West.

In addition to leveraging our unique China advantage, we have also focused on the continued development of the Group's product ecosystem, expanding our international presence and partnerships, and modernising our platforms and infrastructure. We believe these new initiatives and relationships will enhance the vibrancy, efficiency and liquidity of our markets, helping our customers deliver on their own successes and supporting the development of our markets for decades to come.

Market highlights

- Stock Connect continued to demonstrate strength and resiliency in 2023, with Northbound and Southbound ADT of RMB108.3 billion and \$31.1 billion respectively, generating revenue and other income of \$2.2 billion in 2023.
- Northbound Bond Connect ADT set a record again in 2023, reaching RMB40.0 billion, up 24 per cent compared with 2022.
- Average daily volume of Derivatives Market was up 4 per cent to 1.4 million contracts, with key products setting daily records.
- Average daily turnover of our ETP markets was up almost 17 per cent, reaching \$14.0 billion.
- Stock Connect saw further expansion – inclusion of Hong Kong primary listed international companies to Southbound Trading and addition of over 1,000 new underlying stocks in Northbound Trading.
- IPO market remained resilient against challenging macroeconomic conditions – 73 listings¹ raising \$46.3 billion, with new economy companies accounting for 72 per cent of the funds raised during the year.
- Hong Kong's position as the world's leading offshore RMB hub was reinforced with the launches of Swap Connect, the HKD-RMB Dual Counter Model and Dual Counter Market Making Programme.
- New Listing Chapter, 18C, introduced to support specialist technology companies in seeking listing in Hong Kong.
- Digitalised IPO settlement platform FINI launched.
- HKEX Synapse, a new settlement acceleration platform for Stock Connect, launched.
- HKEX opened two new international offices – in New York and London.
- HKEX added the Saudi Exchange (Tadawul) and the Indonesia Stock Exchange as Recognised Stock Exchanges for secondary listings.

¹ Include 3 transfers (2022: 1 transfer) of listings from GEM to Main Board

Primary market

The global IPO market continued to be impacted by weak market sentiment and the broader challenging macroeconomic backdrop. While the impact of this was felt in Hong Kong, there was continued momentum in the listing market during the year, with HKEX welcoming 73 new listings, raising more than \$46 billion. New economy sector listings accounted for 72 per cent of capital raised during the year.

Throughout the year, the Group remained committed to continuously enhancing its attractiveness and competitiveness as a listing venue, with the introduction of a new path-to-listing for specialist technology companies and the conclusion of work undertaken on GEM reforms.

In addition to new reforms and listing rules, HKEX introduced a number of operational enhancements, including FINI, which reduces the time between the pricing of an IPO and the trading of shares from at least five business days to two.

Secondary market

Despite the continued complexity of the macroeconomic landscape, HKEX trading and risk management markets have performed well during the year, demonstrating their resilience, robustness and relevance. Cash Market Headline ADT was \$105.0 billion in 2023. This was 16 per cent lower than in 2022, reflecting the challenging macroeconomic conditions.

The Group's Derivatives Market had a strong year with average daily volumes of 1.4 million contracts, up 4 per cent from a year earlier. Notably, HKEX's MSCI futures and options products saw open interest exceed 100,000 contracts for the first time in November, with notional value of US\$4.2 billion. Meanwhile, key products such as HSCEI Futures, Hang Seng TECH Index Futures, and USD/CNH Futures set daily trading records during the year.

The ETP market, including ETFs and Leveraged & Inverse Products, continued to go from strength-to-strength, with average daily turnover reaching \$14.0 billion, an increase of almost 17 per cent from a year earlier. During the year, HKEX welcomed Asia Pacific's first Saudi Arabian ETF, one of the 16 new ETPs introduced in 2023, bringing the total ETPs listed in Hong Kong to 174.

Strategic Development Review

In 2023, we continued to deliver against a clear Group strategy that seeks to leverage HKEX's unique role as an East-West superconnector, supporting the long-term development of our business and our markets, whilst also embracing the opportunities of global megatrends, such as sustainability and new technology.

Leveraging our China advantage

Hong Kong plays a unique role in connecting China and the world. And 2023 was another year in which HKEX made significant progress in capitalising on Hong Kong's position of strength in this regard.

Expanding Connect

The HKEX Connect story continued to develop during 2023, following a series of significant enhancements that were announced the previous year. In March, we welcomed the inclusion of international companies in Southbound Stock Connect for the first time – giving international issuers the unique opportunity to access both international and Mainland China investor pools from one market.

Additionally, Swap Connect and the HKD-RMB Dual Counter programme were introduced, strengthening Hong Kong's position as the world's leading offshore RMB hub, while also supporting the ongoing internationalisation of RMB. The upcoming introduction of China Treasury Bond Futures will further solidify Hong Kong's status as an international RMB trading centre.

Other highlights included the addition of around 10 trading days in Stock Connect each year, the inclusion of 1,000 more stocks for Northbound Connect, the doubling of ETFs eligible for Southbound Connect since they were first included in the previous year, and the launch of HKEX Synapse, a new settlement acceleration platform for Stock Connect, supporting institutional investors participating in Northbound Connect to better manage their post-trade operations across different time zones.

Going global

Connecting China and the world also means connecting the world to China, and during 2023 we forged partnerships and expanded our international footprint. This included opening new HKEX offices in New York and London, allowing us to better service, on the ground, our clients in North America and Europe respectively.

We also signed MOUs with the Indonesia Stock Exchange (IDX) and the Saudi Tadawul Group to explore dual-listing and joint product development opportunities in Southeast Asia and the Middle East. Furthermore, we added both the IDX and Saudi Exchange to the list of Recognised Stock Exchanges, allowing for potential secondary listings.

Additionally, we continued attending a wide range of key international events, such as the World Economic Forum and FII Conference, promoting Hong Kong's financial markets, and driving global dialogue and connectivity. We also partnered with the Hong Kong SAR Government and the FII Institute to stage the first FII PRIORITY summit in Asia, attracting over 1,000 regional and global delegates.

Strengthening Mainland ties

The year 2023 was also characterised by deepening relations with partners, customers and stakeholders in Mainland China, including signing an MOU with the Beijing Stock Exchange, welcoming high-level delegations and participating in notable events, including the Belt and Road Forum, Tianjin Summer Davos, the Beijing Financial Street Forum and the Boao Forum. We also continued to connect China's commodities demand and production with international markets and investors, an example being the December launch of the QME's new bonded trading warehouse business for the offshore soybean physical market in Shenzhen.

Improving market liquidity and enhancing our ecosystem

HKEX Group is committed to the long-term health and efficiency of its markets, from making sure that its listing framework remains fit for purpose, to ensuring that the LME remains responsive to market opportunities.

Infrastructure enhancements

The reforms of HKEX's listing framework in 2018 helped to transform Hong Kong into a world-leading capital raising venue for new economy and biotech companies. The impact of this was still being seen in 2023, with 72 per cent of IPO capital raised was from the new economy sector.

HKEX built on this, with the introduction of Chapter 18C of the Listing Rules, which introduces a new route-to-market for specialist technology companies operating in industries such as artificial intelligence, quantum computing, EV technology, green technology and food technology.

Complementing this is our continuous commitment to market micro-structure enhancements, which in 2023 included the launch of a consultation on severe weather trading.

Evolving our commodities business

The LME had a good year, with chargeable ADV of metals contracts up 11 per cent and open interest 25 per cent higher than the previous year.

In March, the LME published an action plan to ensure the continued long-term health and efficiency of its markets. It reconfirmed its commitment to evolving and strengthening its market structure, ensuring it remains as responsive as possible to emerging opportunities, risks, and customer needs. And it made headway in bringing greater transparency and standardisation to Closing Price discovery.

The positive outcome of a judicial review at the end of the year in relation to events in the LME nickel market in March 2022 was welcome news and affirmed the integrity of the LME team, which had – throughout – sought to prioritise the interests of the market as a whole.

Preparing our organisation for the future

A major focus in 2023 was the ongoing modernisation of our operations and supporting the long-term sustainability of our business, a key highlight of which was our commitment to addressing climate change.

Addressing climate change

In November, we reaffirmed our commitment to achieving Group carbon neutrality by 2024 and net zero by 2040, a decade earlier than originally planned.

In April, we launched a consultation on proposed enhancements to our ESG reporting framework that reference the ISSB standards. These enhancements aim to prepare Hong Kong-listed companies for the transition to reporting in-line with locally adopted ISSB standards in the future.

HKEX's voluntary carbon market platform, Core Climate, has also gained momentum during the year with registered participants tripling to around 80 members.

HKEX also signed an MOU with the China Emissions Exchange Shenzhen and the China Beijing Green Exchange to jointly explore opportunities in cross-border carbon market connectivity and climate finance.

Supporting sustainable metals

The LME is central to our ambitions to support the global sustainability agenda. The green transition is the next major technological shift, and the global metals industry will be a crucial part of this. This gives the LME an important role to play, not just in supporting the supply of the metals to enable green technologies, but also in ensuring those metals are sourced responsibly and sustainably.

In 2023, the LME made further enhancements to LMEpassport – its digital credentials register – that will enable greater data comparability across the whole ESG spectrum. More than 200 LME-listed brands share their sustainability credentials via LMEpassport. The LME also ensured that its listed brands met the deadline for responsible sourcing requirements aimed at rooting out metal tainted by conflict, child labour or corruption.

Modernising operations

Technology is changing the way all our market participants behave – investors, issuers, brokers and more. At HKEX, we continue to anticipate the needs of our customers and in 2023, with a commitment to stability, reliability and efficiency, we continued to strengthen and modernise our technology platform.

The launch of FINI, a cloud-based solution for IPO settlements, gives investors quicker access to new listings, reduces market risk and improves efficiency for all parties.

In October, we welcomed the first trades on HKEX Synapse. Using DAML smart contract technology, Synapse reduces post-trade complexity on Northbound Stock Connect by providing settlement instructions to all parties along the settlement chain, facilitating concurrent processing, providing greater efficiency and transparency to market participants, while connecting them to a more seamless post-trade workflow.

And we launched Microsoft 365, providing HKEX colleagues with the latest cloud-based office tools to improve communication and collaboration.

Strategic Outlook

The geopolitical uncertainty and macroeconomic challenges of 2023 are likely to remain a feature of the global landscape in 2024. However, we will continue to navigate the near-term challenges while also seeking to capture the opportunities ahead, driven by the ongoing release of Mainland China's domestic savings pool, the increasing relevance of the Asian economy, the global sustainability agenda and the progress of technology and innovation.

The Group will also continue to build on Hong Kong's unique advantage as the most international city in China and the most Chinese city outside the Mainland. From this position of strength, our strategy is to continue to enhance market vibrancy, build future-ready technology and operations and explore new and adjacent businesses.

Appreciation

The HKEX Group delivered good strategic and financial results in 2023. More importantly, we introduced initiatives and products that will support the long-term development of our business and our markets. None of this would have been possible without our talented team and their hard work and dedication. It has not been an easy few years, and I express my deep gratitude to every one of them for their focus and their contributions.

I also want to express our thanks and appreciation to the SFC, the Hong Kong Monetary Authority, our market participants, our customers, partners and stakeholders around the world for their continued support. And finally, I would like to thank my fellow members of the Board for their support.

This is the last HKEX Annual Report that I will present as I stand down in 2024. Serving as the CEO of HKEX has been a great privilege and a unique experience. I am incredibly proud of the many things we have achieved in the last three years including the continued financial strength of the Group, despite the challenging macro environment. None of this would have been possible without the incredibly talented people who I have had the honour to call my colleagues.

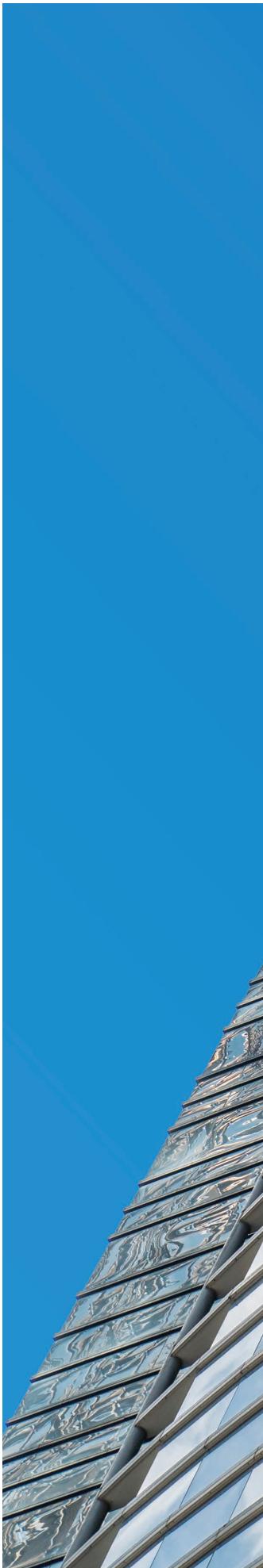
Looking to 2024 and beyond, I have full confidence that this talented team, under the leadership of Ms Bonnie Y Chan, will continue to steer HKEX to capture the exciting opportunities ahead.

Nicolas AGUZIN

Director and Chief Executive Officer

Hong Kong, 29 February 2024

Organisation





Board and Committees



Laura M Cha



Nicolas Aguzin



Nicholas Allen



Apurv Bagri



Cheah Cheng Hye



Anna Cheung



Susan Chow



Benjamin Hung



Nisa Leung



Hugo Leung



Carlson Tong



Joseph Yam



Yichen Zhang

(As of 29 February 2024)

Board

INEDs

Laura May-Lung CHA * GBM, GBS, JP (Chairman)
Nicholas Charles ALLEN
Apurv BAGRI
CHEAH Cheng Hye
CHEUNG Ming Ming, Anna
CHOW WOO Mo Fong, Susan *
HUNG Pi Cheng, Benjamin * BBS, JP
LEUNG Nisa Bernice Wing-Yu * MH, JP
LEUNG Pak Hon, Hugo
Carlson TONG * GBS, JP
YAM Chi Kwong, Joseph * GBM, GBS, JP
ZHANG Yichen

Executive Director

Alejandro Nicolas AGUZIN (Chief Executive Officer)

Group Company Secretary

Timothy TSANG

Committees

Audit Committee

Nicholas Charles ALLEN (Chairman)
CHEUNG Ming Ming, Anna
LEUNG Nisa Bernice Wing-Yu
LEUNG Pak Hon, Hugo
Carlson TONG

Board Executive Committee

Laura May-Lung CHA (Chairman)
Alejandro Nicolas AGUZIN
CHEAH Cheng Hye
CHEUNG Ming Ming, Anna
LEUNG Pak Hon, Hugo

Corporate Social Responsibility Committee

Laura May-Lung CHA (Chairman)
Alejandro Nicolas AGUZIN
CHEUNG Ming Ming, Anna
CHOW WOO Mo Fong, Susan
Carlson TONG
ZHANG Yichen

Investment Committee

CHEAH Cheng Hye (Chairman)
HUNG Pi Cheng, Benjamin
LEUNG Pak Hon, Hugo
YAM Chi Kwong, Joseph
ZHANG Yichen

Listing Operation Governance Committee

CHOW WOO Mo Fong, Susan (Chairman)
Renu BHATIA¹
CHEAH Cheng Hye
Terence Francois KEYES²
LEUNG Pak Hon, Hugo

Nomination and Governance Committee

Laura May-Lung CHA (Chairman)
Apurv BAGRI
CHEAH Cheng Hye
HUNG Pi Cheng, Benjamin
Carlson TONG
ZHANG Yichen

Remuneration Committee

Apurv BAGRI (Chairman)
Laura May-Lung CHA
CHEUNG Ming Ming, Anna
CHOW WOO Mo Fong, Susan
YAM Chi Kwong, Joseph

Risk Committee

CHOW WOO Mo Fong, Susan (Chairman)
Nicholas Charles ALLEN
Laura May-Lung CHA
LEUNG Nisa Bernice Wing-Yu
LEUNG Pak Hon, Hugo
YAM Chi Kwong, Joseph

Risk Management Committee (statutory) [△]

Laura May-Lung CHA³ (Chairman)
CHOW WOO Mo Fong, Susan
HO Hon Kit, Daryl ***⁴
KWOK Pui Fong, Miranda **
LEUNG Chung Yin, Rico ***⁵
LEUNG Pak Hon, Hugo
SUN Yu **
XING Guiwei ***⁶

* Government Appointed Director

** Appointed by the Financial Secretary

△ Established under Section 65 of the SFO

1 Member by virtue of being chairman of the Listing Committee of the Stock Exchange

2 Member by virtue of being deputy chairman of the Listing Committee of the Stock Exchange

3 Member by virtue of being HKEX's Chairman

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

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

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

Board of Directors and Senior Management

Board of Directors



Laura May-Lung CHA GBM, GBS, JP
Chairman, INED

Aged 74
Director since 25 April 2018
Chairman since 4 May 2018
Term of office: 27 April 2022 (re-appointed) to 2024 AGM

Other positions held with the Group

HKEX – chairman of Board Executive Committee, Corporate Social Responsibility Committee, Nomination and Governance Committee, Risk Management Committee (statutory), International Advisory Council and Mainland China Advisory Group, and member of Remuneration Committee and Risk Committee

SEHK – member of Listing Nominating Committee

LME – independent non-executive director and member of Nomination Committee

LMEH – independent non-executive director

HKEX Foundation – chairman and director

Other major offices

The Rockefeller Foundation – member of board of trustees (2023~)¹

The Bretton Woods Committee – director of the board (2023~)²

World Federation of Exchanges – director (2018~)

Past offices

Unilever PLC (listed on Euronext Amsterdam and London Stock Exchange) – non-executive director (2013-2022)

HSBC Holdings plc * – independent non-executive director (2011-2021)

The Hongkong and Shanghai Banking Corporation Limited – chairman (2019-2021), independent non-executive director (2004-2021) and deputy chairman (2007-2019)

Unilever NV (formerly listed on Euronext Amsterdam) – non-executive director (2013-2020)

China Telecom Corporation Limited * – independent non-executive director (2008-2018)

HKEX – independent non-executive director (2006-2012)

Tata Consultancy Services Limited (listed on BSE and National Stock Exchange of India) – independent non-executive director (2006-2012)

Johnson Electric Holdings Limited * – independent non-executive director (2004-2009)

China Securities Regulatory Commission – vice-chairman (2001-2004)

SFC – deputy chairman (1998-2001), executive director (1994-2001), senior director (1993-1994) and assistant director (1991-1993)

Coudert Brothers – lawyer (1985-1990)

Pillsbury, Madison & Sutro – lawyer (1982-1985)

Public service

Listing Policy Panel – member (2018~)

China Securities Regulatory Commission – vice-chairman of International Advisory Council (2004~)

Qualifications

Bachelor of Arts (University of Wisconsin, US)

Juris Doctor (Santa Clara University, US)

State Bar of California (US)

Honorary Fellow (Hong Kong Securities and Investment Institute)

Honorary Doctorate (The Hong Kong Polytechnic University)

Honorary Doctorate (The Hong Kong University of Science and Technology)

* Listed on the Stock Exchange

1 Appointment effective 1 November 2023

2 Appointment effective 11 October 2023



Alejandro Nicolas AGUZIN
Executive Director, Chief Executive Officer

Aged 55
Joined on 24 May 2021
Chief Executive Officer since 24 May 2021
Ex-officio member of the Board
Term of office: 24 May 2021 to 29 February 2024

Other positions held with the Group

HKEX – member of Board Executive Committee, Corporate Social Responsibility Committee and Mainland China Advisory Group

HKFE, SEHK and HKSCC – chairman

SEHK – ex-officio member of Listing Committee of the Main Board and GEM

HKEX's certain subsidiaries – director

Other directorship

MercadoLibre Inc (listed on NASDAQ) – independent director (2017~)

Past offices

JPMorgan Chase & Co (1990-2021):
chief executive officer, international private bank (2019-2021), chairman and chief executive officer, Asia Pacific (2013-2020), senior country officer for Brazil (2008-2009), chief executive officer, Latin America (2005-2012), head of investment banking, Latin America (2002-2012), and head of mergers & acquisitions group, Latin America (2000-2002)

Public service

Listing Policy Panel – member (2021~)

Qualifications

Bachelor of Science in Economics (The Wharton School, University of Pennsylvania, US)



Nicholas Charles ALLEN
INED

Aged 68
Director since 28 April 2021
Term of office: 28 April 2021 (elected) to 2024 AGM

Other positions held with the Group

HKEX – chairman of Audit Committee and member of Risk Committee

LME – non-executive director, chairman of Audit Committee, and member of Remuneration Committee

LME Clear – non-executive director, chairman of Audit Committee, and member of Nomination Committee and Remuneration Committee

Other major offices

Link Asset Management Limited (as manager of Link Real Estate Investment Trust *) – chairman and independent non-executive director (2016~)

Mordril Properties Limited – independent non-executive director (2019~)

CLP Holdings Limited * – independent non-executive director (2009~)

Past offices

Lenovo Group Limited * – independent non-executive director (2009-2021)

RAK Rock LLC – independent non-executive director (2018-2021)

Stevin Rock LLC – independent non-executive director (2018-2021)

VinaLand Limited (formerly listed on Alternative Investment Market of London Stock Exchange) – independent non-executive director (2010-2016)

Hysan Development Company Limited * – independent non-executive director (2009-2016)

PricewaterhouseCoopers – partner (1998-2007)

Coopers & Lybrand (1977-1998): partner (1988-1998)

Qualifications

Bachelor of Arts (Economics/Social Studies) (The University of Manchester, UK)

Associate (Hong Kong Institute of Certified Public Accountants)

Fellow (The Institute of Chartered Accountants in England and Wales)

* Listed on the Stock Exchange



Apurv BAGRI

INED

Aged 64
Director since 28 April 2016
Term of office: 27 April 2022 (re-elected) to 2025 AGM

Other positions held with the Group

HKEX – chairman of Remuneration Committee, and member of Nomination and Governance Committee

Other major offices

International Wrought Copper Council – director (2013~)
Metdist Group of Companies, London – president and chief executive officer (1980~)

Qualifications

Bachelor of Science in Business Administration
(Bayes Business School, City, University of London, UK)
Doctor of Science (Honoris Causa) (City, University of London, UK)



CHEAH Cheng Hye

Darjah Gemilang Pangkuhan Negeri

INED

Aged 69
Director since 26 April 2017
Term of office: 26 April 2023 (re-elected) to 2026 AGM

Other positions held with the Group

HKEX – chairman of Investment Committee, member of Board Executive Committee, Listing Operation Governance Committee, and Nomination and Governance Committee

SEHK – member of Listing Nominating Committee

Other major offices

Value Partners Group * – co-chairman and co-chief investment officer (2019~), and executive director (1993~)

Past offices

Value Partners Group * – co-chief investment officer (2010-2019), chairman (2000-2019) and chief investment officer (1993-2010)

Morgan Grenfell Group, Hong Kong – executive director, head of research and proprietary trader (1989-1993)

The Asian Wall Street Journal, Far Eastern Economic Review, Asiaweek, Hong Kong Standard and The Star (Malaysia) – editor and financial journalist (1971-1989)

Public service

HKTDC Mainland Business Advisory Committee
– member (2023~)

HKTDC Belt and Road & Greater Bay Area Committee
– member (2019~)

Listing Policy Panel – member (2018~)

Qualifications

Honorary Fellow (The Hong Kong University of Science and Technology)

* The holding company of the group, namely Value Partners Group Limited, has been listed on the Stock Exchange since 2007. In October 2000, Value Partners Limited ("VPL") and Mr Cheah (one of VPL's dealing directors and investment adviser directors) were publicly reprimanded by the SFC for placing a number of buy orders in December 1998 which unintentionally resulted in the market price of certain stocks closing higher than they might otherwise have been, and for a number of inadequacies in VPL's internal procedures and breaches of various regulatory requirements. For details, please refer to the SFC's enforcement news issued on 5 October 2000.



CHEUNG Ming Ming, Anna
INED

Aged 56
Director since 28 April 2021
Term of office: 28 April 2021 (elected) to 2024 AGM



WOO Mo Fong, Susan
(alias CHOW WOO Mo Fong, Susan)

INED

Aged 70
Director since 7 May 2020
Term of office: 27 April 2022 (re-appointed) to 2024 AGM

Other positions held with the Group

HKEX – member of Audit Committee, Board Executive Committee, Corporate Social Responsibility Committee and Remuneration Committee

HKEX Foundation – director

Other major offices

HKBN Ltd * – independent non-executive director (2023~)¹

LGT Capital Partners Group Holding Ltd – director (2021~)

Past offices

Jardine Pacific Limited – chief executive (2015-2020)

FountainVest Partners – senior advisor (2013-2015)

LionRock Capital – senior advisor (2012-2013)

3i Group Plc (listed on London Stock Exchange) (2001-2012): partner (2008-2012)

Qualifications

Bachelor of Arts (Computer Science) (University of California, Berkeley, US)

Master of Business Administration (Finance) (The Wharton School, University of Pennsylvania, US)

* Listed on the Stock Exchange

1 Appointment effective 13 September 2023

Other positions held with the Group

HKEX – chairman of Listing Operation Governance Committee and Risk Committee, and member of Corporate Social Responsibility Committee, Remuneration Committee and Risk Management Committee (statutory)

HKEX Foundation – director

Other major offices

Hutchison Telecommunications (Australia) Limited (listed on Australian Securities Exchange) – non-executive director (2019~)

CK Hutchison Holdings Limited * – non-executive director (2017~)

Past offices

HK Electric Investments Manager Limited

(trustee-manager of HK Electric Investments *) and **HK Electric Investments Limited** * – alternate director (2014-2023)

CK Infrastructure Holdings Limited * – alternate director (2006-2023)

CK Hutchison Holdings Limited * – senior advisor (2016), and executive director and group deputy managing director (2015-2016)

Hutchison Whampoa Limited (formerly listed on the Stock Exchange) – director (2015-2016), deputy group managing director (1998-2015), and executive director (1993-2015)

Woo Kwan Lee & Lo – partner (1985-1993)

Qualifications

Bachelor of Science (Business Administration) (The University of Bath, UK)

Solicitor (Hong Kong)

* Listed on the Stock Exchange



HUNG Pi Cheng, Benjamin BBS, JP
INED

Aged 59

Director since 25 April 2018

Term of office: 27 April 2022 (re-appointed) to 2024 AGM

Other positions held with the Group

HKEX – member of Investment Committee, and Nomination and Governance Committee

SEHK – member of Listing Nominating Committee

Other major offices

Standard Chartered Bank – chief executive officer, Asia (2021~)

Standard Chartered Bank (Hong Kong) Limited – executive director (2019~)

Standard Chartered Bank (China) Limited – chairman (2015~)

Standard Chartered Bank (Singapore) Limited – chairman (2021~)

Past offices

Standard Chartered Bank (2015-2020):

chief executive officer of wealth management (2018-2020) and retail banking (2017-2020), and regional chief executive officer, Greater China & North Asia (2015-2020)

Standard Chartered Bank (Hong Kong) Limited (1992-2019): chairman (2014-2019), chief executive officer, Greater China (2014-2015) and chief executive officer and executive director, Hong Kong (2008-2014)

HKEX – member of Risk Management Committee (statutory) (2008-2010 and 2014)

Public service

Hong Kong-United States Business Council – member (2016~)

Hong Kong Institute for Monetary and Financial Research – director (2011~)

Exchange Fund Advisory Committee – member (2009~)

Qualifications

Bachelor of Arts (Business Administration) (University of Washington, US)

Master of Business Administration (University of Toronto, Canada)



LEUNG Nisa Bernice Wing-Yu MH,JP
INED

Aged 53
Director since 28 April 2021
Term of office: 26 April 2023 (re-appointed) to 2025 AGM

Other positions held with the Group

HKEX – member of Audit Committee and Risk Committee

Other major offices

Qiming Venture Partners – managing partner (2013~)

Zai Lab Limited * (also listed on NSDAQ) – non-executive director (2014~)

CanSino Biologics Inc * (also listed on Shanghai Stock Exchange) – non-executive director (2015~)

Past offices

Venus Medtech (Hangzhou) Inc * – non-executive director (2013-2023)

New Horizon Health Limited * – non-executive director (2018-2022)

Gan & Lee Pharmaceutical Holdings Ltd (listed on Shanghai Stock Exchange) – non-executive director (2009-2021)

Qiming Venture Partners – partner (2007-2013)

Qualifications

Bachelor of Science (Cornell University, US)

Master of Business Administration (Stanford University, US)

* Listed on the Stock Exchange



LEUNG Pak Hon, Hugo
INED

Aged 55
Director since 26 April 2017
Term of office: 26 April 2023 (re-elected) to 2026 AGM

Other positions held with the Group

HKEX – member of Audit Committee, Board Executive Committee, Investment Committee, Listing Operation Governance Committee, Risk Committee and Risk Management Committee (statutory)

OTC Clear – chairman, independent non-executive director and chairman of Risk Management Committee

Other major offices

BNP Paribas – chief executive officer, Hong Kong (2019~)

BNP Paribas Securities (Asia) Limited – chief executive officer (2015~)

Past offices

BNP Paribas – head of global markets, Hong Kong (2015-2019), head of global equities and commodity derivatives, Greater China (2013-2015)

BNP Paribas Securities (Asia) Limited – deputy chief executive officer (2012-2015), head of equity syndicate and corporate equity (2010-2012), head of equity brokerage (2007-2010), head of Asia (ex-Greater China) product (2004-2007), product sales head for Taiwan (2003-2004) and deputy managing director (2000-2003)

Qualifications

Bachelor of Arts (Economics) (Simon Fraser University, Canada)



Carlson TONG GBS, JP

INED

Aged 69

Director since 26 April 2023

Term of office: 26 April 2023 (appointed) to 2025 AGM

Other positions held with the Group

HKEX – member of Audit Committee, Corporate Social Responsibility Committee, and Nomination and Governance Committee

HKEX Foundation – director

Other major offices

Hong Kong Investment Corporation Limited – non-official member of the board (2023~)

MTR Corporation Limited * – independent non-executive director (2022~)

Cathay Pacific Airways Limited * – observer on behalf of the Government of the Hong Kong Special Administrative Region (2020~)

Standard Chartered PLC * – independent non-executive director (2019~)

Past offices

Hong Kong University Grants Committee – chairman (2016-2022) and member (2011-2013)

Hong Kong International Airport Authority – non-executive director (2017-2020)

SFC – chairman (2012-2018) and non-executive director (2011-2018)

KPMG (1979-2011):

Asia Pacific chairman and a member of the global board and global executive team (2009-2011), chairman of KPMG China and Hong Kong (2007-2011), and partner of KPMG Hong Kong (1989-2007)

SEHK – chairman (2006-2008) and member of Listing Committee of the Main Board and GEM (2002-2006)

Public service

Task Force on Enhancing Stock Market Liquidity
– chairman (2023~)¹

Judicial Officers Recommendation Commission
– member (2023~)

Independent Commission on Remuneration for Members of the Executive Council and the Legislature, and Officials under the Political Appointment System of the HKSAR
– chairman (2017~)

Qualifications

Fellow (Hong Kong Institute of Certified Public Accountants and The Institute of Chartered Accountants in England and Wales)

Honorary Fellow and Honorary Doctorate (Education University of Hong Kong)

Honorary Fellow (Lingnan University)

Fellow (Hong Kong Academy of Finance)

Honorary Doctorate (The Hong Kong University of Science and Technology)

* Listed on the Stock Exchange

1 Appointment effective 29 August 2023



YAM Chi Kwong, Joseph GBM, GBS, JP
INED

Aged 75
Director since 26 April 2023
Term of office: 26 April 2023 (appointed) to 2025 AGM

Other positions held with the Group

HKEX – member of Investment Committee, Remuneration Committee and Risk Committee

Other major offices

Sumitomo Mitsui Banking Corporation – global advisor (2018~)

UnionPay International Co Ltd – independent non-executive director (2012~)

Johnson Electric Holdings Limited * – independent non-executive director (2010~)

Lau Chor Tak Institute of Global Economics and Finance of The Chinese University of Hong Kong – member of the management committee (2018~) and distinguished research fellow (2010~)

Past offices

UBS AG – director (2011-2017)

China Construction Bank Corporation * – independent non-executive director (2010-2013)

Hong Kong Monetary Authority – chief executive (1993-2009)

The Exchange Fund of Hong Kong – director of the office (1991-1993)

Hong Kong Government (1971-1991): various positions including deputy secretary for monetary affairs (1985-1991), and principal assistant secretary for monetary affairs (1982-1985)

Public service

Executive Council of the HKSAR – non-official member (2017~)

Qualifications

Bachelor of Social Sciences (The University of Hong Kong)

Fellow (Chartered Institute of Bankers)

Honorary Advisory President (The Hong Kong Institute of Bankers)

Fellow (Hong Kong Academy of Finance)

* Listed on the Stock Exchange



ZHANG Yichen
INED

Aged 60
Director since 28 April 2021
Term of office: 28 April 2021 (elected) to 2024 AGM

Other positions held with the Group

HKEX – member of Corporate Social Responsibility Committee, Investment Committee, Nomination and Governance Committee, and Mainland China Advisory Group

HKEX Foundation – director

Other major offices

CITIC Capital Holdings Limited – chairman (2013~) and chief executive officer (2003~)

China Vanke Co Ltd * (also listed on Shenzhen Stock Exchange) – independent non-executive director (2020~)

AsialInfo Technologies Limited * – non-executive director (2018~)

Past offices

Harbin Pharmaceutical Group Co Ltd (listed on Shanghai Stock Exchange) – chairman and director (2021-2023)¹

S F Holding Co Ltd (listed on Shenzhen Stock Exchange) – director (2016-2022)

Genertec Universal Medical Group Company Limited * – chairman (2012-2021) and non-executive director (2015-2021)

SINA Corporation (formerly listed on NASDAQ) – independent director (2002-2021)

Frontier Services Group Limited * – non-executive director (2020-2021)

CITIC Capital Holdings Limited – deputy chief executive officer (2002-2003)

CITIC Pacific Communications Limited – president (2000-2002)

CITIC Limited * – executive director (2000-2002)

Merrill Lynch Asia Pacific – managing director (1996-2000)

Public service

The National Committee of the Chinese People's Political Consultative Conference – member (2008~)

Qualifications

Bachelor of Science (Computer Science)

(The Massachusetts Institute of Technology, US)

* Listed on the Stock Exchange

¹ Appointment ceased effective 27 December 2023

HKEX Independent Non-executive Directors may also serve as the chairman, the deputy chairman, or members of hearing(s) held by the appeal committees of the regulated entities within the HKEX Group from time to time.

Group Company Secretary



Timothy TSANG

Group Company Secretary and Head of Secretarial Services

Aged 51
Joined in November 2022

Past offices

HKEX – Deputy Head of Secretarial Services (2022-2023)
Pacific Century Premium Developments Limited *
– sales and marketing director (2020-2022), group general counsel and company secretary (2018-2022)
HNA Group (International) Company Limited – deputy general counsel (2018) and senior counsel (2017-2018)
Nixon Peabody CWL – consultant and head of consumer brands and retail practice (2012-2017)
Philip Morris Asia Limited – director marketing (2008-2010), marketing manager (2005-2007) and senior counsel (2002-2005)
Lovells – associate (1997-2002) and trainee solicitor (1996-1997)

Qualifications

Legal Practitioner (The State of New South Wales, Australia)
Solicitor (Hong Kong)
Bachelor of Economics and Bachelor of Laws (The University of Sydney, Australia)
Master of Business Administration (The University of New South Wales and the University of Sydney, Australia)

* Listed on the Stock Exchange

Senior Management



CHAN Yiting, Bonnie
Co-Chief Operating Officer

Aged 54
Joined in January 2020

Other positions held with the Group

LME Clear – member of Audit Committee

Past offices

HKEX – Head of Listing (January 2020 – January 2023) and Head of IPO Transactions (2007-2010)
Davis Polk & Wardwell LLP – partner (2010-2019)
Morgan Stanley (Hong Kong) – executive director of legal and compliance department (2003-2007)

Qualifications

Bachelor of Laws (The University of Hong Kong)
Master of Laws (Harvard University, US)
Solicitor (Hong Kong)
Attorney at law (New York State, US)



LAU Bik Yun, Vanessa
Group Chief Financial Officer

Aged 51
Joined in October 2015



NG Kit Shuen, Katherine
Head of Listing

Aged 50
Joined in July 2013

Other major offices

Swiss Re Ltd (listed on SIX Swiss Exchange) – independent non-executive director (2023~)

Past offices

HKEX – Chief Financial Officer, Hong Kong (2017-2020) and Deputy Chief Financial Officer (2015-2017)

Sanford C Bernstein (Hong Kong) Limited – vice president and senior research analyst (2011-2015)

Alcoa Inc – group chief financial officer, global rolled products group (2007-2011)

McKinsey & Company Inc (2001-2007): various professional positions including associate principal, Hong Kong (2005-2007)

PricewaterhouseCoopers (UK) (1994-2000): various professional positions including senior tax manager, mergers and acquisitions tax group (1999-2000)

Qualifications

Bachelor of Arts (Mathematics and Computation) and **Master of Arts (Mathematics and Computation)** (University of Oxford, UK)

Associate (The Institute of Chartered Accountants in England and Wales)

Other positions held with the Group

HKFE, HKSCC and SEHK – member of Disciplinary Committee

Past offices

HKEX – Head of Policy and Secretariat Services, Listing (May 2014- January 2023), Chief Operating Officer, Listing (2020-2021), and Head of Policy, Listing (2013-2014)

Hong Kong Securities and Investment Institute – director (2014-2022), and chairman (2018-2021)

Financial Services and the Treasury Bureau of the Government of the HKSAR – political assistant to the Secretary for Financial Services and the Treasury (2008-2012)

Merrill Lynch – director, legal (2005-2008)

Linklaters – solicitor (1996-2005)

Public service

Standing Committee on Company Law Reform – ex-officio member (2023~)

World Wide Fund for Nature Hong Kong – director (2018~)

Our Hong Kong Foundation – advisor (2016~)

Qualifications

Bachelor of Arts (Law) and **Master of Arts (Law)** (University of Cambridge, UK)

Solicitor (Hong Kong, and England and Wales)

Senior Fellow (Hong Kong Securities and Investment Institute)



Richard Alan WISE
Group Chief Risk Officer

Aged 55
Joined in November 2020



YIU Ka Yan, Wilfred
Co-Chief Operating Officer
and Head of Equities

Aged 54
Joined in April 2019

Other positions held with the Group

HKFE, HKSCC and SEHK – chairman of Disciplinary Committee
LME – chairman of Board Risk Committee and member of Audit Committee
LME Clear – member of Board Risk Committee

Past offices

Credit Suisse AG – chief risk officer, Asia Pacific (2016-2020)
JP Morgan Chase – global head of market risk management (2012-2016)
JP Morgan Securities LLC – chief risk officer (2012-2016)
JP Morgan (1995-2012):
global head of equity risk management (2007-2012), regional head of market risk management, Asia Pacific (2004-2007), head of risk management (1999-2004), and fixed income proprietary trader (1995-1999)

Qualifications

Bachelor of Arts (Mathematics) (University of Cambridge, UK)

Other positions held with the Group

HKCC and SEOCH – chairman
HKFE and HKSCC – chief executive
SEHK – chief executive and chairman of Compensation Committee

Past offices

HKEX – Chief Operating Officer (November 2022 – January 2023), Co-Chief Operating Officer (June – November 2022), Co-Head of Markets (August 2021 – January 2023), and Head of Markets (April 2019 – July 2021)
Qian Kun Futures Co Ltd – chairman (2012-2019)
Beijing Gao Hua Securities Company Limited – deputy chief executive officer and chief operating officer (2010-2019)
Goldman Sachs (Hong Kong) (2000-2010): managing director, fixed income, currency and commodities (2007-2010)
Credit Suisse First Boston (New York) – assistant vice president (1994-1999)

Public service

SFC – member of Advisory Committee (2023–)
United Nations Economic and Social Commission for Asia and the Pacific – member of the Sustainable Finance Taskforce Committee for the Asia-Pacific Green Deal for Business (2023–)

Qualifications

Master of Business Administration (Stern School of Business, New York University, US)
Master of Science (Computer Science) (Stanford University, US)
Bachelor of Science (Computer Science) and Bachelor of Business Administration (University of Washington, US)

Bonnie Y Chan, Vanessa Lau, Richard Wise and Wilfred Yiu also act as directors in certain subsidiaries of HKEX.

Management Committee



Nicolas Aguzin
HKEX Chief Executive Officer



Matthew Chamberlain
Group Head of Commodities and LME Chief Executive



Bonnie Y Chan
Co-Chief Operating Officer



Sharon Cheng
Group Chief People Officer



Paul Chow
Group General Counsel



John Hsu
Group Chief Technology Officer



Vanessa Lau
Group Chief Financial Officer



Richard Leung
Group Chief Information Officer



Katherine Ng
Head of Listing



Adam Singer
Group Chief Compliance Officer



Glenda So
Group Head of Emerging Business & FIC



Richard Wise
Group Chief Risk Officer



Wilfred Yiu
Co-Chief Operating Officer and Head of Equities



Zhou Jiannan
Head of Mainland Development

Management Discussion and Analysis

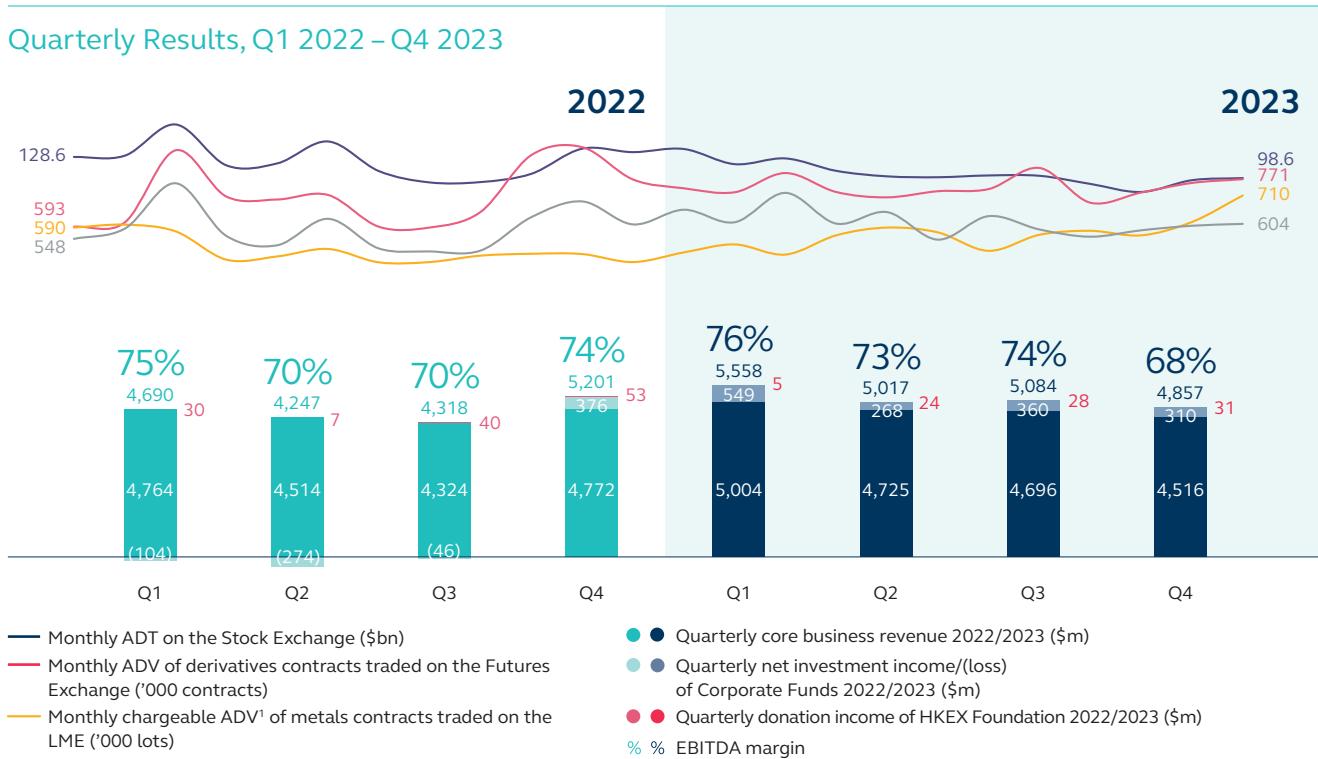




Business Review

Overview

Quarterly Results, Q1 2022 – Q4 2023



¹ Chargeable ADV excludes administrative trades (Admin Trades) and other non-chargeable trades.

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

Despite a challenging macroeconomic and fragile geopolitical backdrop, HKEX continued to demonstrate its resiliency and strength in 2023, reinforcing its position as a vital superconnector. Throughout the year, HKEX launched a range of notable projects and initiatives, further enhancing the Group's offering and reinforcing Hong Kong's role as a leading international financial centre.

Throughout 2023, market sentiment was impacted by the high interest rate environment and the slower than expected economic recovery in Mainland China. Cash

Market Headline ADT was \$105.0 billion in 2023, 16 per cent lower than in 2022. However, the Group's diversification strategy in recent years is paying off, with the Group's Derivatives Market and Commodities Market performing strongly in 2023. The total number of derivatives contracts traded reached a record high during the year, with ADV up 4 per cent compared with 2022, while LME volumes also saw healthy growth, with chargeable ADV up 11 per cent from the previous year. Benefiting from the high interest rate environment, HKEX's net investment income reached a record \$5.0 billion in 2023, surpassing the previous record set in 2019.

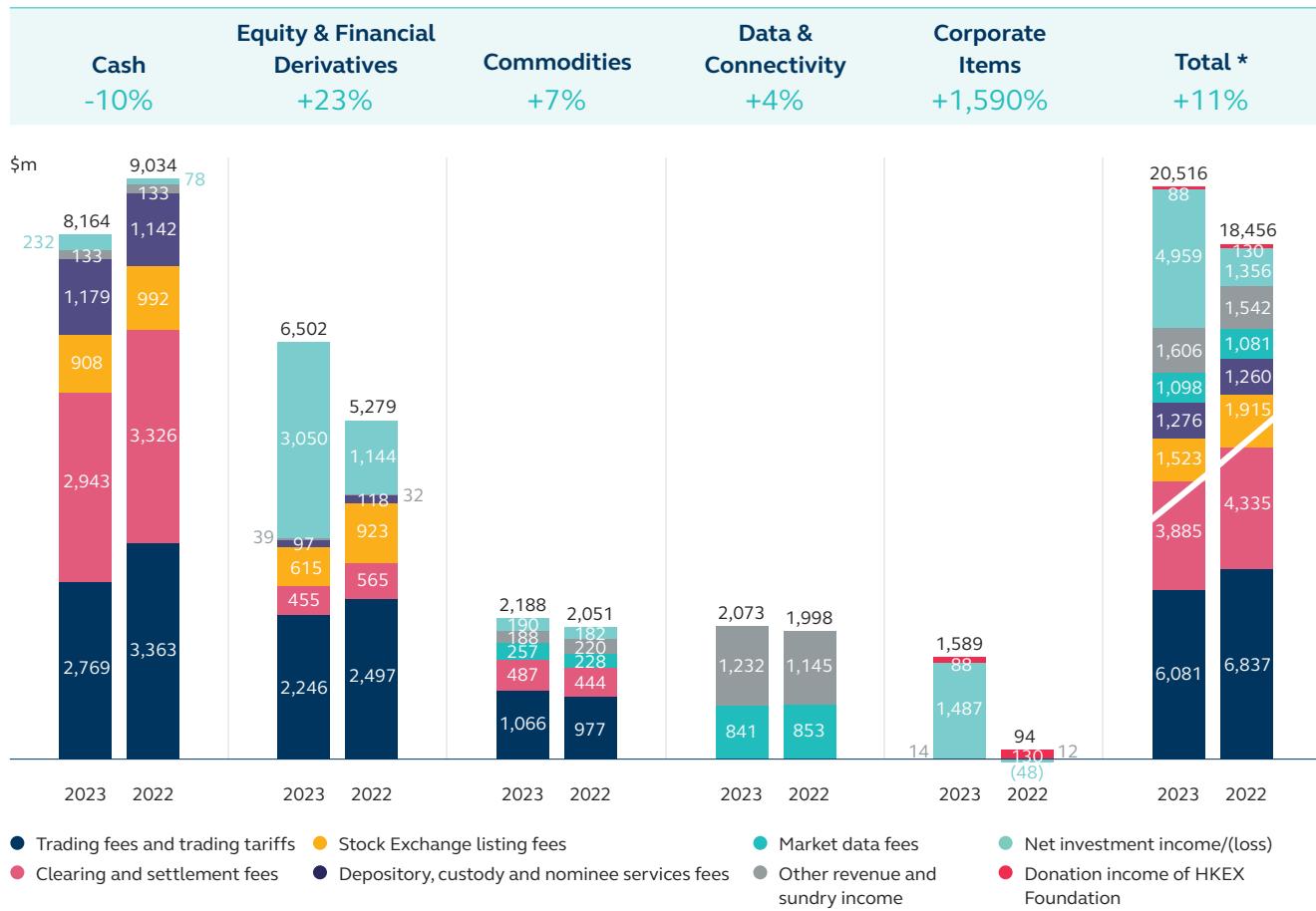
Revenue and other income of \$20.5 billion in 2023 was the second highest on record (the exceptional results of 2021 being the highest) and was 11 per cent higher than in 2022. The increase in revenue was driven by record net investment income, with internally managed funds recording higher net interest income, as well as the net fair value gains of the External Portfolio totalling \$421 million (2022: losses of \$486 million). This was partly offset by a decrease in trading and clearing fees from lower Headline ADT, and a decrease in Stock Exchange listing fees due to a lower number of newly listed DWs and CBBCs. Operating expenses increased by 7 per cent against 2022, mainly due to higher staff costs and IT and computer maintenance expenses. Profit attributable to shareholders was the second highest on record at \$11.9 billion, 18 per cent higher than in 2022.

Looking ahead to 2024, some signs of improving sentiment are emerging on expectations of slower inflation in major economies and the possible end of the monetary tightening cycle by central banks. However, uncertainties will persist, including the pace of Mainland China's economic recovery and the continued challenges arising from ongoing geopolitical developments. Despite these challenges, the Group will stay resolutely focused on the strategic priorities that will deliver continued success for HKEX in the long term. The Group will continue to embrace opportunities with an eye on innovation and market development, leveraging its unique China connectivity and strengthening the attractiveness and competitiveness of its markets and product ecosystem, to ensure the long-term vibrancy, resiliency and sustainability of its financial markets.

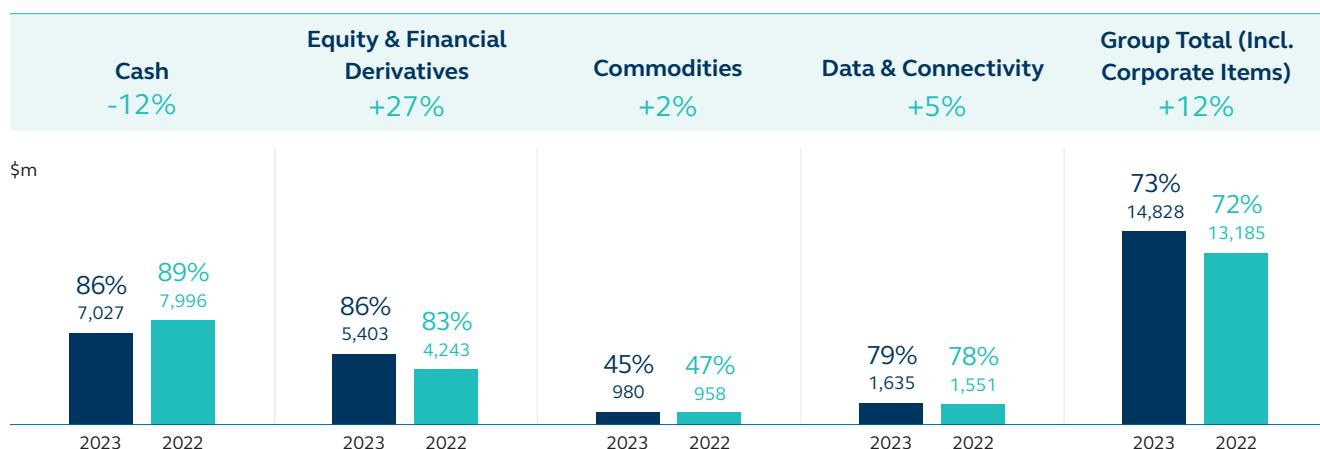


Analysis of Results and Business Update by Operating Segment

Analysis of Revenue and Other Income by Segment



Analysis of EBITDA and EBITDA Margin by Segment*



% EBITDA margin = EBITDA divided by revenue and other income less transaction-related expenses

* Further details of the results by segment are set out in note 4 to the Consolidated Financial Statements of this Annual Report.

In prior years, the Group had five reportable segments (“Corporate Items” is not a reportable segment): Cash, Equity and Financial Derivatives, Commodities, Post Trade and Technology.

In 2023, the Group’s operating segments have been reorganised to better reflect the strategic and operational way in which the business and markets are run. Trading and clearing businesses are now managed together in each asset class; as such, Post Trade revenue and expenses are reallocated to the Cash, Equity and Financial Derivatives, and Commodities segments respectively. In addition, with HKEX’s data business becoming one of the Group’s key strategic development focuses, revenue and expenses for its Hong Kong’s data business have been reallocated from the Cash and Equity and Financial Derivatives segments, and grouped together with other non-cyclical businesses formerly included in the Technology segment and renamed as the Data and Connectivity segment.

Comparative figures have been restated to conform with current year’s presentation.



Cash Segment

The Cash segment covers all equity products traded on the Cash Market platforms of the Stock Exchange and those traded through Stock Connect; the clearing, settlement and custodian activities relating to these products; and any other related activities. The major sources of revenue of the segment are trading fees, clearing and settlement fees, listing fees, depository, custody and nominee services fees and net investment income earned on the Margin Funds and Clearing House Funds relating to these products.

Key Market Indicators

	2023	2022	Change
ADT of equity products traded on the Stock Exchange ^{1,2} (\$bn)	93.2	109.0	(14%)
ADT of Northbound Trading – Shanghai-Hong Kong Stock Connect ² (RMBbn)	50.4	46.2	9%
ADT of Northbound Trading – Shenzhen-Hong Kong Stock Connect ² (RMBbn)	57.9	54.2	7%
ADT of Southbound Trading – Shanghai-Hong Kong Stock Connect ² (\$bn)	16.1	15.9	1%
ADT of Southbound Trading – Shenzhen-Hong Kong Stock Connect ² (\$bn)	15.0	15.8	(5%)
ADT of Northbound Bond Connect (RMBbn)	40.0⁴	32.2	24%
Average daily number of trades of equity products traded on the Stock Exchange ^{1,2} ('000)	1,611	1,792	(10%)
Average value per trade of equity products traded on the Stock Exchange (\$'000)	58	61	(5%)
Average daily value of Settlement Instructions (SIs) for Stock Exchange trades (\$bn)	238.1	293.0	(19%)
Average daily number of SIs for Stock Exchange trades ('000)	99	112	(12%)
Average value per SI for Stock Exchange trades (\$'000)	2,413	2,613	(8%)
Average daily value of SIs for Northbound Trading of Stock Connect (RMBbn)	25.5	27.4	(7%)
Number of newly listed companies on Main Board ³	73	90	(19%)
Number of newly listed companies on GEM	–	–	–
Portfolio values of Northbound Trading of Stock Connect at 31 Dec (RMBbn)	2,002	2,242	(11%)
Portfolio values of Southbound Trading of Stock Connect at 31 Dec (\$bn)	2,255	2,233	1%
Number of companies listed on Main Board at 31 Dec	2,283	2,257	1%
Number of companies listed on GEM at 31 Dec	326	340	(4%)
Total	2,609	2,597	0%
Market capitalisation of companies listed on Main Board at 31 Dec (\$bn)	30,985	35,582	(13%)
Market capitalisation of companies listed on GEM at 31 Dec (\$bn)	54	85	(36%)

1 Excludes 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 3 transfers from GEM (2022: 1 transfer)

4 New record high in 2023

	2023 \$bn	2022 \$bn	Change
Total equity funds raised on Main Board			
– IPOs	46.3	104.6	(56%)
– Post-IPO	105.4	146.8	(28%)
Total equity funds raised on GEM			
– Post-IPO	4.3	2.7	59%
Total	156.0	254.1	(39%)

Analysis of Results

Summary

	2023 \$m	2022 \$m	Change
Trading fees and trading tariffs ¹	2,769	3,363	(18%)
Clearing and settlement fees ¹	2,943	3,326	(12%)
Stock Exchange listing fees ¹	908	992	(8%)
Depository, custody and nominee services fees ¹	1,179	1,142	3%
Other revenue and sundry income	133	133	-
	7,932	8,956	(11%)
Net investment income	232	78	197%
Total revenue and other income	8,164	9,034	(10%)
Less: transaction-related expenses	(10)	(11)	(9%)
Total revenue and other income less transaction-related expenses	8,154	9,023	(10%)
Operating expenses ²	(1,127)	(1,027)	10%
EBITDA	7,027	7,996	(12%)
EBITDA margin ³	86%	89%	(3%)

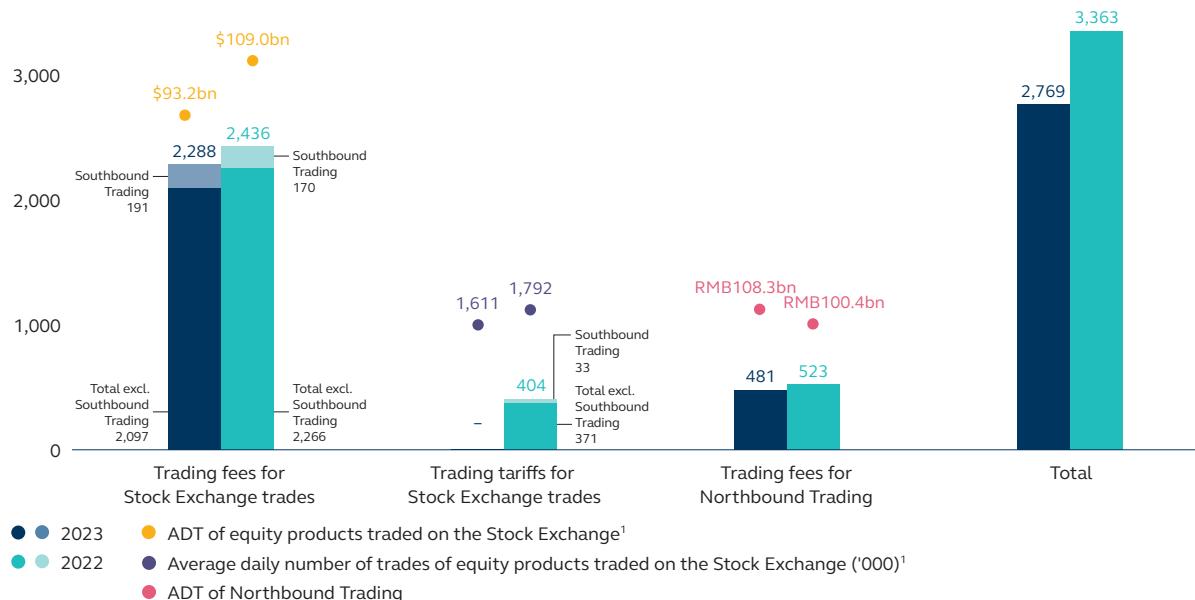
1 Excludes revenue from DWs, CBBCs and warrants (which are included under the Equity and Financial Derivatives segment)

2 Includes Listing Division costs apportioned to equity products listed on the Stock Exchange

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

Trading Fees and Trading Tariffs

\$m
4,000

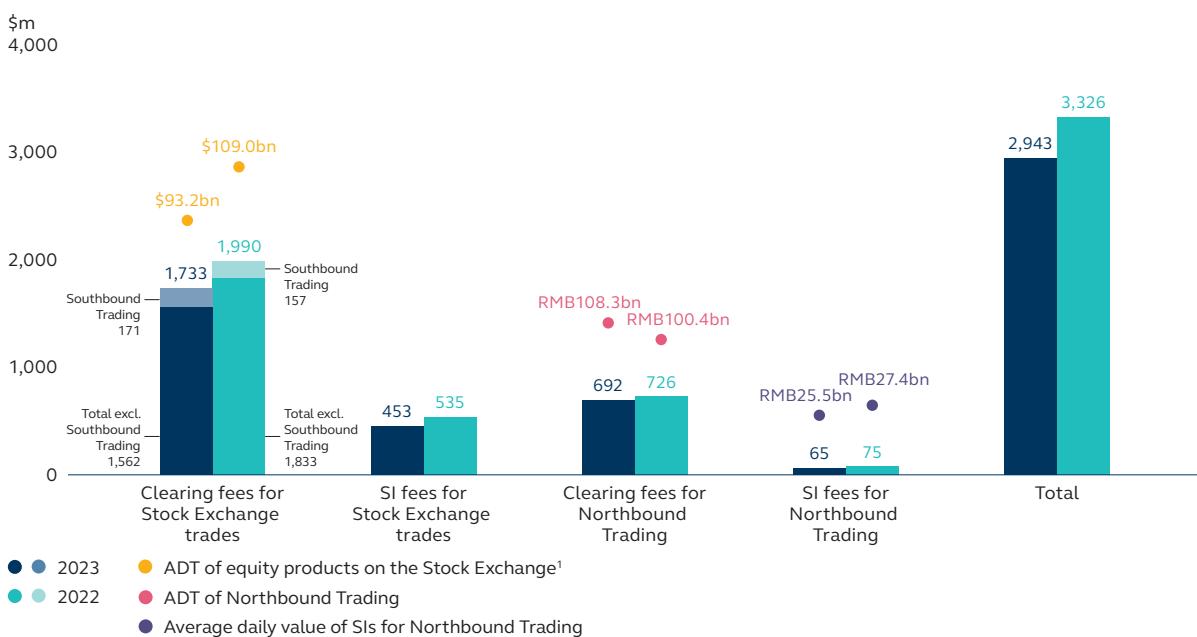


1 Excludes DWs, CBBCs and warrants (which are included under the Equity and Financial Derivatives segment); and includes ADT of Southbound Trading under Stock Connect

Trading fees for Stock Exchange trades for 2023 were \$2,288 million, a 19 per cent decrease compared with the total trading fees and tariffs for 2022 of \$2,840 million. The reduction was due to the 14 per cent decrease in the ADT of equity products, and the net decrease in fees resulting from the change in the trading fee structure for the Cash Market, which came into effect on 1 January 2023¹.

Despite an 8 per cent increase in ADT, Northbound Stock Connect trading fees decreased by \$42 million due to a 30 per cent reduction in A-share trading fees effective 28 August 2023, as well as the depreciation of RMB.

Clearing and Settlement Fees



¹ Excludes DWs, CBBCs and warrants (which are included under the Equity and Financial Derivatives segment); and includes ADT of Southbound Trading under Stock Connect

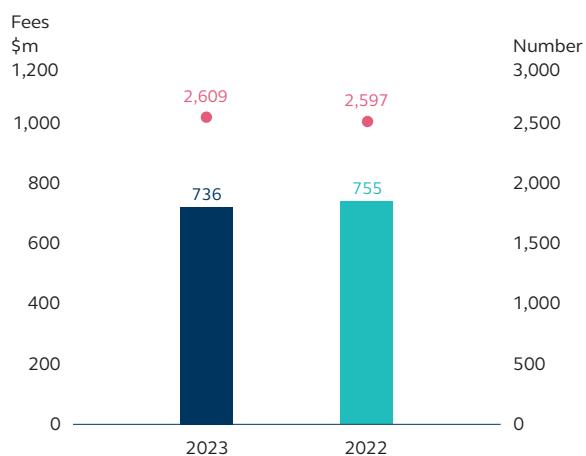
Clearing and settlement fees for Stock Exchange trades (including SIs) decreased by 13 per cent to \$2,186 million in 2023 (2022: \$2,525 million), primarily due to lower fees from the lower number of transactions. Clearing fees from Northbound Stock Connect decreased by 5 per cent to \$692 million (2022: \$726 million), attributable to the reduction in A-share clearing fees effective April 2022, and depreciation of RMB.

Stock Exchange Listing Fees

	2023 \$m	2022 \$m	Change
Annual listing fees	736	755	(3%)
Initial and subsequent issue listing fees	167	232	(28%)
Others	5	5	-
Total	908	992	(8%)

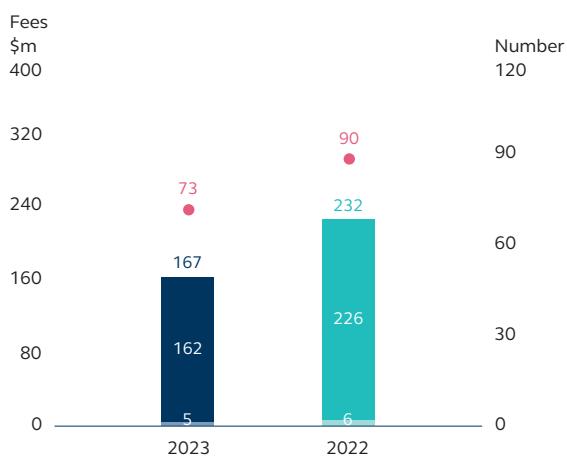
¹ Includes the removal of the fixed trading tariff of \$0.5 payable on each transaction, and the increase of the ad valorem fee on all trades from 0.005 per cent to 0.00565 per cent

Annual Listing Fees



● ● Annual listing fees ● Total number of listed companies at 31 Dec

Initial and Subsequent Issue Listing Fees



● ● Initial listing fees ● Total number of newly listed companies
● ● Subsequent issue listing fees

Annual listing fees fell by 3 per cent, reflecting lower average fee per company due to the delisting of certain preference shares of listed companies, and lower average nominal value of listed companies, attributable to share consolidation and RMB depreciation.

Initial and subsequent issue listing fees dropped by 28 per cent, mainly due to a decrease in number of forfeitures.

Depository, Custody and Nominee Services Fees

Depository, custody and nominee services fees do not directly vary with changes in trading volumes. The fees increased by \$37 million, or 3 per cent, to \$1,179 million in 2023, mainly due to higher scrip fees, which were partly offset by lower stock withdrawal fees.

EBITDA

Operating expenses increased by 10 per cent due to higher allocated costs of the Listing Division: this reflected a lower percentage decrease in listing fees of the Cash segment (8 per cent) from lower annual listing fees and fewer forfeitures, compared with the decrease in listing fees of the Equity and Financial Derivatives segment (33 per cent) attributable to the lower number of newly listed DWs and CBBCs. EBITDA margin decreased from 89 per cent to 86 per cent, due to the decrease in total revenue and other income and increase in operating expenses.

Business Update

Global economic fragility and the sustained high interest rate environment continued to impact market sentiment in 2023. Headline ADT for the Cash Market was \$105.0 billion in 2023, down by 16 per cent compared with 2022.

Stock Connect

	2023	2022	Change
Northbound Trading value (RMBbn)	25,121	23,283	8%
Southbound Trading value (\$bn)	7,185	7,236	(1%)
Total revenue and other income ¹ (\$m)	2,207	2,268	(3%)

1 \$1,600 million of which arose from trading and clearing activities (2022: \$1,683 million)

Stock Connect continued to demonstrate strength and resiliency in 2023, with Northbound and Southbound ADT of RMB108.3 billion and \$31.1 billion respectively, generating revenue and other income of \$2,207 million in 2023 (2022: \$2,268 million).

Key developments of Stock Connect in 2023

- **Expansion of eligible stocks:** The expansion of eligible stocks under the Stock Connect programme took effect on 13 March 2023, with primary-listed international companies in Hong Kong eligible for Southbound Trading, and the addition of over 1,000 stocks eligible for Northbound Trading. The addition of primary-listed international companies under Southbound Trading bolsters Hong Kong's role as an international listing and trading venue; and the expansion of eligible stocks under Stock Connect further deepens the cross-border market accessibility of the Stock Connect programme.
- **Trading calendar enhancement:** The trading calendar enhancement was successfully launched on 24 April 2023, allowing Stock Connect trading on all trading days where both the Hong Kong and Mainland China markets are open. The enhancement adds around 10 trading days to Northbound and Southbound Stock Connect each year.
- **Block trading:** The proposed introduction of block trading under Stock Connect was announced by the SFC and the CSRC on 11 August 2023. The initiative will support the continued growth of Stock Connect by providing execution certainty for large-sized transactions and further enhancing trading efficiency.
- **HKEX Synapse:** On 9 October 2023, HKEX Synapse, a smart contract-powered platform that accelerates the settlement process for Stock Connect Northbound Trading, was launched. The new platform enhances operational effectiveness, increases transparency and reduces settlement risk relating to Northbound trades.

Market Structure Development

On 19 June 2023, HKEX launched the HKD-RMB Dual Counter Model and the Dual Counter Market Making Programme in its Cash Market. As at 31 December 2023, a total of 24 Hong Kong listed companies were being designated as Dual Counter securities. The launch of the Dual Counter initiative further elevates Hong Kong's role as the premier offshore RMB hub. HKEX is now working on the next phase of development to allow investors from Mainland China to trade RMB denominated securities through Southbound Trading of Stock Connect.

The HKIDR was successfully implemented on 20 March 2023 and has been operating smoothly. The mechanism facilitates more effective market surveillance by identifying the originators of the orders and trades.

Further to the market consultation paper issued in March 2023 on the proposed subsidiary legislation for implementing an uncertificated securities market (USM) in Hong Kong, the SFC has issued another market consultation paper in October 2023 on the proposed revision of the existing Code of Conduct for Share Registrars (ASR Code) and the existing Guidelines for Electronic Public Offerings (ePO Guidelines). HKEX has been working closely with the SFC and the Federation of Share Registrars Limited (FSR) to facilitate the operational readiness for the implementation of the USM regime.

On 22 November 2023, HKEX successfully launched FINI, a new digital platform that significantly shortens Hong Kong's IPO settlement process. The platform also reduces pre-funding requirements and the operational risk for all market participants in an IPO. The platform has been operating smoothly since launch.

On 30 November 2023, HKEX published a consultation paper on Severe Weather Trading of Hong Kong Securities and Derivatives Markets. The proposal aims to maintain normal market operations during severe weather conditions, such as typhoons, allowing investors to better manage their risks and adjust their strategies in response to changing market conditions during periods covered by such events.

Issuer Business

Against the backdrop of continued global economic and geopolitical challenges, the Hong Kong IPO market saw a decrease in activity in 2023, with 73 company listings raising \$46.3 billion, representing a reduction of 19 per cent and 56 per cent respectively compared with 2022. However, the IPO market showed signs of good momentum in Q4 2023, with 26 listings raising \$21.7 billion, representing nearly half of the funds raised during the year. Of the 73 new listings in 2023, 50 of them were new economy company listings, accounting for 72 per cent of IPO funds raised during the year. HKEX's IPO pipeline remained robust with 72 active applications as at 31 December 2023.

Following the introduction of Chapter 18C, the Listing Regime for Specialist Technology Companies, in March 2023, HKEX received two listing applications from specialist technology companies during the year.

Notwithstanding the fragile global macro environment, the Group made good progress on strategic international initiatives. HKEX signed memoranda of understanding with Saudi Tadawul Group and the Indonesia Stock Exchange and added both exchanges as Recognised Stock Exchanges for secondary listings.

ETF Market Development

ADT of ETPs, which include ETFs and L&I Products, reached a record high of \$14.0 billion in 2023 (2022: \$12.0 billion), mainly attributable to increased product diversity and the inclusion of ETFs in Southbound Stock Connect.

HKEX ETP new product listings continued to expand, with 16 new ETPs listed in 2023, including several thematic ETFs, fixed income and money market ETFs, as well as Asia's first and the world's largest ETF that tracks Saudi Arabian equities.

The number of eligible ETFs available through Stock Connect continues to grow. As at 31 December 2023, there were eight eligible Southbound ETFs and 131 eligible Northbound ETFs, providing investors with more investment options and facilitating more cross-border investment activities. In 2023, the ADT for Southbound and Northbound ETFs were \$2.7 billion and RMB499.9 million respectively, reaching daily record highs of \$14.6 billion and RMB1.3 billion on 20 July 2023 and 29 November 2023 respectively.

Bond Connect

Northbound Bond Connect ADT has been setting record highs every year since its launch in 2017, reaching RMB40.0 billion in 2023, up 24 per cent compared with 2022. In addition, trading volumes in August 2023 reached a monthly record high of RMB1,089.7 billion, trading volumes on 10 May 2023 recorded a daily record high of RMB81.6 billion and the number of trading tickets reached a daily record high of 1,307 on 30 November 2023.

Listed Bond Market Development and Sustainable Finance

In 2023, 222 new debt securities were listed on the Stock Exchange, with a total issuance amount of \$601 billion. Among these were 71 new ESG-related bond listings, raising a total of \$272 billion. Total turnover value of debt securities during the year reached \$109 billion.

HKEX's Sustainable and Green Exchange (STAGE) continued to gain traction and as at 31 December 2023, there were a total of 151 sustainable-focused products displayed on STAGE, including green, social, sustainable or similar bonds and ESG-related ETPs from issuers across different sectors.

Market Surveillance and Compliance

Throughout 2023, HKEX has continued its efforts to promote transparency and a strong compliance culture across its business and markets, with a number of key initiatives, as set out below.

Key initiatives on promoting market surveillance and compliance in 2023

- Conducted the 2023 Annual Attestation and Inspection Programme with a focus on two areas: (1) China Connect rules and (2) risk management
- Performed thematic reviews on:
 - (1) investor eligibility for trading of (a) bonds listed under Chapter 37 of the Main Board Listing Rules and (b) special purpose acquisition companies (SPAC) securities; and
 - (2) Incentive Programs
- Hosted several education seminars and compliance sharing sessions to highlight recent updates of HKEX rules and regulations and compliance issues
- Collaborated with the surveillance teams of the Shanghai Stock Exchange and Shenzhen Stock Exchange in hosting seminars to China Connect EPs and Trade-through EPs, enhancing the understanding of the rules governing the real-time monitoring of abnormal trading applicable to Stock Connect Northbound Trading
- Issued quarterly compliance bulletins and various market communication materials, offering the markets a better understanding of relevant rules and regulations as well as HKEX's enforcement efforts and expectations in various areas, including the HKIDR regime launched in March 2023, and changes in position limits and Large Open Position (LOP) reporting requirements that became effective in December 2023

Listing Regulation

In 2023, the Stock Exchange issued various proposals and conclusions on Listing Rules amendments, as set out in the following table.

Key Proposals and Conclusions in 2023

	Consultation paper ¹	Consultation conclusions ¹	Effective date of changes (if any)
• Listing Regime for Specialist Technology Companies	October 2022	March 2023	31 March 2023
• Proposals to Expand the Paperless Listing Regime and Other Rule Amendments	December 2022	June 2023	31 December 2023
• Rule Amendments Following Mainland China Regulation Updates and Other Proposed Rule Amendments Relating to PRC Issuers	February 2023	July 2023	1 August 2023
• Enhancement of Climate-related Disclosures under the Environmental, Social and Governance Framework	April 2023	1H 2024 (tentative)	-
• GEM Listing Reforms	September 2023	December 2023	1 January 2024
• Proposed Amendments to Listing Rules Relating to Treasury Shares	October 2023	1H 2024 (tentative)	-

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

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

- Published new guidance letters on (i) specialist technology companies; (ii) automatic share buy-back programs; (iii) disclosure of the basis of consideration and business valuations in notifiable transactions; and (iv) electronic submission of prospectus and accompanying documents, and a revised guidance letter on placing to connected clients and existing shareholders or their close associates
- Published semi-annual (i) Enforcement Bulletin and (ii) Listed Issuer Regulation Newsletter
- Published (i) Review of Issuers' Annual Reports 2022; (ii) Analysis of 2022 Corporate Governance Practice Disclosure; (iii) A Snapshot of INEDs' Roles and Responsibilities; and (iv) Guide for New Listing Applicants
- Published Information Paper on Rule Amendments Consequential to the Reforms to the IPO Settlement Process with the Launch of FINI
- Launched a new e-learning module on share schemes as part of e-learning series on ongoing compliance requirements under the Listing Rules

Details of the consultations and other main policy changes and updates arising in 2023, as well as the proposals under review in 2024 and beyond, are set out in the 2023 Listing Committee Report.

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

	2023	2022
Number of listing applications processed, comprising:	249	361
– Applications brought forward from end of previous year and renewal applications ¹	113	174
– New applications accepted in the year	136	187
Application status as at end of the year		
– Listed ²	89	120
– Approved by the Listing Committee pending listing	16	28
– Under processing	56	65
– Others (i.e., lapsed ³ , rejected ⁴ , returned ⁴ or withdrawn)	88	148
Number of listing applications considered by the Listing Committees ⁵	73	126
– Average number of business days taken from date of case acceptance to date of Listing Committee hearing ⁶	203	167
Number of requests for guidance from listing applicants or their advisers seeking clarifications of listing matters	80	111
– Average response time (in business days)	11	14

¹ Renewal applications refer to applications accepted within three months following a lapsed application by the same applicant. In this context, the Exchange considers such a renewal application as a continuance of its original application.

² Includes 16 (2022: 30) investment vehicles listed on Main Board and no deemed new listings (2022: nil).

³ An application would lapse after six months have elapsed since the submission of a listing application form pursuant to Main Board Listing Rule 9.03/GEM Listing Rule 12.07. As at the end of 2023, 82 (2022: 143) applications were lapsed.

⁴ During 2023, there were nil (2022: nil) rejection and one (2022: nil) return of listing applications. No return/rejection decision in 2023 (2022: nil) was subsequently reversed upon review.

⁵ Refers to listing applications heard by the Listing Committee for the first time and excludes listing applications of investment vehicles under Chapter 20 of the Main Board Listing Rules.

⁶ The average number of business days taken from the date of the case acceptance to the date of the Listing Committee hearing, which include, among others, the Listing Division's vetting time as well as the listing applicants' or their advisers' response time, was 203 days. For 75 per cent of the cases that were presented to the Listing Committee hearing in 2023, the average number of business days taken by the Listing Division to provide comments from the date of case acceptance to the Listing Committee hearing was less than 90 days.

Number of Compliance and Monitoring Actions

	2023	2022
Announcements of issuers vetted	62,578	55,954
Circulars of issuers vetted	3,858	3,182
Share price and trading volume monitoring actions undertaken ¹	4,755	7,045
Complaints handled	845	1,098
Cases (including complaints) referred to Listing Enforcement Department for investigation	39	71

1 In 2023, monitoring actions undertaken included 299 enquiries (2022: 424) on unusual share price and trading volume movements, and the actions undertaken led to 18 resumption announcements (2022: 24) on trading suspensions.

Long Suspension

Status of Long Suspended Companies	Main Board		GEM	
	2023	2022	2023	2022
Resumption of trading of securities during the year	45	31	8	7
Cancellation of listing after expiry of prescribed remedial periods during the year	34	30	10	10
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))	–	6	–	–
Voluntary withdrawal of listing during the year	–	2	–	–
Companies suspended for 3 months or more at year-end	61	89	17	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 2023 by the Stock Exchange.

Enforcement Statistics

	2023	2022
Cases ^{1,2,3}	123	141
Public sanctions ⁴	32	29
Regulatory letters ⁵	18	19

- Figures represent cases handled by Listing Enforcement in 2023 (including those carried over from the previous year and those ongoing at year-end).
- At the end of 2023, there were 38 ongoing investigations (2022: 37).
- Out of the enforcement cases opened in 2023, one of them (2022: nil) originated from a complaint.
- 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.
- 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.

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 publication "Enforcement Bulletin" and are also included in the 2023 Listing Committee Report.

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 allocated to the Cash and Equity and Financial Derivatives segments in proportion to the listing fee income of the two segments.

Equity and Financial Derivatives Segment

The Equity and Financial Derivatives segment refers to derivatives products traded on the Stock Exchange and the Futures Exchange; the clearing, settlement and custodian activities relating to these products and OTC derivatives contracts; and other related activities. These include the provision and maintenance of trading and clearing platforms for a range of equity and financial derivatives products, such as stock and equity index futures and options, DWs, CBBCs and warrants, and OTC derivatives contracts. The major sources of revenue are trading fees and trading tariffs, clearing and settlement fees, listing fees, depository, custody and nominee services fees and net investment income earned on the Margin Funds and Clearing House Funds relating to these products.

Key Market Indicators

	2023	2022	Change
ADT of DWs, CBBCs and warrants traded on the Stock Exchange (\$bn)	11.8	15.9	(26%)
Average daily number of trades of DWs, CBBCs and warrants traded on the Stock Exchange ('000)	283	351	(19%)
ADV of derivatives contracts traded on the Futures Exchange ¹ ('000 contracts)	742²	712	4%
ADV of stock options contracts traded on the Stock Exchange ('000 contracts)	612	588	4%
Number of newly listed DWs	7,967	11,874	(33%)
Number of newly listed CBBCs	22,851	35,017	(35%)
Total notional values of newly listed securities:			
– DWs (\$bn)	131.9	204.1	(35%)
– CBBCs (\$bn)	870.8	1,301.1	(33%)
ADV of contracts traded during After-Hours Trading (AHT) ¹ ('000 contracts)	92	107	(14%)
	At 31 Dec 2023	At 31 Dec 2022	Change
Open interest of futures and options ¹ ('000 contracts)	11,845	10,938	8%

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

² New record high in 2023

Analysis of Results

Summary

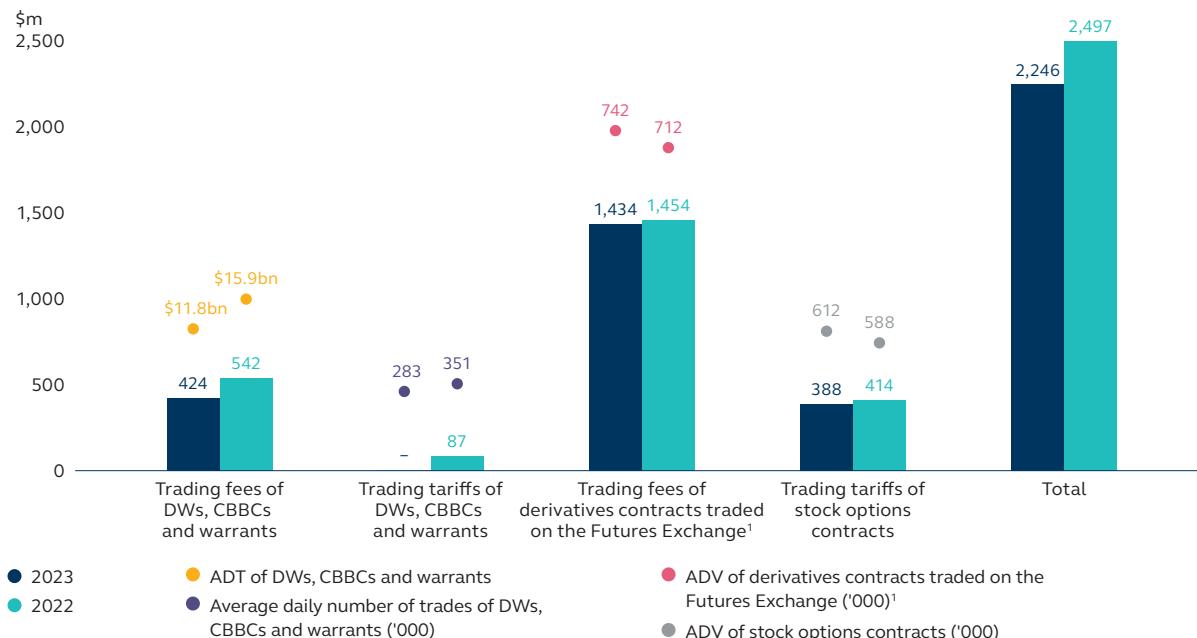
	2023 \$m	2022 \$m	Change
Trading fees and trading tariffs ¹	2,246	2,497	(10%)
Clearing and settlement fees ¹	455	565	(19%)
Stock Exchange listing fees ¹	615	923	(33%)
Depository, custody and nominee services fees ¹	97	118	(18%)
Other revenue and sundry income	39	32	22%
	3,452	4,135	(17%)
Net investment income	3,050	1,144	167%
Total revenue and other income	6,502	5,279	23%
Less: Transaction-related expenses	(237)	(165)	44%
Total revenue and other income less transaction-related expenses	6,265	5,114	23%
Operating expenses ²	(862)	(871)	(1%)
EBITDA	5,403	4,243	27%
EBITDA margin ³	86%	83%	3%

1 Excludes revenue from cash equities (which are included under the Cash segment)

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

3 EBITDA margin is calculated based on EBITDA divided by total revenue and other income 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)

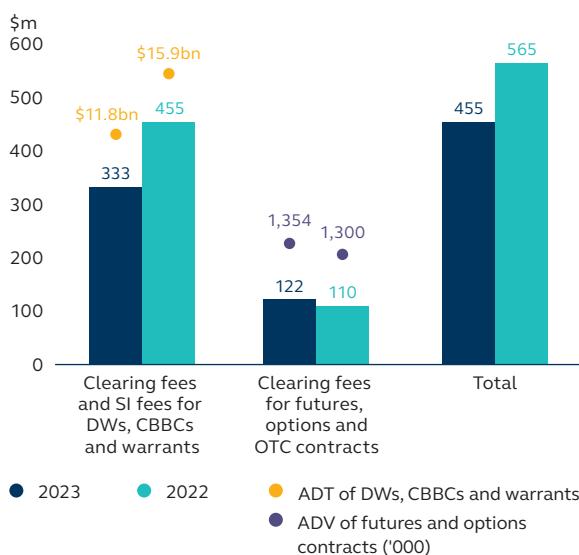
Trading fees and trading tariffs for the segment are generated from the trading of derivatives on the Stock Exchange (DWs, CBBCs, warrants, and stock options); and the trading of futures and options on the Futures Exchange.

Trading fees of DWs, CBBCs and warrants for 2023 were \$424 million, a 33 per cent decrease compared with the total trading fees and tariffs for 2022 of \$629 million. The decline was attributable to the 26 per cent decrease in ADT, and the reduction in fees from the change in the trading fee structure for the Cash Market¹.

Despite the record ADV of derivatives contracts traded, Futures Exchange trading fees decreased by \$20 million, or 1 per cent, as the positive impact from higher number of contracts traded was more than offset by lower average fees per contract in 2023. The reduction in average fees per contract was attributable to the higher discounts and rebates offered for certain contracts to attract volumes, and the increased popularity of recently launched products (including Hang Seng TECH Index Futures), which have lower fees compared to HSI Futures and Options.

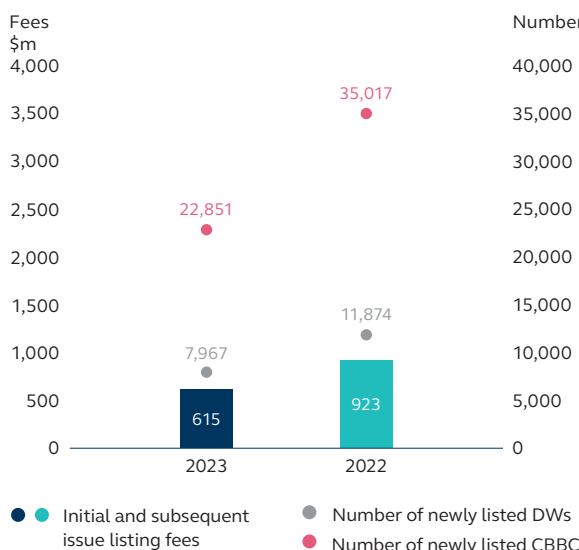
Trading tariffs of stock options contracts decreased by \$26 million, or 6 per cent, as a result of a lower proportion of higher fee contracts being traded during 2023.

Clearing and Settlement Fees



Clearing fees and SI fees for DWs, CBBCs and warrants fell by 27 per cent, primarily due to lower number of transactions.

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 decreased by \$308 million or 33 per cent, reflecting the decrease in number of newly listed DWs and CBBCs in 2023 compared with 2022.

Net Investment Income

Net investment income increased by \$1,906 million compared with 2022. This reflected higher HKD and USD deposit rates in 2023, partly offset by the increase in interest rebates paid to CPs for higher base rates. Further details of the Group's net investment income are set out under the Financial Review section of this Annual Report.

EBITDA

Transaction-related expenses include license fees and other costs which directly vary with trading and clearing transactions. These expenses increased by \$72 million, or 44 per cent, mainly due to higher incentives paid for certain contracts; and an increase in license fees from higher fees per contract and higher number of derivatives contracts traded.

Operating expenses decreased by \$9 million, due to lower allocated costs of the Listing Division from a higher percentage decrease in listing fees (33 per cent) compared with the Cash segment (8 per cent), but the decrease was partly offset by higher staff costs from payroll adjustments. EBITDA margin increased from 83 per cent to 86 per cent, reflecting the increase in total revenue and other income less transaction-related expenses and the decrease in operating expenses.

Business Update

Driven by the increased popularity of recently launched products and an increase in cross currency trading activities, the Hong Kong Derivatives Market sustained its growth trajectory in 2023, recording a record high in terms of total number of futures and options contracts traded. In addition, ADV of derivatives contracts traded on HKFE also recorded all-time highs in 2023, reaching 741,656² contracts. Hang Seng TECH Index Futures, RMB currency futures and HSCEI Futures Options were the major contributors, and a number of contracts reached full-year record highs in 2023.

New Record Highs – Full Year Trading Volume

	2023 Number of contracts	Pre-2023 record Number of contracts
Total Futures and Options ¹	331,466,044	319,847,360 (2022)
HSCEI Futures	45,925,447	45,034,706 (2022)
HSCEI Futures Options	8,451,175	5,041,543 (2022)
HSI Futures Options	864,319	663,026 (2022)
Hang Seng TECH Index Futures	26,944,255	18,677,024 (2022)
Hang Seng TECH Index Options	704,419	288,973 (2022)
Weekly HSI Options	3,185,275	2,734,821 (2022)
Weekly HSCEI Options	673,706	467,762 (2021)
RMB Currency Futures – USD/CNH Futures	9,153,227	3,499,105 (2022)
MSCI India (USD) Index Futures	674,226	40 (2021)
MSCI China Net Total Return (USD) Index Futures	373,515	149,922 (2022)
MSCI Hong Kong Net Total Return (USD) Index Futures	25,831	21,439 (2022)
MSCI India Net Total Return (USD) Index Futures	21,805	5,948 (2020)

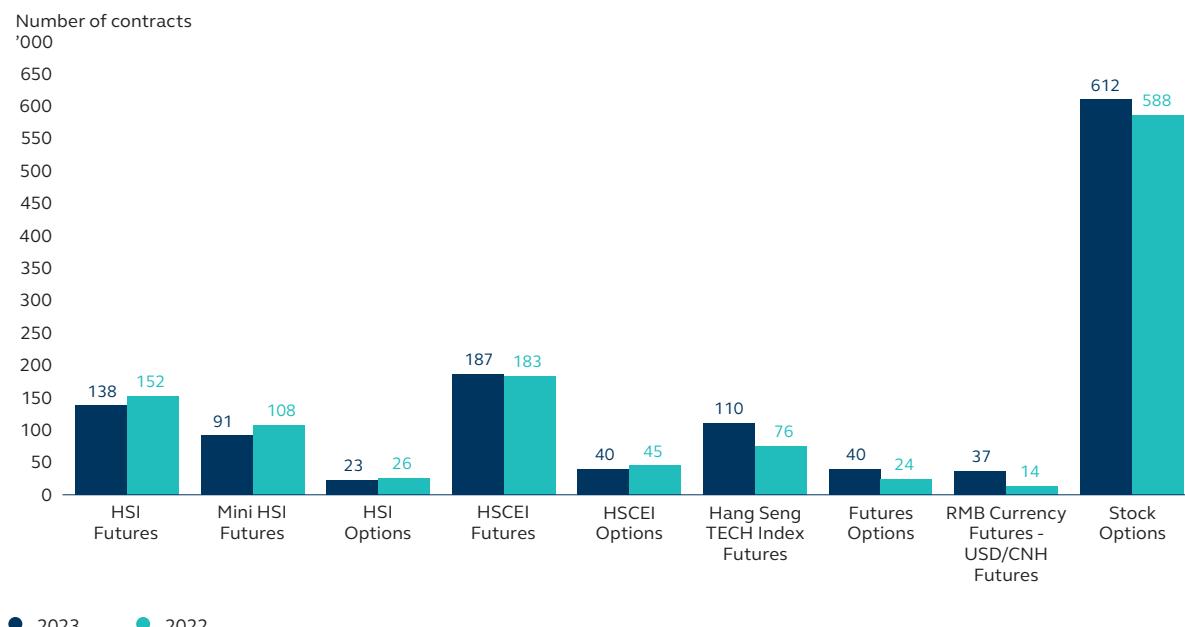
¹ Excludes London Metal Mini Futures, Gold Futures, Silver Futures and Iron Ore Futures contracts (which are included under the Commodities segment)

² Excludes London Metal Mini Futures, Gold Futures, Silver Futures and Iron Ore Futures contracts (which are included under the Commodities segment)

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

	Single-day trading volume		Open interest	
	Date (2023)	Number of contracts	Date (2023)	Number of contracts
HSCEI Futures	25 Apr	651,086	N/A	N/A
HSCEI Futures Options	31 Jul	103,353	15 Jun	1,207,462
Hang Seng TECH Index Futures	22 Dec	437,435	22 Dec	328,335
Hang Seng TECH Index Futures Options	11 Sep	16,502	16 Nov	73,304
Hang Seng TECH Index Options	22 Dec	8,894	26 Dec	65,082
Weekly HSI Options	16 Nov	31,476	15 Dec	20,804
Weekly HSCEI Options	N/A	N/A	17 Nov	17,041
Mini HSI Futures	N/A	N/A	29 Aug	32,394
RMB Currency Futures – USD/CNH Futures	15 Nov	112,385	N/A	N/A
INR Currency Futures – INR/USD Futures	29 Dec	6,516	24 Nov	5,367
MSCI China Net Total Return (USD) Index Futures	13 Mar	39,096	14 Sep	83,258
MSCI India Net Total Return (USD) Index Futures	N/A	N/A	15 Dec	6,373
MSCI India (USD) Index Futures	19 May	11,458	26 Dec	7,215

Average Daily Volume of Major Futures and Options Contracts



● 2023 ● 2022

Equity Futures and Options Market Development

Physically settled Options on Futures contracts continued to grow since their launch in August 2021. The aggregate ADV of the three products in the suite, namely HSI Futures Options, HSCEI Futures Options and Hang Seng TECH Index Futures Options, reached a record high of 39,517 contracts in 2023, up 67 per cent compared with 2022. Meanwhile, Hang Seng TECH Index Futures sustained its growth in trading volume during 2023, with ADV reaching a record high of 109,529 contracts, up 44 per cent against 2022.

MSCI index derivatives strengthened in 2023, with month-end open interest (OI) of the overall MSCI contracts exceeding 100,000 contracts for the first time since launch, on 30 November 2023. The OI of MSCI Net Total Return Suite grew significantly in 2023, reaching 53,386 contracts as at the end of 2023, up 62 per cent compared with 31 December 2022. In particular, the OI of MSCI China Net Total Return (USD) Index Futures as at the end of 2023 was 43,151 contracts, up 297 per cent compared with 31 December 2022.

Market Structure Development

HKEX enhanced its Block Trade Facility (BTF) in the Derivatives Market on 28 August 2023. BTF supports large-sized trades by allowing both sides of a privately negotiated trade to be reported directly into the trading system, without going through the open market. The enhancements remove some of the operational limitations for EPs, and will enhance Derivatives Market liquidity and support Hong Kong's continued development as a leading international risk management centre.

On 22 December 2023, the enhancements to Derivatives Market position limit came into effect. These include the increase of position limits for single stock options, single stock futures and USD/CNH related contracts, and the removal of additional position limits that apply to mini-flagship contracts. The initiative provides investors with more capacity and greater flexibility, and allows them to better manage their market exposure while ensuring proper risk controls.

Fixed Income and Currency (FIC) Development

In 2023, the USD/CNH Futures market continued to grow as investors sought to manage their positions in a very active CNH FX market. The number of USD/CNH Futures contracts traded reached a new record high of 9,153,227 contracts in 2023, more than double that of 2022, and the trading volume of USD/CNH Futures reached a daily record high of 112,385 contracts on 15 November 2023.

Structured Products

The Hong Kong listed structured products market remained the world's most liquid structured products market for the 17th consecutive year in 2023. A total of 30,818 structured products were listed during the year. ADT of CBBCs, DWs, and warrants was \$11.8 billion, accounting for 11 per cent of Headline ADT.

HKEX continued to expand and diversify the range of products and underlyings, providing investors with wider choice across asset classes. In 2023, DWs on US single stocks and HKD-denominated currency pairs were introduced.

OTC Clear

Swap Connect, the world's first derivatives mutual market access programme, was launched on 15 May 2023. The new mutual access programme allows international investors to trade and clear onshore RMB interest rate swaps without changing their existing trading and settlement practices, enabling offshore investors to capture opportunities in the onshore interest rate swaps market. The Swap Connect clearing volume has been growing steadily since launch.

OTC Clear's clearing volume reached a record high of US\$495.8 billion in 2023, up 119 per cent compared with 2022, reflecting an increase in Single Currency Interest Rate Swaps following the introduction of Swap Connect. In addition, clearing volumes of Cross Currency Swaps and Deliverable FX also reached record highs of US\$136.5 billion and US\$20.2 billion respectively, up 7 per cent and 35 per cent compared with 2022.

Commodities Segment

The Commodities segment refers to the operations of the LME, which operates a global exchange in the UK for the trading of base, ferrous and electric vehicle (EV) metals futures and options contracts; and the operations of its clearing house, LME Clear. It also covers the operations of QME, the commodity trading platform in Mainland China, and the commodities contracts traded on the Futures Exchange. The major sources of revenue of the segment are trading fees and clearing and settlement fees of commodity products, commodity market data fees, net investment income earned on the Margin Funds and Clearing House Funds relating to these products, and fees for ancillary operations.

Key Market Indicators

	2023 '000 lots	2022 '000 lots	Change
ADV of metals contracts traded on the LME			
– Aluminium	227	210	8%
– Copper	138	119	16%
– Zinc	89	85	5%
– Lead	58	39	49%
– Nickel	41	47	(13%)
– Others	9	6	50%
Total chargeable ADV excluding Admin Trades ¹	562	506	11%
Chargeable Admin Trades ¹	32	28	14%
Total ADV	594	534	11%

1 Admin Trades are chargeable at lower trading fee rate of US\$0.04 per contract and clearing fee rate of US\$0.02 per contract.

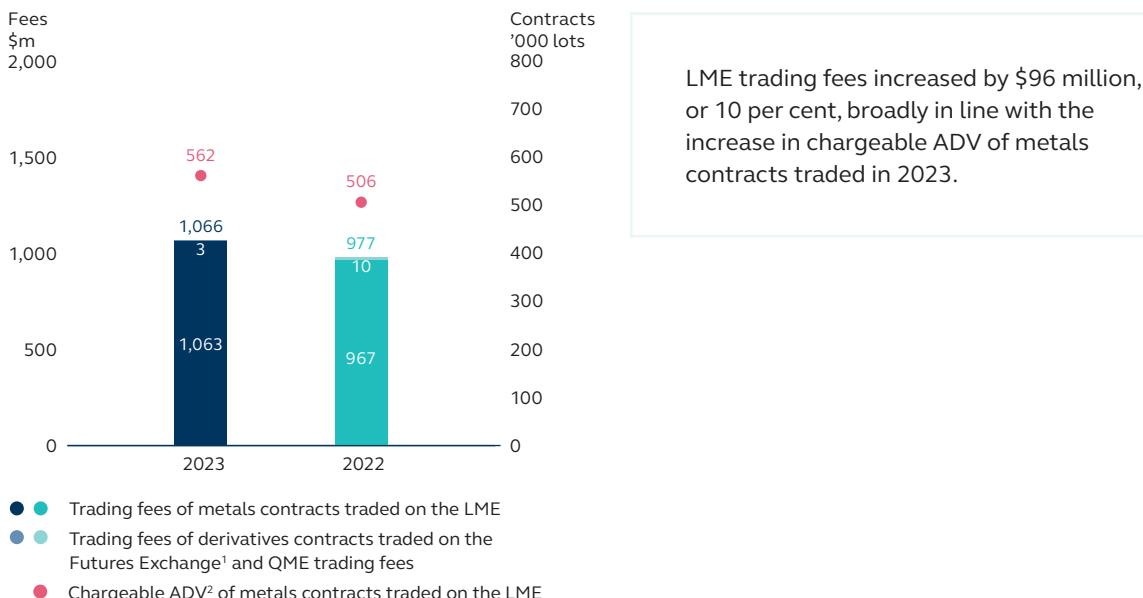
	At 31 Dec 2023 '000 lots	At 31 Dec 2022 '000 lots	Change
Total futures market open interest	1,793	1,438	25%

Analysis of Results

Summary

	2023 \$m	2022 \$m	Change
Trading fees and trading tariffs	1,066	977	9%
Clearing and settlement fees	487	444	10%
Market data fees	257	228	13%
Other revenue and sundry income:			
– Commodities stock levies and warehouse listing fees	39	43	(9%)
– LME financial OTC booking fees	39	45	(13%)
– Accommodation income	46	61	(25%)
– Others	64	71	(10%)
	1,998	1,869	7%
Net investment income	190	182	4%
Total revenue and other income	2,188	2,051	7%
Operating expenses	(1,208)	(1,093)	11%
EBITDA	980	958	2%
EBITDA margin	45%	47%	(2%)

Trading Fees and Trading Tariffs



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.

Clearing and Settlement Fees



1 Chargeable ADV excludes Admin Trades and other non-chargeable trades.

Other Revenue and Sundry Income

Other revenue dropped by \$32 million, mainly due to lower accommodation income collected from LME Clear CPs on cash collateral, as USD investment returns rose above the benchmark interest rate stipulated in the rules of LME Clear since Q2 2022.

EBITDA

Operating expenses increased by \$115 million, up 11 per cent. These were mainly attributable to higher staff costs from increased headcount for strategic projects and payroll adjustments; higher consultancy fees incurred by the LME in its two-year action plan to strengthen and enhance its market; and higher IT maintenance costs due to inflation; and partly offset by lower legal and professional fees incurred for the events in the nickel market in March 2022. EBITDA margin decreased from 47 per cent to 45 per cent, reflecting the higher percentage increase in operating expenses compared with the percentage increase in total revenue and other income.

Business Update

LME

LME trading volumes have been encouraging, with chargeable ADV of metal contracts reaching 561,839 lots in 2023, up 11 per cent from 2022. Trading volumes in December 2023 were particularly strong, attributable to the healthy open interest growth as members looked to roll such contracts into 2024 ahead of the year end. In addition, the ADV of chargeable lead contracts reached a record high following the metal's inclusion in the Bloomberg Commodity Index.

On 27 March 2023, the LME reopened nickel trading during Asian trading hours, and this contributed to the continued stable liquidity rebuilding of the contracts throughout 2023, following events in the nickel market in 2022. In particular, chargeable ADV of nickel reached 50,040 lots in Q4 2023, up 32 per cent against the first nine months of 2023.

On 30 March 2023, the LME announced a two-year action plan to strengthen and enhance its markets. The action plan embeds the findings of independent, internal, and regulatory-led reviews for managing risk through enhanced controls and aims to build confidence in the operation and governance of the LME markets. During the year, the following key initiatives were announced:

- The LME introduced a fast-track listing approach and fee waiver for new nickel brands – without relaxing the LME's metallurgical or responsible sourcing standards – with the aim of bringing more stock and liquidity to the contract. This led to several new brand listings by producers throughout the second half of the year, adding new supply to the market;
- On 14 September 2023, the LME, following extensive market engagement and subsequent feedback from stakeholders, announced its intention to extend the use of volume-weighted average prices (VWAP) to determine Closing Prices in its most liquid contracts, which will be rolled out in phases in 2024. The new methodology aims to bring greater determinism, transparency, and standardisation to the Closing Price discovery process; and

- On 9 November 2023, the LME announced new requirements designed to provide greater visibility of unwarranted metal stocks in LME warehouses. The first report showing this enhanced data will be available from April 2024. The new off-warrant stock reporting rules will require LME-registered warehouse companies to report all LME-branded materials that are being stored off-warrant, providing ongoing confidence in the operation of the LME's markets.

Throughout 2023, the LME made several enhancements and developments in LMEpassport, the LME's digital sustainability credentials register. As at 31 December 2023, LMEpassport had over half of LME-listed brands voluntarily disclosing ESG data, alongside 54 available certifications, standards, and metrics across the ESG spectrum. The other two key developments announced in 2023 included the ability for LME-listed producers to disclose a broad range of sustainability-related targets and commitments, and tracking of progress against these parameters, as well as a new "side-by-side" functionality, enabling users to simultaneously compare the ESG disclosures of up to five producers.

2023 has also seen strong progress on LME responsible sourcing, and the first full reporting cycle of responsible sourcing compliance was completed in December 2023. The LME will work through compliance submissions in early 2024, and take further actions as required.

The positive outcome of a judicial review at the end of the year, in relation to the events in the nickel market in March 2022, was welcomed by the Group. The LME will continue to take necessary and appropriate measures to ensure an orderly market, supporting the long-term health, efficiency and resilience of its markets.

QME

QME's trading turnover amounted to RMB130.3 billion in 2023, up 64 per cent compared with 2022. In December, QME officially launched the bonded trading warehouse business for the Imported Soybean Physical Trading Market. Several policy breakthroughs were issued by Ministry of Commerce and Ministry of Agriculture and Rural Affairs, and trading volume of soybeans at QME reached over 5 million tonnes in 2023.

Data and Connectivity Segment

The Data and Connectivity segment covers sales of market data relating to the Hong Kong Cash and Derivatives Markets; 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 market data fees, network, terminal user, data line and software sub-license fees and hosting services fees.

Analysis of Results

Summary

	2023 \$m	2022 \$m	Change
Market data fees	841	853	(1%)
Other revenue and sundry income:			
– Network fees	788	751	5%
– Hosting Services fees	350	290	21%
– BayConnect sales and services revenue and other income	94	104	(10%)
Total revenue and other income	2,073	1,998	4%
Operating expenses	(438)	(447)	(2%)
EBITDA	1,635	1,551	5%
EBITDA margin	79%	78%	1%

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

Network fees rose by \$37 million or 5 per cent due to increased usage of the Orion Central Gateway and China Connect Central Gateway by EPs, partly offset by lower fees from sale of new throttles.

new data package to allow unlimited number of access to Level 1 real-time streaming market data; and the reduction of monthly fees for Level 1 Mobile Application Service for EPs and information vendors. These enhancements are being offered as a pilot programme with effect between 1 December 2023 and the end of 2025.

Hosting Services Fees

Hosting Services fees increased by \$60 million, or 21 per cent, due to the increased capacity available to customers following the launch of the new Hosting Services data hall in Q4 2022, with over 36 racks being newly subscribed in 2023. As of 31 December 2023, 97 EPs were using HKEX's Hosting Services. These EPs generated, in aggregate, approximately 66 per cent of the Cash Market turnover and 69 per cent trading volume of the Derivatives Market in 2023.

Trading and Clearing Systems

During 2023, all HKEX's major trading, clearing, settlement and market data dissemination systems for the Cash, Derivatives and OTC Markets continued to perform robustly. In the Commodities Market, the LME Clear experienced a failure during the start-up of LMEmercury on 24 October 2023 and was remediated the same day. There was no material impact to the market as all trades were subsequently cleared and LME trading and pricing systems were unaffected and operated as normal.

EBITDA

Operating expenses decreased marginally by 2 per cent. EBITDA margin rose from 78 per cent in 2022 to 79 per cent in 2023, reflecting the increase in total revenue and other income and decrease in operating expenses.

In 2023, the Orion Trading Platform – Securities Market (OTP-C) was upgraded to allow Relevant Regulated Intermediaries (RRIs) to tag Broker-to-Client Assigned Numbers (BCANs) to on-exchange orders and off-exchange trades reportable to the Stock Exchange. In addition, some new features of the Orion Central Gateway – Securities Market (OCG-C) and the updated quotation rules for ETPs were implemented together with the launch of the HKIDR.

Business Update

Market Data

A Market Data Fees Pilot Programme was introduced in December 2023. This includes the offering of a

Corporate Items

“Corporate Items” is not a business segment but comprises central income (including net investment income of Corporate Funds and donation income of HKEX Foundation), the cost 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.

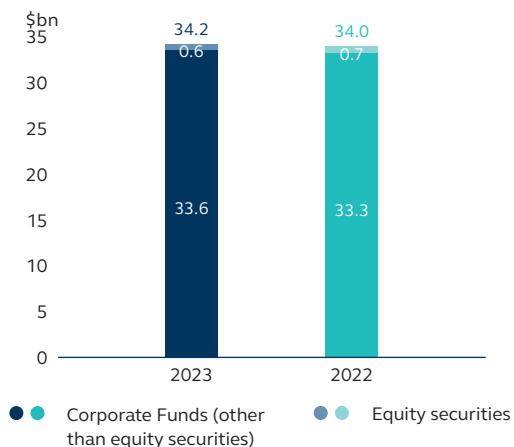
Analysis of Results

Summary

	2023 \$m	2022 \$m	Change
Net investment income/(loss)	1,487	(48)	N/A
Donation income of HKEX Foundation	88	130	(32%)
Others	14	12	17%
Total revenue and other income	1,589	94	1,590%
Operating expenses			
– HKEX Foundation charitable donations	(94)	(136)	(31%)
– Others	(1,712)	(1,521)	13%
EBITDA	(217)	(1,563)	(86%)

Net Investment Income

Average Fund Size



Average fund size of Corporate Funds increased marginally due to cash generated and retained by the business after payment of cash dividends, and the increase in fair values of the External Portfolio.

The analysis of net investment income/(loss) of Corporate Funds is as follows:

	2023 \$m	2022 \$m
Net investment income/(loss) from:		
– External Portfolio	421	(486)
– Cash and bank deposits	1,239	459
– Equity securities ¹	(253)	(21)
– Debt securities	66	17
– Exchange gains/(losses)	14	(17)
Total net investment income/(loss)	1,487	(48)
Net investment return	4.35%	(0.14%)

1 Investments in minority stakes of unlisted companies

Net investment income from Corporate Funds was \$1,487 million in 2023, compared with net investment loss of \$48 million in 2022. This was principally due to net fair value gains of \$421 million on the External Portfolio (as opposed to the net fair value losses of \$486 million in 2022), and higher investment income from internally managed Corporate Funds from higher deposit rates but was partly offset by non-recurring losses on valuation of the Group's unlisted equity investments.

The fair value gains/(losses) on the External Portfolio came from funds invested in the following strategies:

Strategy	2023 \$m	2022 \$m
Public equities	123	(327)
Diversifiers ¹	234	38
Government Bonds and Mortgage-backed Securities	64	(197)
Total fair value gains/(losses)	421	(486)

1 Diversifiers comprise Absolute Return and Multi-Sector Fixed Income asset classes.

EBITDA

Excluding HKEX Foundation charitable donation expenses (funded by donation income of HKEX Foundation), operating expenses increased by 13 per cent against 2022, attributable to higher staff costs from increased headcount for strategic initiatives and annual payroll adjustments, and higher IT maintenance costs from inflationary adjustments.

EBITDA increased by \$1,346 million mainly due to the significant increase in net investment income of Corporate Funds, partly offset by the increase in operating expenses.

Business Update

Corporate Social Responsibility

Throughout 2023, HKEX continued to play an active role to help shape the long-term sustainability of global financial markets and the communities they support. HKEX, as a regulator, market operator and corporate, is committed to promoting good corporate governance and ESG stewardship through clear policies, ongoing industry knowledge sharing, market education, providing sustainable finance platforms and demonstrating leadership on best practices.

To reinforce its commitment to promoting ESG and addressing climate change, the Group continued to make efforts in driving the net-zero transition across its markets, business and operations. In view of the global development in sustainability and climate-related disclosures, HKEX conducted a market consultation on enhancing climate-related disclosure requirements under its ESG reporting framework, helping its listed issuers chart their journey towards a sustainable business and low-carbon economy. Throughout the year, the Group contributed further to the development of a regional and global sustainable finance ecosystem by facilitating voluntary carbon market trading through Core Climate, promoting sustainable and green finance offerings through HKEX's STAGE, and enhancing sustainability transparency for the LME-listed metals through LMEpassport. As a corporate, in 2023, the Group announced its commitment to achieve net zero by 2040, 10 years ahead of its original target, and also to become carbon neutral in its operations by 2024.

With a steadfast commitment to people, HKEX continued to invest in professional development, wellness and engagement of its employees. Throughout the year, in addition to ongoing professional development and training programmes at all levels, the Group introduced an enhanced series of learning curricula, leadership programmes and also revamped its graduate trainee programme. The Group continued a wide range of diversity and wellness-focused initiatives such as the annual Global Wellness Challenge and the first-ever HKEX Wellness Marketplace, as well as celebrating World Mental Health Day. As part of its ongoing employee engagement endeavours, the Group conducted its biennial People Survey to gauge valuable employee feedback with a goal to cultivate a workplace that is healthy, inclusive and where everyone can fulfil their potential. Further information on these activities can be found in HKEX's 2023 CSR Report.

HKEX Foundation and Group Philanthropy

In 2023, the Group continued to facilitate and advocate meaningful positive change to the communities in which it operates through a series of philanthropic initiatives. Through HKEX Foundation, the Group continued to strengthen its partnerships with Hong Kong's charitable bodies and social enterprises with its two funding channels, HKEX Charity Partnership Programme and HKEX Impact Funding Scheme. During the year, the Foundation funded a wide range of charities and community projects focusing on four key areas: financial literacy, diversity and inclusion, poverty relief and environmental sustainability. Alongside the HKEX University Scholarship Programme, the Foundation once again launched its Research Funding Scheme, nurturing future talents and enhancing research and development capabilities in the fields of business, sustainable finance, ESG and technology. In London, the LME announced a new fund to provide scholarships for students at the Camborne School of Mines, helping them embark on a mining career.

In 2023, HKEX Foundation raised \$113 million (including a \$25 million donation from HKEX), principally from HKEX's Stock Code for Charity Scheme, and made a total of \$94 million in charitable donations supporting various good causes in the community. Since its establishment, HKEX Foundation has donated and committed over \$449 million, supporting more than 90 projects, directly benefitting more than 689,000 individuals in Hong Kong. As at 31 December 2023, the Foundation had a cumulative surplus of \$66 million for future donations and developments.

Expenses, Other Costs and Taxation

Operating Expenses



Staff costs and related expenses rose by \$240 million (7 per cent) mainly due to an increase in headcount for strategic projects and payroll adjustments, reflecting the Group's commitment to continuous investment in skills and talent.

IT and computer maintenance expenses consumed by the Group, excluding costs of services and goods directly consumed by participants of \$73 million (2022: \$74 million), were \$741 million (2022: \$658 million). The increase was mainly attributable to higher maintenance expenses for new systems and upgraded networks, and the inflationary increase in maintenance contract renewals.

Professional fees increased by \$10 million (4 per cent), mainly due to higher consultancy fees in relation to the ongoing strategic and operational strengthening programme at the LME, but partly offset by lower legal and professional fees relating to the temporary trading suspension of the LME nickel market in March 2022.

Other operating expenses increased by \$36 million (10 per cent) mainly due to the increase in business travelling activities post-pandemic.

Depreciation and Amortisation

	2023 \$m	2022 \$m	Change
Depreciation and amortisation	1,443	1,459	(1%)

Depreciation and amortisation decreased by \$16 million, as certain IT systems were fully amortised in 2023. The decrease was partly offset by the completion of the new Hosting Services data hall in Q4 2022, and new IT systems and upgrades during 2023.

Finance Costs

	2023 \$m	2022 \$m	Change
Finance costs	135	138	(2%)

Finance costs decreased due to lower interest expense on lease liabilities.

Taxation

	2023 \$m	2022 \$m	Change
Taxation	1,351	1,564	(14%)

Taxation decreased by \$213 million, due to higher non-taxable investment income in 2023, partly offset by higher profit before taxation.

Financial Review

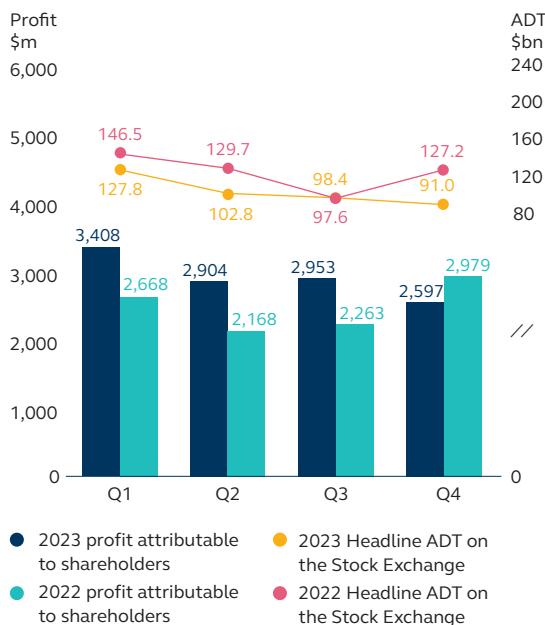
Analysis of Results by Quarter

Quarterly Results

	Q1 2023 \$m	Q2 2023 \$m	Q3 2023 \$m	Q4 2023 \$m	Total 2023 \$m
Trading fees and trading tariffs	1,692	1,490	1,494	1,405	6,081
Clearing and settlement fees	1,069	959	949	908	3,885
Stock Exchange listing fees	418	367	368	370	1,523
Depository, custody and nominee services fees	191	365	342	378	1,276
Market data fees	267	270	281	280	1,098
Other revenue and sundry income	381	401	411	413	1,606
Net investment income	1,535	1,141	1,211	1,072	4,959
Donation income of HKEX Foundation	5	24	28	31	88
Revenue and other income	5,558	5,017	5,084	4,857	20,516
Less: Transaction-related expenses	(46)	(48)	(74)	(79)	(247)
Revenue and other income less transaction-related expenses	5,512	4,969	5,010	4,778	20,269
Operating expenses					
Staff costs and related expenses	(870)	(841)	(874)	(979)	(3,564)
IT and computer maintenance expenses	(189)	(192)	(202)	(231)	(814)
Premises expenses	(31)	(33)	(36)	(34)	(134)
Product marketing and promotion expenses	(25)	(26)	(32)	(52)	(135)
Professional fees	(68)	(69)	(61)	(91)	(289)
HKEX Foundation charitable donations	(27)	(50)	(7)	(10)	(94)
Other operating expenses	(93)	(108)	(92)	(118)	(411)
	(1,303)	(1,319)	(1,304)	(1,515)	(5,441)
EBITDA (non-HKFRS measure)	4,209	3,650	3,706	3,263	14,828
Depreciation and amortisation	(365)	(354)	(362)	(362)	(1,443)
Operating profit	3,844	3,296	3,344	2,901	13,385
Finance costs	(35)	(35)	(32)	(33)	(135)
Share of profits less losses of joint ventures	20	19	24	19	82
Profit before taxation	3,829	3,280	3,336	2,887	13,332
Taxation	(393)	(348)	(353)	(257)	(1,351)
Profit for period/year	3,436	2,932	2,983	2,630	11,981
Profit attributable to non-controlling interests	(28)	(28)	(30)	(33)	(119)
Profit attributable to shareholders	3,408	2,904	2,953	2,597	11,862

	Q1 2022 \$m	Q2 2022 \$m	Q3 2022 \$m	Q4 2022 \$m	Total 2022 \$m
Revenue and other income	4,690	4,247	4,318	5,201	18,456
Profit attributable to shareholders	2,668	2,168	2,263	2,979	10,078

Analysis of Quarterly Results



Throughout 2023, market sentiment was impacted by the high interest rate environment and the slower than expected economic recovery in Mainland China. As a result, Headline ADT in the four quarters of 2023 was generally lower than the corresponding quarters in 2022. However, the Group's net investment income was boosted by the high interest rate environment, recording significant growth over 2022, more than offsetting the impact of lower ADT.

Profit generally follows the trend of trading volumes, but is also affected by the high interest rate environment, and valuation of the External Portfolio and unlisted equity investments. Q4 2023 profit was the lowest due to lower Headline ADT and the non-recurring valuation losses of the Group's unlisted equity investments.

Analysis of Key Items in Consolidated Financial Statements

(A) Significant Financial Assets and Financial Liabilities by Funds

	At 31 Dec 2023 \$m	At 31 Dec 2022 \$m	Change
Financial assets			
Cash and cash equivalents	125,107	184,965	(32%)
Financial assets measured at fair value through profit or loss	6,961	6,964	(0%)
Financial assets measured at fair value through other comprehensive income	18,250	14,962	22%
Financial assets measured at amortised cost	76,649	70,494	9%
Derivative financial instruments	58,127	80,718	(28%)
Total	285,094	358,103	(20%)

The Group's financial assets comprised financial assets of Corporate Funds, Margin Funds, Clearing House Funds, derivative financial instruments (including base and ferrous metals derivatives contracts, and foreign exchange derivative contracts), and cash prepayments and collateral for A-shares traded under Stock Connect, as follows:

	At 31 Dec 2023 \$m	At 31 Dec 2022 \$m	Change
Financial assets			
Corporate Funds ¹	34,812	34,830	(0%)
Margin Funds ²	166,300	217,693	(24%)
Clearing House Funds	23,122	22,052	5%
Derivative financial instruments	58,127	80,718	(28%)
Cash prepayments and collateral for A-shares	2,733	2,810	(3%)
Total	285,094	358,103	(20%)

1 Includes \$1,571 million (31 December 2022: \$1,298 million) solely used for supporting contributions to default funds (Skin-in-the-Game), and default fund credits for Clearing House Funds

2 Excludes Settlement Reserve Fund and Settlement Guarantee Fund paid to ChinaClear under Stock Connect, inter-central counterparties (inter-CCP) margin paid to Shanghai Clearing House (SHCH) under Swap Connect, and margin receivable from CPs of \$9,865 million (31 December 2022: \$10,209 million), which are included in accounts receivable, prepayments and deposits

	At 31 Dec 2023 \$m	At 31 Dec 2022 \$m	Change
Financial liabilities			
Derivative financial instruments	58,100	80,705	(28%)
Margin deposits, Mainland security and settlement deposits, and cash collateral from Participants	176,165	227,902	(23%)
CPs' contributions to Clearing House Funds	21,955	21,205	4%
Total	256,220	329,812	(22%)

The decrease in financial assets and financial liabilities of Margin Funds at 31 December 2023 compared with 31 December 2022 was due to reduced contributions required from LME Clear members and HKCC CPs, reflecting lower margin requirements from lower contract prices.

The increase in financial assets and financial liabilities of Clearing House Funds at 31 December 2023 compared with 31 December 2022 was mainly due to higher contributions required from HKCC CPs and OTC Clear members, partly offset by lower contributions from members of LME Clear, in response to changes in risk exposures and the adoption of new methodology and assumptions in the default fund contribution calculation.

Margin Funds and Clearing House Funds of LME Clear are mainly invested in overnight reverse repurchase investments, where high quality assets are held against such investments as collateral. In Hong Kong, Clearing House Funds are predominantly kept overnight or invested in

Exchange Fund Bills issued by the Hong Kong Monetary Authority due to regulatory requirements. For Margin Funds, a certain proportion of the funds are kept overnight to meet withdrawal requests from CPs (approximately 20 per cent at 31 December 2023), a certain proportion is invested in long-term investment grade debt securities (approximately 8 per cent at 31 December 2023) and the remaining funds are invested in time deposits with maturity of up to 12 months (weighted original maturity of ten months as at 31 December 2023).

Financial assets of Corporate Funds at 31 December 2023 remained stable compared with 31 December 2022 as cash generated by the business over the past year and the net increase in fair values of the Group's investments (including the External Portfolio and unlisted equity investments) were mostly offset by the cash paid for the 2022 second interim dividend and 2023 first interim dividend.

A portion of the Corporate Funds is invested in a diversified portfolio of investment funds which are designed to enhance returns and mitigate portfolio volatility and asset class concentration risk. Further details of investments in the External Portfolio are included in note 53(a)(iv) to the Consolidated Financial Statements of this Annual Report.

(B) Net Investment Income of Margin Funds and Clearing House Funds

Net investment income of Margin Funds and Clearing House Funds increased by \$2,068 million compared with 2022 and reached record high of \$3,472 million, reflecting the higher HKD and USD deposit rates in 2023. Further analysis on net investment income of Margin Funds and Clearing House Funds are set out below:

	2023				
	HK Clearing Houses		LME Clear		
	Margin Funds \$m	Clearing House Funds \$m	Margin Funds \$m	Clearing House Funds \$m	Total \$m
Net investment income/(loss) from:					
- Cash and bank deposits (including foreign exchange swaps)	2,756	248	153	21	3,178
- Debt securities	184	97	15	1	297
- Exchange losses	(3)	-	-	-	(3)
Total net investment income	2,937	345	168	22	3,472
Average fund size (\$bn)	109.0	12.5	79.6	10.1	211.2
Net investment return	2.69%	2.77%	0.21%	0.22%	1.64%

	2022				
	HK Clearing Houses		LME Clear		
	Margin Funds \$m	Clearing House Funds \$m	Margin Funds \$m	Clearing House Funds \$m	Total \$m
Net investment income from:					
- Cash and bank deposits	1,037	47	90	23	1,197
- Debt securities	106	32	69	-	207
Total net investment income	1,143	79	159	23	1,404
Average fund size (\$bn)	114.5	10.1	115.7	13.0	253.3
Net investment return	1.00%	0.78%	0.14%	0.18%	0.55%

Net investment income of Margin Funds and Clearing House Funds are allocated to the following segments:

	2023 \$m	2022 \$m	Change
Cash	232	78	197%
Equity and Financial Derivatives	3,050	1,144	167%
Commodities	190	182	4%
Total	3,472	1,404	147%

(C) 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 \$224 million from \$20,608 million at 31 December 2022 to \$20,832 million at 31 December 2023. The increase was mainly due to additions of assets of \$1,381 million partly offset by depreciation and amortisation of \$1,148 million. Additions during the year were mainly related to the development and upgrade of various trading and clearing systems (notably trading systems for the Commodities Market).

The Group's operating leases, which mainly relate to leases of office premises, are recognised as right-of-use assets. Such assets decreased by \$120 million to \$1,484 million (31 December 2022: \$1,604 million), mainly due to depreciation of \$295 million partly offset by the renewals and additions of leases of \$176 million.

The Group's capital commitments¹ at 31 December 2023, including those authorised by the Board but not yet contracted for, amounted to \$1,555 million (31 December 2022: \$1,024 million). They were mainly related to the development and upgrade of IT systems including the cash, derivatives and commodities trading and clearing systems (notably the new trading systems for the Derivatives Market).

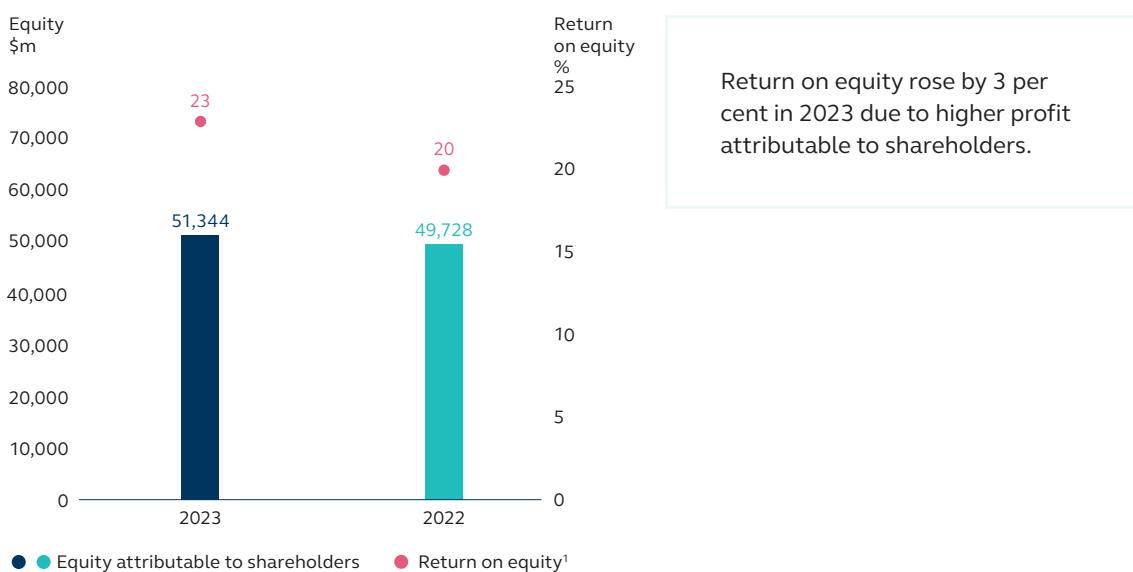
(D) Significant Investments Held, Material Acquisitions and Disposals of Subsidiaries, and Future Plans for Material Investments or Capital Assets

Save for those disclosed in this Annual Report, 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 Annual Report, there were no material investments or additions of capital assets authorised by the Board at the date of this Annual Report.

(E) Equity attributable to Shareholders and Return on Equity

Equity attributable to shareholders increased by \$1,616 million to \$51,344 million at 31 December 2023 (31 December 2022: \$49,728 million). This arose principally from the increase in retained earnings and designated reserves of \$1,508 million mainly attributable to profit for the year less dividends declared or paid, and increase in revaluation reserve of \$129 million arising from the fair value gains of fixed rate debt securities held under the Margin Funds.

Equity attributable to Shareholders and Return on Equity



1 Based on equity attributable to shareholders at year-end

1 Exclude right-of-use assets recognised under HKFRS 16: Leases

Liquidity, Financial Resources and Gearing

Working capital increased by \$161 million to \$29,691 million at 31 December 2023 (31 December 2022: \$29,530 million). The increase was mainly due to profit attributable to shareholders of \$11,862 million, partly offset by payment of 2022 second interim dividend and 2023 first interim dividend of \$10,364 million, and the increase in long-term debt securities of \$1,457 million held under Corporate Funds.

At 31 December 2023, the Group had the following outstanding borrowings:

	At 31 Dec 2023		At 31 Dec 2022	
	Carrying value \$m	Maturity	Carrying value \$m	Maturity
Written put options to non-controlling interests	447	N/A	491	N/A

In 2023, the Group redeemed written put options exercised by the non-controlling interests at a consideration of \$51 million. After the redemption, the carrying amount of written put options to non-controlling interests was \$447 million at 31 December 2023, representing the present value of the total 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 2023, the Group had a gross gearing ratio (i.e., gross debt divided by adjusted capital) of 1 per cent (31 December 2022: 1 per cent), and a net gearing ratio (i.e., net debt divided by adjusted capital) of zero per cent (31 December 2022: zero per cent). For this purpose, gross debt is defined as total borrowings (excluding lease liabilities) and net debt² 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 2023, the Group's total available banking facilities for its daily operations amounted to \$25,912 million (31 December 2022: \$22,839 million), which included \$18,972 million (31 December 2022: \$16,338 million) of committed banking facilities and \$6,500 million (31 December 2022: \$6,500 million) of repurchase facilities. Additional banking facilities were arranged for supporting the Swap Connect operations in 2023.

The Group has also put in place foreign exchange facilities for its daily clearing operations and for the

RMB Equity Trading Support Facility to support the trading of RMB stocks listed on the Stock Exchange. At 31 December 2023, the total amount of the facilities was \$33,852 million (31 December 2022: \$28,493 million).

In addition, the Group has arranged contingency banking facilities amounting to RMB13,000 million (31 December 2022: RMB13,000 million) for settling payment obligations to ChinaClear should there be events that disrupt normal settlement arrangements for Stock Connect.

At 31 December 2023, 83 per cent (31 December 2022: 88 per cent) of the Group's cash and cash equivalents were denominated in HKD or USD.

Pledges of Assets

Details of pledges of assets are included in note 51 to the Consolidated Financial Statements of this Annual Report.

Exposure to Fluctuations in Exchange Rates and Related Hedges

Details of the Group's exposure to fluctuations in exchange rates and related hedges are included in note 53(a)(i) – Foreign exchange risk to the Consolidated Financial Statements of this Annual Report.

Contingent Liabilities

Details of contingent liabilities are included in note 49 to the Consolidated Financial Statements of this Annual Report.

² 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.

10-Year Financial Statistics

	2023	2022	2021	2020	2019	2018	2017	2016	2015	2014
Key Market Statistics										
Headline ADT traded on the Stock Exchange (\$bn)	105.0	124.9	166.7	129.5	87.2	107.4	88.2	66.9	105.6	69.5
ADV of derivatives contracts traded on the Futures Exchange ('000 contracts)	742	715	538	612	630	687	443	465	394	275
ADV of stock options contracts traded on the Stock Exchange ('000 contracts)	612	588	637	526	442	517	428	298	374	302
Chargeable ADV of metals contracts traded on the LME ('000 lots)	562	506	547	571	617	627	602	618	670	700
Consolidated Income Statement										
({\$m})										
Revenue and other income	20,516	18,456	20,950	19,190	16,311	15,867	13,180	11,116	13,375	9,849
Less: Transaction-related expenses	(247)	(176)	(152)	(110)	(51)	(54)	(40)	(39)	(36)	(27)
Revenue and other income less transaction-related expenses	20,269	18,280	20,798	19,080	16,260	15,813	13,140	11,077	13,339	9,822
Operating expenses	(5,441)	(5,095)	(4,529)	(4,439)	(3,997)	(4,056)	(3,526)	(3,416)	(3,254)	(2,931)
EBITDA (non-HKFRS measure)	14,828	13,185	16,269	14,641	12,263	11,757	9,614	7,661	10,085	6,891
Depreciation and amortisation	(1,443)	(1,459)	(1,354)	(1,197)	(1,044)	(762)	(858)	(771)	(684)	(647)
Costs relating to proposed combination with LSEG	-	-	-	-	(123)	-	-	-	-	-
Finance costs	(135)	(138)	(154)	(181)	(177)	(114)	(134)	(82)	(114)	(196)
Share of profits/(losses) of joint ventures	82	71	80	69	32	2	(12)	(9)	(9)	(10)
Profit before taxation	13,332	11,659	14,841	13,332	10,951	10,883	8,610	6,799	9,278	6,038
Taxation	(1,351)	(1,564)	(2,343)	(1,845)	(1,561)	(1,592)	(1,255)	(1,058)	(1,347)	(900)
Profit for the year	11,981	10,095	12,498	11,487	9,390	9,291	7,355	5,741	7,931	5,138
(Profit)/loss attributable to non-controlling interests	(119)	(17)	37	18	1	21	49	28	25	27
Profit attributable to shareholders	11,862	10,078	12,535	11,505	9,391	9,312	7,404	5,769	7,956	5,165
Dividend per share (\$)	8.41	7.14	8.87	8.17	6.71	6.71	5.40	4.25	5.95	3.98
Basic earnings per share (\$)	9.37	7.96	9.91	9.11	7.49	7.50	6.03	4.76	6.70	4.44
Consolidated Statement of Financial Position										
({\$m})										
Non-current assets	24,977	23,573	24,235	23,413	23,856	20,165	19,586	19,508	19,622	19,672
Current assets	316,202	382,478	375,069	375,693	255,195	235,783	298,018	227,810	218,571	232,188
Current liabilities	(286,511)	(352,948)	(345,964)	(346,334)	(230,937)	(213,581)	(278,566)	(210,688)	(203,976)	(222,564)
Net current assets	29,691	29,530	29,105	29,359	24,258	22,202	19,452	17,122	14,595	9,624
Total assets less current liabilities	54,668	53,103	53,340	52,772	48,114	42,367	39,038	36,630	34,217	29,296
Non-current liabilities	(2,872)	(3,004)	(3,430)	(3,536)	(3,613)	(1,464)	(1,663)	(4,246)	(4,255)	(7,937)
Total equity	51,796	50,099	49,910	49,236	44,501	40,903	37,375	32,384	29,962	21,359
Non-controlling interests	(452)	(371)	(284)	(318)	(328)	(174)	(102)	(118)	(146)	(86)
Equity attributable to HKEX's shareholders	51,344	49,728	49,626	48,918	44,173	40,729	37,273	32,266	29,816	21,273
Equity per share ¹ (\$)	40.60	39.30	39.22	38.64	35.12	32.65	30.14	26.42	24.74	18.26
Financial Ratios										
Dividend payout ratio	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%
Cost to income ratio ²	27%	28%	22%	23%	25%	26%	27%	31%	24%	30%
Pre-tax profit margin ²	66%	64%	71%	70%	67%	69%	66%	61%	70%	62%
Return on equity ³	23%	20%	25%	24%	21%	23%	20%	18%	27%	24%
Current ratio	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.0

Notes:

- 1 Based on number of shares issued and fully paid less number of shares held for the Share Award Scheme at 31 December
- 2 For the purpose of computing cost (i.e., operating expenses) to income ratio and pre-tax profit margin, income includes revenue and other income less transaction-related expenses and share of profits/losses of joint ventures.
- 3 Based on equity attributable to HKEX's shareholders at year-end

Governance





Corporate Governance Report

The Board is committed to high standards of corporate governance and recognises that good governance is vital for the long-term success and sustainability of HKEX businesses.

HKEX's key corporate governance practices and activities during the year ended 31 December 2023 are highlighted in this report and the Committee Reports, as well as in the 2023 CSR Report which is available on the HKEX Group website together with this Annual Report. All the Committee Reports form part of this report.

More details about HKEX's corporate governance structure, principles and practices are available on the HKEX Group website [CG](#).

Governance Highlights

Board structure

- 12 of the 13 Directors are independent
- Members of all governance related committees* are INEDs
- 4 of the 13 Directors are female
- Set a goal to achieve gender parity on the Board
- Diverse range of expertise and experience
- Periodic Board refreshment

Committee Reports

Nomination and Governance Committee Report:
pages 96 to 99

Audit Committee Report: pages 100 to 102

Risk Committee Report: pages 103 to 108

Remuneration Committee Report: pages 109 to 117

CSR Committee Report: pages 118 and 119

HKEX Group website (www.hkexgroup.com)

About HKEX (Our Structure) section [OS](#)

Investor Relations section [IR](#)

Corporate Governance section [CG](#)

Corporate Social Responsibility section [CSR](#)

Board and governance process

- International Advisory Council provides the Board with expert insight and perspective from around the world
- Mainland China Advisory Group advises the Board on the development of China's financial markets and economy
- 50 Board and committee meetings in total in 2023
- Completion of an internally led Board evaluation
- Annual review of succession plans
- Annual review of compensation policies
- Robust risk management and internal controls framework
- Embedded compliance culture
- Proactive and ongoing stakeholder engagement

* Refer to the Audit Committee, the Nomination and Governance Committee, the Remuneration Committee, and the Risk Committee

Compliance with Corporate Governance Code

Throughout 2023, HKEX complied with all code provisions and, where appropriate, adopted the recommended best practices set out in the Corporate Governance Code, with the following exceptions:

Code Provision B.2.2 (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.
- The 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.

HKEX has applied the principles of the Corporate Governance Code to its corporate governance structure and practices as described in this report and on the HKEX Group website [CG](#) / [IR](#) / [OS](#). A checklist detailing HKEX's compliance with the Corporate Governance Code is available on the HKEX Group website [CG](#). The Board has delegated its corporate governance functions to the Nomination and Governance Committee. A summary of the work of the Committee in 2023/2024 is set out in the Nomination and Governance Committee Report.

HKEX's Culture

As one of the world's largest listed exchange operators and a market regulator, HKEX plays a unique role in the sustainable development of financial markets and society as a whole. HKEX is committed to developing a positive and progressive culture that is built on its Purpose, Vision, and Values, which collectively represent the essence of HKEX's business and drive the Group to excel in everything it does. Building an open, safe and dynamic work environment allows employees across the Group to thrive and meet their full potential, and enables the Company to deliver long-term sustainable growth and success.

Throughout 2023, HKEX continued to strengthen its cultural framework by focusing on stakeholder centricity, operational excellence, talent and culture, and risk and control, through various initiatives set out in the Business Review and the Governance sections of this Annual Report and the 2023 CSR Report.

- **HKEX's Purpose**

To Connect, Promote and Progress our Markets and the Communities they support for the prosperity of all.

- **HKEX's Vision**

Building the Marketplace of the Future

- **HKEX's Values**

Integrity – We always do the right thing.

Diversity – We recognise that great ideas come from anywhere.

Excellence – We promote best-in-class in all that we do.

Collaboration – We are always better together.

Engagement – We are engaged in the markets and communities in which we operate.

More information about HKEX's Purpose, Vision, and Values is available on the HKEX Group website (About HKEX section).

Strategic Planning

HKEX has a rigorous and ongoing strategic planning process to identify and assess the opportunities and challenges that the Group might face and to develop a planned course of action for the Group to generate sustainable long-term value for Shareholders. Details of HKEX's strategic initiatives and priorities for fulfilling its Purpose and Vision are available in the Chief Executive Officer's Review section of this Annual Report and on the HKEX Group website (About HKEX section).

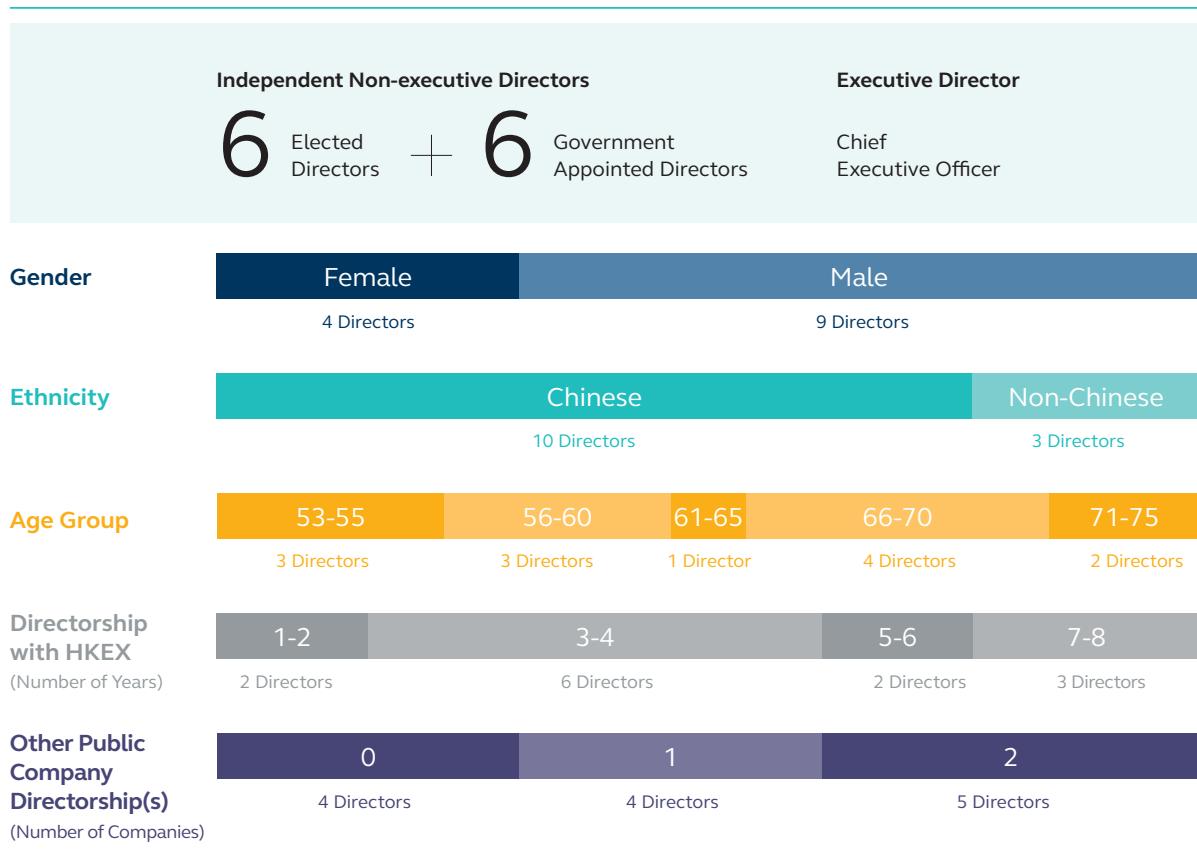
In addition to the mid-year strategy review in March 2023, the Board held a strategy meeting in September 2023 at which the Board and senior executives held in-depth discussions of the Group's strategic direction in support of its Purpose and Vision.

The strategic achievements during the year are reported in the Chief Executive Officer's Review and Business Review sections of this Annual Report.

The Board

Board Composition

The Board's structure is governed by HKEX's Articles and the SFO. The Board has an appropriate mix of skills, experience and diversity that are relevant to HKEX's strategy, governance and business, and strong independent leadership, which underpin its effectiveness and efficiency. Its approach to achieving diversity is set out in the Board Diversity Policy, which is available on the HKEX Group website [CG](#).



The skills matrix below sets out the skills and expertise of the Board that are most relevant to HKEX's strategy, governance and business and to enabling the Board to effectively discharge its duties and responsibilities in attaining HKEX's strategic objectives and achieving sustainable and balanced development for the Group, particularly in terms of:

- Overseeing implementation of HKEX's strategic imperatives to connect China and the world, connect capital with opportunity and connect today with tomorrow;
- Promoting sustainability and best-in-class governance and CSR practices across its business, markets and communities, to fulfil the Purpose of HKEX;
- Overseeing implementation of robust risk management framework and internal controls in view of HKEX's combined role as a market regulator with a public duty and a listed company; and
- Promoting a positive and progressive culture across the organisation, enabling HKEX to deliver long-term sustainable performance and fulfil its role as a responsible corporate citizen.

Directors' Skills and Experience

	Executive leadership & strategy/directorship or senior executive experience with other listed company(ies)	Capital market expertise	International business	Mainland China exposure	Accounting professionals/financial management expertise	Legal professionals/regulatory & compliance/risk management	Digital
INEDs							
Laura M Cha (Chairman)	•	•	•	•		•	
Nicholas Allen	•		•	•	•	•	
Apurv Bagri	•	•	•		•	•	
C H Cheah	•	•	•	•			
Anna Cheung	•	•	•	•	•	•	•
Susan Chow	•		•	•		•	
Benjamin Hung	•	•	•	•	•	•	•
Nisa Leung	•	•	•	•			•
Hugo Leung	•	•	•	•		•	
Carlson Tong	•	•	•	•	•	•	•
Joseph Yam	•	•	•	•	•	•	
Zhang Yichen	•	•	•	•	•	•	•
Executive Director							
Nicolas Aguzin	•	•	•	•	•	•	•
Coverage (% of entire Board)	100%	85%	100%	92%	62%	85%	46%

The names of the Directors in office during 2023 and up to the date of this report are set out in the Directors' Report contained in this Annual Report. The brief biographies of the current Directors, including their membership at various Board Committees of HKEX, are set out in the Board and Committees section and the Board of Directors and Senior Management section of this Annual Report.

Under HKEX's Articles, the term of office of Non-executive Directors is not more than three years (subject to re-appointment or re-election), although each Government Appointed Director is normally appointed for a term of approximately two years (subject to re-appointment). Staggered terms of service enable the Board to have a good balance of experienced and new Directors. The average tenure of the current Directors as at the date of this report is 4.1 years. The service term of Laura M Cha, Susan Chow and Benjamin Hung

(Government Appointed Directors), and Nicholas Allen, Anna Cheung and Zhang Yichen (Elected Directors) will expire at the conclusion of the 2024 AGM. On 16 February 2024, the Government appointed Chan Kin Por and Peter Yan, and re-appointed Susan Chow, as members of the Board, each for a term of approximately two years from the conclusion of the 2024 AGM until the conclusion of the AGM to be held in 2026. On 29 February 2024, the Board accepted the nomination by the Nomination and Governance Committee and recommended Nicholas Allen, Anna Cheung and Zhang Yichen to stand for re-election at the 2024 AGM.

Information about the Board Diversity Policy and the Nomination Policy along with the results of the review of the Board composition and independence, and the nomination of Board candidate during 2023/2024 are set out in the Nomination and Governance Committee Report.

Roles and Responsibilities

Good governance emanates from an effective and accountable board. At HKEX, the Board directly, and indirectly through its committees, leads and provides direction to management by laying down strategies and overseeing their implementation by management. The Board monitors the Group's operating and financial performance, reviews the Group's compensation policies and succession planning, and ensures that a positive and progressive culture, effective governance and CSR policies, and sound internal control and risk management systems are in place. The Board operates under defined terms of reference which set out matters specifically reserved for its decision. The terms of reference are available on the HKEX Group website [OS](#).

For effective oversight and leadership, the Board regularly reviews reports from the Chief Executive Officer and senior executives on the progress of the approved strategies, plans and budgets, and receives updates and advice from the Board committees, external market and industry experts and management on the Group's business performance and development, regulatory landscape, ESG, risk management, and human capital management. In light of the increasingly competitive and complex global environment, the International Advisory Council has been established to provide the Board with expert insight and perspective from around the world. A Mainland China Advisory Group has also been established to advise the Board on the development of China's financial markets and economy. Further details relating to the Board committees, the International Advisory Council, the Mainland China Advisory Group, and HKEX's management functions are set out in the Board Delegation section below.

Board Effectiveness

The Board recognises that conducting regular evaluation of its performance is essential to good corporate governance and Board effectiveness. Following the evaluation of the Board's performance by an independent external consultant in 2022, HKEX conducted an internal evaluation of the performance of the Board and its governance committees in 2023, which was led by the HKEX Chairman with the support of the Group Company Secretary. As part of the evaluation process, each Director completed a questionnaire to assess the performance of the Board, the Audit Committee, the Nomination and Governance Committee, the Remuneration Committee, and the Risk Committee, as well as the 2023 Strategy Meeting. In addition, the HKEX Chairman interviewed other Directors individually to solicit their views. The views of the HKEX Chairman were collected by the chairman of the Remuneration Committee. At the subsidiary level, each of OTC Clear, the LME, and LME Clear also conducted an internal evaluation of the performance of its respective board and board governance committees in 2023.

The evaluation results indicated that the directors of HKEX, OTC Clear, the LME, and LME Clear agreed that the respective boards operate effectively and perform well in the governance of the respective companies, and they were satisfied with the composition and operational effectiveness of the relevant board committees. The evaluation results were presented to the HKEX Nomination and Governance Committee and the HKEX Board in October and December 2023 respectively. Recommendations for improvement are being followed up.

Chairman and Chief Executive Officer

At HKEX, the roles of the Chairman and the Chief Executive ("Chief Executive Officer") are complementary, but importantly, they are distinct and separate with a clear and well established division of responsibilities. Details of their respective roles and responsibilities are available on the HKEX Group website [CG](#).

Key Responsibilities of Chairman and Chief Executive Officer

<p>► Laura M Cha</p> <p>Chairman (INED)</p> <ul style="list-style-type: none">• Provides leadership to the Board• Monitors Board effectiveness• Fosters constructive relationships among Directors	<p>► Nicolas Aguzin</p> <p>Chief Executive Officer (ex-officio Director)</p> <ul style="list-style-type: none">• Promote integrity and probity• Ensure effective stakeholder communication	<p>► Nicolas Aguzin</p> <p>Chief Executive Officer (ex-officio Director)</p> <ul style="list-style-type: none">• Develops strategies for the Board's approval• Executes strategies agreed by the Board• Leads day-to-day management of the Group
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The Chairman, the Chief Executive Officer and other Directors do not have any financial, business, family, material or other relevant relationships with each other.

Nicolas Aguzin stepped down as Chief Executive of HKEX at the end of February 2024. Bonnie Y Chan has been appointed as Chief Executive of HKEX, effective 1 March 2024, for a term of three years until 28 February 2027 and the SFC has approved her appointment pursuant to Section 70 of the SFO.

Induction and Development

Upon appointment to the Board, Directors are provided with comprehensive induction training conducted by senior executives and external legal advisers to ensure that they have a thorough understanding of the statutory duties of HKEX as an exchange controller, the Group's operations and governance policies, as well as their role and responsibilities as Board members. Carlson Tong and Joseph Yam, who were appointed as Directors effective 26 April 2023, attended a training session on 27 March 2023, at which an external legal adviser provided legal advice on Hong Kong law as regards the requirements under the Listing Rules that are applicable to them as directors of a listed company, their obligations as Directors, and the possible consequences of making false declarations or giving false information to the SFC. Each of them has confirmed his understanding of the information provided by the legal adviser.

Every new Board member receives a Director's Handbook containing the Board's terms of reference, an overview of HKEX's corporate governance framework and Directors' responsibilities, and the Guidelines on Conduct, which set out policies governing conflicts of interest and the anti-bribery and anti-corruption guidelines for Directors. The Director's Handbook and more information about induction training for new Directors are available on the HKEX Group website [CG](#).

Ongoing training helps Directors keep abreast of current trends and issues facing the Group, while enabling them to update and refresh the skills and knowledge necessary for the performance of their duties. Directors are invited to attend the Board knowledge sessions, the Board strategy meetings, and the International Advisory Council meetings held during the year, at which external industry experts, Council members, or senior executives of HKEX are engaged on various topics of interest and relevance, in particular on global strategies, market best practices, and the latest market trends and developments.

All Directors are required to provide HKEX with their training records, and to confirm their respective records on a quarterly basis. The records are maintained by the Group Company Secretary for annual review by the Nomination and Governance Committee. During 2023, the Directors received an aggregate of about 1,220 hours of training by attending or participating in Board knowledge sessions, management briefings, and events such as conferences, seminars, and workshops on Directors' duties and other topics relevant to HKEX's strategy, business and governance.

2023 Directors' Training by Topic

	Average hours of training: 89 ¹					
	HKEX's strategy/ business	Economy/ financial markets & products	Director's duties/ ESG practices	Financial reporting/risk management	Legislative/ regulatory compliance	Digital
INEDs						
Laura M Cha (Chairman)	•	•	•	•	•	•
Nicholas Allen	•	•	•	•	•	•
Apurv Bagri	•	•	•	•	•	•
C H Cheah	•	•	•	•	•	•
Anna Cheung	•	•	•	•	•	•
Susan Chow	•	•	•	•	•	•
Rafael Gil-Tienda ¹	•	•	•	•	•	•
Benjamin Hung	•	•	•	•	•	•
Nisa Leung	•	•	•	•	•	•
Hugo Leung	•	•	•	•	•	•
Carlson Tong ²	•	•	•	•	•	•
Joseph Yam ²	•	•	•	•	•	•
Stephen Yiu ¹	•	•	•	•	•	•
Zhang Yichen	•	•	•	•	•	•
Executive Director						
Nicolas Aguzin	•	•	•	•	•	•

1 Excludes the training hours received by Mr Gil-Tienda and Mr Yiu, who retired from the Board after the conclusion of the 2023 AGM.

2 Mr Tong and Mr Yam were appointed as Directors effective 26 April 2023.



Board Process

In addition to the mid-year strategy review in March 2023 and the strategy meeting in September 2023, the Board held eight meetings in 2023 to discuss key matters relating to the Group's strategies, business operations, performance, governance, risk management, CSR, investor relations, and human capital, and bi-annual meetings with the Chairman and Deputy Chairmen of the Listing Committee to discuss listing related matters.

Meetings of Non-executive Directors are held from time to time, as appropriate. The HKEX Chairman also has regular gatherings with other Directors, occasionally without the presence of the Chief Executive Officer, to consider issues in an informal setting.

Attendance Record of Directors and Committee Members in 2023¹

	2023 AGM	Board	Audit Committee	Board Executive Committee	CSR Committee	Investment Committee	Listing Operation Governance Committee	Nomination and Governance Committee	Remuneration Committee	Risk Committee	Risk Management Committee (statutory)
Number of Meetings	1	10 ²	4	4	4	4	4	6	6	4	4
INEDs											
Laura M Cha (Chairman)	1/1	10/10		4/4	4/4			6/6	4/6	2/4	4/4
Nicholas Allen	1/1	8/10	4/4							4/4	
Apurv Bagri	1/1	9/10						4/6	6/6		
C H Cheah ³	1/1	10/10		4/4		4/4	2/2	6/6	2/2		
Anna Cheung	1/1	10/10	4/4	4/4	4/4				6/6		
Susan Chow	1/1	10/10			4/4		4/4		6/6	4/4	4/4
Rafael Gil-Tienda ⁴	1/1	3/3						2/2	2/2		
Benjamin Hung	1/1	10/10				4/4		4/6			
Nisa Leung	1/1	9/10	2/4							4/4	
Hugo Leung	1/1	9/10	4/4	4/4		4/4	4/4			4/4	4/4
Carlson Tong ⁵		5/6	2/2		1/2			3/4			
Joseph Yam ⁶		7/7				3/3			4/4	2/2	
Stephen Yiu ⁴	1/1	3/3	2/2				2/2			2/2	
Zhang Yichen	1/1	9/10			2/4	3/4		5/6			
Executive Director											
Nicolas Aguzin ⁷	1/1	9/9		4/4	3/4						
Market Professionals											
Renu Bhatia ⁸							4/4				
Clara Chan ⁹										3/3	
David Grimme										4/4	
Daryl Ho ⁹										1/1	
Terence Keyes ⁸							2/2				
Miranda Kwok										3/4	
Rico Leung										4/4	
Keith Pogson ⁸							2/2				
Sun Yu										2/4	
Attendance Rate	100%	95%	90%	100%	82%	95%	100%	83%	94%	92%	91% ¹⁰

1 During 2023, certain members of the Board also performed a regulatory role by serving as members of the Listing Nominating Committee and/or the Listing Policy Panel.

2 Includes the mid-year strategy review in March 2023 and the strategy meeting in September 2023

3 Mr Cheah was appointed as a member of the Listing Operation Governance Committee on 26 April 2023, and ceased to be a member of the Remuneration Committee on the same date.

4 Mr Gil-Tienda and Mr Yiu retired from the Board and the committees on 26 April 2023. Following his retirement as Director, Mr Gil-Tienda was appointed as Senior Advisor to the Board from 27 April 2023 to 26 April 2024.

5 Mr Tong was appointed as Director and a member of the Audit Committee, the CSR Committee, and the Nomination and Governance Committee on 26 April 2023. Mr Tong has recused himself from participation in one of the Board meetings held in 2023.

6 Mr Yam was appointed as Director and a member of the Investment Committee, the Remuneration Committee, and the Risk Committee on 26 April 2023.

7 Mr Aguzin has recused himself from participation in one of the Board meetings held in 2023.

8 Mr Keyes was appointed as a member of the Listing Operation Governance Committee by virtue of his position as the Deputy Chairman of the Listing Committee, to replace Mr Pogson who ceased to be the Chairman of the Listing Committee on 7 July 2023. Ms Bhatia remained as a member of the Listing Operation Governance Committee following her appointment as the Chairman of the Listing Committee with effect from 7 July 2023.

9 Mr Ho was appointed to the Risk Management Committee (statutory) on 6 November 2023 to replace Ms Chan. No meeting was held by the Committee from 6 November to 31 December 2023.

10 The attendance rate calculation took into account the attendance by alternates to members of the committee, who are market professionals.

To facilitate effective oversight and decision making by the Board, HKEX has established a Group Escalation and Incident Reporting Policy to set out guidelines on handling critical concerns relating to the Group's operations and performance. A Continuous Disclosure and Communication Policy is in place to ensure timely reporting of inside information to the Board and communication with the Group's stakeholders, which together with other key features of the Board process are available on the HKEX Group website [CG](#).

Group Company Secretary

All Directors have access to the advice and services of the Group Company Secretary. The Group Company Secretary reports to the HKEX Chairman on Board governance matters, and is responsible for ensuring that Board procedures are followed and for facilitating information flows and communications among Directors, as well as with Shareholders and management.

Timothy Tsang has been appointed to succeed David Fu as the Group Company Secretary with effect from 1 January 2024. Mr Tsang's biography is set out in the Board of Directors and Senior Management section of this Annual Report. During 2023, Mr Fu attended over 15 hours of professional training.

Board Delegation

Committees



1 A statutory committee established under Section 65 of the SFO

The Board has delegated authority to various committees to deal with specific matters under defined terms of reference.

The composition and terms of reference of the Board committees are reviewed annually to ensure that they remain relevant and in line with the Group's business and changes in governance practices. The list of members of the Board committees as at the date of this report is set out in the Board and Committees section of this Annual Report. The attendance record of members of the Board committees in 2023 is set out in "Board Process" above. Details about the Board committees, including their terms of reference, are available on the HKEX Group website [CG / OS](#). Further information on the work of the Nomination and Governance Committee, Audit Committee, Risk Committee, Remuneration Committee and Corporate Social Responsibility Committee in 2023/2024 are set out in their respective reports contained in this Annual Report.

International Advisory Council

HKEX has established an International Advisory Council to provide the Board with insight and expertise from around the world, on business, economics, technology, and finance, drawing on the extensive skills and experience of its members.

Baroness Rona Fairhead and Ms Megan Greene were appointed to the Council in March 2023. Ms Greene ceased her membership with the Council in June 2023, in view of her appointment by the Bank of England, the regulator of LME Clear, as an external member of its Monetary Policy Committee effective 5 July 2023.

The Council currently comprises six members, and is chaired by the HKEX Chairman. Two Council meetings were held in 2023.

The terms of reference of the Council are available on the HKEX Group website [OS](#).

Members of International Advisory Council

- Laura M CHA (Chairman)
- Rona FAIRHEAD
- Stuart GULLIVER
- Weijian SHAN
- Neil SHEN
- Joseph TSAI

Mainland China Advisory Group

HKEX has established the Mainland China Advisory Group (“Advisory Group”) to advise the Board on the development of China’s financial markets and economy. The Advisory Group is chaired by the HKEX Chairman, and also includes HKEX Chief Executive Officer, as well as a Director and three other senior industry experts with deep China market knowledge and experience. Two Advisory Group meetings were held in 2023.

The terms of reference of the Advisory Group are available on the HKEX Group website [OS](#).

Members of Mainland China Advisory Group

- Laura M CHA (Chairman)
- Nicolas AGUZIN
- Fred HU
- MA Weihua
- ZHANG Lei
- ZHANG Yichen

Management

Senior executives, under the leadership of the Chief Executive Officer, are responsible for the day-to-day management of the Group’s businesses and implementation of the strategies approved by the Board. The Management Committee, a management decision-making body chaired by the Chief Executive Officer with defined authority delegated by the Board, aims to meet at least twice a month. Its membership as at the date of this report is set out in the Management Committee section of this Annual Report, and its duties are available on the HKEX Group website [OS](#). Members of the Senior Management as at the date of this report and their biographies are set out in the Board of Directors and Senior Management section of this Annual Report.

During 2023, several senior executive changes were made to support the Group’s latest strategic focus and replace retired or outgoing executives. Details are set out in the Media Centre (News Release) section of the HKEX Group website. HKEX’s updated organisation structure is available on the HKEX Group website [OS](#).

The Board recognises the importance of continuity in senior executives and identifying leaders with appropriate skills and experience to support delivery of the Group’s strategic initiatives. Succession planning for senior executives is considered by the Nomination and Governance Committee and the Board annually.

Given the competitive business environment in which the Group operates, HKEX arranges professional development programmes for its senior executives to support its long-term growth and success. During 2023, the Senior Management (excluding HKEX Chief Executive Officer) received an aggregate of about 380 hours of training by attending or participating in conferences, seminars, and workshops on various topics, including HKEX’s strategy and business, development of the financial markets, regulatory compliance, ESG practices, risk management, digital technology, and leadership and management skills. Other employees of the Group also attended continuous professional development or other training courses throughout the year. Details are set out in the 2023 CSR Report.

Subsidiary Governance

HKEX is committed to fostering good governance and a strong compliance culture at all levels of the organisation. To ensure an integrated, Group-wide approach towards upholding high governance standards, HKEX regularly reviews and enhances the governance structures and processes of its subsidiaries.

For effective oversight of its subsidiaries, HKEX has established an Entity Management Framework to enhance risk governance. HKEX promotes governance linkages within the Group through common memberships between the Board and the boards and committees of subsidiaries and appointment of HKEX's senior executives to the boards of the subsidiaries. A list of the directors of HKEX subsidiaries is set out in the Directors' Report contained in this Annual Report. Details about the governance structures of the Group's major subsidiaries (including composition and terms of reference of their boards and committees) are available on the HKEX Group website [OS](#). Induction training and materials have been provided to subsidiaries' non-executive directors to facilitate their understanding of the Group's business and their duties and obligations as a director.

HKEX has implemented a number of Group-wide governance policies and systems, which are subject to regular review, to support its commitment to high standards of business, professional, and ethical conduct, and to ensure best practices across the organisation. HKEX has also established whistleblowing channels for internal and external parties to raise concerns in relation to possible misconduct of the Group, its employees or directors in a confidential or anonymous manner, or both. Details of these whistleblowing channels are available on the HKEX Market website. The Board has delegated authority to the Audit Committee to review the Group Anti-Bribery and Anti-Corruption Policy and the Group Whistleblowing Policy periodically and receive updates on matters concerning breaches of the Group Anti-Bribery and Anti-Corruption Policy and whistleblowing disclosures.

Key governance policies for employees

- HKEX Code of Conduct
- Continuous Disclosure and Communication Policy
- Group Anti-Bribery and Anti-Corruption Policy
- Group Anti-Fraud Policy
- Group Personal Account Dealing Policy
- Group Prevention of Financial Crime Policy
- Group Whistleblowing Policy

In 2023, the Group organised training on compliance obligations, information security and data privacy and on various key governance policies for new and existing employees to reinforce a strong culture of compliance and risk management.

More information about the Group's governance policies and practices is available on the HKEX Group website [CG](#) / [CSR](#) and in the 2023 CSR Report.

Conflict Management

As a recognised exchange controller, HKEX shall act in the interest of the public with particular regard to the interest of the investing public, and ensure that the interest of the public prevails where it conflicts with HKEX's interest. Given its role as the exchange controller as well as a listed company, HKEX has implemented a number of measures to ensure a level playing field with other listed issuers. These include the entering into of an MOU between the SFC and the Stock Exchange, the separation of the regulatory function, and the establishment of a Conflict Committee. Various Group policies, including HKEX Conflict of Interest Policy, HKEX Information Barrier Procedure, and the Protocol on Listing Division and its Operations, are in place to address potential conflicts of interest and protect the integrity and independence of the Listing Division. More information about HKEX's public and corporate responsibilities and its conflict management measures is available on the HKEX Group website [CG](#).

The HKEX's Guidelines on Conduct as set out in the Director's Handbook serve to provide guidance to directors and committee members of the Group on avoiding conflicts of interest and on the circumstances under which appropriate action(s) shall be taken by the director in conflict. The Guidelines set out the policy governing the acceptance by the Group's directors of external appointments in listed and unlisted companies, which contain specific safeguards that shall be undertaken by HKEX and each director to avoid potential conflicts of interest. The Director's Handbook is available on the HKEX Group website [CG](#).

Remuneration of Directors and Senior Management

HKEX has formal and transparent procedures for fixing the remuneration packages of individual Directors and senior executives. Information about HKEX's remuneration policies and the Remuneration Committee, including its work in 2023/2024, is set out in the Remuneration Committee Report.

Directors' Securities Transactions and Interests in HKEX

Compliance with Model Code

HKEX has adopted the Model Code as its own code of conduct regarding Directors' securities transactions. In response to a specific enquiry by the Company, all Directors confirmed that they complied with the Model Code at all applicable times during 2023.

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

The interests and short positions of Directors, including the Chief Executive Officer, in the shares and underlying shares of HKEX (within the meaning of Part XV of the SFO) as at 31 December 2023 as recorded in the register required to be kept under Section 352 of the SFO, or as otherwise notified to HKEX and the SFC under the Model Code, are set out below.

Long Positions in Shares and Underlying Shares of HKEX

Name of Director	Number of shares/underlying shares held					Total	% of HKEX ¹ shares in issue
	Personal interests	Family interests	Corporate interests	Other interests			
Nicolas Aguzin	497,670 ²	–	–	–	497,670	0.04	
Anna Cheung	300	–	–	–	300	0.00	

1 Based on 1,267,836,895 HKEX shares in issue as at 31 December 2023

2 Includes Mr Aguzin's interest in Awarded Shares and shares acquired out of the dividends from the Awarded Shares, in an aggregate of 134,790 shares which remained unvested under the Share Award Scheme as at 31 December 2023. Details of Mr Aguzin's interest in Awarded Shares are set out in the Remuneration Committee Report.

Save as disclosed above, none of the Directors had any interests or short positions in the shares, underlying shares or debentures of HKEX or any of its associated corporations (within the meaning of Part XV of the SFO) as at 31 December 2023 as recorded in the register required to be kept under Section 352 of the SFO, or as otherwise notified to HKEX and the SFC under the Model Code.

Apart from the Awarded Shares as disclosed in the Remuneration Committee Report and notes 15 and 43 to the Consolidated Financial Statements, during 2023, none of the Directors (including their spouses and children under the age of 18) had any interests in or was granted any right to subscribe for the securities of HKEX or its associated corporations (within the meaning of Part XV of the SFO), or had exercised any such rights.

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

Minority Controllers

As at the date of this report, other than the Government which has been a Minority Controller since 7 September 2007, 13 entities have been approved by the SFC as Minority Controllers. According to the Participant Shareholding Report as at 31 December 2023, these 13 Minority Controllers and their relevant associated person(s) in aggregate held approximately 73 per cent of HKEX shares in issue. More information about Minority Controllers is set out on the HKEX Group website [CG](#).

Other persons' interests and short positions in the shares and underlying shares of HKEX (within the meaning of Part XV of the SFO) as at 31 December 2023 as recorded in the register required to be kept under Section 336 of the SFO are set out below.

Long Positions in Shares and Underlying Shares of HKEX

Name	Capacity	Number of shares/ underlying shares held	Total	% of HKEX ¹ shares in issue
HKSAR Government (for the account of the Exchange Fund)	Beneficial owner	74,840,961 ²	74,840,961	5.90

1 Based on 1,267,836,895 HKEX shares in issue as at 31 December 2023

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

Save as disclosed above, no other persons had any interests or short positions in the shares or underlying shares of HKEX as at 31 December 2023 as recorded in the register required to be kept under Section 336 of the SFO, or as otherwise notified to HKEX and the Stock Exchange.

Senior Management

All employees of the Group are obliged to follow the Company's restrictions on dealing in securities, futures contracts, and other derivatives, which are on terms no less stringent than the Model Code, as set out in the Group Personal Account Dealing Policy. Senior Management's interests in the shares and underlying shares of HKEX as at 31 December 2023 are set out below.

Senior Management ¹	Number of shares held	Number of shares that ² remained unvested under the Share Award Scheme	Derivatives (number of underlying shares)
Bonnie Y Chan	23,493	25,718	-
Vanessa Lau	53,352	17,254	-
Katherine Ng	41,025	14,273	-
Richard Wise	-	24,214	-
Wilfred Yiu	45,705	23,892	-

1 HKEX Chief Executive Officer's interest in the shares and underlying shares of HKEX as at 31 December 2023 is set out in the "Directors' Securities Transactions and Interests in HKEX" above.

2 Details of the Senior Management's interests in the Awarded Shares are set out in the Remuneration Committee Report.

Continuing Connected Transactions

In June 2000, the SFC granted a waiver to HKEX from strict compliance with the Main Board Listing Rules with respect to certain continuing connected transactions as referred to in (A), (B) and (C) below. The waiver has remained valid since then. The following table sets out the types of the continuing connected transactions subject to the waiver, and details of any of these continuing connected transactions entered into by the Group during 2023.

- A. Transactions between HKEX or its subsidiaries and HKEX's connected person(s) arising from or in connection with the use of the facilities provided by the Group for the trading, clearing and/or settlement of securities and futures products, and transactions, and all services offered by the Group which are ancillary, incidental or otherwise related to the foregoing:
 - The Group did not enter into any of the above transactions with HKEX's connected persons during 2023.
- B. Transactions between HKEX or its subsidiaries and HKEX's connected person(s) arising from or in connection with the listing of securities on the Stock Exchange, and all services offered by the Group which are ancillary, incidental or otherwise related to the foregoing:
 - Laura M Cha, the HKEX Chairman, was interested in the transactions entered into by HKR International Limited and Hanison Construction Holdings Limited, which are listed on the Stock Exchange and are Mrs Cha's associates by virtue of the Main Board Listing Rules.
- C. Transactions between HKEX or its subsidiaries and HKEX's connected person(s) arising from or in connection with the HKSCC arrangement on behalf of CCASS Participants for: (i) carrying out "buy-in" when a CCASS Participant has failed to deliver securities on time for settlement under the CNS System or the Isolated Trades System operated by CCASS; (ii) the purchase or sale of securities in connection with the liquidation of the positions of a CCASS Participant that has been declared by HKSCC to be in default; and (iii) the sale of entitlements of securities held through CCASS (collectively referred to as Buy-in Transactions):
 - The Group did not enter into any Buy-in Transactions with HKEX's connected persons during 2023.

The Board has delegated authority to the Audit Committee to review the above continuing connected transactions pursuant to Rule 14A.55 of the Main Board Listing Rules. The results of the Audit Committee's review are set out in the Audit Committee Report.

The Company's external auditor was engaged to report on the above continuing connected transactions of the Group in accordance with Hong Kong Standard on Assurance Engagements 3000 (Revised) "Assurance Engagements Other Than Audits or Reviews of Historical Financial Information", and with reference to Practice Note 740 (Revised) "Auditor's Letter on Continuing Connected Transactions under the Hong Kong Listing Rules" issued by the HKICPA. The external auditor has issued an unqualified report containing its findings and conclusions in respect of the transactions disclosed above in accordance with Rule 14A.56 of the Main Board Listing Rules.

Related Party Transactions

During 2023, the Group entered into certain transactions with “related parties” as defined under the applicable accounting standards. Related party transactions are disclosed in note 50 to the Consolidated Financial Statements. They include the following connected transactions under the Main Board Listing Rules.

Related party transactions which constitute connected transactions

Payment of membership fee by an associate of a Director to the LME as covered in note 50(a) to the Consolidated Financial Statements

Compensation to the Chief Executive Officer and the directors of HKEX’s subsidiaries and remuneration to HKEX’s Non-executive Directors, which formed part of the “Key management personnel compensation” described in note 50(b) to the Consolidated Financial Statements

Compliance with Main Board Listing Rules

This was a connected transaction exempt from the connected transaction requirements under Rule 14A.76(1) of the Main Board Listing Rules.

These were continuing connected transactions exempt from the connected transaction requirements under Rule 14A.76(1) or 14A.95 of the Main Board Listing Rules.

Accountability and Audit

Financial Reporting

The Board, which is responsible for overseeing the preparation of annual financial statements, receives monthly updates on the Group’s performance, financial position, and prospects. HKEX publishes its annual, interim, and quarterly results within three months, two months, and 45 days respectively after the relevant period ends. In preparing the financial statements for the year ended 31 December 2023, the Board adopted appropriate accounting policies consistently, made prudent and reasonable judgements and estimates, and ensured that the financial statements were prepared on a going concern basis and show a true and fair view of the consolidated financial position of the Group as at 31 December 2023 and of the Group’s consolidated financial performance and cash flows for the year then ended.

Risk Management and Internal Control

The Board has the overall responsibility for evaluating and determining the nature and extent of the risks (including, among others, material risks relating to ESG) it is willing to take in achieving the Group’s strategic objectives, maintaining sound and effective risk management and internal control systems (including, among others, material risks relating to ESG) and reviewing their effectiveness to safeguard Shareholders’ investment and the Group’s assets. To this end, management continues to allocate resources for the Group to appropriately manage the evolving risk environment. The internal control and risk management systems based on the

Committee of Sponsoring Organizations of the Treadway Commission (COSO) Internal Control – Integrated Framework 2013 and International Organisation for Standardisation (ISO) 31000 Risk Management – Principles and Guidelines provide reasonable, though not absolute, assurance against material misstatement or loss and to manage rather than eliminate the risk of failure to achieve business objectives. Details of the Group’s risk governance structure and the Group Risk Management Framework are set out in the Risk Committee Report. Details of the Group’s key control procedures and internal audit functions are available on the HKEX Group website [CG](#).

The Board reviews the adequacy and effectiveness of the Group’s risk management and internal control systems at least quarterly, through the Risk Committee and the Audit Committee. Information about the Risk Committee and the Audit Committee, including their work in 2023/2024, is set out in their respective reports contained in this Annual Report.

Independence of External Auditor

HKEX has engaged PricewaterhouseCoopers as its external auditor. An analysis of remuneration for audit and non-audit services provided by PricewaterhouseCoopers and details of the Audit Committee’s work in assessing the independence of PricewaterhouseCoopers and ensuring audit effectiveness are set out in the Audit Committee Report.

Information about HKEX’s policies and procedures in safeguarding and supporting the independence and objectivity of the external auditor is available on the HKEX Group website [CG](#).

Diversity and Inclusion

HKEX is committed to developing a positive and progressive culture that is anchored by its Purpose, Vision and Values. In particular, HKEX cultivates a culture that is healthy, diverse and inclusive, where everyone can be their true self and fulfil their own potential, bringing his or her whole self to work every day.

Diversity is one of our five core Values, which is brought to life each day in many ways. HKEX's employee-led diversity networks are sponsored by members of the Management Committee and run by passionate volunteer employees. These networks focusing on Women; Families; Abilities and the LGBT+ community help to create a framework for celebrating diversity, fostering connectivity and collaboration, and shaping fresh thinking at HKEX and within our communities.

As of 31 December 2023, the Senior Management had 50 per cent female representation, with three female members out of six. Bonnie Y Chan, who has been appointed to succeed Nicolas Aguzin as Chief Executive of HKEX with effect from 1 March 2024, will become the first female Chief Executive of HKEX. More details on the Group's diversity and inclusion initiatives, including employees' gender ratios, are set out in the 2023 CSR Report.

Shareholder Relations

The Board gives high priority to maintaining balanced, clear, and transparent communications with Shareholders and other investors to facilitate their understanding of the Group's performance and prospects, as well as the market environment in which it operates. HKEX has an ongoing dialogue with Shareholders and other investors through various communication channels set out in the Shareholders Communication Policy and takes any areas of concern into consideration when formulating its business strategies. The effectiveness of HKEX's engagements with Shareholders is assessed during the annual evaluation of the Board's performance as set out in the "Board Effectiveness" above.

Investor Engagement and Communications

HKEX's investor relations team focuses on effective communication with and provision of relevant public information to investors and analysts to support the appropriate valuation of HKEX equity. Through an extensive engagement programme, institutional investors and analysts can interact with the HKEX

Chairman, the Chief Executive Officer and other senior executives for updates on the development of the Group's strategic initiatives and operations, as well as HKEX's corporate governance policies. During 2023, around 200 physical or virtual meetings were held with institutional investors and analysts in Hong Kong, Mainland China, and overseas. To facilitate effective investor relations, regular shareholding analyses were conducted under Section 329 of the SFO to gain a better view of changes in HKEX's shareholding structure.

Investor Relations Activities in 2023

- Small group/one-to-one meetings
- Non-deal roadshows
- Analyst briefings
- Investor conferences

Investor Relations Contact Details

Email: investorrelations@hkex.com.hk

Tel: (852) 2840 3330

Investment community views are communicated regularly to the Board, including sell-side consensus rating and target price for HKEX shares and summaries of questions and feedback from investors and analysts. During 2023, major areas of interest for investors included:

- (i) Updates on the financial performance of the Group;
- (ii) Positive results from the Group's efforts in revenue diversification amidst challenges faced by the cash equities business in 2023;
- (iii) Latest developments regarding the Group's initiatives, including the Connect franchise expansion, product development, IPO market, listing regime reform, and market microstructure enhancements;
- (iv) Expansion of the Group's international presence in US, Europe and the Middle East;
- (v) Continuing initiatives to grow businesses beyond equities, e.g., derivatives, fixed income, and data and connectivity; and
- (vi) ESG related topics, including board governance and carbon.

To foster investors' understanding of the Group's governance performance, HKEX continues to provide related information to international and local ESG rating agencies regularly and upon request.

Shareholder Engagement and Communications

Corporate communications	<ul style="list-style-type: none">HKEX ensures prompt dissemination of corporate communications to enable Shareholders and other stakeholders to keep abreast of the Group's business and developments so that they can make informed decisions.The HKEX Group website has been adopted as the designated company website for publication of HKEX's announcements, notices and other corporate communications. As at 31 December 2023, about 79 per cent of Shareholders had opted to receive corporate communications via electronic means.
Financial key dates	<ul style="list-style-type: none">The financial calendar highlighting important dates for Shareholders in 2024 is set out in the Shareholder Information section of this Annual Report and is also available on the HKEX Group website IR.
Dividend information	<ul style="list-style-type: none">HKEX's dividend policy is set out in the Shareholder Information section of this Annual Report. Information about HKEX's dividend record is available on the HKEX Group website IR.
General meetings	<ul style="list-style-type: none">One or more Shareholders representing at least 5 per cent of the total voting rights of all Shareholders having a right to vote at general meetings may request the Board to call a general meeting. The request must state the general nature of the business to be dealt with, and it may include the text of a resolution that may properly be moved and is intended to be moved at the meeting. Such requests must be sent to the Group Company Secretary at HKEX's registered office, or by email to ssd@hkex.com.hk.Under HKEX's Articles, if a Shareholder wishes to propose a person for election as a Director at a general meeting, he or she should give written notice of the nomination to the Group Company Secretary at HKEX's registered office. Details of the procedures for nominating candidates to stand for election as a Director at the 2024 AGM are set out in the circular to Shareholders to be sent together with this Annual Report.Shareholders may put forward proposals at general meetings by sending written notice of their proposals to the Group Company Secretary at HKEX's registered office, or by email to ssd@hkex.com.hk. Details of the procedures for putting forward proposals by Shareholders are set out on the HKEX Group website CG.
Policies and guidelines	<ul style="list-style-type: none">The Shareholders Communication Policy ensures that Shareholders and the investment community are provided with ready, equal, and timely access to information about HKEX (including its financial performance, strategic goals and plans, material developments, governance and risk profile), and also allows them to engage actively with HKEX. The policy sets out various communication channels including, among others, the HKEX Group website, investor briefings and Shareholders' meetings, through which Shareholders, both individual and institutional, may communicate with and provide feedback to HKEX from time to time. The policy is regularly reviewed to ensure its effectiveness and is posted on the HKEX Group website CG.The Shareholders' Guide with answers to the frequently asked questions of Shareholders with regard to their interests in HKEX shares is also available on the HKEX Group website CG.
Shareholding analysis	<ul style="list-style-type: none">Based on publicly available information and within the Directors' knowledge as at the date of this report, approximately 100 per cent of the HKEX shares were held by the public. HKEX's market capitalisation and shareholding distribution as at 31 December 2023 are set out in the Shareholder Information section of this Annual Report.

Further details about the Group's engagement activities with Shareholders and other stakeholders in 2023 are set out in the CSR Committee Report and the 2023 CSR Report.

The Board is grateful to Shareholders and other stakeholders for their continued support and welcomes their views as well as any questions they may have about the management and governance of the Group. Shareholders and other stakeholders may at any time send their enquiries and concerns to the Board by addressing them to the Group Company Secretary and sending them by post to the Secretarial Services Department, HKEX, 8/F, Two Exchange Square, 8 Connaught Place, Central, Hong Kong, or by email to ssd@hkex.com.hk.

2023 Annual General Meeting

HKEX uses the AGM as a forum to establish constructive dialogue with Shareholders. Separate resolutions are proposed on each substantially separate issue, with all resolutions considered in a poll conducted by HKEX's registrar and verified by an independent scrutineer. Electronic voting is used at the AGMs to enhance efficiency and transparency of the vote counting process.

All the Directors in office on the meeting date, including the HKEX Chairman and the Chairmen of the Audit Committee and other Board committees, attended the 2023 AGM along with key senior executives and the external auditor, and answered questions raised by Shareholders at the meeting. A live webcast of the 2023 AGM was arranged and made available on the HKEX Group website for Shareholders who were not able to attend the meeting.

The voting results and the minutes of the 2023 AGM are available on the HKEX Group website [IR](#).

Shares voted at the 2023 AGM

47.2%
of total issued shares

Key Matters Resolved at the 2023 AGM¹

- Receipt of the 2022 audited financial statements
- Re-election of C H Cheah and Hugo Leung as Directors
- Re-appointment of PricewaterhouseCoopers as the Company's auditor
- Granting a general mandate to buy back HKEX shares (not exceeding 10 per cent of the number of shares in issue)
- Granting a general mandate to issue HKEX shares (not exceeding 10 per cent of the number of shares in issue and at a price not exceeding a discount of 10 per cent)

¹ The full text of the resolutions is set out in the Notice of the 2023 AGM.

2024 Annual General Meeting

The 2024 AGM will be held on Wednesday, 24 April 2024 at 4:30 pm at HKEX Connect Hall on the 1st Floor, One and Two Exchange Square, Central, Hong Kong. The Notice of the 2024 AGM, which constitutes part of a circular to Shareholders, will be sent together with this Annual Report. The Notice, the circular which sets out details of the business to be conducted at the 2024 AGM, and the proxy form will be available on the HKEX Group website [IR](#). The results of the voting on the proposed resolutions will be published on the HKEX Group website [IR](#) shortly after the 2024 AGM is held.

Shareholders may appoint the Chairman of the 2024 AGM as their proxy to vote on the resolutions, instead of attending the meeting in person. A live webcast of the 2024 AGM will be arranged and made available on the HKEX Group website for Shareholders unable to attend the meeting.

Changes after Closure of Financial Year

This report takes into account the changes that occurred between the end of 2023 and the date of the approval of this report.

On behalf of the Board

Timothy TSANG

Group Company Secretary

Hong Kong, 29 February 2024

Nomination and Governance Committee Report

The Nomination and Governance Committee

The Nomination and Governance Committee (NGC) is delegated with the authority by the Board to review the Board's composition and diversity, formulate and implement the policy for nominating Board candidates for election by Shareholders, make recommendations to the Board on the appointment of Directors and members to the Board committees, and assess INED's independence and commitment. The NGC is also responsible for succession planning for Directors and senior executives, leadership training and development, and oversight of matters relating to corporate governance. Its terms of reference are available on the HKEX Group website [OS](#).

The NGC comprises six INEDs whose names and biographies are set out in the Board and Committees section of this Annual Report. The NGC held six meetings in 2023. Members' attendance records are disclosed in the Corporate Governance Report contained in this Annual Report.

Summary of Work in 2023/2024

- Endorsed appointment of Bonnie Y Chan as the Chief Executive of HKEX effective 1 March 2024
- Reviewed the results of the internally led evaluations of the boards of HKEX, OTC Clear, the LME and LME Clear and their respective governance committees
- Reviewed the composition of the Board and its committees
- Nominated Board candidates for re-election by Shareholders at AGMs
- Recommended the appointment of Directors to the Board committees
- Reviewed the independence of the INEDs
- Reviewed external appointment(s) of Director(s)
- Reviewed the time commitment of Directors for performance of their responsibilities
- Reviewed succession planning of the Board and senior executives
- Reviewed the NGC's terms of reference
- Reviewed the training and continued professional development of the Directors and Senior Management
- Reviewed and endorsed the annual Corporate Governance Report

Changes in Non-executive Directors during 2023

In February 2023, the Government appointed Carlson Tong and Joseph Yam and re-appointed Nisa Leung to the Board, each for a term of approximately two years from the conclusion of the 2023 AGM until the conclusion of the AGM in 2025.

At the 2023 AGM, C H Cheah and Hugo Leung were re-elected by Shareholders for a term of approximately three years from 26 April 2023 until the conclusion of the AGM in 2026.

Board Composition and Diversity

HKEX sees increasing diversity at the Board level as an essential element in attaining its strategic objectives and achieving sustainable and balanced development for the Group. Since 2013, HKEX has followed the Board Diversity Policy, which is

available on the HKEX Group website [CG](#). The Policy highlights the benefits of diversity with respect to the Board's effectiveness and decision-making process, its succession planning and development, and attainment of HKEX's strategic objectives, and sets out the Board's commitment to gender diversity and other diversity aspects. Throughout 2023, and up to the date of this report, the Board had four female Directors, representing 31 per cent of the Board. The Board targets to maintain at least the current level of female representation, with the ultimate goal of achieving gender parity. In considering the Board's succession, the NGC would engage an independent professional search firm, or firms, to help identify potential candidates for Non-executive Directors, as and when appropriate. The Board will continue to seek opportunities to increase the proportion of female members over time as and when suitable candidates are identified.

To further enhance Board diversity while maintaining an appropriate balance between continuity of experience and Board refreshment, HKEX sets out in the Nomination Policy a non-exhaustive list of criteria for the NGC to assess suitability of a proposed Non-executive Director candidate and a maximum tenure of nine consecutive years for Non-executive Directors to be eligible for the Board's nomination for re-election by Shareholders. The Nomination Policy is available on the HKEX Group website [CG](#).

During 2023, the NGC reviewed the structure, size, and diversity of the Board as well as the selection criteria for Non-executive Director candidate(s), the Nomination Policy and the Board Diversity Policy, to ensure that the Board's composition complies with the Main Board Listing Rules and reflects an appropriate mix of skills, experience, and diversity that are relevant to HKEX's strategy, governance, and business and contribute to the Board's effectiveness and efficiency. Information about the Board's current composition, including a Directors' skills matrix, is set out in the Corporate Governance Report contained in this Annual Report.

Nomination of Candidates

The service term of Laura M Cha, Susan Chow and Benjamin Hung (Government Appointed Directors), and Nicholas Allen, Anna Cheung and Zhang Yichen (Elected Directors) will expire at the conclusion of the 2024 AGM.

The Government has appointed Chan Kin Por and Peter Yan and re-appointed Susan Chow as members of the Board, each for a term of approximately two years from the conclusion of the 2024 AGM to be held on 24 April 2024 until the conclusion of the AGM to be held in 2026.

On 28 February 2024, the NGC nominated Nicholas Allen, Anna Cheung and Zhang Yichen to the Board for it to recommend to Shareholders for re-election at the 2024 AGM. Mr Zhang, who is a member of the NGC, abstained from voting at the Committee meeting when his own nomination was being considered.

The nominations were 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 took into consideration the background and past experience of the three candidates – in particular: Mr Allen's accounting expertise and vast experience in securities and regulatory matters; Ms Cheung's extensive business strategic and operational experience; and Mr Zhang's in-depth knowledge of the Mainland and international capital markets – as well as their respective contributions to the Board and firm commitments to their roles. The NGC also considered that their re-election as Directors would provide a diversity of skills, expertise and background to the Board, which would continue to benefit the Group's future strategic development. The NGC was satisfied with the independence of Mr Allen, Ms Cheung and Mr Zhang with reference to the criteria laid down in the Main Board Listing Rules.

Neither Mr Allen, Ms Cheung nor Mr Zhang holds any cross-directorships nor has any significant links with other Directors through involvement in other companies or bodies. Mr Allen, Ms Cheung and Mr Zhang do 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). Their particulars will be set out in the circular to Shareholders to be sent together with this Annual Report and posted on the HKEX Group website [IR](#).

Board Independence

Independent Directors enhance the effectiveness and decision-making of the Board by providing objective judgement and constructive challenge to management.

The independence of each non-executive Director is assessed based on the same set of independence criteria under Rule 3.13 of the Main Board Listing Rules. Each non-executive Directors' independence is assessed upon appointment, annually, and at any other time where the circumstances warrant reconsideration.

Assessment upon Director's Appointment

- Independence confirmations by Carlson Tong and Joseph Yam were submitted in writing to the SFC upon their appointment to the Board in April 2023.

Ongoing Assessment

- Each INED is required to inform HKEX as soon as practicable if there is any change in his or her personal particulars that may affect his or her independence. No such notification was received during 2023.
- Details of the Director's interests in the Group's business are set out on pages 91 and 92 of this Annual Report.

On 28 February 2024, the NGC assessed the annual independence confirmation received from each INED, having regard to the criteria under Rule 3.13 of the Main Board Listing Rules.

Annual Assessment

- As a good corporate governance practice, every NGC member abstained from assessing his/her own independence.
- Particular attention was given to assessing the independence of the Government Appointed Directors (including Joseph Yam, who is an Executive Councillor) given that the Government is a Minority Controller of HKEX.
- The NGC affirmed that all INEDs continued to demonstrate strong independence in judgement and were free from any business or other relationship which could interfere with their ability to discharge their duties effectively, and they therefore all remained independent.

The NGC also reviewed and considered that the following key features or mechanisms under HKEX's Board and governance structure are effective in ensuring that independent views and input are provided to the Board.

Board and Committees' structure	<ul style="list-style-type: none">Since its listing, HKEX has been steered by a Board, comprising a majority of Non-executive Directors. The HKEX Chief Executive Officer is the only Executive Director on the Board, and all the remaining 12 Directors, including the HKEX Chairman, are INEDs, who are independent of and not related to each other and any members of the Senior Management.Members of all governance related committees are INEDs.Separation of the role of the Chairman and the Chief Executive Officer ensures that there is a balance of power and authority.
Non-executive Directors' tenure	<ul style="list-style-type: none">The Nomination Policy sets a maximum tenure of nine consecutive years for Non-executive Directors to be eligible for nomination by the Board to stand for re-election by Shareholders.
Non-executive Directors' remuneration	<ul style="list-style-type: none">Non-executive Directors receive fixed fee(s) for their role as members of the Board and Board Committee(s) as appropriate, and are not entitled to participate in the Share Award Scheme. Information about the Directors' remuneration is set out in the Remuneration Committee Report and note 15 to the Consolidated Financial Statements.

Appointment of Non-executive Directors	<ul style="list-style-type: none"> Independent professional search firm(s) is/are engaged from time to time to help identify potential candidates for appointment of Non-executive Directors. In assessing suitability of the candidates, the NGC reviews their profiles, including their qualification and time commitment, having regard to the Board's composition, the Directors' skills matrix, the list of selection criteria approved by the Board, the Nomination Policy and the Board Diversity Policy.
Annual review of Non-executive Directors' commitment and independence	<ul style="list-style-type: none"> The NGC reviews annually each Director's time commitment to HKEX's business. Directors' attendance records in 2023 are disclosed in the Corporate Governance Report contained in this Annual Report. Non-executive Directors' independence is assessed upon appointment, annually, and at any other time where the circumstances warrant reconsideration.
Conflict management	<ul style="list-style-type: none"> The HKEX's Guidelines on Conduct contained in the Director's Handbook provide guidance to directors and committee members of the Group on avoiding conflicts of interest and on the circumstances under which appropriate action(s) shall be taken by the director in conflict. More information about the Group's conflict management measures is set out in the Conflict Management section of the Corporate Governance Report contained in this Annual Report.
Professional advice	<ul style="list-style-type: none"> To facilitate proper discharge of their duties, all Directors are entitled to seek advice from the Group Company Secretary or the in-house legal team as well as from independent professional advisers at the Company's expense.
Board evaluation	<ul style="list-style-type: none"> The quality and efficiency of discussions at Board meetings are assessed during the annual evaluation of the Board's performance. Further details relating to Board evaluation are set out in the Board Effectiveness section of the Corporate Governance Report contained in this Annual Report.

Laura M CHA

Chairman of the Nomination and Governance Committee

Hong Kong, 28 February 2024

Audit Committee Report

The Audit Committee

The Audit Committee (AC) is delegated by the Board with the authority to provide independent oversight of the Group's financial reporting and internal control systems, and of the adequacy of the external and internal audits. The AC is provided with sufficient resources to perform its duties, including support, as necessary, from the Group Internal Audit (GIA), the external auditor, legal counsel, regulatory compliance and management, in examining all matters relating to the Group's adopted accounting principles and practices, and in reviewing all material financial, operational and compliance controls. The AC's terms of reference are available on the HKEX Group website [OS](#).

The AC comprises five INEDs whose names and biographies are set out in the Board and Committees section of this Annual Report. None of the members of this committee was a partner of HKEX's external auditor within two years immediately before his or her appointment. The AC held four meetings in 2023. Members' attendance records are disclosed in the Corporate Governance Report contained in this Annual Report.

Summary of Work in 2023/2024

- Reviewed the Group's quarterly, half-yearly, and annual financial reports and results announcements to ensure integrity, transparency and consistency of the financial disclosures
- Reviewed and endorsed the proposed adoption of new accounting standards for financial years ending on or after 31 December 2023
- Reviewed, with both the external auditor and management, the audit approach and methodology applied, in particular to the Key Audit Matters included in the Auditor's Report
- Approved revisions of the Group Internal Audit Charter
- Approved the internal audit plan for 2024 and conducted quarterly review of the internal audit activities
- Reviewed significant issues raised by GIA and the external auditor, management's response to their recommendations, and follow-up remedial actions and improvement plans
- Approved amendments to the Group Anti-Bribery and Anti-Corruption Policy and the Group Whistleblowing Policy
- Reviewed quarterly reports and updates on legal and regulatory compliance matters, anti-bribery and anti-corruption matters and whistleblowing disclosures
- Reviewed the adequacy and effectiveness of the Group's internal control systems and its accounting, financial reporting, and internal audit functions
- Received quarterly update on key matters related to LME and LME Clear
- Reviewed the continuing connected transactions and the related disclosures in the Annual Report
- Reviewed and monitored the relationship with the external auditor, including overseeing its appointment, independence, remuneration, tenure, rotation of the engagement partner and engagement for non-audit services
- Reviewed the effectiveness of the external audit process
- Approved the 2023 external audit engagement letters and fees
- Reviewed the AC's terms of reference

Review of Financial Results

The AC reviewed the 2023 Consolidated Financial Statements in conjunction with the 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 2023. The AC therefore recommended that the Consolidated Financial Statements for the year ended 31 December 2023 be approved by the Board.

Review of Key Audit Matters

The AC reviewed and discussed with the external auditor and management the following key audit matters for the audit of the 2023 Consolidated Financial Statements.

Key Audit Matters	Assessment by the AC
Goodwill impairment assessment	The AC was satisfied that sufficient analysis (including the sensitivity analysis on key assumptions) had been performed in this area to conclude that there was no impairment allocated to the Cash Generating Units within the Commodities operating segment. The assessment was also an area of focus for the external auditor as detailed in the Auditor's Report on page 129.
Control environment supporting key information technology systems	The external auditor's key audit matters included control environment supporting key IT systems and controls since the fee revenue reported in the Group's financial statements is highly dependent on the functioning of these key systems, and the design and operating effectiveness of automated applications controls and underlying IT general controls. The AC noted and agreed with the external auditor that the key IT systems could be relied on to ensure the accuracy and completeness of revenue recognition during the financial accounting and reporting processes. The findings of the external auditor are set out in the Auditor's Report on page 130.

Review of Internal Control Systems

The AC reviewed the adequacy and effectiveness of the Group's policies and procedures regarding internal control systems (including the financial, operational, IT, risk management, information security, outsourcing, legal, compliance and those controls designed to detect material fraud) by reviewing the work of the GIA, the Group's external auditor, and external consultants, and regular reports from management including those on risk management, regulatory compliance, and legal matters.

In conjunction with the Risk Committee, the AC reviewed and concurred with the management confirmation that for the year ended 31 December 2023, the Group's risk management and internal control systems were adequate and effective with reference to the Committee of Sponsoring Organizations of the Treadway Commission (COSO) Internal Control – Integrated Framework 2013 and International Organisation for Standardisation (ISO) 31000 Risk Management - Principles and Guidelines. The AC is satisfied that the Group has complied satisfactorily with the requirements of the Corporate Governance Code in respect of risk management and internal control systems.

Review of Accounting, Financial Reporting and Internal Audit Functions

The AC reviewed and was satisfied with the adequacy of the resources, staff qualifications and experience, training programmes and budget of the Group's accounting, financial reporting and internal audit functions.

Review of Continuing Connected Transactions

During 2023, the Group entered into certain continuing connected transactions as disclosed in the Corporate Governance Report contained in this Annual Report. The AC, under the authority delegated by the Board, reviewed these continuing connected transactions pursuant to Rule 14A.55 of the Main Board Listing Rules. The AC confirmed that the transactions were entered into by the Group in accordance with the requirements of the Main Board Listing Rules and the conditions of the waiver granted by the SFC that:

- (i) continuing connected transactions are entered into in the Group's ordinary and usual course of business, and on normal commercial terms or on terms no more favourable than terms available to independent third parties;
- (ii) continuing connected transactions other than Buy-in Transactions are conducted in accordance with the rules and regulations of the relevant Group company governing such transactions, and where the rules and regulations do not govern those transactions in full, in accordance with the standard terms and conditions of the relevant Group company relating to such transactions;
- (iii) continuing connected transactions in respect of Buy-in Transactions are conducted in accordance with the standard terms and conditions of HKSCC applicable generally to all buy-in brokers and at the mutually agreed commission rates payable by HKSCC in respect of Buy-in Transactions generally; and
- (iv) continuing connected transactions are entered into according to the relevant agreements governing each of the continuing connected transactions on terms that are fair and reasonable and in the interests of Shareholders as a whole.

The Company's external auditor was engaged to report on the transactions in accordance with Rule 14A.56 of the Main Board Listing Rules. The AC reviewed the unqualified report issued by the external auditor dated 26 February 2024.

Independence of External Auditor

The AC is mandated to monitor the independence of the Group's external auditor, PricewaterhouseCoopers (PwC), to ensure its objectivity in auditing the financial statements. In general, the external auditor has to refrain from engaging in non-assurance services required by the Group except for limited tax-related services or specifically approved items. All services provided by PwC must be approved by the AC. To ensure that the policy of restricting the non-audit work done by the external auditor is followed strictly by all entities within the Group, appropriate policies and

procedures have been established which set out: (i) the classification of services as pre-approved, not pre-approved and prohibited; and (ii) the approval process for services that have not been pre-approved. To strengthen the independence of the external auditor, HKEX has adopted a five-year rotation policy regarding the engagement partner of the auditor. The auditor's current engagement partner has served on the audit of the Group since 2022.

With respect to the independence of the Group's external auditor, the AC received confirmation from and discussed with PwC on its independence and objectivity.

During the year, the AC reviewed PwC's statutory audit scope and non-audit services and approved its fees. Under the approval procedures for audit fees, all audit fees for entities within the Group were coordinated and presented by PwC Hong Kong and were approved by the AC.

External Auditor's Services and Fees

	2023 \$m	2022 \$m
Audit services	19	19
Non-audit services		
• Tax advisory and compliance	2	1
• Other services	2	1
Total	23	21

Re-appointment of External Auditor

The AC was satisfied with PwC's work, its independence, objectivity, qualifications, expertise, resources and the effectiveness of the audit process, and therefore recommended the re-appointment of PwC (which has indicated its willingness to continue in office) as the Group's external auditor for 2024 for Shareholders' approval at the 2024 AGM.

Nicholas Charles ALLEN

Chairman of the Audit Committee

Hong Kong, 26 February 2024

Risk Committee Report

Risk Statement

Effective risk management is important to the Group's achievement of its strategic goals. The Group manages risk across multiple risk domains, including but not limited to financial, business and strategic, operational (including IT and cyber security), ESG, and legal and regulatory risks. Business operations are managed in line with risk appetite tolerances set by the Board.

The Group seeks to ensure it achieves its strategic goal of being the global markets leader in the Asian time-zone; building upon our role as the leading venue for investing into and out of Mainland China, while increasing our international relevance to China, and our Asia relevance to the global markets. This includes acting in the interest of the public with particular regard to the interest of the investing public, maintaining stakeholder trust, and supporting the integrity of the financial system. The Group recognises its role as a market infrastructure provider and manager of systemic risk, and that its long-term sustainability is dependent on its pursuit of strategic goals while simultaneously managing risks, having sufficient capital and liquidity, ensuring continuity of operations, and protecting its reputation.

The Group aims to maintain sufficient capital and liquidity to meet its regulatory obligations, which require it to have financial resources to cover potential losses and liquidity needs for a range of stress scenarios taking into account extreme but plausible market conditions. As a business, the Group also aims to maintain sufficient capital over and

above that required to meet its regulatory obligations in order to fund its strategic development objectives while ensuring the appropriate balance between risk and shareholder returns. The Group applies robust and effective risk management approaches to minimise the Group's exposure to potential losses, while maintaining liquid financial resources to meet unforeseen cash outflows. The Group strives to maintain stakeholder trust by avoiding business practices that could lead to reputational damage or harm to the Group. The Group, therefore, seeks to operate within all relevant rules and regulations and to avoid disruptions to its business operations that would have a negative impact on stakeholders.

The Risk Committee

The Risk Committee is delegated by the Board to oversee the Group's overall Risk Management Framework and to advise the Board on the Group's risk-related matters. The Committee is also responsible for reviewing the Group's risk and compliance policies and, in conjunction with the Audit Committee, at least quarterly assessing the adequacy and effectiveness of the Group's risk management and internal control systems. The Committee's terms of reference are available on the HKEX Group website [OS](#). The Committee comprises six INEDs whose names and biographies are set out in the Board and Committees section of this Annual Report. The Committee held four meetings in 2023. Members' attendance records are disclosed in the Corporate Governance Report contained in this Annual Report.



Summary of Work in 2023/2024

- Approved the new Group New Business Initiative Approval Policy
- Approved the updates to the Group Prevention of Financial Crime Policy, the Group Personal Account Dealing Policy, the Group Disciplinary Policy, the Group Cyber Risk Management Policy, the Group End User Computing Policy, and the Group Model Risk Governance Policy
- Approved the proposed Intraday Margin Call enhancements for HKCC and SEOCH
- Approved the responses to the SFC inspection report on its review of HKEX's IT Project Management and System Operations
- Approved the revisions to the Terms of Reference (ToR) of the Executive Risk Committee and the Clearing Risk Committee
- Endorsed the revisions of the Risk Committee's ToR and assessed the Risk Committee's compliance with its ToR
- Endorsed the Group Risk Appetite Statement updates
- Reviewed the HKEX Entity Management Framework, the Group Cyber Security Strategy and Target Operating Model, and the new Group Technology Risk Management Policy
- Reviewed the Group Incident Escalation and Reporting Policy, and the Group Privacy Policy updates
- Reviewed the status of Model Risk Governance Framework implementation
- Reviewed the Clearing Risk Committee reports
- Reviewed the cyber improvement updates, progress in geopolitical risk remediation programme, and QME roadmap
- Reviewed implementation progress on HKEX's Independent Risk Review recommendations
- Reviewed the deep-dive analysis on: innovations in stress testing for financial resilience of HKEX Clearing Markets; and position limits
- Reviewed the results of the Group's quarterly Group Risk Management processes covering HKEX, the LME Group, and QME, which include top risks, reporting of the risk appetite metrics, summaries of issues and incidents, and clearing house liquidity and capital adequacy
- Reviewed the management confirmation on the adequacy and effectiveness of the Group's risk management and internal control systems

Operating an adequate and effective risk management and internal control system is essential for achieving the Group's strategic objectives and maintaining service delivery targets. The Risk Committee is responsible for overseeing the Group's risk management approach, policy and framework. The Group operates a consistent methodology using the Group Risk Management Framework for the identification, assessment, reporting and management of risks. Risk identification and management is the responsibility of Group management. 2023 was a year characterised by heightened uncertainty in the global economy driven

by tightened financial conditions and continued uncertainty in the geopolitical environment. Slower than expected economic recovery in Mainland China weighed on market sentiment in the Mainland and Hong Kong stock markets. Through 2023, HKEX Group Risk Management continued to evolve its organisational structure and implement proactive and appropriate risk management measures to align with the Group's business priorities. The risk management and internal control systems adopted by the Group remain adequate and effective in evaluating, determining and managing significant risks that the Group may take in achieving its strategic objectives.

Risk Governance

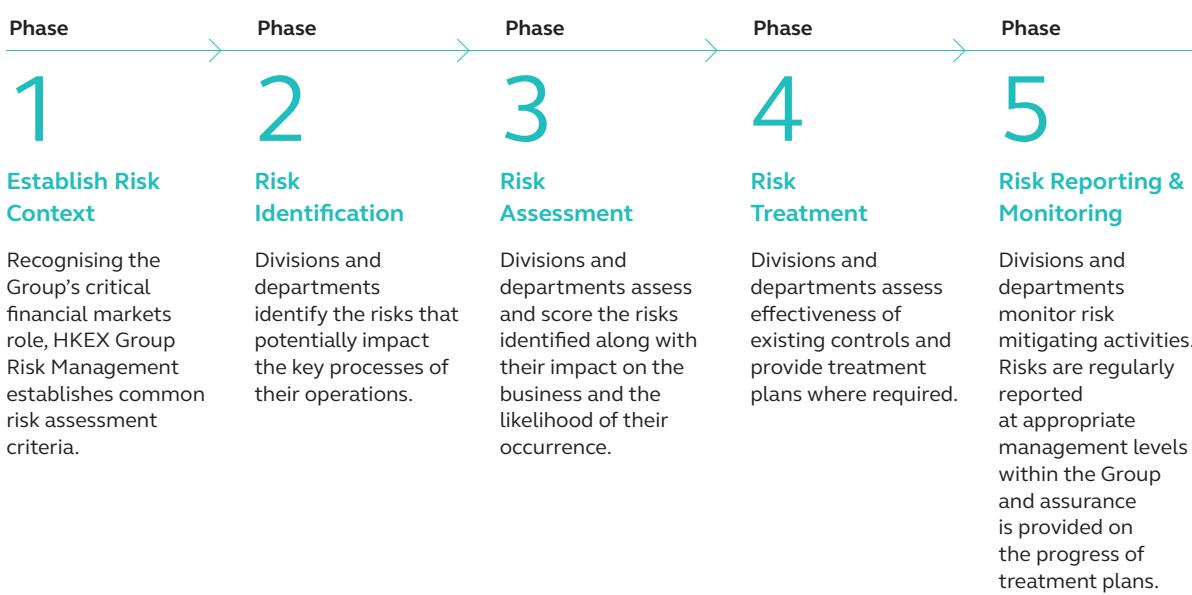
The Group's risk governance structure is based on a "Three Lines of Defence" model, with oversight and direction from the Board, the Risk Committee, and Group management through the Executive Risk Committee (ERiC).

ERiC is delegated by the Management Committee to oversee and manage the Group's risk management activities and report to the Risk Committee on a quarterly basis. ERiC reviews and evaluates the Group's risk profiles and the associated risks in achieving the Group's strategic objectives; reviews the Group's risk and compliance policies; monitors the effectiveness of controls across all key risk types; and fosters risk management culture across the Group. ERiC also delegates specific tasks to management sub-committees for further discussion and handling when necessary.



Group Risk Management

The Group Risk Management Framework, approved by the Risk Committee, mandates a consistent and effective approach applied across the Group to manage the risks associated with its business and operations. The framework is based on the International Organisation for Standardisation (ISO) 31000 Risk Management – Principles and Guidelines. The following diagram illustrates the key processes adopted under the Group Risk Management Framework.



Principal Risks

The Group faces a number of principal risks and uncertainties that, if not properly managed, could create an exposure for the Group. Thorough risk assessment and mitigation help ensure these risks are well managed and governed effectively. The Group focuses on addressing the following principal risks.

Principal Risk	Description	Key Mitigations
Strategic Risk	The risk of material adverse changes to the Group's business performance, development prospects and/or ability to deliver its objectives and strategic goals, caused by changes in the business, economic, regulatory or political environments in which the Group operates	<ul style="list-style-type: none"> Proactive monitoring of global exchange industry trends, competitors, climate change and innovations Proactive monitoring of and preparation for global and local changes in regulations affecting the Group Responsive project controls in place to allow strategic flexibility and timely resource allocation Proactive monitoring of geopolitical developments, including impacts of sanctions
Model Risk	The risk of adverse consequences arising from actions and decisions taken on the basis of incorrect or miscalculated model outputs and reports and such consequences may result in financial loss, ill-advised business or strategic decisions, poor risk capital deployment or reputational damage	<ul style="list-style-type: none"> Establishment of Model Risk Governance Framework A combination of internal and external model validation exercises on a regular basis Implementation of a Model Risk System for managing models and related validation findings
Market Risk	The risk resulting from adverse movements in market rates or prices such as foreign exchange rates, interest rates, or equity prices impacting a defaulted participant's and/or member's portfolio	<ul style="list-style-type: none"> Backtesting of margin and collateral haircut sufficiency Default contingent market risk managed through collateral management and margin collection Adequate financial resources to cover expected uncollateralised loss in each clearing house
Treasury Investment Risk	The risk of financial impact on the Group resulting from Group treasury activities	<ul style="list-style-type: none"> Investment capital at risk limited by investment and risk policies, restrictions, and guidelines Investment portfolio stress limits Exposure to foreign exchange risk limited due to HKD/USD peg and immaterial hedged exposure to other currencies
Credit Risk	The risk that any counterparty will not settle an obligation in full value, either when due or any time thereafter	<ul style="list-style-type: none"> Default management and recovery procedures in place A credit risk management function in place Stress testing of collateral and margin deposits Assessment of financial impact on the Group from counterparty defaulting
Liquidity Risk	The risk of being unable to settle obligations as they fall due whether relating to the Group's or HKEX's actual or modelled cash flow requirements and/or regulatory requirements under extreme but plausible market conditions	<ul style="list-style-type: none"> Investment policy, restrictions, and guidelines in place covering Corporate Funds, Margin Funds, and Clearing House Funds Clearing liquidity risk management requirements met through established stress testing practices

Principal Risk	Description	Key Mitigations
Cyber & Technology Risk	The risk of operational disruption or impact, financial loss or reputational damage due to technology failures, operational inefficiencies in existing technologies and IT processes, cyber incidents (including cyber attacks) or unauthorised access by malicious internal or external parties	<ul style="list-style-type: none"> • Defence-in-depth cyber controls including segregation of critical systems • Ongoing testing and evaluation of cyber and technology risk controls • Pre-launch risk advice on strategic projects • Low latency, highly resilient IT service design • Regular system performance monitoring, active capacity planning, maintenance, and drills (including disaster recovery) • Adhering to the reputable National Institute of Standards and Technology (NIST) Cybersecurity Framework for benchmarking organisational cyber resilience and maturity
Third Party Risk	The risk that business operations or reputation of the Group is adversely impacted by third party actions or a failure by the third party in provisioning services to the Group in line with business agreements	<ul style="list-style-type: none"> • Enhancement of training programmes to elevate user awareness and knowledge and improve assessment quality • Enhancement on associated systems for payment and contract management to ensure the completion of third-party risk management requirements • Exploration on integrated system development to build the end-to-end process across procurement, third-party risk management and vendor payment
Data Risk	The risk of any unexpected or underestimated adverse impact on the Group as a result of limitations to or issues arising from its ability (or that of a third party) to effectively, appropriately or lawfully process, manage and/or protect its data in its ownership or possession	<ul style="list-style-type: none"> • Site and data centre security • Enhancement of the Group Privacy Policy to enhance the Group's data privacy standards
Human Capital Risk	The risk of operational impact as a result of not being able to retain key personnel, engage employees and develop new capabilities	<ul style="list-style-type: none"> • Enhancement of the risk measures used as an indicator of the trend in attrition across the Group, coupled with the monitoring of time required to backfill these vacancies to provide a more holistic view • Formation of the succession plan to cover all key positions across the organisation
Operational Risk	The risk of financial loss, reputational damage or inability to provide services and products to customers resulting from inadequate or failed processes	<ul style="list-style-type: none"> • Enhancement of the Operational Risk Management tool, which enables a more holistic oversight of controls associated with business processes and their impact on people, process and technology • Maintenance of a confident state of preparedness to respond to and recover from business disruptions through regular drills on crisis management of major incident scenarios

Principal Risk	Description	Key Mitigations
Legal & Compliance Risk	<p>The risk of unexpected or uncertain application of a law or regulation to the Group's business or operations</p> <p>The risk of incurring penalties, financial loss and/or loss of operating licence resulting from the Group's failure to act in accordance with industry laws and regulations, statutory obligations, internal policies or prescribed best practices</p>	<ul style="list-style-type: none"> • Legal review of contracts • Internal and where appropriate external legal advice sought when conducting new business initiatives • Execution of 2nd Line Monitoring and Testing Program to assess adequacy and effectiveness of controls • Enhancement of Group Compliance Policies • Establishment of internal trainings to ensure staff compliance with laws and regulations

More information about the climate-related risks faced by the Group and the Group's approach to other CSR topics that are material or relevant to its business, including but not limited to information security and anti-corruption, is set out in the 2023 CSR Report.

CHOW WOO Mo Fong, Susan

Chairman of the Risk Committee

Hong Kong, 20 February 2024

Remuneration Committee Report

The Remuneration Committee

The Remuneration Committee (RC) is delegated with the authority by the Board to establish, review, and make recommendations to the Board on the Group's remuneration policy and practices. The RC ensures that all employees and Executive and Non-executive Directors are appropriately remunerated in accordance with the Group's strategy and performance against key objectives. Its terms of reference are available on the HKEX Group website [OS](#).

The RC comprises five INEDs whose names and biographies are set out in the Board and Committees section of this Annual Report. The RC held six meetings in 2023. Members' attendance records are disclosed in the Corporate Governance Report contained in this Annual Report.

Summary of Work in 2023/2024

Remuneration of Non-executive Directors	<ul style="list-style-type: none">Reviewed the remuneration of Non-executive Directors of HKEX, the LME, LME Clear and OTC Clear
Remuneration of CEO and Senior Executives	<ul style="list-style-type: none">Determined the 2023 performance cash incentive and share award, and 2024 base pay, for the HKEX CEO and selected senior executives, taking into account individual performance and contributionReviewed senior executive benchmark data and market trends ahead of making individual compensation decisionsReviewed and recommended the compensation arrangement for Bonnie Y Chan who has been appointed as the Chief Executive of HKEX effective 1 March 2024Recommended the compensation arrangement for Nicolas Aguzin in association with his departure from HKEX
Remuneration of Group Employees	<ul style="list-style-type: none">Recommended the 2023 performance cash incentive and share award poolsRecommended the 2024 salary adjustment budget for the Group's employees
Performance Management	<ul style="list-style-type: none">Reviewed and endorsed the 2023 corporate scorecard for the GroupAssessed performance against the 2023 corporate scorecard, and recommended compensation and incentive pool outcomes for the Group's employees
Governance	<ul style="list-style-type: none">Reviewed the RC's terms of referenceReviewed the outcomes of the 2023 People Survey

Non-executive Directors' Remuneration

Objective

To remunerate Non-executive Directors at an appropriate level for their commitment to HKEX and to attract and retain high calibre and experienced individuals to oversee HKEX's business and development

Policy

- To conduct regular reviews with reference to companies with comparable business or scale and recommend remuneration adjustments, if appropriate
- To seek the Board's endorsement and Shareholders' approval of any recommended changes

Review of Remuneration for 2024/2025

- An external consultant, Aon, was engaged to conduct a detailed study of market practices on chairman and non-executive director fees for HKEX and certain subsidiaries in February 2024, with benchmarks covering global listed exchanges, a selection of major financial institutions, and constituent companies of the FTSE 100 Index and the Hang Seng Index.
- In February 2024, the RC reviewed the current remuneration levels for Non-executive Directors. Based on the results of the review, the RC recommended that the remuneration for Non-executive Directors remain unchanged for 2024/2025.

Non-executive Directors' Remuneration for 2024/2025

	\$
Board	
– Chairman	3,500,000
– Other Non-executive Director	920,000
Audit Committee, Remuneration Committee and Risk Committee	
– Chairman	300,000
– Other member	180,000
Board Executive Committee, Corporate Social Responsibility Committee, Investment Committee, Listing Operation Governance Committee, and Nomination and Governance Committee	
– Chairman	250,000
– Other member	170,000

Non-executive Directors are not entitled to participate in the Share Award Scheme.

Further details of the Directors' emoluments are set out in note 15 to the Consolidated Financial Statements.

Employees' Remuneration

Objective

To ensure that employees are remunerated equitably and competitively with consideration of the achievement of their individual performance goals, the key business objectives at corporate level, and market conditions.

HKEX Group's approach to employee remuneration is fair and well-governed and aims to:

- attract, retain, and motivate the best talent in the competitive markets in which we operate;
- align the interests of HKEX Group employees with those of HKEX shareholders, underpinned by HKEX's obligation to uphold the best interests of the investing public; and
- support the delivery of HKEX strategy, core execution pillars, and values.

The RC, under the delegated authority of the Board of Directors, oversees the implementation of the HKEX compensation philosophy, ensuring equity and consistency.

Policy

- To recommend, based on up-to-date market information, appropriate salary adjustments, if any, for the Board's approval
- To evaluate corporate performance based on a set of pre-determined indicators and to recommend an appropriate total incentive pool for the year, if any, to the Board
- To consult with the HKEX CEO about the performance of the members of the Senior Management and other senior executives, and determine and approve total compensation outcomes for this population to ensure that they are remunerated equitably and in accordance with the established guidelines
- To review and approve all remuneration proposals for the HKEX CEO, Senior Management, Management Committee members and other senior direct reports to the HKEX CEO, and in addition any remuneration proposals for current or prospective employees where proposed total compensation is above a pre-determined threshold
- To review and recommend the remuneration of the HKEX CEO to the Board. As a good corporate governance practice, the HKEX CEO is not involved in the Board's discussion and decision.
- To ensure that HKEX's obligation to uphold the interests of the investing public, and HKEX's delivery against this obligation, are reflected in employee remuneration outcomes at all levels in the organisation

Basis of Remuneration

HKEX's employee compensation structure is centred upon a pay-for-performance concept which emphasises performance-driven total compensation. This comprises two main components: base salary (and in addition, employee benefits) and incentive compensation. When assessing total compensation, the following elements are considered:

- (i) Group, Divisional, and individual performance, of which key dimensions include:
 - Business results, both financial and non-financial outcomes;
 - Stakeholder centricity;
 - Our duty to uphold public interest at all times;
 - Operational stability and business continuity;
 - Our commitment to sustainability and diversity;
 - Leadership, partnership and collaboration; and
 - Risk, controls, and conduct.
- (ii) Role factors, which include:
 - The market and competitive environment for each role;
 - The size, scope and complexity of the role;
 - The experience an individual brings to the role, as well as their potential and longer-term career trajectory; and
 - Any changes in, or expansions to, the role or responsibilities.

Review for 2023/2024

- Based on the RC's recommendation, the Board approved in October and December 2023:
 - (i) a base salary adjustment and promotion increase effective January 2024. The salary adjustment took into consideration the competitive positioning, the cost of living and the projected pay increase in the financial services industry, as well as broader market conditions and HKEX's public interest obligations;
 - (ii) a discretionary performance cash incentive for eligible employees in recognition of their contributions in 2023;
 - (iii) a discretionary award for the allocation of HKEX shares pursuant to the Share Award Scheme for 521 selected employees and for selected employees to be recruited in 2024; and
 - (iv) the compensation arrangement and the 2023 performance related incentive pay for the HKEX CEO.
- The performance cash incentive and share award pools for the Group's employees were determined based on the overall achievements with respect to the 2023 corporate scorecard. The 2023 corporate scorecard comprises the following five categories, each with a series of performance measures. Each individual measure comprises discrete and measurable outcomes which collectively uphold HKEX's 2023 strategic and corporate priorities. The weighting of each of the five categories under the 2023 corporate scorecard is differentiated for the HKEX CEO, Management Committee members and other employees to better reflect their relative contribution upon the respective category.

Category	Description
Financial Performance	Core top-line and bottom-line measures of HKEX's financial strength, with a focus on sustainable growth and diversification of sources of revenue, which seek to optimally allocate the Group's resources, maintain stable financial position and generate returns for our shareholders. Measures in the Financial Performance category are mostly quantitative in nature, measuring both the level and quality of income, alongside prudent management of expenses.
Strategy	Measures which ensure HKEX's longer-term priorities, ensuring that it enhances its role as a superconnector between China and the world, capture megatrend opportunities, and diversify its product offerings. The Strategy category comprises both quantitative and qualitative measures on the tangible progress made to deliver on each of its strategic priorities, as well as the impact of this progress.
Execution	Delivery-focused measures which ensure reliable market operations, continuous improvement of market infrastructure, maintain strong and trusted client relationships, and reinforcement of Hong Kong's position as a leading IPO venue. The Execution category comprises both quantitative and qualitative measures, which include HKEX's commitment to diversity, and maintaining its position as a sustainability leader.
People	Measures which ensure HKEX can attract, develop, and retain world-class talent in all its operating locations, to underpin the long-term success of the Group. The People category includes both quantitative and qualitative measures which assess the strength of the HKEX employee value proposition, which is critical to ensuring a collaborative, stable and supportive working environment.
Risk, Control, Compliance and Regulatory	Measures which ensure HKEX upholds its responsibilities to Hong Kong's investing public, maintains and delivers its commitments to sustainability and diversity, maintains positive relationships with its global regulators and ensure that it operates within its pre-determined risk appetite. Measures in this category are qualitative, and include measures which assess the HKEX risk culture, conduct and behaviours, alongside how it promotes public interest in all that it does.

- Employees undergo an annual performance appraisal process through which corporate and individual objectives are set, and performance against these objectives is monitored throughout the year. This culminates in an individual performance rating (on a five-point scale) which influences individual total compensation outcomes.
- Distribution to individual employees is guided by divisional and individual performance, where managers may make adjustments to account for other factors, including overall total compensation position (i.e., base salary plus the performance cash incentive and share award, if applicable), internal pay levels and external remuneration benchmarks.
- Under the HKEX Clawback Policy, incentive payments to the most senior level of executives of the HKEX Group, whether in form of cash or share-based awards, are subject to clawback under special circumstances according to the policy, including but not limited to where there has been a material misstatement or omission in the financial reports of the HKEX Group, or if the relevant senior executive has engaged in serious negligence, fraud, or misconduct. Any clawback action may be determined by the RC in respect of any short-term incentives paid and/or any share award granted to a senior executive within the period of three years immediately preceding the date on which the RC determines such action.

Further details of HKEX's remuneration policy and structure are available on the HKEX Group website [CG](#).

As at 31 December 2023, the Group had 2,419 permanent employees and 133 temporary employees. More information about workforce diversity is set out in the Corporate Governance Report contained in this Annual Report and in the 2023 CSR Report.

A performance development process is in place to ensure that employees' performance objectives are defined, their performance progress is tracked, and training and development opportunities are identified for them. Employee training details are set out in the 2023 CSR Report.

Emoluments for 2023

Executive Director

	2023						2022	2023
	Salary \$	Performance cash incentive \$	Other benefits \$	Retirement benefit cost \$	Director's fee \$	Total \$	Total \$	Share award benefits \$
HKEX CEO								
Nicolas Aguzin	10,000,008	14,040,000	239,041	1,250,001	-	25,529,050	23,953,146	63,765,821

Senior Management

	2023						2022	2023
	Salary \$	Performance cash incentive \$	Other Benefits \$	Retirement benefit cost \$	Total \$	Total \$	Share award benefits \$	
Bonnie Y Chan ⁶	4,320,000	4,155,000	73,429	432,000	8,980,429	9,105,568	5,815,295	
Vanessa Lau	3,460,800	4,264,200	59,181	432,600	8,216,781	7,450,632	4,005,526	
Katherine Ng ⁷	3,103,105	3,819,300	146,222	387,888	7,456,515	5,167,523	2,836,118	
Richard Wise	3,584,400	4,390,600	155,518	358,440	8,488,958	7,164,722	4,285,398	
Wilfred Yiu	4,000,008	4,149,992	150,275	500,001	8,800,276	8,473,334	5,235,771	

- 1 The 2023 performance cash incentive compensation and share awards to the Senior Management (including Executive Director) are subject to the Group's Clawback Policy.
- 2 Other benefits include leave pay, insurance premium, club membership, and sign-on bonus, as applicable.
- 3 An employee who retires before normal retirement age is eligible for 18 per cent of the employer's contribution to the provident fund after completion of two years of service. The rate of vested benefit increases by 18 per cent annually thereafter and reaches 100 per cent after completion of seven years of service. An employee who retires at or after normal retirement age is eligible for the total balance of the employer's contribution.
- 4 Excludes the amounts approved by the Board for the allocation of HKEX shares pursuant to the Share Award Scheme, details of which are set out in the Share Award Scheme section below
- 5 These represent the amortised fair value of the Awarded Shares that was charged to the Consolidated Income Statement for the year ended 31 December 2023.
- 6 Bonnie Y Chan joined HKEX in January 2020 as Head of Listing and was appointed as Co-Chief Operating Officer effective 1 February 2023. As disclosed in HKEX's announcement dated 9 February 2024, Ms Chan will succeed Mr Aguzin as HKEX CEO effective 1 March 2024.
- 7 Katherine Ng joined HKEX in July 2013 and succeeded Bonnie Y Chan as Head of Listing effective 1 February 2023. Ms Ng's emoluments for 2023 as shown in the Senior Management table above include her salary, performance cash incentive, other benefits and retirement benefit cost for the entire year of 2023.

Further details of the five top-paid employees are set out in note 16 to the Consolidated Financial Statements.

Share Award Scheme

HKEX has adopted the Share Award Scheme to attract and retain high calibre employees; to incentivise and recognise their contributions to the Group's continuous operations and further development; and to promote prudent risk behaviour among them as part of the Group's risk management mechanism.

The Scheme was initially adopted by the Board on 14 September 2005 (Adoption Date), with subsequent amendments thereafter. Under the Scheme rules, the Scheme shall be valid until termination as determined by the Board, or otherwise as required under any applicable legal and/or regulatory requirements.

The Scheme allows HKEX shares to be awarded as Employee Share Awards for employees of the Group (including the Executive Director) selected by the Board. Unless otherwise determined by the Board, the RC or the HKEX CEO (as appropriate), the vesting period of the Awarded Shares is three years, and the Awarded Shares will be vested in two equal tranches from the second to the third year after the date of approval of the Awarded Sum by the Board. The Scheme rules are available on the HKEX Group website [CG](#).

Pursuant to the Scheme, the Scheme's trustee, based on the Board's recommendation, applies forfeited or unallocated HKEX shares held under the Scheme and HKEX shares that have been purchased from the market at the prevailing market price, to satisfy the Awarded Shares for allocation to the selected employees (including the Executive Director).

The maximum number of HKEX shares which may be awarded under the Scheme is 3 per cent (i.e., 31,871,575 shares) of HKEX shares in issue as at the Adoption Date ("Maximum Award Limit"). And the maximum number of shares which may be awarded to an employee selected under the Scheme is 1 per cent (i.e., 10,623,858 shares).

During 2023, a total of 1,053,417 HKEX shares, representing 0.08 per cent of HKEX's total number of issued shares as at 1 January 2023 (with no change in HKEX's issued shares during the year), were awarded or allocated to selected employees (including the Executive Director).

As part of the 2023 performance and compensation review, the Board approved allocation of HKEX shares in a combined value of \$421 million to be awarded to selected employees (including the Executive Director) as Employee Share Awards in recognition of their contributions in 2023 ("2023 Awarded Sum"). The Awarded Shares for the 2023 Awarded Sum had not been allocated to the selected employees (including the Executive Director) as of 31 December 2023.

Since the Adoption Date and up to the date of this report, a total of 16,475,829 shares had been awarded under the Scheme, representing about 1.6 per cent of the number of HKEX shares in issue on the Adoption Date. The total number of HKEX shares which is available for being further awarded under the Scheme (i.e., 15,395,746 shares) represents 1.2 per cent of HKEX issued shares as at 29 February 2024.

As at 31 December 2023, taking into account the shares acquired out of the dividends from the shares held under the trust, there were 3,291,720 shares held in trust under the Scheme (excluding shares vested but not yet transferred to awardees).

Further details of the Scheme are set out in note 43 to the Consolidated Financial Statements.

Details of the interests of the HKEX CEO, the Senior Management, four top-paid employees (excluding the HKEX CEO) and other grantees in the Awarded Shares are set out below.

	Date of ² award	Number of Awarded Shares	Reference awarded sum ³ \$	Vesting period ⁴	Number of shares ¹				Closing ⁵ price of HKEX shares before the vesting date \$	
					Shares acquired during the year out of the dividends					
					As at 1 Jan 2023	Vested during the year	Cancelled during the year	Lapsed during the year	As at 31 Dec 2023	
HKEX Chief Executive Officer (Executive Director)										
Nicolas Aguzin	2 Jun 2021	211,756	–	24 May 2022 – 24 May 2023 ⁶	109,274	1,172	110,446	–	–	306.2
	9 Mar 2022	84,603	–	7 Dec 2023 – 7 Dec 2024	86,525	2,297	44,410	–	–	44,412
	27 Feb 2023 ⁷	88,041	–	8 Dec 2024 – 8 Dec 2025	–	2,337	–	–	–	90,378
	–	–	32,760,000	8 Dec 2025 – 8 Dec 2026	–	–	–	–	–	–
Senior Management										
Bonnie Y Chan	13 May 2021	11,633	–	9 Dec 2022 – 9 Dec 2023	6,004	158	6,162	–	–	248.4
	9 Mar 2022	12,086	–	7 Dec 2023 – 7 Dec 2024	12,360	327	6,342	–	–	6,345
	27 Feb 2023 ⁷	18,873	–	8 Dec 2024 – 8 Dec 2025	–	500	–	–	–	19,373
	–	–	8,525,000	8 Dec 2025 – 8 Dec 2026	–	–	–	–	–	–
Vanessa Lau	13 May 2021	7,983	–	9 Dec 2022 – 9 Dec 2023	4,119	109	4,228	–	–	248.4
	9 Mar 2022	8,789	–	7 Dec 2023 – 7 Dec 2024	8,987	238	4,612	–	–	4,613
	27 Feb 2023 ⁷	12,315	–	8 Dec 2024 – 8 Dec 2025	–	326	–	–	–	12,641
	–	–	6,275,000	8 Dec 2025 – 8 Dec 2026	–	–	–	–	–	–
Katherine Ng	13 May 2021	4,105	–	9 Dec 2022 – 9 Dec 2023	2,119	55	2,174	–	–	248.4
	9 Mar 2022	4,834	–	7 Dec 2023 – 7 Dec 2024	4,943	131	2,536	–	–	2,538
	27 Feb 2023 ⁷	11,433	–	8 Dec 2024 – 8 Dec 2025	–	302	–	–	–	11,735
	–	–	4,025,000	8 Dec 2025 – 8 Dec 2026	–	–	–	–	–	–
Richard Wise	4 Dec 2020	42,500	–	8 Feb 2021 – 8 Feb 2024 ⁸	15,054	141	9,739	–	–	5,456
	9 Mar 2022	7,141	–	7 Dec 2023 – 7 Dec 2024	7,302	193	3,746	–	–	3,749
	27 Feb 2023 ⁷	14,622	–	8 Dec 2024 – 8 Dec 2025	–	387	–	–	–	15,009
	–	–	7,025,000	8 Dec 2025 – 8 Dec 2026	–	–	–	–	–	–
Wilfred Yiu	13 May 2021	10,720	–	9 Dec 2022 – 9 Dec 2023	5,532	146	5,678	–	–	248.4
	9 Mar 2022	9,888	–	7 Dec 2023 – 7 Dec 2024	10,112	267	5,188	–	–	5,191
	27 Feb 2023 ⁷	18,218	–	8 Dec 2024 – 8 Dec 2025	–	483	–	–	–	18,701
	–	–	7,550,001	8 Dec 2025 – 8 Dec 2026	–	–	–	–	–	–

Date of award	Number of Awarded Shares	Reference awarded sum \$	2023 ³	Vesting ⁴ period	Number of shares ¹					Closing ⁵ price of HKEX shares before the vesting date \$
					As at 1 Jan 2023	Shares acquired during the year out of the dividends	Vested during the year	Cancelled during the year	Lapsed during the year	
Four Top-paid Employees (excluding HKEX CEO) during 2023⁹										
22 Jun 2020	9,700	–	17 Jun 2022 – 17 Jun 2023 ⁸	5,102	54	5,156	–	–	–	See note 10
13 May 2021	43,518	–	9 Dec 2022 – 9 Dec 2023	22,458	592	23,050	–	–	–	See note 10
9 Mar 2022	43,571	–	7 Dec 2023 – 7 Dec 2024	44,558	1,179	22,864	–	–	22,873	See note 10
27 Feb 2023 ⁷	68,444	–	8 Dec 2024 – 8 Dec 2025	–	1,814	–	–	–	70,258	–
–	–	28,696,581	8 Dec 2025 – 8 Dec 2026	–	–	–	–	–	–	–
Other Selected Employees (excluding HKEX CEO and Senior Management)										
During 2020	9,700	–	See note 4	5,102	54	5,156	–	–	–	See note 11
During 2021	727,347	–	See note 4	328,934	7,951	313,815	11,865	–	11,205	See note 11
During 2022	825,531	–	See note 4	761,538	18,837	341,964	24,963	–	413,448	See note 11
During 2023 ⁷	889,915	–	See notes 4 and 7	–	22,328	12,060	20,180	–	880,003	–
–	–	355,235,499	8 Dec 2025 – 8 Dec 2026	–	–	–	–	–	–	–

1 Includes shares acquired out of the dividends from the Awarded Shares according to the Scheme

2 Refers to the date on which the trustee allocated the Awarded Shares to the selected employees based on the awarded sum determined by the Board.

3 Refers to the amount approved by the Board in 2023 for the allocation of the HKEX shares to be awarded to the selected employees. The allocation of Awarded Shares had not been made by the trustee as of 31 December 2023.

4 Save for disclosure in notes 6, 7, 8 and 10 below, the Awarded Shares and the related income are vested in two equal tranches in the second and third year after the grant.

5 Refers to the closing price of HKEX shares traded on the HKD counter immediately before the dates on which the relevant Awarded Shares were vested in 2023.

6 The award was granted under the Scheme pursuant to the employment contract entered into by Mr Aguzin with the Company. The Awarded Shares and the related income (if any) are vested in two equal tranches on the first and second anniversary of the date of grant.

7 Award of HKEX Shares during 2023:

Date of award	Vesting period	Number of shares awarded	Closing price of HKEX shares traded on HKD counter immediately before date of award	Fair value per ^(a) Awarded Shares
			\$	\$
27 Feb 2023 ^(b)	8 Dec 2024 – 8 Dec 2025	1,032,050	319.4	328.9
9 Mar 2023 ^(c)	8 Dec 2024 – 8 Dec 2025	274	327.8	341.1
22 Mar 2023 ^(c)	1 Sep 2023 – 1 Sep 2026	1,693	324.8	332.7
17 Nov 2023 ^(c)	2 Feb 2024 – 2 Feb 2026	163	291.6	287.1
17 Nov 2023 ^(c)	17 Nov 2023 – 4 Sep 2024	586	291.6	287.1
17 Nov 2023 ^(c)	17 Nov 2023 – 15 Nov 2026	2,058	291.6	287.1
17 Nov 2023 ^(c)	31 Dec 2023 – 31 Dec 2026	14,095	291.6	287.1
30 Nov 2023 ^(c)	1 Mar 2024 – 1 Mar 2026	2,498	279.6	279.0

- (a) The fair value of the Awarded Shares is determined in accordance with HKFRS 2 by reference to the cost of purchase of the Awarded Shares, or the fair value at grant date, taking into account all non-vesting conditions associated with the grant on grant date. No adjustment is required for expected dividends since the employees are entitled to receive dividends paid during the vesting period. Details of the accounting policy adopted are set out in note 43 to the Consolidated Financial Statements.
 - During 2023, 88,041 Awarded Shares, with a total fair value of \$28,955,804, were granted to the HKEX CEO, and a total of 68,444 Awarded Shares, with a total fair value of \$22,510,547, were granted to the other four top-paid employees (excluding the HKEX CEO).
 - (b) Represents the Awarded Shares granted to selected employees (including a total of 156,485 Awarded Shares granted to the HKEX CEO and the other four top-paid employees of HKEX during 2023) as Employee Share Awards in recognition of their contributions in 2022, which were allocated to the selected employees on 27 February 2023
 - (c) These awards were granted to new employees under their respective hiring agreements with HKEX, as compensation for their loss of unvested long-term incentives earned through their service with their previous employers, and are subject to special vesting schedule(s).
- 8 These awards were granted as part of the hiring agreements of the relevant employees with special vesting schedule(s).
- 9 One of the five top-paid employees during 2023 was the HKEX CEO, whose interest in Awarded Shares and shares acquired out of the dividends from the Awarded Shares is disclosed under the “HKEX Chief Executive Officer (Executive Director)” section of the above table.
- 10 In 2023, a total of 51,070 shares were vested to the four top-paid employees (excluding the HKEX CEO) during the year. The weighted average closing price of these shares before the relevant vesting dates in 2023 is \$259.1.
- 11 In 2023, a total of 672,995 shares were vested to other selected employees (excluding the HKEX CEO and Senior Management). The weighted average closing price of these shares before the relevant vesting dates in 2023 is \$259.7.

Apurv BAGRI

Chairman of the Remuneration Committee

Hong Kong, 19 February 2024

Corporate Social Responsibility Committee Report

The CSR Committee

The Corporate Social Responsibility (CSR) Committee is delegated with the authority by the Board to provide direction and oversee the development and implementation of the CSR initiatives of the Group in relation to corporate sustainability, environmental protection, philanthropy and community engagement. Its terms of reference are available on the HKEX Group website [OS](#).

The CSR Committee comprises five INEDs and the HKEX Chief Executive Officer, whose names and biographies are set out in the Board and Committees section of this Annual Report. The CSR Committee held four meetings in 2023. Members' attendance records are disclosed in the Corporate Governance Report contained in this Annual Report.

Summary of Work in 2023/2024

- Reviewed and endorsed the following items:
 - the annual CSR Report; and
 - the philanthropy work plan and budget for 2024
- Reviewed and received the quarterly reports on the Group's CSR activities and charitable donations, covering:
 - donations via HKEX Foundation in relation to the HKEX Charity Partnership Programme, HKEX Impact Funding Scheme, HKEX University Scholarship Programme and HKEX Research Funding Scheme;
 - donations to The Community Chest of Hong Kong; and
 - other donations to the Group's charity partners
- Reviewed the HKEX Shareholders Communication Policy
- Reviewed and discussed HKEX's CSR initiatives, alongside global and local trends in CSR development
- Reviewed the progress of HKEX's green initiatives against relevant targets, including HKEX's climate strategy and action plan, supply chain sustainability and other green initiatives
- Reviewed and was satisfied with the adequacy of the Group's resources, staff qualifications and experience, training programmes and budget relating to its ESG (including climate strategy) performance and reporting
- Reviewed the CSR Committee's terms of reference

CSR Policies, Performance and Reporting

HKEX is committed to connecting, promoting and progressing its markets and the communities they support; and, to continuously seeking to reinforce its position as an active and responsible corporate leader. HKEX's CSR policies and details of HKEX's CSR management approach are available on the HKEX Group website [CSR](#).

Reflecting the nature of its business, the Group is not aware of any existing environmental laws or regulations that would have a material impact on the Group. The Group, however, continues to adopt enhanced measures to reduce energy and other resource utilisation, minimise waste and increase

recycling, encouraging its employees to adopt environmentally responsible behaviours whilst also promoting environmental protection in its supply chain and marketplace. To reinforce our commitment to tackling climate change, the Group continued to work closely with government, policy makers, regulators, international peers, businesses and other stakeholders to facilitate the transition to a low-carbon and climate resilient economy. In November 2023, HKEX announced the acceleration of its commitment to achieve carbon neutrality by 2024 and net zero by 2040, ten years ahead of the original target date. And during 2023, HKEX conducted again its "HKEX Goes Green" campaign to raise environmental awareness across its workplace and the broader community.

As a responsible corporate citizen, the Group actively contributes to the community by making charitable donations to, and collaborating with, a wide range of charity partners. In 2023, HKEX, through HKEX Foundation, reinforced our commitment to the community by supporting local charities and social enterprises, through the HKEX Charity Partnership Programme and the HKEX Impact Funding Scheme. The HKEX University Scholarship Programme and HKEX Research Funding Scheme continued to nurture homegrown talents and support innovative research in the fields of ESG, sustainable finance, biotechnology and specialist technology. In the UK, the LME continued its partnership with Inspire, a charity and an education business partnership which seeks to empower young people to reach their full potential and realise their ambitions. In addition, the LME set up a new fund to provide two scholarships per year for students at the Camborne School of Mines, to help them on their journey to forging a successful mining career. During 2023, the Group donated a total of \$95 million to various projects and initiatives in its communities.

During 2023, the CSR Committee received and reviewed the CSR quarterly reports, which summarised the CSR initiatives undertaken by the Group throughout the year. Details of the Group's CSR performance in 2023 are disclosed in the 2023 CSR Report.

Communication with Shareholders

Effective engagement with Shareholders is a vital component of HKEX as a listed company. Throughout the year, HKEX has continued to deliver timely, balanced, clear, and transparent communications with its Shareholders and other investors. Details of the Group's shareholder and investor engagement and communication activities are set out in the Corporate Governance Report of this Annual Report and further details can be found on the Investor Relations section of the HKEX Group website [IR](#).

An HKEX Shareholders Communication Policy, which is available on the HKEX Group website [CG](#), sets out the Group's objective for ensuring Shareholders, and in appropriate circumstances, the wider investment community, are provided with regular, equal and timely access to balanced and understandable information about the Group, which ensures that Shareholders can exercise their rights in an informed manner and allows them, and the investment community, to engage actively with the Group.

The CSR Committee reviewed the Group's shareholders and investor engagement and communication activities conducted in 2023 and was satisfied with the implementation and effectiveness of the Shareholders Communication Policy.

Relationships with other Major Stakeholders

The Group also actively engages with all its other major stakeholders, including its employees, suppliers and partners through a variety of channels with the aim of developing mutually beneficial relationships and promoting knowledge sharing, transparency and sustainability.

Employees are remunerated equitably and competitively. Learning and development opportunities are provided to equip staff members so that they can perform the best and achieve personal and corporate goals. In 2023 the Group delivered over 47,900 hours of training to its employees across different divisions and departments through the Group's learning platform iLearn and talent development programmes designed for employees at different levels.

The Group also undertook its biennial People Survey to gather employees' feedback on their views of the Company, their working environment and their levels of engagement. In addition to ongoing programmes supporting employee safety, health and well-being, the Group conducted again its group-wide Global Wellness Challenge to promote the awareness of physical and mental wellbeing among our employees in Hong Kong, the Mainland and London.

HKEX is committed to ensuring strong ethical supply chain management and seeks to use suppliers that reflect its values and commitment to being a good corporate citizen. Throughout the year, the Group was not aware that any of its key suppliers had reported any significant actual, or potential, negative impact on their own business ethics, environmental protection, human rights or labour practices, nor any of them had any non-compliance incident in respect of these areas.

Laura M CHA

Chairman of the CSR Committee

Hong Kong, 28 February 2024

Directors' Report

The Directors are pleased to present this Annual Report together with the audited consolidated financial statements for the year ended 31 December 2023.

Principal Activities

HKEX is a recognised exchange controller under the SFO. HKEX operates the only recognised stock and futures markets in Hong Kong through its wholly-owned subsidiaries, SEHK and HKFE, and is the frontline regulator of listed issuers in Hong Kong. In collaboration with the Shanghai and Shenzhen stock exchanges, HKEX operates Stock Connect, which gives investors in Hong Kong and the Mainland access to each other's securities markets. HKEX also provides market data through HKEX Information Services Limited and HKEX Information Services (China) Limited.

HKEX operates HKSCC, HKCC, SEOCH, and OTC Clear, the only recognised clearing houses in Hong Kong. HKSCC, HKCC, and SEOCH provide integrated clearing and settlement services, while OTC Clear provides clearing and settlement services for over-the-counter interest rate and foreign exchange derivatives transactions and provides Hong Kong and international investors access to the onshore interest rate swap market under the Northbound channel of Swap Connect. HKSCC also provides depository and nominee services.

HKEX owns the LME and LME Clear in the UK. The LME provides facilities for the trading of futures and options contracts on base and other metals. It is a recognised investment exchange under the Financial

Services and Markets Act 2000 (FSMA). LME Clear provides clearing services for the exchange contracts of the LME. It is a recognised clearing house under the FSMA and an authorised CCP under the UK European Market Infrastructure Regulation (EMIR).

HKEX owns 90.01 per cent of QME, which is a commodity trading platform in the Mainland.

A list of HKEX's principal subsidiaries as at 31 December 2023 and their particulars are set out in note 28 to the Consolidated Financial Statements. More information about the Group's activities is available in the About HKEX section of the HKEX Group website.

Business Review

The Group's revenue is primarily derived from business activities conducted in Hong Kong and the UK. An analysis of the Group's performance for 2023 by operating segment is set out in note 4 to the Consolidated Financial Statements.

A fair review of the Group's business, including the important events affecting the Group that have occurred since the end of 2023 and the likely future developments in the Company's business, is set out in the Chief Executive Officer's Review, Business Review, and Financial Review sections of this Annual Report. Principal risks and uncertainties facing the Group were reviewed by the Board as delineated in the Risk Committee Report. Details about the Group's financial risk management are set out in note 53 to the Consolidated Financial Statements. Details about HKEX's climate-related risks and opportunities are disclosed in the 2023 CSR Report.



The following table outlines the relevant laws and regulations that have a significant impact on the Group's business, and the compliance measures adopted and implemented by the Group during 2023.

Primary legislation/ regulations ¹	Key scope	Compliance measures
Exchange and clearing business in Hong Kong		
SFO	<p>HKEX is a recognised exchange controller and has duties under section 63(1) to ensure that the statutory duties placed on the recognised exchange companies (under section 21) and recognised clearing houses (under section 38) under its control are complied with.</p> <p>SEHK and HKFE are recognised exchange companies; and HKSCC, HKCC, SEOCH, and OTC Clear are recognised clearing houses (RCHs).</p>	<p>A corporate governance structure² is in place to enable HKEX to balance its public functions and its commercial profit making objectives.</p> <p>Group Compliance is responsible for ensuring compliance with laws, rules and regulations in line with the group risk appetite statements.</p>
PFMI	<p>As RCHs, HKSCC, HKCC, SEOCH, and OTC Clear are required to observe the applicable PFMI on an ongoing basis pursuant to the guidelines issued by the SFC.</p>	<p>Rule amendments by SEHK, HKFE, and each of the RCHs are approved by the SFC under section 24 (for recognised exchange companies) and section 41 (for RCHs).</p> <p>Fees imposed by HKEX (in its capacity as a recognised exchange controller), SEHK, HKFE, and each of the RCHs are approved by the SFC under section 76.</p>
Exchange and clearing business in the UK		
Part XVIII of the FSMA and Part I and Part II of the FSMA (Recognition Requirements for Investment Exchanges and Clearing Houses) Regulations 2001	<p>The LME is a recognised investment exchange under Part XVIII of the FSMA and is required to ensure that its rules, procedures, and practices are adequate for the protection of investors and for the maintenance of an orderly market.</p>	<p>The LME follows the rules and guidance on recognition and notification requirements as set out in the FCA's Handbook, as well as having implemented the applicable UK MiFID II requirements.</p>
Markets in Financial Instruments Directive 2014/65/EU, Markets in Financial Instruments Regulation 600/2014 and associated legislation (together, MiFID II)	<p>Until 31 December 2020, the LME was an EU regulated market required to comply with applicable EU MiFID II requirements. Since 1 January 2021, the LME has become a third country venue for EU MiFID II purposes, but continues to comply with UK MiFID II requirements as they form part of UK law.</p>	<p>As required by the FCA and on behalf of the LME board, the Audit Committee of the LME has to satisfy itself formally on an annual basis that the LME continues to meet certain recognition requirements.</p>
	<p>The right of the LME to provide access to its systems to entities in European Economic Area (EEA) jurisdictions now depends on the domestic rules applicable in individual Member States and the LME has obtained either applicable licences or dispensations in all relevant Member States. Further detail regarding the position in respect of the EEA jurisdictions that are relevant to the LME's current membership is set out in the LME's Notice of 4 January 2021 to its Members in relation to certain updates to the LME jurisdictions document.</p>	<p>In performing that annual review, the LME conducts a detailed analysis, covering the arrangements and controls in place for each requirement. This is supported by a risk-based compliance monitoring programme which seeks to focus its resources on the areas of greatest inherent risk.</p>

Primary legislation/ regulations ¹	Key scope	Compliance measures
Part 4A of FSMA & Benchmarks Regulation (known as BMR)	<p>Since 3 December 2019, the LME has been authorised by the FCA to administer a number of prices that are categorised as benchmarks under the BMR, and is required to comply with applicable requirements under the BMR and certain FCA rules in connection with the administration of these benchmarks.</p> <p>The LME has also relied on the transitional provisions under the EU BMR in order to provide its benchmarks for use by “supervised entities” within the EU. The European Commission has extended the transitional provisions until the end of 2025.</p> <p>As “supervised entities” under the BMR, the LME and LME Clear, when using a “benchmark” (within the meaning of the BMR), are required to maintain fallback plans that identify steps to be taken where the relevant benchmark ceases to be provided or is no longer reflective of the market which it is intended to measure.</p>	<p>To ensure compliance with the applicable BMR and FCA requirements, the LME has implemented a robust compliance framework around its benchmark determination processes, including a governance framework and a compliance monitoring programme, and has employed a dedicated member of personnel to oversee its benchmark activity.</p> <p>Mandatory BMR documentation is publicly available on the LME website.</p>
Senior Managers Regime (SMR)	<p>As a benchmark administrator, the LME became subject to the SMR with effect from 7 December 2020. The SMR aims to ensure individual accountability at senior management level for regulated activities. Broadly, this requires the LME to ensure that its senior managers are registered as “senior management function” holders in relation to specified functions; certain prescribed responsibilities are allocated accordingly; and the code of conduct requirements are applicable to relevant staff.</p>	<p>Compliance with the relevant requirements continues to be monitored via the compliance monitoring programme. The LME’s benchmarks are subject to an annual external audit against BMR requirements.</p>
Regulation on OTC Derivatives, Central Counterparties and Trade Repositories (known as EMIR) and MiFIR	<p>As of 1 January 2021, the EMIR and MiFIR requirements form part of UK domestic law. Under the UK EMIR, LME Clear is authorised as a CCP and LME Clear is required to comply with the applicable UK EMIR requirements and UK MiFIR requirements accordingly.</p> <p>LME Clear was, until 31 December 2020, an authorised CCP under the EU EMIR. Since 1 January 2021, LME Clear has become a recognised third country CCP in relation to its arrangements with EEA Clearing Members.</p>	<p>To ensure compliance with the UK EMIR, LME Clear has implemented robust governance arrangements and a comprehensive risk management framework.</p> <p>LME Clear’s Rules and Procedures have been developed to reflect the legal framework which applies to LME Clear, including primarily the requirements of the UK EMIR and the UK MiFIR.</p> <p>All documentation required in relation to LME Clear’s compliance with the UK EMIR and the UK MiFIR is publicly disclosed on the LME website.</p>

Primary legislation/ regulations¹	Key scope	Compliance measures
FSMA	LME Clear is a recognised clearing house under Part XVIII of the FSMA and is required to ensure that its rules, procedures and practices are adequate for the protection of investors and for the maintenance of an orderly operation.	LME Clear provides a high degree of legal certainty for each material aspect of its activities by setting out the rights and obligations of LME Clear and those of its Members in its Rules and Procedures (the Rules). The Rules support and allow LME Clear to conduct such material aspects appropriately and effectively, ensure Members understand the full extent of their obligations when using LMEmercury and clarify the protection provided to investors. Any changes to the Rules are notified to the Bank of England which, when appropriate, will approve the changes. The Rules are publicly disclosed on the LME website.
Financial Markets and Insolvency (Settlement Finality) Regulations 1999 (SFR)	LME Clear is a designated system under the SFR and is required to meet the SFR requirements. In addition, as of 1 January 2021, LME Clear was approved as a third-country system under French law for the purposes of the Settlement Finality Directive.	LME Clear has adopted, as part of its Rules and Procedures, a Settlement Finality Rule (Rule 11) and related Settlement Finality Procedures which define the point at which Transfer Orders take effect and become irrevocable, the finality of instructions as well as the participants in the system. The Rules and Procedures explaining how the system meets the SFR requirements are available on the LME website.
PFMI	LME Clear, as financial market infrastructure, is required to observe the applicable PFMI on an ongoing basis.	LME Clear's approach to observing each applicable PFMI is summarised in its disclosure document, which is available on the LME website. LME Clear reviews its compliance against the applicable PFMI on an annual basis, and performs a full and comprehensive self-assessment on a biennial basis against the PFMI. These assessments are shared with LME Clear's primary regulator, the Bank of England.
Spot commodity trading platform in the PRC		
The Interim Measures of Shenzhen Municipality for the Supervision and Administration of Trading Venues (Shenzhen Interim Measures)	QME is a spot commodity trading platform in Shenzhen and is required to comply with the applicable rules under the Shenzhen Interim Measures on an ongoing basis.	QME has established relevant operating rules for trading, settlement, delivery and warehouse management, which are published on the QME website. QME conducts legal and regulatory analysis, covering the key regulations and arrangements in place, and performs annual self-assessment of which the results will be reported to its regulator, Qianhai Authority.

Primary legislation/ regulations ¹	Key scope	Compliance measures
Operations in Hong Kong, the UK and the PRC		
Prevention of Bribery Ordinance (Chapter 201 of the Laws of Hong Kong)	HKEX, SEHK, HKFE, HKSCC, HKCC, and SEOCH are public bodies under the Prevention of Bribery Ordinance and are subject to prohibitions on bribery (under sections 4 to 8) and corrupt transactions with agents (under section 9).	HKEX has adopted the Group Anti-Bribery and Anti-Corruption Policy ("Policy") to ensure that employees within the Group comply with the HK Prevention of Bribery Ordinance, the UK Bribery Act 2010, and the PRC Criminal Law, where applicable. The Policy is reviewed annually to ensure that it remains appropriate. During 2023, enhancements were made to the Policy to further strengthen the HKEX anti-bribery framework.
Bribery Act 2010	<p>The Group's subsidiaries in the UK, persons who are British citizens or who are ordinarily resident in the UK, and any persons who by an act or omission in the UK formed part of the relevant bribery offence are subject to the Bribery Act provisions (under sections 1, 2 and 6).</p> <p>The LME, LME Clear, and any other Group companies carrying on business in the UK are "relevant commercial organisations" for the purposes of section 7 of the Bribery Act 2010.</p>	
PRC Criminal Law	QME and other PRC subsidiaries of HKEX are subject to prohibitions on bribery under the PRC Criminal Law.	
Privacy and Data Protection Laws	The Group is subject to certain privacy and data protection laws, including but not limited to UK and EU General Data Protection Regulation; HK Personal Data (Privacy) Ordinance; Singapore Personal Data Protection Act; and PRC Personal Information Protection Law.	<p>HKEX has established a Group Data Protection Office to take charge of compliance with the relevant privacy and data protection laws and regulations. In addition to the appointment of a PRC-based representative in 2022, an EU representative was appointed in April 2023.</p> <p>HKEX has adopted an internal Privacy Impact Assessment ("PIA") Policy Guide to ensure that PIAs are conducted when necessary.</p> <p>An updated Group Privacy Policy was adopted in 2023 to ensure the Group's approach to privacy risk management reflects the current regulatory position.</p> <p>During 2023, a cookie management system, accompanied by a new cookie notice, was implemented across the HKEX Websites. Consent language was updated across HKEX, and separate privacy notices were prepared for additional processing purposes, including for FINI, and for specific divisions including Listing and Human Resources.</p>

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- On the corporate level, all of the Group companies comply with the laws of the place in which the companies are incorporated, the Main Board Listing Rules, and the SFO, where they are applicable.
 - HKEX's corporate governance structure is available on the HKEX Group website, and its principal corporate governance practices are set out in the Corporate Governance Report, the Nomination and Governance Committee Report, the Audit Committee Report, the Risk Committee Report, the Remuneration Committee Report, and the CSR Committee Report.

Disclosures related to the Group's environmental policies and performance, and relationships with major stakeholders are included in the CSR Committee Report.

Major Customers and Suppliers

During the year ended 31 December 2023, the combined value of the Group's contracts with its five largest suppliers, which were not of a capital nature, was less than 30 per cent of the total value of supplies purchased. The Group's five largest customers combined contributed less than 30 per cent of its total revenue and other income during the year ended 31 December 2023.

Results and Appropriations

The Group's results for the year ended 31 December 2023 are set out in the Consolidated Income Statement.

The Board has declared a second interim dividend of \$3.91 per share for 2023 (2022 second interim dividend: \$3.69 per share), which will be payable in cash, to Shareholders whose names appear on HKEX's Register of Members on 18 March 2024.

The 2023 first interim dividend of \$4.50 per share (2022 first interim dividend: \$3.45 per share) was declared by the Board and paid to the Shareholders in cash on 12 September 2023 in the total sum of \$5.7 billion (2022: \$4.4 billion). This included the dividends of \$10 million (2022: \$8 million) paid to shares held in trust under the Share Award Scheme.

Including the first interim dividend, the total dividends for 2023 amount to \$8.41 per share (2022: \$7.14 per share), which represents a payout ratio of 90 per cent (2022: 90 per cent) of the profit attributable to Shareholders, excluding the financial results of HKEX Foundation, for the year ended 31 December 2023. Dividends for shares held in trust under the Share Award Scheme amount to \$23 million (2022: \$17 million). More information about HKEX's dividend policy and the 2023 second interim dividend is set out in note 19 to the Consolidated Financial Statements and the Shareholder Information section of this Annual Report.

Donations

The Group's charitable donations during 2023 amounted to \$95 million (2022: \$142 million). The Group has never made any political donations.

More information about the Group's charitable donations is set out in the CSR Committee Report.

Share Capital

Details of the movements in share capital of the Company during 2023 are set out in note 42 to the Consolidated Financial Statements. No HKEX shares were issued during 2023.

Equity-linked Agreements

No equity-linked agreements were entered into by the Company during 2023 or subsisted at the end of 2023.

Reserves

As at 31 December 2023, HKEX's distributable reserves, calculated under Part 6 of the Companies Ordinance (Chapter 622 of the Laws of Hong Kong), amounted to \$8.6 billion (31 December 2022: \$8.4 billion).

Details of the movements in the reserves of the Group and HKEX during 2023 are set out in the Consolidated Statement of Changes in Equity and notes 43 to 46 and note 54(a) to the Consolidated Financial Statements.

Purchase, Sale or Redemption of HKEX's Listed Securities

During 2023, 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 1,763,793 HKEX shares at a total consideration of \$448 million.

Directors

The following is the list of Directors during 2023 and up to the date of this report (unless otherwise stated). Brief biographies of the Directors as at the date of this report are set out in the Board of Directors and Senior Management section of this Annual Report. Their interests in HKEX shares are set out in the Corporate Governance Report. Information about Directors' appointments, retirements, and remuneration is set out in the Nomination and Governance Committee Report and the Remuneration Committee Report.

INEDs

Laura May-Lung CHA (Chairman)
Nicholas Charles ALLEN
Apurv BAGRI
CHEAH Cheng Hye (Re-elected on 26 April 2023)
CHEUNG Ming Ming, Anna
CHOW WOO Mo Fong, Susan
Rafael GIL-TIENDA (Retired on 27 April 2023)
HUNG Pi Cheng, Benjamin
LEUNG Nisa Bernice Wing-Yu (Re-appointed on 26 April 2023)
LEUNG Pak Hon, Hugo (Re-elected on 26 April 2023)
Carlson TONG (Appointed on 26 April 2023)
YAM Chi Kwong, Joseph (Appointed on 26 April 2023)
YIU Kin Wah, Stephen (Retired on 27 April 2023)
ZHANG Yichen

Executive Director

Alejandro Nicolas AGUZIN (Chief Executive)

The following is the list of directors of HKEX's subsidiaries during 2023 and up to the date of this report (unless otherwise stated).

Alejandro Nicolas AGUZIN ^{1,2}	Rafael GIL-TIENDA	SIN Wan Ni, Winnie
Nicholas Charles ALLEN ¹	HSU John Qing Qiang	Adam Barclay SINGER
BA Shusong	HUANG Fei	SO Ying Ying, Glenda
BAO Haijie	Hugh Edward GRAHAM	Marco Andrea STRIMER ³
Julie Ann CARRUTHERS	Gay HUEY EVANS ³	Antony John STUART
Michael CARTY	JI Wencheng	THANG Kai Chi, John
Laura May-Lung CHA ¹	KWOK Hom Siu	Carlson TONG ¹
Matthew James CHAMBERLAIN	LAM Lai Pau, Jeffrey ³	Pierre VAREILLE
CHAN Yiting, Bonnie ²	LAM Wing Chung, Charles	Herta VON STIEGEL ³
Claire Penelope CHAPMAN	LAU Bik Yun, Vanessa ²	Andrew David WALTON ³
CHEN Cong	LAU Hay Tsing	WANG Guiju
CHEUNG Kar Wah Allista ³	LAU LAW Siu Hung, Monique	WANG Haishang
CHEUNG Kin Chung	LAW Ka Ho, Vincent ³	WANG Xiaokun ³
CHEUNG Ming Ming, Anna ¹	LEUNG Chung Kwong, Richard	David Porter WARREN
CHIU Kin Nang	LEUNG Pik Shan, Maria	John Mackay McCulloch WILLIAMSON
CHOW WOO Mo Fong, Susan ¹	LEUNG Pak Hon, Hugo ¹	Richard Alan WISE ²
Robert Daniel COHEN ³	LEUNG Sing Man, Sandra	YIU Ka Yan, Wilfred ²
Victoria Robyn COWLEY ³	LI Jieyi	YIU Kin Wah, Stephen ³
James CRESSY ³	MAO Zhirong	Craig YOUNG
Nigel Kenneth DENTOOM	Roger William MCAVOY	ZHANG Huizi
FAN Wentao	NG Chin Hang, Edmund	ZHANG Ping
DONG Feng ³	Keith Samuel NOYES	ZHANG Yichen ¹
DUAN Fei ³	POON Tim Fung	
Martin Ernst FRAENKEL	Christopher Kevin RIDEOUT	

¹ Member of the Board as at the date of this report

² Member of Senior Management as at the date of this report

³ No longer a director of any subsidiaries of HKEX as at the date of this report

Directors' Interests in Transactions, Arrangements and Contracts

Details of the continuing connected transactions and related party transactions are set out in the Corporate Governance Report and note 50 to the Consolidated Financial Statements.

Notwithstanding the above, no transaction, arrangement, or contract that is significant in relation to the Group's business to which the Company or any of its subsidiaries was a party and in which a person who at any time in 2023 was a Director or his or her connected entity had, directly or indirectly, a material interest was entered into in 2023 or subsisted at any time during 2023.

Directors' Rights to Acquire Shares or Debentures

Pursuant to the Share Award Scheme, HKEX shares are awarded to the Company's Executive Director. During 2023, Nicolas Aguzin was the Company's sole Executive Director. Details of the interests of Mr Aguzin in the Awarded Shares are set out in the Remuneration Committee Report and note 43 to the Consolidated Financial Statements.

Save for the above, neither HKEX nor any of its subsidiary undertakings was a party to any arrangements to enable Directors to acquire benefits by means of the acquisition of shares in, or debentures of, HKEX or any other body corporate at any time during 2023 or at the end of 2023.

Management Contracts

No contract, other than employment contracts, concerning the management and administration of the whole or any substantial part of the Company's business was entered into or existed during 2023.

Permitted Indemnity Provision

Pursuant to HKEX's Articles, subject to the provisions of the statutes, every Director shall be entitled to be indemnified by the Company against all costs, charges, losses, expenses, and liabilities incurred by him or her in the execution and discharge of his or her duties or in relation thereto. The Directors and Officers Liability Insurance (D&O Insurance) undertaken by the Company provides such indemnities to all the directors of the Company and its subsidiaries. The relevant provisions in HKEX's Articles and the D&O Insurance were in force during the financial year ended 31 December 2023 and as at the date of this report.

Auditor

The financial statements for the year ended 31 December 2023 have been audited by PricewaterhouseCoopers, which retires and, being eligible, offers itself for re-appointment at the 2024 AGM. A resolution to re-appoint PricewaterhouseCoopers as the Group's external auditor and to authorise the Directors to fix its remuneration will be proposed at the 2024 AGM.

All references above to other sections, reports or notes in this Annual Report form part of this report.

Approved by the Board on 29 February 2024

Laura M CHA

Chairman

Auditor's Report

Independent Auditor's Report to the Members of Hong Kong Exchanges and Clearing Limited

(incorporated in Hong Kong with limited liability)

Opinion

What we have audited

The consolidated financial statements of Hong Kong Exchanges and Clearing Limited (the "Company") and its subsidiaries (the "Group"), which are set out on pages 133 to 220, comprise:

- the consolidated statement of financial position as at 31 December 2023;
- the consolidated income statement for the year then ended;
- the consolidated statement of comprehensive income for the year then ended;
- the consolidated statement of changes in equity for the year then ended;
- the consolidated statement of cash flows for the year then ended; and
- the notes to the consolidated financial statements, comprising material accounting policy information and other explanatory information.

Our opinion

In our opinion, the consolidated financial statements give a true and fair view of the consolidated financial position of the Group as at 31 December 2023, and of its consolidated financial performance and its consolidated cash flows for the year then ended in accordance with Hong Kong Financial Reporting Standards ("HKFRSs") issued by the Hong Kong Institute of Certified Public Accountants ("HKICPA") and have been properly prepared in compliance with the Hong Kong Companies Ordinance.

Basis for Opinion

We conducted our audit in accordance with Hong Kong Standards on Auditing ("HKSAs") issued by the HKICPA. Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Consolidated Financial Statements section of our report.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Independence

We are independent of the Group in accordance with the HKICPA's Code of Ethics for Professional Accountants ("the Code"), and we have fulfilled our other ethical responsibilities in accordance with the Code.

Key Audit Matters

Key audit matters are those matters that, in our professional judgement, were of most significance in our audit of the consolidated financial statements of the current period. These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

Key audit matters identified in our audit are summarised as follows:

- Goodwill impairment assessment
- Control environment supporting key information technology systems

Key Audit Matters (Continued)

Goodwill impairment assessment

Nature of the Key Audit Matter

As at 31 December 2023, the Group has goodwill of HK\$13,371 million arising from various acquisitions. Goodwill of HK\$13,262 million arising from the acquisition of LME Holdings Limited and its subsidiaries (collectively the "LME Group") is attributable to the Cash Generating Unit ("CGU") for the "Commodities" segment.

We focused on goodwill arising from the acquisition of the LME Group due to significant judgements applied by management in the goodwill impairment assessment.

Goodwill with an indefinite useful life is subject to impairment assessments annually and when there is an indication for impairment.

Management performed an impairment assessment over the goodwill by estimating the recoverable amount (being the higher of the fair value less costs of disposal and value-in-use).

The value-in-use calculation for the relevant CGU is determined based on a discounted cash flow model. The model takes into consideration the projected future cash flows of the CGU for the next five years. Significant judgments are required to estimate the value-in-use for the CGU. These include projected revenue and operating expenditure, the growth rate used to project the cash flows beyond the 5-year period ("terminal growth rate") and the discount rate applied to convert the future cash flows to their present values ("discount rate").

Based on the impairment assessment, management concluded that there is no impairment in respect of the goodwill allocated to the Commodities segment.

The significant assumptions are disclosed in note 30 to the consolidated financial statements.

How our audit addressed the Key Audit Matter

Our procedures to evaluate the Group's goodwill impairment assessment included the following:

1. Understanding of management's process for performing the goodwill impairment assessment and assessing the inherent risk of material misstatement by considering the degree of estimation uncertainty and other inherent risk factors such as complexity, subjectivity, changes and susceptibility to management bias;
2. Assessing the appropriateness of the discounted cash flow model used;
3. Assessing the reasonableness of projected revenue and operating expenditure assumptions used to estimate the future cash flows of the CGU for the next five years against approved budgets and forecasts and correlations with trading and clearing volumes;
4. Assessing the reliability of management's projections by comparing budgets against actual results achieved in prior years;
5. Assessing the reasonableness of other significant assumptions being the terminal growth rate and the discount rate used in estimating value-in-use based on independent market data with the involvement of our valuation expert; and
6. Independently performing sensitivity analysis on the significant assumptions and evaluating the impact that reasonably possible changes could have on management's goodwill impairment assessment.

Based on available evidence, we found the significant assumptions management adopted in relation to the goodwill impairment assessment to be supportable.

Key Audit Matters (Continued)

Control environment supporting key information technology systems

Nature of the Key Audit Matter

The Group operates securities and derivatives trading, clearing and settlement systems, which process significant volumes of transactions and market data. Trading, clearing and settlement fees, and depository, custody and nominee services fees generated from these transactions accounted for the majority of the Group's revenue. The completeness and accuracy of the fee revenue recognised rely heavily on the information technology ("IT") systems processing those transactions and data.

Key systems and related key controls are put in place by management over the data capture, processing and reporting of fee revenue. These include the core trading, clearing and settlement systems that capture and process transactions generating fee revenue and the financial accounting and reporting systems ("key systems").

As part of our audit, we focused on these key systems as the fee revenue reported in the Group's financial statements is highly dependent on (i) the proper functioning of these key systems, and (ii) the design and operating effectiveness of automated application controls and underlying IT general controls put in place by management. Such automated application controls include system logical access controls and controls over system automated calculations, system generated information and system interfaces. IT general controls include controls over access to programs and data, program changes, computer operations and program development.

How our audit addressed the Key Audit Matter

As part of our audit, we obtained an understanding of the end-to-end processes of the key systems that capture and process transactions generating fee revenue and their reporting in the Group's financial statements. Based on this understanding, we identified and evaluated the design of the key business process controls, including both manual and automated application controls, as well as the underlying IT general controls governing the associated IT systems and processes that we relied on in our audit.

Our audit procedures over the revenue streams that have a high dependency on IT systems included the following:

1. Assessing the control environment (including the IT governance framework and IT general controls over the key systems) that support the processing of transactions to evaluate whether the system functionality, data and controls could be relied on throughout the audit. Our testing of IT general controls covered the design and operating effectiveness of controls over access to programs and data, program changes, computer operations and program development; and
2. Testing relevant key automated application controls over the capture, processing and reporting of transactions. Our procedures included the testing of controls over system logical access, system automated calculations, system generated information and system interfaces.

Based on the procedures performed, we considered that the control environment supporting the relevant IT systems maintained by the Group can be relied on for the purpose of our audit of revenue.

Other Information

The directors of the Company are responsible for the other information. The other information comprises all of the information included in the annual report other than the consolidated financial statements and our auditor's report thereon.

Our opinion on the consolidated financial statements does not cover the other information and we do not express any form of assurance conclusion thereon.

In connection with our audit of the consolidated financial statements, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the consolidated financial statements or our knowledge obtained in the audit or otherwise appears to be materially misstated.

If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

Responsibilities of Directors for the Consolidated Financial Statements

The directors of the Company are responsible for the preparation of the consolidated financial statements that give a true and fair view in accordance with HKFRSs issued by the HKICPA and the Hong Kong Companies Ordinance, and for such internal control as the directors determine is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, the directors are responsible for assessing the Group's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the directors either intend to liquidate the Group or to cease operations, or have no realistic alternative but to do so.

The Audit Committee of the Group assists the directors in discharging their responsibilities for overseeing the Group's financial reporting process.

Auditor's Responsibilities for the Audit of the Consolidated Financial Statements

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. We report our opinion solely to you, as a body, in accordance with Section 405 of the Hong Kong Companies Ordinance and for no other purpose. We do not assume responsibility towards or accept liability to any other person for the contents of this report. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with HKSAs will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements.

Auditor's Responsibilities for the Audit of the Consolidated Financial Statements (Continued)

As part of an audit in accordance with HKSAs, we exercise professional judgement and maintain professional scepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the consolidated financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Group's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the directors.
- Conclude on the appropriateness of the directors' use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the consolidated financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.

We communicate with the Audit Committee regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide the Audit Committee with a statement that we have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, actions taken to eliminate threats or safeguards applied.

From the matters communicated with the Audit Committee, we determine those matters that were of most significance in the audit of the consolidated financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

The engagement partner on the audit resulting in this independent auditor's report is Peter Po-ting Li.

PricewaterhouseCoopers

Certified Public Accountants

Hong Kong, 29 February 2024

Consolidated Income Statement

For the year ended 31 December 2023

	Note	2023 \$m	2022 \$m
Trading fees and trading tariffs	5(a)	6,081	6,837
Clearing and settlement fees		3,885	4,335
Stock Exchange listing fees	5(b)	1,523	1,915
Depository, custody and nominee services fees		1,276	1,260
Market data fees		1,098	1,081
Other revenue	5(c)	1,582	1,506
Revenue	5	15,445	16,934
Investment income		10,972	3,627
Interest rebates to Participants		(6,013)	(2,271)
Net investment income	6	4,959	1,356
Donation income of HKEX Foundation	7	88	130
Sundry income	8	24	36
Revenue and other income		20,516	18,456
Less: Transaction-related expenses	9	(247)	(176)
Revenue and other income less transaction-related expenses		20,269	18,280
Operating expenses			
Staff costs and related expenses	10	(3,564)	(3,324)
Information technology and computer maintenance expenses	11	(814)	(732)
Premises expenses		(134)	(120)
Product marketing and promotion expenses		(135)	(129)
Professional fees		(289)	(279)
HKEX Foundation charitable donations		(94)	(136)
Other operating expenses	12	(411)	(375)
		(5,441)	(5,095)
EBITDA (non-HKFRS measure)		14,828	13,185
Depreciation and amortisation		(1,443)	(1,459)
Operating profit	13	13,385	11,726
Finance costs	14	(135)	(138)
Share of profits less losses of joint ventures		82	71
Profit before taxation		13,332	11,659
Taxation	17	(1,351)	(1,564)
Profit for the year		11,981	10,095
Profit attributable to:			
Shareholders of HKEX	46	11,862	10,078
Non-controlling interests	28(a)(i)	119	17
Profit for the year		11,981	10,095
Basic earnings per share	18(a)	\$9.37	\$7.96
Diluted earnings per share	18(b)	\$9.36	\$7.95

The notes on pages 138 to 220 are an integral part of these consolidated financial statements.

Details of dividends are set out in note 19 to the consolidated financial statements.

Consolidated Statement of Comprehensive Income

For the year ended 31 December 2023

	Note	2023 \$m	2022 \$m
Profit for the year		11,981	10,095
Other comprehensive income			
Items that may be reclassified subsequently to profit or loss:			
Currency translation differences of foreign subsidiaries		(16)	(46)
Cash flow hedges, net of tax	44(a)	(7)	12
Changes in fair value of financial assets measured at fair value through other comprehensive income, net of tax	44(b)	129	(293)
Other comprehensive income/(loss)		106	(327)
Total comprehensive income		12,087	9,768
Total comprehensive income attributable to:			
Shareholders of HKEX		11,971	9,759
Non-controlling interests		116	9
Total comprehensive income		12,087	9,768

The notes on pages 138 to 220 are an integral part of these consolidated financial statements.

Consolidated Statement of Financial Position

At 31 December 2023

	Note	At 31 Dec 2023			At 31 Dec 2022		
		Current \$m	Non-current \$m	Total \$m	Current \$m	Non-current \$m	Total \$m
Assets							
Cash and cash equivalents	20,21	125,107	–	125,107	184,965	–	184,965
Financial assets measured at fair value through profit or loss	20,22	6,357	604	6,961	6,177	787	6,964
Financial assets measured at fair value through other comprehensive income	20,23	18,250	–	18,250	14,962	–	14,962
Financial assets measured at amortised cost	20,24	74,984	1,665	76,649	70,285	209	70,494
Derivative financial instruments	26	58,127	–	58,127	80,718	–	80,718
Accounts receivable, prepayments and deposits	27	33,313	19	33,332	25,354	21	25,375
Tax recoverable		64	–	64	17	–	17
Interests in joint ventures	29	–	352	352	–	291	291
Goodwill and other intangible assets	30	–	19,279	19,279	–	18,968	18,968
Fixed assets	31	–	1,553	1,553	–	1,640	1,640
Right-of-use assets	32	–	1,484	1,484	–	1,604	1,604
Deferred tax assets	41(c)	–	21	21	–	53	53
Total assets		316,202	24,977	341,179	382,478	23,573	406,051
Liabilities and equity							
Liabilities							
Derivative financial instruments	26	58,100	–	58,100	80,705	–	80,705
Margin deposits, Mainland security and settlement deposits, and cash collateral from Participants	20,33	176,165	–	176,165	227,902	–	227,902
Accounts payable, accruals and other liabilities	34	27,849	–	27,849	19,054	–	19,054
Deferred revenue	35	1,060	307	1,367	1,076	333	1,409
Taxation payable		639	–	639	2,172	–	2,172
Other financial liabilities	36	29	–	29	40	–	40
Participants' contributions to Clearing House Funds	20,37	21,955	–	21,955	21,205	–	21,205
Lease liabilities	38	270	1,334	1,604	297	1,448	1,745
Borrowings	39	382	65	447	430	61	491
Provisions	40	62	113	175	67	90	157
Deferred tax liabilities	41(c)	–	1,053	1,053	–	1,072	1,072
Total liabilities		286,511	2,872	289,383	352,948	3,004	355,952
Equity							
Share capital	42			31,946			31,918
Shares held for Share Award Scheme	42			(1,009)			(918)
Employee share-based compensation reserve	43			373			346
Hedging and revaluation reserves	44			(144)			(266)
Exchange reserve				(168)			(155)
Designated reserves	45			1,018			686
Reserve relating to written put options to non-controlling interests				(395)			(430)
Retained earnings	46			19,723			18,547
Equity attributable to shareholders of HKEX				51,344			49,728
Non-controlling interests	28(a)(i)			452			371
Total equity				51,796			50,099
Total liabilities and equity				341,179			406,051
Net current assets				29,691			29,530

The notes on pages 138 to 220 are an integral part of these consolidated financial statements.

Approved by the Board of Directors on 29 February 2024

Laura M CHA

Director

Nicholas C ALLEN

Director

Consolidated Statement of Changes in Equity

For the year ended 31 December 2023

	Attributable to shareholders of HKEX									
	Share capital and shares held for Share Award Scheme (note 42) \$m	Employee share-based compensation reserve (note 43) \$m	Hedging and revaluation reserves (note 44) \$m	Exchange reserve \$m	Designated reserves (note 45) \$m	Reserve relating to written put options to non-controlling interests \$m	Retained earnings (note 46) \$m	Total \$m	Non-controlling interests \$m	Total equity \$m
At 1 Jan 2022	30,995	306	15	(117)	623	(369)	18,173	49,626	284	49,910
Profit for the year	-	-	-	-	-	-	10,078	10,078	17	10,095
Other comprehensive income	-	-	(281)	(38)	-	-	-	(319)	(8)	(327)
Total comprehensive income	-	-	(281)	(38)	-	-	10,078	9,759	9	9,768
Total transactions with shareholders of HKEX, recognised directly in equity:										
- 2021 second interim dividend at \$4.18 per share	-	-	-	-	-	-	(5,290)	(5,290)	-	(5,290)
- 2022 first interim dividend at \$3.45 per share	-	-	-	-	-	-	(4,366)	(4,366)	-	(4,366)
- Unclaimed HKEX dividends forfeited (note 34(a))	-	-	-	-	-	-	26	26	-	26
- Shares purchased for Share Award Scheme	(350)	-	-	-	-	-	-	(350)	-	(350)
- Vesting of shares of Share Award Scheme	355	(340)	-	-	-	-	(15)	-	-	-
- Employee share-based compensation benefits	-	380	-	-	-	-	-	380	-	380
- UK tax relating to Share Award Scheme	-	-	-	-	-	-	(3)	(3)	-	(3)
- Transfer of reserves	-	-	-	-	63	-	(63)	-	-	-
- Issuance of written put options to non-controlling interests	-	-	-	-	-	(61)	-	(61)	-	(61)
- Change in ownership interest in a subsidiary	-	-	-	-	-	-	7	7	78	85
	5	40	-	-	63	(61)	(9,704)	(9,657)	78	(9,579)
At 31 Dec 2022	31,000	346	(266)	(155)	686	(430)	18,547	49,728	371	50,099
At 1 Jan 2023	31,000	346	(266)	(155)	686	(430)	18,547	49,728	371	50,099
Profit for the year	-	-	-	-	-	-	11,862	11,862	119	11,981
Other comprehensive income	-	-	122	(13)	-	-	-	109	(3)	106
Total comprehensive income	-	-	122	(13)	-	-	11,862	11,971	116	12,087
Total transactions with shareholders of HKEX, recognised directly in equity:										
- 2022 second interim dividend at \$3.69 per share	-	-	-	-	-	-	(4,669)	(4,669)	-	(4,669)
- 2023 first interim dividend at \$4.50 per share	-	-	-	-	-	-	(5,695)	(5,695)	-	(5,695)
- Unclaimed HKEX dividends forfeited (note 34(a))	-	-	-	-	-	-	23	23	-	23
- Shares purchased for Share Award Scheme	(448)	-	-	-	-	-	-	(448)	-	(448)
- Vesting of shares of Share Award Scheme	385	(372)	-	-	-	-	(13)	-	-	-
- Employee share-based compensation benefits	-	399	-	-	-	-	-	399	-	399
- Transfer of reserves	-	-	-	-	332	-	(332)	-	-	-
- Redemption of written put options exercised by non-controlling interests (note 39)	-	-	-	-	-	35	-	35	(35)	-
	(63)	27	-	-	332	35	(10,686)	(10,355)	(35)	(10,390)
At 31 Dec 2023	30,937	373	(144)	(168)	1,018	(395)	19,723	51,344	452	51,796

The notes on pages 138 to 220 are an integral part of these consolidated financial statements.

Consolidated Statement of Cash Flows

For the year ended 31 December 2023

	Note	2023 \$m	2022 \$m
Cash flows from principal operating activities			
Net cash inflow from principal operating activities (non-HKFRS measure)	47(a)	11,294	13,062
Cash flows from other operating activities			
Net redemption from external fund managers for sales of financial assets measured at fair value through profit or loss		206	1,894
Net cash inflow from operating activities		11,500	14,956
Cash flows from investing activities			
Payments for purchases of fixed assets and intangible assets		(1,386)	(1,284)
Net (increase)/decrease in financial assets of Corporate Funds:			
Increase in time deposits with original maturities more than three months		(4,810)	(451)
Proceeds received upon maturity of financial assets measured at amortised cost (excluding time deposits)		502	316
Payments for purchases of financial assets measured at amortised cost (excluding time deposits)		(1,460)	(512)
Interest received from long-term debt securities classified as financial assets measured at amortised cost		37	-
Interest received from debt securities measured at fair value through other comprehensive income		806	207
Dividend received from a joint venture		21	24
Net cash outflow from investing activities		(6,290)	(1,700)
Cash flows from financing activities			
Purchases of shares for Share Award Scheme		(448)	(350)
Payments of other finance costs		(69)	(66)
Dividends paid to shareholders of HKEX		(10,316)	(9,665)
Lease payments	47(b),47(c)		
– Capital elements		(307)	(309)
– Interest elements		(59)	(68)
Capital injection by non-controlling interests to a subsidiary		-	85
Payment for written put options exercised by non-controlling interests	39	(51)	-
Net cash outflow from financing activities		(11,250)	(10,373)
Net (decrease)/increase in cash and cash equivalents		(6,040)	2,883
Cash and cash equivalents at 1 Jan		15,258	12,398
Exchange differences on cash and cash equivalents		(6)	(23)
Cash and cash equivalents at 31 Dec		9,212	15,258
Analysis of cash and cash equivalents			
Cash, bank balances and short-term investments of Corporate Funds	21	10,286	15,952
Less: Cash reserved for supporting Skin-in-the-Game and default fund credits of clearing houses	21(b)	(1,074)	(694)
		9,212	15,258

The notes on pages 138 to 220 are an integral part of these consolidated financial statements.

- (a) "Cash flows from principal operating activities" is a non-Hong Kong Financial Reporting Standard (non-HKFRS) measure used by management for monitoring cash flows of the Group (defined in note 1) and represents the cash flows generated from the trading and clearing operations of the four exchanges and five clearing houses and ancillary services of the Group. This non-HKFRS measure may not be comparable to similar measures presented by other companies. Cash flows from principal operating activities and cash flows from other operating activities together represent cash flows from operating activities as defined by Hong Kong Accounting Standard (HKAS) 7: Statement of Cash Flows.

Notes to the Consolidated Financial Statements

1. General Information

Hong Kong Exchanges and Clearing Limited (HKEX or the Company) and its subsidiaries (collectively, the Group) own and operate the only stock exchange and futures exchange in Hong Kong and their related clearing houses, a clearing house for clearing over-the-counter derivatives contracts in Hong Kong, an exchange and a clearing house for the trading and clearing of base and ferrous metals futures and options contracts operating in the United Kingdom (UK), and a commodity trading platform in the Mainland.

HKEX is a limited company incorporated and domiciled in Hong Kong. The address of its registered office is 8th Floor, Two Exchange Square, 8 Connaught Place, Central, Hong Kong.

These consolidated financial statements were approved for issue by the Board of Directors (Board) on 29 February 2024.

2. Material Accounting Policies

Apart from the accounting policies presented within the corresponding notes to the consolidated financial statements, other material accounting policies applied in the preparation of these consolidated financial statements are set out below. Except the change in operating segments as described in note 4, the accounting policies have been consistently applied to all the years presented, unless otherwise stated.

(a) Statement of compliance

These consolidated financial statements have been prepared in accordance with Hong Kong Financial Reporting Standards (HKFRSs) issued by the Hong Kong Institute of Certified Public Accountants (HKICPA), and accounting principles generally accepted in Hong Kong. These consolidated financial statements also comply with the applicable disclosure requirements of the Rules Governing the Listing of Securities on The Stock Exchange of Hong Kong Limited (Main Board Listing Rules) and the applicable requirements of the Hong Kong Companies Ordinance (Chapter 622).

(b) Basis of preparation

These consolidated financial statements comprise the financial statements of the Company and its subsidiaries and the Group's interests in joint ventures.

These consolidated financial statements have been prepared under the historical cost convention, as modified by the revaluation of certain financial assets and financial liabilities measured at fair value.

The preparation of consolidated financial statements requires the use of certain critical accounting estimates, and requires management to exercise its judgement when applying the Group's accounting policies. Areas involving significant estimates and judgement are disclosed in note 3.

These consolidated financial statements are presented in Hong Kong Dollar (HKD), which is the Company's functional and presentation currency.

2. Material Accounting Policies (continued)

- (b) Basis of preparation (continued)

Adoption of new/revised HKFRSs

In 2023, the Group has adopted the following amendments to HKFRSs and HKICPA guidance which are pertinent to the Group's operations and effective for accounting periods beginning on or after 1 January 2023:

Amendments to HKAS 1 and HKFRS Practice Statement 2	Presentation of Financial Statements and Making Materiality Judgements: Disclosure of Accounting Policies
Amendments to HKAS 8	Accounting Policies, Change in Accounting Estimates and Errors: Definition of Accounting Estimates
Amendments to HKAS 12	Income Taxes: Deferred Tax related to Assets and Liabilities arising from a Single Transaction
Amendments to HKAS 12 HKICPA Guidance	Income Taxes: International Tax Reform – Pillar Two Model Rules Accounting Implications of the Abolition of the MPF-LSP Offsetting Mechanism in Hong Kong

As a result of the adoption of the amendments to HKAS 1 and HKFRS Practice Statement 2, certain accounting policies have been removed.

The amendments to HKAS 12 Income Taxes: International Tax Reform – Pillar Two Model Rules introduce a temporary mandatory exception for deferred tax accounting for the income tax arising from tax laws enacted or substantially enacted to implement the Pillar Two model rules published by the Organisation for Economic Co-operation and Development (OECD), and introduce disclosure requirements about such tax. The impact of adopting the amendments is disclosed in note 17(c).

The adoption of the remaining amendments and guidance did not have any financial impact on the Group.

New/revised HKFRSs issued before 31 December 2023 but not yet effective and not early adopted

The Group has not applied the following amendments to HKFRSs which were issued before 31 December 2023 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 ¹
Amendments to HKAS 1	Presentation of Financial Statements: Non-current Liabilities with Covenants ¹

1 Effective for accounting periods beginning on or after 1 January 2024

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.

- (c) Impairment of non-financial assets

Assets with an indefinite useful life, which include interests in joint ventures, goodwill and tradenames, are not subject to amortisation but are tested at least annually for impairment. Assets subject to amortisation are reviewed for impairment whenever there is any indication that the carrying amount may not be recoverable. An impairment loss is recognised for the amount by which the asset's carrying amount exceeds its recoverable amount (i.e., the higher of an asset's fair value less costs to sell and value-in-use). Such impairment losses are recognised in the consolidated income statement. An impairment loss other than goodwill is reversed if the circumstances and events leading to the impairment cease to exist.

3. Critical Accounting Estimates and Assumptions

The Group makes estimates and assumptions concerning the future when the consolidated financial statements are prepared. The resulting accounting estimates may differ from the related actual results. The estimates and assumptions that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year are discussed below:

(a) Goodwill and tradenames

The Group tests annually whether goodwill and tradenames have suffered any impairment in accordance with the accounting policy stated in note 30.

The recoverable amounts of relevant cash generating units (CGUs) and relevant group of CGUs have been determined based on value-in-use calculations, which are disclosed in note 30. These calculations require the use of estimates and significant judgement by management, including the future cash flows expected to arise from the CGUs, discount rates for calculating the present value and growth rates used to extrapolate cash flow projections beyond the financial forecasts approved by management.

Changes in facts and circumstances may result in revisions to estimates of recoverable amounts and to the conclusion as to whether an indication of impairment exists, which could affect the consolidated income statement in future years.

(b) Valuation of investments

The Group has a significant amount of investments that are not classified as Level 1 investments under HKFRS 13: Fair Value Measurement. Except for investments in minority stakes in unlisted companies (note 53(d)(i)), the valuations have been determined based on quotes from market makers, alternative pricing sources supported by observable inputs, latest transaction prices or redemption prices provided by fund administrators of investment funds.

At 31 December 2023, the financial assets that were not classified as Level 1 investments (excluding derivative financial instruments) under HKFRS 13 amounted to \$8,045 million (31 December 2022: \$9,219 million) which mainly comprised \$5,698 million (31 December 2022: \$5,648 million) of investments under investment funds and \$1,954 million (31 December 2022: \$2,917 million) of debt securities.

As the valuation of investments reflects movements in their estimated fair values, fair value gains or losses may fluctuate or reverse until the investments are sold, mature or are realised upon redemption. The potential impact of the fair value change of such investments on the Group's consolidated income statement and other components of equity is disclosed in note 53(a)(iv).

3. Critical Accounting Estimates and Assumptions (continued)

(c) Income taxes

The Group is subject to income taxes in the countries in which the Group operates. Judgement is required in determining the provision for income taxes and deferred taxes. There are transactions and calculations for which the ultimate tax determination is uncertain. The Group recognises liabilities for potential tax exposures based on its estimates of whether additional taxes will be due. Where the final tax outcome of these matters is different from the amounts that were initially recorded, such differences would impact the income tax and deferred tax provisions in the year in which such determination is made.

Since the launch of Stock Connect in 2014, Northbound trading, clearing and portfolio fees (NB Fees) have been reported by the Group's subsidiaries as offshore sourced and non-taxable, whereas the related expenses are reported as non-deductible. As at 31 December 2023, the Inland Revenue Department of Hong Kong (IRD) has issued notices of additional assessments to two subsidiaries in connection with the offshore claim of the NB Fees amounting to \$16 million.

After consultation with tax advisor, the subsidiaries have lodged objections and have applied to hold over the additional tax demanded. The IRD has agreed to holdover the additional tax demanded subject to the purchase of tax reserve certificates (TRCs). The purchase of TRCs does not prejudice the subsidiaries' tax positions. No additional tax provision has been made during the year in respect of the above additional assessments.

Subsequent to year end, the IRD has further issued additional assessments to a subsidiary amounting to \$5 million, and the subsidiary has lodged objections on the additional tax demanded.

If the actual taxation charge differs from management's estimates, the additional tax payment made of \$21 million will be charged to the consolidated income statement in future years.

4. Operating Segments

Accounting Policy

Operating segments are reported in a manner consistent with the internal management reports that are used to make strategic decisions provided to the chief operating decision-maker. The chief operating decision-maker, who is responsible for allocating resources and assessing performance of the operating segments, is the Chief Executive Officer of HKEX. Information relating to segment assets and liabilities is not disclosed as such information is not regularly reported to the chief operating decision-maker.

The accounting policies of the reportable segments are the same as the Group's accounting policies. Taxation charge/credit is not allocated to reportable segments.

In prior years, the Group had five reportable segments ("Corporate Items" is not a reportable segment): Cash, Equity and Financial Derivatives, Commodities, Post Trade and Technology.

In 2023, the Group's operating segments have been reorganised to better reflect the strategic and operational way in which the business and markets are run. Trading and clearing businesses are now managed together in each asset class; as such, Post Trade revenue and expenses are reallocated to the Cash, Equity and Financial Derivatives, and Commodities segments respectively. In addition, with HKEX's data business becoming one of the Group's key strategic development focuses, revenue and expenses for its Hong Kong's data business have been reallocated from the Cash and Equity and Financial Derivatives segments, and grouped together with other non-cyclical businesses formerly included in the Technology segment and renamed as the Data and Connectivity segment.

4. Operating Segments (continued)

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

The **Cash** segment covers all equity products traded on the Cash Market platforms of The Stock Exchange of Hong Kong Limited (Stock Exchange) and those traded through Shanghai–Hong Kong Stock Connect and Shenzhen–Hong Kong Stock Connect (Stock Connect); the clearing, settlement and custodian activities relating to these products and any other related activities. The major sources of revenue of the segment are trading fees, clearing and settlement fees, listing fees, depository, custody and nominee services fees and net investment income earned on the Margin Funds and Clearing House Funds relating to these products.

The **Equity and Financial Derivatives** segment refers to derivatives products traded on the Stock Exchange and Hong Kong Futures Exchange Limited (Futures Exchange); the clearing, settlement and custodian activities relating to these products and over-the-counter (OTC) derivatives contracts and other related activities. These include the provision and maintenance of trading and clearing platforms for a range of equity and financial derivatives products, such as stock and equity index futures and options, derivative warrants (DWs), callable bull/bear contracts (CBBCs) and warrants, and OTC derivatives contracts. The major sources of revenue are trading fees and trading tariffs, clearing and settlement fees, listing fees, depository, custody and nominee services fees and net investment income earned on the Margin Funds and Clearing House Funds relating to these products.

The **Commodities** segment refers to the operations of The London Metal Exchange (LME), which operates a global exchange in the UK, for the trading of base and ferrous metals futures and options contracts and the operations of its clearing house, LME Clear Limited (LME Clear). It also covers the operations of Qianhai Mercantile Exchange Co., Ltd. (QME), the commodity trading platform in Mainland China, and the commodities contracts traded on the Futures Exchange. The major sources of revenue of the segment are trading fees and clearing and settlement fees of commodity products, commodity market data fees, net investment income earned on the Margin Funds and Clearing House Funds relating to these products, and fees for ancillary operations.

The **Data and Connectivity** segment covers sales of market data relating to the Hong Kong Cash and Derivatives Markets, all services in connection with providing users with access to the platform and infrastructure of the Group and services provided by BayConnect Technology Company Limited (BayConnect). Its major sources of revenue are market data fees, network, terminal user, data line and software sub-license fees and hosting services fees.

“Corporate Items” is not a business segment but comprises central income (including net investment income of Corporate Funds and donation income of HKEX Foundation Limited (HKEX Foundation)) 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 segments).

Comparative figures have been restated to conform to the current year's presentation.

4. Operating Segments (continued)

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

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 and other non-recurring costs. EBITDA is a non-HKFRS measure used by management for monitoring business performance. It may not be comparable to similar measures presented by other companies.

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:

	2023					
	Cash \$m	Equity and Financial Derivatives \$m	Commodities \$m	Data and Connectivity \$m	Corporate Items \$m	Group \$m
Timing of revenue recognition:						
Point in time	6,488	2,760	1,636	104	7	10,995
Over time	1,425	692	362	1,963	8	4,450
Revenue	7,913	3,452	1,998	2,067	15	15,445
Net investment income	232	3,050	190	–	1,487	4,959
Donation income of HKEX Foundation	–	–	–	–	88	88
Sundry income	19	–	–	6	(1)	24
Revenue and other income	8,164	6,502	2,188	2,073	1,589	20,516
Less: Transaction-related expenses	(10)	(237)	–	–	–	(247)
Revenue and other income less transaction-related expenses	8,154	6,265	2,188	2,073	1,589	20,269
Operating expenses	(1,127)	(862)	(1,208)	(438)	(1,806)	(5,441)
Reportable segment EBITDA (non-HKFRS measure)	7,027	5,403	980	1,635	(217)	14,828
Depreciation and amortisation	(372)	(252)	(331)	(149)	(339)	(1,443)
Finance costs	(33)	(44)	(5)	(2)	(51)	(135)
Share of profits less losses of joint ventures	80	2	–	–	–	82
Reportable segment profit before taxation	6,702	5,109	644	1,484	(607)	13,332
Other segment information:						
Interest income	326	4,807	4,403	–	1,305	10,841
Interest rebates to Participants	(94)	(1,706)	(4,213)	–	–	(6,013)
Other material non-cash item:						
Employee share-based compensation expenses	(89)	(58)	(35)	(25)	(192)	(399)

4. Operating Segments (continued)

	As restated 2022					
	Cash \$m	Equity and Financial Derivatives \$m	Commodities \$m	Data and Connectivity \$m	Corporate Items \$m	Group \$m
Timing of revenue recognition:						
Point in time	7,433	3,148	1,512	99	2	12,194
Over time	1,502	987	351	1,893	7	4,740
Revenue	8,935	4,135	1,863	1,992	9	16,934
Net investment income/(loss)	78	1,144	182	–	(48)	1,356
Donation income of HKEX Foundation	–	–	–	–	130	130
Sundry income	21	–	6	6	3	36
Revenue and other income	9,034	5,279	2,051	1,998	94	18,456
Less: Transaction-related expenses	(11)	(165)	–	–	–	(176)
Revenue and other income less transaction-related expenses	9,023	5,114	2,051	1,998	94	18,280
Operating expenses	(1,027)	(871)	(1,093)	(447)	(1,657)	(5,095)
Reportable segment EBITDA (non-HKFRS measure)	7,996	4,243	958	1,551	(1,563)	13,185
Depreciation and amortisation	(378)	(248)	(369)	(138)	(326)	(1,459)
Finance costs	(37)	(36)	(6)	(3)	(56)	(138)
Share of profits less losses of joint ventures	71	–	–	–	–	71
Reportable segment profit before taxation	7,652	3,959	583	1,410	(1,945)	11,659
Other segment information:						
Interest income	122	1,631	1,922	–	476	4,151
Interest rebates to Participants	(44)	(487)	(1,740)	–	–	(2,271)
Other material non-cash item:						
Employee share-based compensation expenses	(84)	(62)	(52)	(26)	(156)	(380)

(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	
	2023 \$m	2022 \$m	At 31 Dec 2023 \$m	At 31 Dec 2022 \$m
Hong Kong (place of domicile)	13,320	14,941	4,949	5,069
United Kingdom	2,033	1,892	17,515	17,215
Mainland China	92	101	221	240
Others	–	–	2	–
	15,445	16,934	22,687	22,524

(b) Information about major customers

In 2023 and 2022, the revenue from the Group's largest customer amounted to less than 10 per cent of the Group's total revenue.

5. Revenue

Accounting Policy

Revenue excludes value added tax or other sales tax, and is recognised in the consolidated income statement on the following basis:

Trading fees and trading tariffs are recognised on a trade date basis.

Stock Exchange listing fees mainly comprise annual listing fees and initial listing fees. Annual listing fees are recognised on a straight-line basis over the period covered. Initial listing fees are recognised over time when the services are transferred to the listed companies or issuers of warrants, CBBCs and other securities.

Clearing and settlement fees arising from trades between Participants transacted on the Stock Exchange are recognised on the day following the trade day upon acceptance of the trades. Fees for clearing and settlement of trades transacted on the Shanghai Stock Exchange and Shenzhen Stock Exchange through Stock Connect (A-shares) are recognised on the trade day upon acceptance of the trades. Fees for clearing and settlement of trades in respect of base and ferrous metals futures and options contracts transacted on the LME are recognised on the trade match day. Fees for all other settlement transactions are recognised upon completion of the settlement.

Custody fees for securities held in the Central Clearing and Settlement System (CCASS) depository are calculated and accrued on a monthly basis. Portfolio fees for A-shares held or recorded in the CCASS depository, and portfolio fees for Hong Kong securities held by China Depository and Clearing Corporation Limited (ChinaClear) are calculated and accrued on a daily basis.

Income on registration and transfer fees for nominee services are calculated and accrued on the book close dates of the relevant stocks during the financial year.

Market data fees and other fees are recognised when the related services are rendered.

(a) Trading Fees and Trading Tariffs

	2023 \$m	2022 \$m
Equity securities traded on the Stock Exchange and through Stock Connect DWs, CBBCs and warrants traded on the Stock Exchange	2,769	3,363
Futures and options contracts traded on the Stock Exchange and the Futures Exchange	424	629
Commodities contracts traded on the LME and QME	1,822	1,874
	1,066	971
	6,081	6,837

5. Revenue (continued)

(b) Stock Exchange Listing Fees

	2023				2022			
	Equity		CBBCs, DWs & others	Total	Equity		CBBCs, DWs & others	Total
	Main Board	GEM			\$m	\$m		
Annual listing fees	689	43	4	736	705	47	3	755
Initial and subsequent issue listing fees	147	7	628	782	210	9	936	1,155
Other listing fees	4	1	-	5	4	1	-	5
	840	51	632	1,523	919	57	939	1,915

(c) Other Revenue

	2023 \$m	2022 \$m
Network, terminal user, data line and software sub-license fees	788	751
Hosting services fees	350	290
Commodities stock levies and warehouse listing fees	39	43
Participants' subscription and application fees	76	77
Accommodation income (note (i))	80	84
Conversion agency fees	72	69
Sales of Trading Rights	12	17
LME financial over-the-counter booking fees	39	45
BayConnect sales and service revenue	88	98
Miscellaneous revenue	38	32
	1,582	1,506

- (i) Accommodation income mainly comprises charges on Participants for depositing securities as alternatives to cash deposits of Margin Funds, or depositing currencies whose relevant bank deposit rates are negative, and charges imposed on Participants of LME Clear Limited (LME Clear) for cash collateral where the investment return on the collateral is below the benchmarked interest rates stipulated in the clearing rules of LME Clear.
- (d) Revenue recognised in 2023 that was included in the deferred revenue balance at the beginning of the year amounted to \$1,076 million (2022: \$1,100 million).

6. Net Investment Income

Accounting Policy

Interest income on investments and interest rebates payable to Participants are recognised on a time apportionment basis using the effective interest method.

Gains and losses arising from changes in fair value of financial assets measured at fair value through profit or loss and derivative financial instruments are included under net investment income in the consolidated income statement.

	2023 \$m	2022 \$m
Gross interest income from financial assets measured at amortised cost	10,035	3,944
Gross interest income from financial assets measured at fair value through other comprehensive income	806	207
Interest rebates to Participants	(6,013)	(2,271)
Net interest income	4,828	1,880
Net gains/(losses) on financial assets mandatorily measured at fair value through profit or loss and derivative financial instruments:		
– investment funds	421	(486)
– other unlisted investments (note 53(d)(i))	(253)	(21)
– foreign exchange swaps	(48)	–
	120	(507)
Others	11	(17)
Net investment income	4,959	1,356

7. Donation Income of HKEX Foundation

Accounting Policy

HKEX Foundation Limited is a charitable foundation controlled by HKEX (note 28(b)).

Donation income of HKEX Foundation is recognised when the right to receive such donation is established.

	2023 \$m	2022 \$m
Stock Code Balloting Scheme	87	129
Others	1	1
	88	130

- (a) The amount excludes \$25 million (2022: \$26 million) donation received from HKEX, which has been eliminated on consolidation.

8. Sundry Income

	2023 \$m	2022 \$m
Forfeiture of unclaimed dividends (note (a))	19	21
Others	5	15
	24	36

- (a) In accordance with CCASS Rule 1109, the Group exercised its forfeiture right to appropriate cash dividends of \$19 million (2022: \$21 million) held by HKSCC Nominees Limited, which had remained unclaimed for a period of more than seven years and recognised these as sundry income. The Group has, however, undertaken to honour all forfeited claims amounting to \$257 million at 31 December 2023 (31 December 2022: \$239 million) if adequate proof of entitlement is provided by the beneficial owner claiming any dividends forfeited.

9. Transaction-related Expenses

Accounting Policy

Transaction-related expenses comprise of license fees, bank charges and other costs which directly vary with trading and clearing transactions. They are presented below Revenue and other income to reflect the nature of such direct costs. They are expensed in the period in which they are incurred.

10. Staff Costs and Related Expenses

	2023 \$m	2022 \$m
Salaries and other short-term employee benefits	2,923	2,728
Employee share-based compensation benefits of Share Award Scheme (note 43)	399	380
Termination benefits	21	16
Retirement benefit costs (note (a)):		
– ORSO Plan	171	158
– MPF Scheme	4	4
– LME Pension Scheme	35	28
– PRC Retirement Schemes	10	10
– Other contribution plans	1	–
	3,564	3,324

10. Staff Costs and Related Expenses (continued)

(a) Retirement Benefit Costs

The Group has sponsored a defined contribution provident fund scheme (ORSO Plan) which is registered under the Occupational Retirement Schemes Ordinance (ORSO) and a Mandatory Provident Fund scheme (MPF Scheme) for the benefits of its employees in Hong Kong. The Group contributes 12.5 per cent of the employee's basic salary to the ORSO Plan if an employee contributes 5 per cent. If the employee chooses not to contribute, the Group will contribute 10 per cent of the employee's salary to the ORSO Plan. Contributions to the MPF Scheme are in accordance with the statutory limits prescribed by the MPF Ordinance. Forfeited contributions of the ORSO Plan for employees who leave before the contributions are fully vested are not used to offset existing contributions but are credited to a reserve account of that Plan, and are available for distribution to the members of the Plan at the discretion of the trustees.

For employees of LME and LME Clear, the Group has also sponsored a defined contribution pension scheme (LME Group Retirement Savings Plan or LME Savings Plan). For employees who joined LME and LME Clear before 1 May 2014, the Group contributes 15 per cent to 17 per cent of the employee's basic salary to the LME Savings Plan. For employees who joined the LME and LME Clear on or after 1 May 2014, they are automatically enrolled into the LME Savings Plan on a matched contribution basis and may choose a personal contribution level ranging from 3 per cent to 5 per cent of their basic salaries, which is matched by the Group's contribution ranging from 6 per cent to 10 per cent of their basic salaries. Staff may choose to contribute more than 5 per cent of their basic salaries, but the Group's contribution is capped at 10 per cent, and staff may also opt-out of the LME Savings Plan if they wish. There are no forfeited contributions for the LME Savings Plan as the contributions are fully vested to the employees upon payment to the scheme.

Pursuant to the relevant laws and regulations in the People's Republic of China (PRC), the Group has joined defined contribution retirement schemes for the employees arranged by local government labour and social security authorities (PRC Retirement Schemes). The Group makes contributions to the retirement schemes at the applicable rates based on the amounts stipulated by the local government authorities. Upon retirement, the local government labour and social security authorities are responsible for the payment of the retirement benefits to the retired employees. In addition, the Group has made contributions for employees of other overseas subsidiaries subject to the relevant regulations in the countries in which the overseas subsidiaries operate.

Assets of the ORSO Plan, MPF Scheme, LME Savings Plan, PRC Retirement Schemes and contribution plans of other overseas subsidiaries are held separately from those of the Group and are independently administered and are not included in the consolidated statement of financial position.

The abolition of the Mandatory Provident Fund (MPF)-Long Service Payment (LSP) offsetting mechanism in Hong Kong does not have any financial impact to the Group as it is the Group's practice of not offsetting any MPF contribution against long service payment or severance payment.

11. Information Technology and Computer Maintenance Expenses

	2023 \$m	2022 \$m
Costs of services and goods:		
– consumed by the Group	741	658
– directly consumed by Participants	73	74
	814	732

12. Other Operating Expenses

	2023 \$m	2022 \$m
Bank charges	17	16
Communication expenses	7	8
Custodian and fund management related fees	33	46
Financial data subscription fees	55	52
Insurance	17	15
Loss on disposal of fixed assets	10	–
Non-executive directors' fees	24	24
Office demolition and relocation expenses	4	6
Write back of provision for impairment losses of receivables	(1)	(2)
Repairs and maintenance expenses	63	62
Security expenses	21	21
Travel expenses	46	26
Regulatory fees	24	20
Other miscellaneous expenses	91	81
	411	375

13. Operating Profit

	2023 \$m	2022 \$m
Operating profit is stated after charging/(crediting):		
Auditor's remuneration		
– audit fees	20	19
– other non-audit fees	4	2
Loss on disposal of fixed assets	10	–
Write back of provision for impairment losses of receivables	(1)	(2)
Net foreign exchange (gains)/losses on financial assets (excluding financial assets and financial liabilities measured at fair value through profit or loss)	(11)	17

14. Finance Costs

	2023 \$m	2022 \$m
Interest on borrowings (note 39)	7	4
Interest on lease liabilities (note 38)	59	68
Banking facility commitment fees (note (a))	53	51
Negative interest on Euro and Japanese Yen deposits	16	15
	135	138

- (a) Bank facility commitment fees, that relate to liquidity support provided to the Group's clearing houses, are amortised to the consolidated income statement throughout the commitment periods.

15. Directors' Emoluments and Interests of Directors

All Directors, including one Executive Director (HKEX's Chief Executive Officer), received emoluments during the years ended 31 December 2023 and 31 December 2022. The aggregate emoluments paid and payable to the Directors during the year were as follows:

	2023 \$'000	2022 \$'000
Executive Director:		
Salaries and other short-term employee benefits	10,239	10,328
Performance cash incentive	14,040	12,375
Retirement benefit costs	1,250	1,250
	25,529	23,953
Employee share-based compensation benefits (note (a))	63,766	62,608
	89,295	86,561
Non-executive Directors:		
Fees	24,294	23,643
Other benefits	-	-
	24,294	23,643
	113,589	110,204

- (a) Employee share-based compensation benefits represent the fair value of share awards granted under the Share Award Scheme (Awarded Shares) on grant date (note 43) recognised in the consolidated income statement during the year.
- (b) The emoluments of all Directors, including HKEX's Chief Executive Officer who is an ex-officio member, are set out below. The amounts represent emoluments paid or receivable in respect of their services as a director.

Name of Director	2023							
	Fees \$'000	Salary \$'000	Other benefits (note (i)) \$'000	Performance cash incentive \$'000	Retirement benefit costs (note (ii)) \$'000	Sub-total \$'000	Employee share-based compensation benefits \$'000	Total \$'000
Laura M Cha	5,267	-	-	-	-	5,267	-	5,267
Alejandro N Aguzin	-	10,000	239	14,040	1,250	25,529	63,766	89,295
Nicholas C Allen	2,494	-	-	-	-	2,494	-	2,494
Apurv Bagri	1,360	-	-	-	-	1,360	-	1,360
C H Cheah	1,683	-	-	-	-	1,683	-	1,683
Anna M M Cheung	1,620	-	-	-	-	1,620	-	1,620
Susan M F Chow Woo	1,820	-	-	-	-	1,820	-	1,820
Rafael Gil-Tienda (note (iii))	591	-	-	-	-	591	-	591
Benjamin P C Hung	1,260	-	-	-	-	1,260	-	1,260
Nisa B W Y Leung	1,280	-	-	-	-	1,280	-	1,280
Hugo P H Leung	2,400	-	-	-	-	2,400	-	2,400
Carlson Tong (note (iv))	1,080	-	-	-	-	1,080	-	1,080
Joseph C K Yam (note (iv))	1,088	-	-	-	-	1,088	-	1,088
Stephen K W Yiu (note (iii))	921	-	-	-	-	921	-	921
Y Zhang	1,430	-	-	-	-	1,430	-	1,430
Total	24,294	10,000	239	14,040	1,250	49,823	63,766	113,589

15. Directors' Emoluments and Interests of Directors (continued)

(b) (continued)

Name of Director	2022							
	Fees \$'000	Salary \$'000	Other benefits (note (i)) \$'000	Performance cash incentive \$'000	Retirement benefit costs (note (ii)) \$'000	Sub-total \$'000	Employee share-based compensation benefits \$'000	Total \$'000
Laura M Cha	5,166	-	-	-	-	5,166	-	5,166
Alejandro N Aguzin	-	10,000	328	12,375	1,250	23,953	62,608	86,561
Nicholas C Allen	1,253	-	-	-	-	1,253	-	1,253
Apurv Bagri	1,245	-	-	-	-	1,245	-	1,245
C H Cheah	1,663	-	-	-	-	1,663	-	1,663
Anna M M Cheung	1,548	-	-	-	-	1,548	-	1,548
Susan M F Chow Woo	1,783	-	-	-	-	1,783	-	1,783
Rafael Gil-Tienda	2,098	-	-	-	-	2,098	-	2,098
Benjamin P C Hung	1,238	-	-	-	-	1,238	-	1,238
Nisa B W Y Leung	1,253	-	-	-	-	1,253	-	1,253
Hugo P H Leung	1,958	-	-	-	-	1,958	-	1,958
Stephen K W Yiu	3,073	-	-	-	-	3,073	-	3,073
Y Zhang	1,365	-	-	-	-	1,365	-	1,365
Total	23,643	10,000	328	12,375	1,250	47,596	62,608	110,204

Notes:

- (i) Other benefits included leave pay, insurance premium and club membership.
- (ii) Retirement benefit costs include employer's contributions to provident fund. Employees who retire before normal retirement age are eligible for 18 per cent of the employer's contribution to the provident fund after completion of two years of service. The rate of vested benefit increases at an annual increment of 18 per cent thereafter reaching 100 per cent after completion of seven years of service.
- (iii) Retired on 26 April 2023
- (iv) Appointment effective from 26 April 2023

(c) Directors' material interests in transactions, arrangements or contracts

No significant transactions, arrangements and contracts in relation to HKEX's business to which HKEX was a party and in which a director of HKEX had a material interest, whether directly or indirectly, subsisted at the end of the year or at any time during the year.

16. Five Top-paid Employees

One (2022: one) of the five top-paid employees was HKEX's Chief Executive Officer whose emoluments are disclosed in note 15. Details of the emoluments of the other four (2022: four) top-paid employees were as follows:

	2023 \$'000	2022 \$'000
Salaries and other short-term employee benefits	16,236	22,374
Performance cash incentive	21,044	11,944
Retirement benefit costs	1,221	1,375
	38,501	35,693
Employee share-based compensation benefits (note (a))	26,988	40,630
	65,489	76,323

- (a) Employee share-based compensation benefits represent the fair value of Awarded Shares on grant date (note 43) amortised to the consolidated income statement during the year.
- (b) The emoluments of these four (2022: four) employees, including share-based compensation benefits, were within the following bands:

	2023 Number of employees	2022 Number of employees
\$13,500,001 – \$14,000,000	–	1
\$14,000,001 – \$14,500,000	1	–
\$14,500,001 – \$15,000,000	1	–
\$16,000,001 – \$16,500,000	1	1
\$18,500,001 – \$19,000,000	–	1
\$20,500,001 – \$21,000,000	1	–
\$27,000,001 – \$27,500,000	–	1
	4	4

The above employees included senior executives who were also Directors of the subsidiaries during the years. No Directors of the subsidiaries waived any emoluments.

17. Taxation

Accounting Policy

The current tax charge is calculated on the basis of the tax laws enacted or substantively enacted at the end of the reporting period in the countries where HKEX and its subsidiaries operate and generate taxable income. Management periodically evaluates positions taken in tax returns with respect to situations in which applicable tax regulation is subject to interpretation and considers whether it is probable that a taxation authority will accept an uncertain tax treatment. Provisions are established where appropriate on the basis of amounts expected to be paid to tax authorities.

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

	2023 \$m	2022 \$m
Current tax – Hong Kong Profits Tax		
– Provision for the year	1,229	1,481
– Over provision in respect of prior years	(4)	(2)
	1,225	1,479
Current tax – Overseas Tax		
– Provision for the year	163	117
– Over provision in respect of prior years	(21)	–
	142	117
Total current tax (note (i))	1,367	1,596
Deferred tax (note 41(a))		
– Origination and reversal of temporary differences	(16)	(32)
Taxation charge	1,351	1,564

- (i) Hong Kong Profits Tax has been provided at the rate of 16.5 per cent (2022: 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 23.5 per cent (2022: 19 per cent).
- (b) The taxation on the Group's profit before taxation differs from the theoretical amount that would arise using the weighted average tax rate applicable to profits of the consolidated entities as follows:

	2023 \$m	2022 \$m
Profit before taxation	13,332	11,659
Tax calculated at domestic tax rates applicable to profits in the respective countries (note (i))	2,187	1,907
Income not subject to taxation	(991)	(475)
Expenses not deductible for taxation purposes	93	82
Change in deferred tax arising from unrecognised tax losses and other deferred tax adjustments	87	52
Over provision in respect of prior years	(25)	(2)
Taxation charge	1,351	1,564

- (i) The weighted average applicable tax rate was 16.4 per cent (2022: 16.4 per cent).

17. Taxation (continued)

(c) OECD Pillar Two model rules

The Group is within the scope of the Pillar Two model rules published by the OECD. Under the rules, the Group is liable to pay a top-up tax for the difference between their Global Anti-Base Erosion (GloBE) effective tax rate per jurisdiction and the 15 per cent minimum rate. Of the various jurisdictions where the Group operates, Pillar Two legislation has been enacted in the UK as at 31 December 2023 and will become applicable to UK entities from 1 January 2024.

The Group has applied the exception to recognising and disclosing information about deferred tax assets and liabilities related to Pillar Two income taxes, as provided in Amendments to HKAS 12.

The Group has carried out an assessment on the impact brought by the Pillar Two legislation in the UK. The assessment indicated that the top-up tax for the Group's UK entities should be negligible as they will be able to take advantage of the Country-by-Country Reporting Transitional Safe Harbours given that the simplified effective tax rate of the UK entities is expected to be higher than 15 per cent in 2024.

18. Earnings Per Share

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

(a) Basic earnings per share

	2023	2022
Profit attributable to shareholders (\$m)	11,862	10,078
Weighted average number of shares in issue less shares held for Share Award Scheme (in '000)	1,265,463	1,265,489
Basic earnings per share (\$)	9.37	7.96

(b) Diluted earnings per share

	2023	2022
Profit attributable to shareholders (\$m)	11,862	10,078
Weighted average number of shares in issue less shares held for Share Award Scheme (in '000)	1,265,463	1,265,489
Effect of Awarded Shares (in '000)	2,346	2,235
Weighted average number of shares for the purpose of calculating diluted earnings per share (in '000)	1,267,809	1,267,724
Diluted earnings per share (\$)	9.36	7.95

19. Dividends

Accounting Policy

Interim dividends declared are recognised as liabilities in the consolidated financial statements in the period in which the dividends are approved by the directors.

	2023 \$m	2022 \$m
First interim dividend paid:		
\$4.50 (2022: \$3.45) per share	5,705	4,374
Less: Dividend for shares held by Share Award Scheme (note (a))	(10)	(8)
	<u>5,695</u>	<u>4,366</u>
Second interim dividend declared (note (b)):		
\$3.91 (2022: \$3.69) per share based on issued share capital at 31 Dec	4,957	4,678
Less: Dividend for shares held by Share Award Scheme at 31 Dec (note (a))	(13)	(9)
	<u>4,944</u>	<u>4,669</u>
	10,639	9,035

- (a) The results and net assets of The HKEX Employees' Share Award Scheme (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.

20. Financial Assets

Accounting Policy

The Group classifies its financial assets in the following measurement categories:

- those measured at fair value (either through profit or loss (note 22) or through other comprehensive income (note 23)); and
- those measured at amortised cost (note 24).

The classification depends on the business model for managing the financial assets and the contractual terms of the cash flows.

Financial assets of Clearing House Funds and Margin Funds are classified as current assets as they will be liquidated whenever liquid funds are required.

Other financial assets are classified as current assets unless they are expected to mature or be disposed of after twelve months from the end of the reporting period, in which case, they are included in non-current assets. For investment funds which have no maturity date, they are included in current assets unless they cannot be redeemed within twelve months from the end of the reporting period.

21. Cash and Cash Equivalents

Accounting Policy

Cash and cash equivalents comprise cash on hand, bank balances and other short-term highly liquid investments that are readily convertible into known amounts of cash and are subject to an insignificant risk of changes in value (mainly reverse repurchase investments, time deposits and short-term debt securities), normally with original maturities of three months or less, or with remaining maturities of three months or less from the date of acquisition.

	At 31 Dec 2023				
	Cash for A-shares (notes (a) and (c)) \$m	Corporate Funds (notes (b) and 25) \$m	Margin Funds (notes (c) and 33) \$m	Clearing House Funds (notes (c) and 37) \$m	Total \$m
Cash on hand and balances and deposits with banks	2,733	7,956	31,614	13,061	55,364
Unlisted debt securities	-	-	-	611	611
Reverse repurchase investments	-	2,330	59,755	7,047	69,132
	2,733	10,286	91,369	20,719	125,107

	At 31 Dec 2022				
	Cash for A-shares (notes (a) and (c)) \$m	Corporate Funds (notes (b) and 25) \$m	Margin Funds (notes (c) and 33) \$m	Clearing House Funds (notes (c) and 37) \$m	Total \$m
Cash on hand and balances and deposits with banks	2,810	14,213	48,857	6,075	71,955
Unlisted debt securities	-	174	-	1,418	1,592
Reverse repurchase investments	-	1,565	98,325	11,528	111,418
	2,810	15,952	147,182	19,021	184,965

- (a) Cash for A-shares includes:
 - (i) Renminbi (RMB) cash prepayments received by Hong Kong Securities Clearing Company Limited (HKSCC) from its Clearing Participants for releasing their allocated A-shares on the trade day. Such prepayments will be used to settle HKSCC's Continuous Net Settlement (CNS) obligations payable on the next business day; and
 - (ii) Hong Kong Dollar/United States Dollar cash collateral received by HKSCC from its Clearing Participants for releasing their allocated A-shares on the trade day. Such collateral will be refunded to the Clearing Participants when they settle their RMB CNS obligations on the next business day.
- (b) At 31 December 2023, cash and cash equivalents of Corporate Funds of \$1,074 million (31 December 2022: \$694 million) (note 25(b)) were solely used to support Skin-in-the-Game and default fund credits of Clearing House Funds (note 37(a)).
- (c) The cash and cash equivalents of Margin Funds, Clearing House Funds, Corporate Funds reserved for supporting Skin-in-the-Game and default fund credits of Clearing House Funds (note (b)), and Cash for A-shares are held for specific purposes and cannot be used by the Group to finance other activities. These balances are not included in cash and cash equivalents of the Group for cash flow purpose in the consolidated statement of cash flows.

22. Financial Assets Measured at Fair Value through Profit or Loss

Accounting Policy

Classification

Investments and other financial assets are classified under financial assets measured at fair value through profit or loss if they do not meet the conditions to be measured at fair value through other comprehensive income (note 23) or amortised cost (note 24). On initial recognition, the Group may irrevocably designate a financial asset as at fair value through profit or loss that otherwise meets the requirements to be measured at amortised cost or at fair value through other comprehensive income if doing so eliminates or significantly reduces an accounting mismatch that would otherwise arise.

Investments in equity instruments that are not held for trading are classified under financial assets measured at fair value through profit or loss unless the Group has made an irrevocable election at the time of initial recognition to account for the investment at fair value through other comprehensive income.

Recognition and measurement

Purchases and sales of financial assets measured at fair value through profit or loss are recognised on the trade date. They are initially recognised at fair value with transaction costs recognised as expenses in the consolidated income statement and subsequently carried at fair value. Gains and losses arising from changes in fair value are included in the consolidated income statement in the period in which they arise.

Interest income is included in net fair value gains/(losses) from these financial assets.

Fair values of quoted investments are based on the most representative prices within the bid–ask spreads which are currently considered as the bid–prices. The investment funds are valued based on the latest available transaction price or redemption price for each fund, as determined by the fund administrator. For unlisted securities or financial assets without an active market, the Group establishes the fair value by using valuation techniques including the use of recent arm's length transactions, reference to recent market transactions, trading multiples and financial data of other comparable companies, and other instruments that are substantially the same and discounted cash flow analysis.

	Corporate Funds (note 25)	
	At 31 Dec 2023 \$m	At 31 Dec 2022 \$m
<u>Mandatorily measured at fair value</u>		
Investment funds:		
– listed outside Hong Kong	870	662
– unlisted	5,698	5,648
	6,568	6,310
Unlisted equity securities	393	654
	6,961	6,964
The expected recovery dates of the financial assets are analysed as follows:		
Within twelve months	6,357	6,177
More than twelve months	604	787
	6,961	6,964

23. Financial Assets Measured at Fair Value through Other Comprehensive Income

Accounting Policy

Classification

A debt investment is measured at fair value through other comprehensive income if it meets both of the following conditions and is not designated as at fair value through profit or loss:

- it is held within a business model whose objective is achieved by both collecting contractual cash flows and selling financial assets; and
- its contractual terms give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

Recognition and measurement

At initial recognition, the Group measures a financial asset at its fair value plus transaction costs that are directly attributable to the acquisition of the financial asset.

Financial assets measured at fair value through other comprehensive income are subsequently measured at fair value. Interest income calculated using the effective interest method, foreign exchange gains and losses and impairment are recognised in the consolidated income statement. Other changes in carrying amounts are recognised in other comprehensive income. On derecognition, gains and losses accumulated in other comprehensive income are reclassified to the consolidated income statement.

Fair values of quoted investments or investments with an active market are based on the most representative prices within the bid–ask spreads which are currently considered as the bid–prices. For unlisted securities or financial assets without an active market, the Group establishes the fair value by using valuation techniques including the use of recent arm’s length transactions and dealer quotes for similar investments.

Impairment

The Group assesses on a forward-looking basis the expected credit losses associated with its debt instruments measured at fair value through other comprehensive income. Expected credit losses are a probability-weighted estimate of credit losses. Credit losses are measured as the present value of all expected cash shortfalls (i.e., the difference between the cash flows due to the Group in accordance with the contract and the cash flows that the Group expects to receive).

For financial assets measured at fair value through other comprehensive income, the Group recognised a provision for impairment losses equal to 12-month expected credit losses unless there has been a significant increase in credit risk of the financial assets since initial recognition, in which case the provision for impairment losses is measured at an amount equal to lifetime expected credit losses.

23. Financial Assets Measured at Fair Value through Other Comprehensive Income (continued)

Accounting Policy (continued)

Impairment (continued)

Expected credit losses are measured at each reporting date to reflect changes in the financial asset's credit risk since initial recognition.

In assessing whether the credit risk of a financial asset has increased significantly since initial recognition, the Group compares the risk of default occurring on the financial asset assessed at the reporting date with that assessed at the date of initial recognition. In making this reassessment, the Group considers that a default event occurs when the financial asset is past due by 90 days or one or more credit impaired events that have a detrimental impact on the estimated future cash flows of that financial asset have occurred.

The following information is taken into account when assessing whether credit risk has increased significantly since initial recognition:

- failure to make payments of principal or interest on their contractually due dates;
- an actual or expected significant deterioration in a financial asset's external or internal credit rating (if available);
- an actual or expected significant deterioration in the operating results of the debtor; and
- existing or forecast changes in the technological, market, economic or legal environment that have a significant adverse effect on the debtor's ability to meet its obligation to the Group.

Depending on the nature of the financial instruments, the assessment of a significant increase in credit risk is performed on either an individual basis or a collective basis. When the assessment is performed on a collective basis, the financial assets are grouped based on shared credit risk characteristics, such as past due status and credit risk ratings.

Any change in the expected credit loss amount is recognised as an impairment loss or reversal of impairment loss in the consolidated income statement, with a corresponding adjustment to the other comprehensive income.

23. Financial Assets Measured at Fair Value through Other Comprehensive Income (continued)

	At 31 Dec 2023		
	Margin Funds (note 33) \$m	Clearing House Funds (note 37) \$m	Total \$m
Listed debt securities (note (a))	6,057	–	6,057
Unlisted debt securities (note (a))	9,790	2,403	12,193
	15,847	2,403	18,250
The expected recovery dates of the financial assets are analysed as follows:			
Within twelve months (note (b))	15,847	2,403	18,250

	At 31 Dec 2022		
	Margin Funds (note 33) \$m	Clearing House Funds (note 37) \$m	Total \$m
Listed debt securities (note (a))	2,265	–	2,265
Unlisted debt securities (note (a))	9,666	3,031	12,697
	11,931	3,031	14,962

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

Within twelve months (note (b))	11,931	3,031	14,962
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- (a) No provision for impairment loss was made at 31 December 2023 and 31 December 2022 as the financial assets were considered to be of low credit risk and the expected credit loss was minimal. Debt securities held were of investment grade and had a weighted average credit rating of Aa1 (Moody) (31 December 2022: Aa2 (Moody)) with no history of default and there were no unfavourable current conditions and forecast of future economic conditions at the reporting dates.
- (b) Includes financial assets maturing after twelve months of \$9,573 million (31 December 2022: \$7,806 million) attributable to Margin Funds and \$239 million (31 December 2022: \$Nil) attributable to Clearing House Funds that could readily be liquidated to meet liquidity requirements of the Funds (note 53(b)).

24. Financial Assets Measured at Amortised Cost

Accounting Policy

Classification

Investments are classified under financial assets measured at amortised cost if they satisfy both of the following conditions:

- the assets are held within a business model whose objective is to hold assets in order to collect contractual cash flows; and
- the contractual terms of the financial assets give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

Accounts receivable and other deposits are also classified under this category (note 27).

Recognition and measurement

Financial assets measured at amortised cost are initially recognised at fair value plus transaction costs and subsequently carried at amortised cost using the effective interest method. The amortised cost is reduced by loss allowance for expected credit losses.

Interest income, foreign exchange gains and losses and impairment are recognised in the consolidated income statement. Any gains and losses on derecognition is recognised in the consolidated income statement.

Impairment

The Group assesses on a forward-looking basis the expected credit loss associated with its financial assets measured at amortised cost.

For accounts receivable due from customers, the Group applies the simplified approach permitted by HKFRS 9: Financial Instruments, which requires expected lifetime losses to be recognised from initial recognition of the receivables. Expected credit losses of receivables are estimated using a provision matrix based on the Group's historical credit loss experience, adjusted for factors that are specific to the debtors and an assessment of both the current and forecast general economic conditions at the reporting date.

For all other financial assets measured at amortised cost (including time deposits, debt instruments and other deposits), the Group recognises a provision for impairment losses equal to 12-month expected credit losses unless there has been a significant increase in credit risk of the financial assets since initial recognition, in which case the provision for impairment losses is measured at an amount equal to lifetime expected credit losses.

Expected credit losses are remeasured at each reporting date to reflect changes in the financial asset's credit risk since initial recognition. Any change in the expected credit loss amount is recognised as an impairment loss or reversal of impairment loss in the consolidated income statement, with a corresponding adjustment to the carrying amount through a loss allowance account.

The gross carrying amount of a financial asset is written off (either partially or in full) to the extent that there is no realistic prospect of recovery. This is generally the case when the Group determines that the debtor does not have assets or sources of income that could generate sufficient cash flows to repay the amounts subject to the write-off.

Subsequent recoveries of an asset that has previously been written off are recognised as a reversal of impairment in the consolidated income statement in the period in which the recovery occurs.

24. Financial Assets Measured at Amortised Cost (continued)

	At 31 Dec 2023		
	Corporate Funds (notes (b) and 25) \$m	Margin Funds (note 33) \$m	Total \$m
Debt securities	2,067	–	2,067
Time deposits with original maturities over three months	15,403	59,084	74,487
Other financial assets	95	–	95
	17,565	59,084	76,649
The expected recovery dates of the financial assets are analysed as follows:			
Within twelve months	15,900	59,084	74,984
More than twelve months	1,665	–	1,665
	17,565	59,084	76,649
	At 31 Dec 2022		
	Corporate Funds (notes (b) and 25) \$m	Margin Funds (note 33) \$m	Total \$m
Debt securities	1,219	–	1,219
Time deposits with original maturities over three months	10,599	58,580	69,179
Other financial assets	96	–	96
	11,914	58,580	70,494
The expected recovery dates of the financial assets are analysed as follows:			
Within twelve months	11,705	58,580	70,285
More than twelve months	209	–	209
	11,914	58,580	70,494

- (a) No provision for impairment loss was made at 31 December 2023 and 31 December 2022 as the financial assets were considered to be of low credit risk and the expected credit loss was minimal. Debt securities held were of investment grade and had a weighted average credit rating of A1 (Moody) (31 December 2022: Aa2 (Moody)). Deposits were placed with the investment grade banks, licensed banks and restricted licence banks regulated by the Hong Kong Monetary Authority, and banks regulated by local banking regulators in the countries where the Group's subsidiaries operate. All these financial assets had no history of default and there were no unfavourable current conditions and forecast of future economic conditions at the reporting dates.
- (b) At 31 December 2023, debt securities of Corporate Funds of \$497 million (31 December 2022: \$604 million) (note 25(b)) were solely used to support Skin-in-the-Game and default fund credits of HKSCC Guarantee Fund (note 37(a)).
- (c) The fair values of financial assets maturing after twelve months are disclosed in note 53(d)(ii).

25. Corporate Funds

	At 31 Dec 2023 \$m	At 31 Dec 2022 \$m
Corporate Funds comprised the following instruments:		
Cash and cash equivalents (notes (b) and 21)	10,286	15,952
Financial assets measured at fair value through profit or loss (note 22)	6,961	6,964
Financial assets measured at amortised cost (notes (b) and 24)	17,565	11,914
	34,812	34,830

- (a) 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 Margin Funds, Clearing House Funds, Cash for A-shares, and derivative financial instruments).
- (b) At 31 December 2023, cash and cash equivalents of Corporate Funds of \$1,074 million (31 December 2022: \$694 million) and financial assets measured at amortised cost of Corporate Funds of \$497 million (31 December 2022: \$604 million) were solely used to support Skin-in-the-Game and default fund credits of Clearing House Funds (note 37(a)).

26. Derivative Financial Instruments

Accounting Policy

Derivative financial instruments include outstanding derivatives contracts of LME Clear, which acts as a central counterparty to the base and ferrous metals futures and options contracts traded on the LME, forward foreign exchange contracts and foreign exchange swaps. Derivatives are initially recognised at fair value on trade date and subsequently remeasured at their fair values. Except where outstanding derivatives contracts are held in the capacity as a central counterparty and derivatives which relate to qualifying cash flow hedges (note 44(a)), derivatives are categorised as held for trading with changes in fair value recognised in the consolidated income statement.

Derivative financial assets and liabilities are offset and the net amount reported in the consolidated statement of financial position when there is a legally enforceable right to offset the recognised amounts and there is an intention to settle on a net basis or realise the asset and settle the liability simultaneously.

26. Derivative Financial Instruments (continued)

	At 31 Dec 2023 \$m	At 31 Dec 2022 \$m
Mandatorily measured at fair value		
Derivative financial assets:		
– base and ferrous metals futures and options contracts cleared through LME Clear (note (a))	58,097	80,705
– forward foreign exchange contracts held as cash flow hedging instruments (note 44(a))	4	13
– foreign exchange swaps (note (b))	26	–
	58,127	80,718
Mandatorily measured at fair value		
Derivative financial liabilities:		
– base and ferrous metals futures and options contracts cleared through LME Clear (note (a))	58,097	80,705
– foreign exchange swaps (note (b))	3	–
	58,100	80,705

- (a) The amounts represent the fair value of the outstanding base and ferrous 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.
- (b) The Group has entered into foreign exchange swaps for optimising foreign currency cash flows while hedging the overall foreign exchange exposures of the Group.

At 31 December 2023, total notional amount for outstanding foreign exchange swaps was \$10,722 million (31 December 2022: \$Nil).

27. Accounts Receivable, Prepayments and Deposits

	At 31 Dec 2023 \$m	At 31 Dec 2022 \$m
Receivable from ChinaClear, SHCH and Exchange and Clearing Participants:		
– CNS money obligations receivable (note (a))	21,430	12,793
– transaction levy, stamp duty and fees receivable	664	966
– Settlement Reserve Fund and Settlement Guarantee Fund held by ChinaClear (note 33)	9,734	10,206
– Inter-CCP margin held by SHCH (note (b)):		
– satisfied by margin deposits collected from OTC Clear Clearing Participants (note 33)	130	–
– satisfied by Corporate Funds	113	–
	243	–
– others	5	3
Receivables for investment funds sold before 31 Dec	205	248
Other receivables, prepayments and deposits	1,095	1,204
Less: Provision for impairment losses of receivables (notes (c) and (d))	(44)	(45)
	33,332	25,375

27. Accounts Receivable, Prepayments and Deposits (continued)

- (a) Upon acceptance of Stock Exchange trades for settlement in CCASS under the CNS basis, HKSCC interposes itself between the HKSCC Clearing Participants as the settlement counterparty to the trades through novation. The CNS money obligations due by/to HKSCC Clearing Participants on the Stock Exchange trades are recognised as receivables and payables (note 34) when they are confirmed and accepted on the day after the trade day.

For a trade in A-shares transacted for Stock Exchange Participants, the rights and obligations of the parties to the trade will be transferred to ChinaClear, and a market contract between HKSCC and the relevant HKSCC Clearing Participants is created through novation. The CNS money obligations due by/to HKSCC Clearing Participants and ChinaClear are recognised as receivables and payables (note 34) when the trades are confirmed on the trade day.

- (b) Under Swap Connect, OTC Clear and Shanghai Clearing House (SHCH) are required to provide inter-central counterparties (inter-CCP) margin to each other to cover the potential loss arising from the default of the other party (note 33). Part of the inter-CCP margin provided by OTC Clear to SHCH is satisfied by margin deposits collected from OTC Clear Clearing Participants and the remaining balance is satisfied by Corporate Funds of OTC Clear.
- (c) Expected credit losses

For accounts receivable, the Group applies the simplified approach permitted by HKFRS 9 (2014), which requires expected lifetime losses to be recognised from initial recognition of the receivables.

The expected loss rates are based on the payment profiles of debtors and the corresponding historical credit losses experienced during the year. The historical loss rates are adjusted to reflect current and forward-looking information on macroeconomic factors affecting the ability of the customers to settle the receivables. On that basis, the loss allowance for accounts receivable as at 31 December 2023 and 31 December 2022 was determined as follows:

	At 31 Dec 2023			
	Current or within 30 days past due	31 to 180 days past due	More than 180 days past due	Total
Expected loss rate	4%	12%	100%	
Gross carrying amount – accounts receivable subject to expected credit loss provision (\$m)	672	20	18	710
Loss allowance (\$m)	24	2	18	44

	At 31 Dec 2022			
	Current or within 30 days past due	31 to 180 days past due	More than 180 days past due	Total
Expected loss rate	4%	12%	100%	
Gross carrying amount – accounts receivable subject to expected credit loss provision (\$m)	568	33	20	621
Loss allowance (\$m)	21	4	20	45

For the remaining receivables and other deposits (excluding prepayments) amounting to \$32,451 million as of 31 December 2023 (31 December 2022: \$24,586 million), the expected credit loss was minimal as these receivables were mainly due from Participants which are subject to the Group's stringent financial requirements and admission criteria, compliance monitoring and risk management measures, these receivables had no recent history of default, part of the receivables were subsequently settled, and there was no unfavourable current conditions and forecast future economic conditions at the reporting dates.

27. Accounts Receivable, Prepayments and Deposits (continued)

- (d) The movements in provision for impairment losses of receivables were as follows:

	2023 \$m	2022 \$m
At 1 Jan	45	50
Write back of provision for loss allowance for receivables under other operating expenses	(1)	(2)
Exchange differences	–	(3)
At 31 Dec	44	45

- (e) 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, and the balance of inter-CCP margin held by SHCH is rebalanced on a daily 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.

28. Principal Subsidiaries and Controlled Structured Entities

Accounting Policy

Subsidiaries are entities (including structured entities (note (b)) over which the Group has control. The Group controls an entity when the Group is exposed to, or has the rights to, variable returns from its involvement with the entity and has the ability to affect those returns through its power over the entity.

A structured entity is an entity that has been designed so that voting or similar rights are not the dominant factor in deciding who controls the entity, such as when any voting rights relate to administrative tasks only and the relevant activities are directed by means of contractual arrangements.

28. Principal Subsidiaries and Controlled Structured Entities (continued)

(a) Principal subsidiaries

HKEX had direct or indirect interests in the following principal subsidiaries:

Company	Place of incorporation and operation	Issued and fully paid up share/registered capital	Principal activities	Interest held by the Group	
				At 31 Dec 2023	At 31 Dec 2022
Direct principal subsidiaries:					
The Stock Exchange of Hong Kong Limited	Hong Kong	929 ordinary shares (\$929)	Operates the only Stock Exchange in Hong Kong	100%	100%
Hong Kong Futures Exchange Limited	Hong Kong	230 ordinary shares (\$28,750,000)	Operates a futures and options exchange in Hong Kong	100%	100%
Hong Kong Securities Clearing Company Limited	Hong Kong	4 ordinary shares (\$1,060,000,002)	Operates a clearing house for securities traded on the Stock Exchange and those traded through Stock Connect, and the central securities depository, and provides custody and nominee services for eligible securities listed in Hong Kong and Mainland China	100%	100%
OTC Clearing Hong Kong Limited (OTC Clear) (note (i))	Hong Kong	24,459 ordinary shares (\$1,636,301,781) 5,117 non-voting ordinary shares (\$518,206,540)	Operates a clearing house for over-the-counter derivatives	84%	83%
HKFE Clearing Corporation Limited (HKCC)	Hong Kong	3,766,700 ordinary shares (\$831,010,000)	Operates a clearing house for derivatives contracts traded on the Futures Exchange	100%	100%
The SEHK Options Clearing House Limited (SEOCH)	Hong Kong	4,000,000 ordinary shares (\$271,000,000)	Operates a clearing house for stock options contracts traded on the Stock Exchange in Hong Kong	100%	100%
Indirect principal subsidiaries:					
The London Metal Exchange	United Kingdom	100 ordinary shares of £1 each	Operates an exchange for the trading of base and ferrous metals futures and options contracts	100%	100%
LME Clear Limited	United Kingdom	107,500,001 ordinary shares of £1 each	Operates a clearing house for base and ferrous metals futures and options contracts	100%	100%
Qianhai Mercantile Exchange Co., Ltd. (QME) (note (i))	Mainland China	RMB400,000,000	Operates a commodity trading platform in Mainland China	90%	90%

The above table lists the subsidiaries of the Group which, in the opinion of its directors, principally affect the results or financial position of the Group.

28. Principal Subsidiaries and Controlled Structured Entities (continued)

(a) Principal subsidiaries (continued)

(i) Subsidiaries with non-controlling interests

At 31 December 2023, the Group held 84 per cent (31 December 2022: 83 per cent) interest in OTC Clear, while the remaining 16 per cent (31 December 2022: 17 per cent) interest was held by non-controlling interests. The non-controlling interests do not have voting rights at general meetings of OTC Clear. Details of the change in interests are set out in note 39.

QME is a limited company established in Mainland China. At 31 December 2023, the Group held 90 per cent (31 December 2022: 90 per cent) interest in QME, while the remaining 10 per cent (31 December 2022: 10 per cent) interest was held by non-controlling interests.

BayConnect is a limited company established in Mainland China. At 31 December 2023, the Group held 51 per cent (31 December 2022: 51 per cent) interest in BayConnect, while the remaining 49 per cent (31 December 2022: 49 per cent) interest was held by non-controlling interests.

Set out below is the financial information related to the non-controlling interests of each subsidiary:

	OTC Clear		QME		BayConnect	
	2023 \$m	2022 \$m	2023 \$m	2022 \$m	2023 \$m	2022 \$m
Amounts allocated to non-controlling interests:						
Profit/(loss) for the year	134	32	(16)	(16)	1	1
Other comprehensive income/(loss)	-	-	1	4	(4)	(12)
Total comprehensive income/(loss)	134	32	(15)	(12)	(3)	(11)
	At 31 Dec 2023 \$m	At 31 Dec 2022 \$m	At 31 Dec 2023 \$m	At 31 Dec 2022 \$m	At 31 Dec 2023 \$m	At 31 Dec 2022 \$m
Accumulated non-controlling interests	391	292	(71)	(56)	132	135

No summarised financial information of OTC Clear, QME and BayConnect is presented as the non-controlling interests are not material to the Group.

(ii) Significant restrictions

Cash and savings deposits are held by subsidiaries in Mainland China and are subject to exchange control restrictions. The carrying amount of these restricted assets in the consolidated statement of financial position at 31 December 2023 was \$228 million (31 December 2022: \$211 million).

(b) Controlled structured entities

HKEX controls two structured entities which operate in Hong Kong, particulars of which are as follows:

Structured entity	Principal activities
The HKEX Employees' Share Award Scheme (HKEX Employee Share Trust)	Purchases, administers and holds HKEX shares for the Share Award Scheme for the benefit of eligible HKEX employees (note 43)
HKEX Foundation Limited	Charitable foundation

HKEX has the power to direct the relevant activities of the HKEX Employee Share Trust and HKEX Foundation Limited and it has the ability to use its power over the entities to affect its exposure to returns. Therefore, they are considered as controlled structured entities of the Group.

29. Interests in Joint Ventures

	At 31 Dec 2023 \$m	At 31 Dec 2022 \$m
Share of net assets of joint ventures	352	291

(a) Details of the joint ventures were as follows:

Name	Place of business and country of incorporation	Principal activities	% of ownership interest	
			At 31 Dec 2023	At 31 Dec 2022
China Exchanges Services Company Limited (CESC)	Hong Kong	Development of index-linked and equity derivatives products	33%	33%
Bond Connect Company Limited (BCCL)	Hong Kong	Provision of support services related to Bond Connect	40%	40%

In 2012, HKEX, the Shanghai Stock Exchange and the Shenzhen Stock Exchange established a joint venture, CESC, with an aim of developing financial products and related services. CESC is a strategic investment for the Group. It is expected to enhance the competitiveness of Hong Kong, and it aims to promote the development of Mainland China's capital markets and the internationalisation of the Group.

In 2017, HKEX and China Foreign Exchange Trade System (CFETS) established a joint venture, BCCL, which provides support services related to Bond Connect. BCCL is a strategic investment of the Group as it provides services to facilitate the trading of Bond Connect, which enhances HKEX's position in the fixed income market and expands the mutual market programme from equity into bonds.

Set out below is the measurement method and the carrying amounts of the two joint ventures:

Name	Measurement method	Carrying amount	
		At 31 Dec 2023 \$m	At 31 Dec 2022 \$m
CESC	Equity	40	38
BCCL	Equity	312	253
		352	291

The two joint ventures are private companies and no quoted market prices are available for their shares.

No summarised financial information of CESC and BCCL is presented as the joint ventures are not material to the Group.

30. Goodwill and Other Intangible Assets

Accounting Policy

Goodwill

Goodwill arising on the acquisition of subsidiaries is carried at cost as established at the date of acquisition less accumulated impairment losses, if any.

For the purpose of impairment testing, goodwill acquired in a business combination is allocated to each CGU, or group of CGUs, that is expected to benefit from the synergies of the combination. Each CGU or group of CGUs to which the goodwill is allocated represents the lowest level within the entity at which the goodwill is monitored for internal management purposes (i.e., operating segment level).

Goodwill is not amortised but impairment reviews are undertaken annually or more frequently if events or changes in circumstances indicate a potential impairment.

The Group's accounting policy for impairment is described in note 2(c).

Tradenames

Tradenames acquired in a business combination are recognised at fair value at the acquisition date. The fair value is based on the discounted estimated royalty payments that are expected to be avoided as a result of the tradenames being owned.

Tradenames arising from the acquisition of LME entities have indefinite useful lives and are carried at cost less accumulated impairment losses, if any.

Tradenames are reviewed annually to determine whether events and circumstances continue to support the indefinite useful life assessment.

Customer relationships

Customer relationships acquired in a business combination are recognised initially at fair value at the acquisition date. The fair value is determined using the multi-period excess earnings method, whereby the asset is valued after deducting a fair return on all other assets that are part of creating the related cash flows. Subsequently, the customer relationships are carried at cost (i.e., the initial fair value) less accumulated amortisation and impairment losses, if any. Amortisation is calculated using the straight-line method over the expected lives of the customer relationships, which are determined to be 8 to 25 years.

30. Goodwill and Other Intangible Assets (continued)

Accounting Policy (continued)

Computer software systems

Development costs that are directly attributable to the design, building and testing of identifiable and unique software products controlled by the Group are recognised as intangible assets if the related software does not form an integral part of the hardware on which it operates (i.e., system software without which the related hardware can still operate) and when the following criteria are met:

- It is technically feasible to complete the software so that it will be available for use;
- Management intends to complete the software and use it;
- There is an ability to use the software;
- It can be demonstrated how the software will generate probable future economic benefits;
- Adequate technical, financial and other resources to complete the development and to use the software are available; and
- The expenditure attributable to the software during its development can be reliably measured.

Other development expenditures that do not meet these criteria are recognised in the consolidated income statement as incurred. Development costs previously recognised in the consolidated income statement are not recognised as an asset in a subsequent period.

Qualifying software system development expenditure and related directly attributable costs capitalised as intangible assets are amortised when they are available for use. They are amortised at rates sufficient to write off their costs net of residual values over their estimated useful lives of three to five years on a straight-line basis. The residual values and useful lives are reviewed, and adjusted if appropriate, at the end of each reporting period, with the effect of any changes in estimate accounted for on a prospective basis.

Costs incurred in configuring or customising software in a cloud computing arrangement can only be recognised as intangible assets if the activities create an intangible asset that the Group controls and the intangible asset meets the recognition criteria. Those costs that do not result in intangible assets are expensed when service is delivered, unless they are incurred for customising the cloud-based software which the promises are not distinct to the cloud computing arrangement, where such costs are amortised over the contract terms of the cloud computing arrangement.

The Group's accounting policy for impairment is described in note 2(c).

30. Goodwill and Other Intangible Assets (continued)

	Other Intangible Assets				
	Goodwill \$m	Tradenames \$m	Customer relationships \$m	Software systems \$m	Total \$m
Cost:					
At 1 Jan 2022	13,361	896	3,148	5,977	23,382
Exchange differences	6	1	2	(17)	(8)
Additions	–	–	–	842	842
Disposals	–	–	–	(215)	(215)
At 31 Dec 2022	13,367	897	3,150	6,587	24,001
At 1 Jan 2023	13,367	897	3,150	6,587	24,001
Exchange differences	4	–	–	(7)	(3)
Additions	–	–	–	1,123	1,123
Disposals	–	–	–	(36)	(36)
At 31 Dec 2023	13,371	897	3,150	7,667	25,085
Accumulated amortisation:					
At 1 Jan 2022	–	–	1,184	3,226	4,410
Exchange differences	–	–	–	(10)	(10)
Amortisation	–	–	133	715	848
Disposals	–	–	–	(215)	(215)
At 31 Dec 2022	–	–	1,317	3,716	5,033
At 1 Jan 2023	–	–	1,317	3,716	5,033
Exchange differences	–	–	–	(4)	(4)
Amortisation	–	–	132	681	813
Disposals	–	–	–	(36)	(36)
At 31 Dec 2023	–	–	1,449	4,357	5,806
Net book value:					
At 31 Dec 2023	13,371	897	1,701	3,310	19,279
At 31 Dec 2022	13,367	897	1,833	2,871	18,968
Cost of software systems under development included above:					
At 31 Dec 2023	–	–	–	1,933	1,933
At 31 Dec 2022	–	–	–	1,533	1,533

Amortisation of \$813 million (2022: \$848 million) is included in “depreciation and amortisation” in the consolidated income statement.

Tradenames are regarded as having indefinite useful lives and there is no foreseeable limit to the period over which they are expected to generate cash flows for the Group as it is expected that their values will not be reduced through usage and there are no legal or similar limits on the period for their use.

30. Goodwill and Other Intangible Assets (continued)

Impairment tests for CGUs containing goodwill and intangible assets with indefinite useful lives

Goodwill and tradenames that arose on the acquisition of subsidiaries are allocated to and monitored by management at the operating segment level, which comprises CGUs, or groups of CGUs that are expected to benefit from synergies of combination with the acquired businesses. As a result of the reorganisation of the Group's reportable segments (note 4), the goodwill and tradenames previously allocated to the Post Trade segment were combined with the amounts allocated to the Commodities segment in 2023. A summary of the allocation of goodwill and tradenames to these operating segments after the reorganisation is as follows:

	At 31 Dec 2023		As restated At 31 Dec 2022	
	Goodwill \$m	Tradenames \$m	Goodwill \$m	Tradenames \$m
	Commodities segment	13,262	897	13,256
Data and Connectivity segment	109	-	111	-
	13,371	897	13,367	897

The Commodities segment comprises the operations of the LME for the trading of base and ferrous metals futures and options contracts in the UK and the operations of its clearing house, LME Clear (UK commodities CGU), and the operations of QME in Mainland China (China commodities CGU). As the China commodities CGU is still considered at development stage, its valuation has not been taken into account in determining the recoverable amount of the Commodities segment at 31 December 2023.

The recoverable amount of each CGU is determined based on value-in-use calculations. These calculations use cash flow projections based on financial forecasts approved by management covering a five-year period. Cash flows beyond the five-year period are extrapolated using the estimated terminal growth rates stated below. The key assumptions, EBITDA margins, growth rates and discount rates used for value-in-use calculations are as follows:

	At 31 Dec 2023		As restated At 31 Dec 2022	
	Commodities segment	Data and Connectivity segment	Commodities segment	Data and Connectivity segment
	EBITDA margin (average of next five years)	55%	28%	56%
Growth rate	3%	3%	3%	3%
Discount rate	8%	13%	8%	13%

Management determined the EBITDA margins based on past performance, expectations regarding market development, and the business model the entity undertakes. The growth rates do not exceed the long-term average growth rate for the business in the markets in which each of the CGUs currently operates. The discount rates reflect specific risks relating to each CGU.

The recoverable amounts of the operating segments based on the estimated value-in-use calculations were higher than their carrying amounts (including goodwill and tradenames) at 31 December 2023 and 31 December 2022. Accordingly, no provision for impairment loss for goodwill or tradenames is considered necessary.

If the LME trading and clearing fees in the forecast period were 17 per cent lower than forecast, or the discount rate adopted was increased to 10 per cent, the recoverable amount of the Commodities segment would be lower than its carrying amount. Except for this, any reasonably possible changes in the key assumptions used in the value-in-use assessment would not affect management's view on impairment at 31 December 2023.

31. Fixed Assets

Accounting Policy

Tangible fixed assets are stated at cost less accumulated depreciation and impairment losses.

Tangible fixed assets are depreciated when they are available for use. They are depreciated at rates sufficient to write off their costs net of expected residual values over their estimated useful lives on a straight-line basis. The residual values and useful lives are reviewed at the end of each reporting period, with the effect of any changes in estimate accounted for on a prospective basis.

The useful lives of major categories of fixed assets are as follows:

Leasehold buildings	Up to 35 years or remaining lives of the leases if shorter
Leasehold improvements	Over the remaining lives of the leases but not exceeding 10 years
Computer trading and clearing systems – hardware and software	3 to 5 years
Other computer hardware and software	3 to 5 years
Furniture, equipment and motor vehicles	3 to 5 years
Data centre facilities and equipment	3 to 20 years

Qualifying software expenditure and related directly attributable costs are capitalised and recognised as a fixed asset if the software forms an integral part of the hardware on which it operates (i.e., operating system software without which the related hardware cannot operate).

Subsequent costs and qualifying development expenditure incurred after the completion of a system are included in the asset's carrying amount or recognised as a separate asset only when it is probable that future economic benefits associated with that item will flow to the Group and the cost of the item can be measured reliably.

The Group's accounting policy for impairment is described in note 2(c).

31. Fixed Assets (continued)

	Leasehold buildings \$m	Computer trading and clearing systems \$m	Other computer hardware and software \$m	Data centre facilities and equipment \$m	Leasehold improvements, furniture, equipment and motor vehicles \$m	Total \$m
Cost:						
At 1 Jan 2022	708	1,163	675	511	1,199	4,256
Exchange differences	-	(6)	(2)	-	(4)	(12)
Additions	-	4	86	149	103	342
Disposals	-	-	(3)	-	(63)	(66)
At 31 Dec 2022	708	1,161	756	660	1,235	4,520
At 1 Jan 2023	708	1,161	756	660	1,235	4,520
Exchange differences	-	(2)	-	-	(1)	(3)
Additions	-	69	143	15	31	258
Disposals	-	(8)	(3)	(2)	(137)	(150)
At 31 Dec 2023	708	1,220	896	673	1,128	4,625
Accumulated depreciation:						
At 1 Jan 2022	262	882	423	256	828	2,651
Exchange differences	-	(5)	(1)	-	(4)	(10)
Depreciation	26	74	58	31	116	305
Disposals	-	-	(3)	-	(63)	(66)
At 31 Dec 2022	288	951	477	287	877	2,880
At 1 Jan 2023	288	951	477	287	877	2,880
Exchange differences	-	(2)	-	-	(1)	(3)
Depreciation	23	71	77	44	120	335
Disposals	-	(8)	(3)	(2)	(127)	(140)
At 31 Dec 2023	311	1,012	551	329	869	3,072
Net book value:						
At 31 Dec 2023	397	208	345	344	259	1,553
At 31 Dec 2022	420	210	279	373	358	1,640
Cost of fixed assets in the course of construction included above:						
At 31 Dec 2023	-	69	109	1	81	260
At 31 Dec 2022	-	17	72	16	118	223

Depreciation of \$335 million (2022: \$305 million) is included in “depreciation and amortisation” in the consolidated income statement.

32. Right-of-use Assets

Accounting Policy

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

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

	Lease premium for land \$m	Properties \$m	Information technology facilities \$m	Equipment and motor vehicles \$m	Total \$m
At 1 Jan 2022	17	1,806	67	6	1,896
Exchange differences	–	(3)	–	–	(3)
Additions of leases	–	17	–	–	17
Depreciation	(1)	(288)	(12)	(5)	(306)
At 31 Dec 2022	16	1,532	55	1	1,604
At 1 Jan 2023	16	1,532	55	1	1,604
Additions of leases	–	171	–	5	176
Modification of leases	–	(1)	–	–	(1)
Depreciation	–	(282)	(12)	(1)	(295)
At 31 Dec 2023	16	1,420	43	5	1,484

- (a) Lease premium for land represents prepaid lease payment for a medium-term lease in Hong Kong. In addition, the Group leases various properties, information technology facilities, office equipment and motor vehicles through lease contracts. These contracts are expected to expire within 7 years.
- (b) Depreciation of \$295 million (2022: \$306 million) is included in “depreciation and amortisation” in the consolidated income statement.

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

Accounting Policy

The obligation to refund the Margin deposits, Mainland security and settlement deposits, and cash collateral from Participants is disclosed under current liabilities. Non-cash collateral received from Participants is not recognised on the consolidated statement of financial position.

Margin Funds are established by cash received or receivable from Participants 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. Under Swap Connect, OTC Clear and SHCH are required to provide inter-CCP margin to each other to cover the potential loss arising from the default of the other party, and OTC Clear satisfies such obligations by using part of margin deposits collected from its Participants. 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.

	At 31 Dec 2023 \$m	At 31 Dec 2022 \$m
Margin deposits, Mainland security and settlement deposits, and cash collateral from Participants comprised:		
HKCC Clearing Participants' margin deposits	62,513	74,847
HKSCC Clearing Participants' margin deposits, Mainland security and settlement deposits, and cash collateral	18,227	17,262
LME Clear Clearing Participants' margin deposits	67,905	105,285
OTC Clear Clearing Participants' margin deposits	14,914	15,630
OTC Clear's inter-CCP margin from SHCH	237	–
SEOCH Clearing Participants' margin deposits	12,369	14,878
	176,165	227,902
The margin deposits, Mainland security and settlement deposits, and cash collateral were invested in the following instruments for managing the obligations of the Margin Funds (note 20):		
Cash and cash equivalents (note 21)	91,369	147,182
Financial assets measured at fair value through other comprehensive income (note 23)	15,847	11,931
Financial assets measured at amortised cost (note 24)	59,084	58,580
Settlement Reserve Fund and Settlement Guarantee Fund held by ChinaClear (note 27)	9,734	10,206
Inter-CCP margin held by SHCH (note 27)	130	–
Margin receivable from Participants	1	3
	176,165	227,902

34. Accounts Payable, Accruals and Other Liabilities

Accounting Policy

Financial liabilities (other than derivative financial instruments (note 26) and financial guarantee contracts (note 36)) are initially recognised at fair value, which is then treated as their cost after initial recognition, and subsequently carried at amortised cost using the effective interest method.

	At 31 Dec 2023 \$m	At 31 Dec 2022 \$m
Payable to ChinaClear and Exchange and Clearing Participants:		
– CNS money obligations payable (note 27(a))	24,137	15,527
– HKD/USD cash collateral for A-shares (note 21(a)(ii))	26	76
– others	604	735
Transaction levy payable to the SFC	110	157
Levies payable to the Accounting and Financial Reporting Council	37	40
Unclaimed dividends (note (a))	487	448
Stamp duty payable to the Collector of Stamp Revenue	523	660
Cash collateral received for reverse repurchase investments	464	–
Other payables, accruals and deposits received	1,461	1,411
	27,849	19,054

- (a) Unclaimed dividends represent dividends declared by listed companies, including HKEX, but not yet claimed by their shareholders. During the year, cash dividends of listed companies other than HKEX held by HKSCC Nominees Limited which had remained unclaimed for a period of more than seven years amounting to \$19 million (2022: \$21 million) were forfeited and recognised as sundry income (note 8) and dividends declared by HKEX which were unclaimed over a period of six years amounting to \$23 million (2022: \$26 million) were forfeited and transferred to retained earnings in accordance with HKEX's Articles of Association (note 46).
- (b) 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.

35. Deferred Revenue

Accounting Policy

Deferred revenue, or “contract liability” under HKFRS 15, is recognised when the Group receives consideration (or the amount is due) from the customers before the Group transfers goods or services to the customers.

	At 31 Dec 2023 \$m	At 31 Dec 2022 \$m
Deferred revenue arising from unsatisfied performance obligations	1,367	1,409
Analysed as:		
Non-current liabilities	307	333
Current liabilities	1,060	1,076
	1,367	1,409

36. Other Financial Liabilities

Accounting Policy

Financial guarantee contracts are initially recognised at fair value, and subsequently at the higher of the amount determined in accordance with the expected credit loss model and the amount initially recognised less, where appropriate, the cumulative amount of income recognised in accordance with the principles of HKFRS 15: Revenue from Contracts with Customers.

	At 31 Dec 2023 \$m	At 31 Dec 2022 \$m
Financial liabilities of Clearing House Funds (note 37)	9	20
Financial liabilities of Corporate Funds:		
Financial guarantee contract (note (a))	20	20
	29	40

- (a) The amount represents the carrying value of a financial guarantee provided by the Group to the Collector of Stamp Revenue, details of which are disclosed in note 49(b).

37. Clearing House Funds

Accounting Policy

Clearing Participants' cash contributions to Clearing House Funds are included under current liabilities. Non-cash collateral received from Clearing Participants is not recognised on the consolidated statement of financial position.

Clearing House Funds, or default funds, are established under the Clearing House Rules. Assets contributed by the Clearing Participants 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 Clearing Participants 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 Clearing Participants 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 the clearing houses to their respective default funds (Skin-in-the-Game), together with default fund credits granted to HKSCC and HKCC Participants, are included in Corporate Funds.

	At 31 Dec 2023 \$m	At 31 Dec 2022 \$m
The Clearing House Funds comprised:		
Clearing Participants' cash contributions	21,955	21,205
Contribution to OTC Clear Rates and FX Guarantee Resources	156	156
Clearing House Funds reserves (note 45)	1,002	671
	23,113	22,032
The Clearing House Funds were invested in the following instruments for managing the obligations of the Funds (note 20):		
Cash and cash equivalents (note 21)	20,719	19,021
Financial assets measured at fair value through other comprehensive income (note 23)	2,403	3,031
Less: Other financial liabilities of Clearing House Funds (note 36)	(9)	(20)
	23,113	22,032
The Clearing House Funds comprised the following Funds:		
HKCC Reserve Fund	4,779	1,483
HKSCC Guarantee Fund	3,262	4,439
LME Clear Default Fund	7,814	11,528
OTC Clear Rates and FX Guarantee Fund	5,588	3,234
OTC Clear Rates and FX Guarantee Resources	183	174
SEOCH Reserve Fund	1,487	1,174
	23,113	22,032

- (a) At 31 December 2023, the Skin-in-the-Game, together with default fund credits granted to HKSCC and HKCC Participants (note 53(c)), amounted to \$1,571 million (31 December 2022: \$1,298 million), and were included in Corporate Funds (note 25(b)).

38. Lease Liabilities

Accounting Policy

Lease liability is initially measured at the present value of the lease payments that are not paid at the commencement date, discounted using the interest rate implicit in the lease. If that rate cannot be readily determined, which is generally the case for leases in the Group, the lessee's incremental borrowing rate is used. The lease liability subsequently increases by the interest cost on the lease liability and is reduced by lease payments made. Each lease payment is allocated between the principal and interest.

	At 31 Dec 2023 \$m	At 31 Dec 2022 \$m
Total lease liabilities	1,604	1,745
Analysed as:		
Non-current liabilities	1,334	1,448
Current liabilities	270	297
	1,604	1,745

Some lease contracts include an option to renew for an additional period after the end of the initial contract term. The Group assesses at the lease commencement date the likelihood of exercising the extension options, and only include those reasonably certain to be exercised in the measurement of lease liabilities.

39. Borrowings

Accounting Policy

The potential cash payments related to put options issued by HKEX for the non-voting ordinary shares of a subsidiary held by non-controlling interests are accounted for as financial liabilities under borrowings, which are initially recognised at present value of amount payable by HKEX to acquire the shares held by non-controlling interests with a corresponding charge directly to equity under "reserve relating to written put options to non-controlling interests".

The written put option financial liabilities are subsequently measured at amortised cost. The interest charge arising is recorded under finance costs in the consolidated income statement.

When written put options are exercised by the non-controlling interests, the amount of non-controlling interests allocated to HKEX is credited directly to equity under "reserve relating to written put options to non-controlling interests".

The written put option liabilities are classified as current liabilities unless the Group has an unconditional right to defer settlement of the liability for at least twelve months after the end of the reporting period.

39. Borrowings (continued)

	Written put options to non-controlling interests	
	2023 \$m	2022 \$m
At 1 Jan	491	426
Issuance of written put options to non-controlling interests debited against related reserve under equity	-	61
Redemption of written put options exercised by non-controlling interests	(51)	-
Interest expenses (note 14)	7	4
At 31 Dec	447	491
Analysed as:		
Non-current liabilities	65	61
Current liabilities	382	430
	447	491

The amounts were repayable as follows:

	At 31 Dec 2023 \$m	At 31 Dec 2022 \$m
Within one year	382	430
After two years but within five years	65	61
	447	491

Prior to 2022, OTC Clear issued 3,541 non-voting ordinary shares to certain third party shareholders at a total consideration of \$433 million. In December 2022, a further 1,576 non-voting ordinary shares were issued at a consideration of \$85 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.

During the year ended 31 December 2023, HKEX purchased 427 non-voting ordinary shares at a consideration of \$51 million (2022: \$Nil) upon exercise of the written put options by the non-controlling interests. The amount of non-controlling interests allocated to HKEX relating to the written put options exercised was \$35 million, and was credited directly to equity under “reserve relating to written put options to non-controlling interests”.

At 31 December 2023, \$382 million of the written put options were exercisable (31 December 2022: \$340 million) and the remaining \$65 million of the options will become exercisable in December 2027 (31 December 2022: \$90 million and \$61 million of the options exercisable in October 2023 and December 2027 respectively).

40. Provisions

Accounting Policy

Provisions are recognised when the Group has a present legal or constructive obligation as a result of past events, it is probable that an outflow of resources will be required to settle the obligation, and a reliable estimate of the amount can be made. The amount recognised as a provision is the best estimate of the consideration required to settle the present obligation at the end of the reporting period.

	Reinstatement costs \$m	Employee benefit costs \$m	Total \$m
At 1 Jan 2023	99	58	157
Provision for the year	17	149	166
Over provision for prior years	(3)	–	(3)
Amount used during the year	–	(141)	(141)
Amount paid during the year	–	(4)	(4)
At 31 Dec 2023	113	62	175
Analysed as:			
Non-current liabilities	113	–	113
Current liabilities	–	62	62
	113	62	175

- (a) The provision for reinstatement costs represents the estimated costs of restoring the leased office premises to their original state upon the expiry of the leases. The leases are expected to expire within 7 years.
- (b) The provision for employee benefit costs represents unused annual leave that has been accumulated at the end of the reporting period. It is expected to be fully utilised in the coming twelve months.

41. Deferred Taxation

Accounting Policy

Deferred tax is recognised, using the liability method, on temporary differences arising between the tax bases of assets and liabilities and their carrying amounts in the financial statements, except that deferred tax liabilities are not recognised if they arise from the initial recognition of goodwill.

Deferred tax assets and liabilities related to Pillar Two income taxes are not recognised.

Deferred tax assets are recognised to the extent that it is probable that future taxable profit will be available against which the temporary differences or the current tax losses can be utilised.

41. Deferred Taxation (continued)

- (a) The movements on the net deferred tax liabilities/(assets) were as follows:

	Accelerated tax depreciation		Intangible assets ¹		Tax losses		Employee benefits		Leases		Financial assets		Total	
	2023 \$m	2022 \$m	2023 \$m	2022 \$m	2023 \$m	2022 \$m	2023 \$m	2022 \$m	2023 \$m	2022 \$m	2023 \$m	2022 \$m	2023 \$m	2022 \$m
At 1 Jan	395	407	680	705	(11)	(13)	(15)	(23)	(1)	(1)	(29)	32	1,019	1,107
Exchange differences	-	-	-	1	-	-	-	-	-	-	(1)	(2)	(1)	(1)
Charged/(credited) to the consolidated income statement (note 17(a))	37	(12)	(31)	(26)	1	2	1	4	1	-	(25)	-	(16)	(32)
Charged/(credited) to other comprehensive income	-	-	-	-	-	-	-	-	-	-	30	(59)	30	(59)
Charged directly to retained earnings	-	-	-	-	-	-	-	-	4	-	-	-	-	4
At 31 Dec	432	395	649	680	(10)	(11)	(14)	(15)	-	(1)	(25)	(29)	1,032	1,019

1 Intangible assets include customer relationships and tradenames.

- (b) The Group had unrecognised tax losses of \$1,968 million at 31 December 2023 (31 December 2022: \$1,852 million) that may be carried forward for offsetting against future taxable income. Tax losses of PRC entities amounting to \$752 million (31 December 2022: \$728 million) will expire 5 years after the losses were incurred, and the remaining tax losses have no expiry date and can be carried forward indefinitely.
- (c) Deferred tax assets and liabilities are offset when there is a legally enforceable right to set off current tax assets against current tax liabilities and when the deferred taxes relate to tax levied by the same taxation authority on the same taxable entity or different taxable entities where there is an intention to settle the balances on a net basis. The following amounts, determined after appropriate offsetting, are shown in the consolidated statement of financial position:

	At 31 Dec 2023 \$m	At 31 Dec 2022 \$m
Deferred tax assets	(21)	(53)
Deferred tax liabilities	1,053	1,072
	1,032	1,019

- (d) The analysis of deferred tax (assets)/liabilities is as follows:

	At 31 Dec 2023 \$m	At 31 Dec 2022 \$m
Deferred tax assets		
Amounts to be recovered after more than 12 months	(3)	(8)
Amounts to be recovered within 12 months	(18)	(45)
	(21)	(53)
Deferred tax liabilities		
Amounts to be settled after more than 12 months	1,033	1,057
Amounts to be settled within 12 months	20	15
	1,053	1,072
Net deferred tax liabilities	1,032	1,019

42. Share Capital and Shares Held for Share Award Scheme

Accounting Policy

Where HKEX shares are acquired by the Share Award Scheme from the market, the total consideration of shares paid (including any directly attributable incremental costs) is presented as Shares held for Share Award Scheme and deducted from total equity.

Upon vesting, the related costs of the vested Awarded Shares and shares acquired from reinvesting dividends (dividend shares) are credited to Shares held for Share Award Scheme, with a corresponding decrease in employee share-based compensation reserve for Awarded Shares, and decrease in retained earnings for dividend shares.

Issued and fully paid – ordinary shares with no par:

	Number of shares '000	Number of shares held for Share Award Scheme ¹ '000	Share capital \$m	Shares held for Share Award Scheme \$m	Total \$m
At 1 Jan 2022	1,267,837	(2,371)	31,896	(901)	30,995
Shares purchased for Share Award Scheme (note (a))	–	(1,040)	–	(350)	(350)
Vesting of shares of Share Award Scheme (note (b))	–	1,005	22	333	355
At 31 Dec 2022	1,267,837	(2,406)	31,918	(918)	31,000
At 1 Jan 2023	1,267,837	(2,406)	31,918	(918)	31,000
Shares purchased for Share Award Scheme (note (a))	–	(1,764)	–	(448)	(448)
Vesting of shares of Share Award Scheme (note (b))	–	878	28	357	385
At 31 Dec 2023	1,267,837	(3,292)	31,946	(1,009)	30,937

1 Excluding shares vested but not yet transferred to awardees of 61,896 shares at 31 December 2023 (31 December 2022: 52,772 shares)

- (a) During the year, the Share Award Scheme (note 43) acquired 1,763,793 HKEX shares (2022: 1,040,416 shares) through purchases on the open market. The total amount paid to acquire the shares during the year was \$448 million (2022: \$350 million).
- (b) During the year, a total of 878,256 HKEX shares (2022: 1,005,134 shares) were vested. The total cost of the vested shares was \$357 million (2022: \$333 million). In 2023, \$28 million (2022: \$22 million) was credited to share capital in respect of vesting of certain shares whose fair values were higher than the costs.

43. Employee Share-based Arrangements

Accounting Policy

The Group operates the Share Award Scheme (the Scheme), which is an equity-settled share-based compensation plan under which Awarded Shares are granted to employees of the Group (including the Executive Director) as part of their remuneration package.

The fair value of the Awarded Shares is determined by reference to the cost of purchase of the Awarded Shares, or the market value of the shares on grant date. The amount to be expensed as share-based compensation expenses is determined by reference to the fair value of the Awarded Shares granted. The total expense is recognised over the relevant vesting periods, with a corresponding credit to an employee share-based compensation reserve under equity.

The Group revises its estimates of the number of Awarded Shares that are expected to ultimately vest based on the vesting conditions at the end of each reporting period. Any resulting adjustment to the cumulative amount recognised in prior years is charged/credited to employee share-based compensation expense in the current year, with a corresponding adjustment to the employee share-based compensation reserve.

The movements of employee share-based compensation reserve were as follows:

	2023 \$m	2022 \$m
At 1 Jan	346	306
Employee share-based compensation benefits (note 10)	399	380
Vesting of shares of Share Award Scheme	(372)	(340)
At 31 Dec	373	346

The Scheme allows shares to be granted to employees of the Group, including the Executive Director (Employee Share Awards).

The amounts of shares awarded to eligible employees and/or selected senior executives (Awarded Sum) are approved by the Board. Pursuant to the Scheme, the Scheme's trustee, based on the Board's recommendation, applies forfeited or unallocated HKEX Shares held under the Scheme and HKEX shares that have been purchased from the market to satisfy the Awarded Shares for allocation to the selected employees. Before vesting, the Awarded Shares are held by the trust set up by the Scheme.

Further shares are derived from dividends payable on the Awarded Shares held in the Scheme from reinvesting dividends (dividend shares), and are allocated to the awardees on a pro rata basis and have the same vesting periods as the related Awarded Shares.

43. Employee Share-based Arrangements (continued)

(a) Employee Share Awards

Employee Share Awards vest progressively over the vesting period after the awards are granted, provided that the relevant awardee (i) remains employed by the Group (ii) is made redundant or (iii) is deemed to be a “good leaver”, and Employee Share Awards vest immediately if the relevant awardee dies or suffers from permanent disability. Effective from 1 January 2023, the scheme rules relating to the vesting of shares have been amended, with any share awards granted on or after 1 January 2023 vesting in accordance with the original vesting schedule, instead of vesting immediately on the date of retirement of the awardees. Unless otherwise determined by the Board, the Remuneration Committee or the Chief Executive Officer, the vesting period of Employee Share Awards granted is three years, and the shares will be vested in two equal tranches from the second to the third year after the shares are granted.

For awardees who do not meet the vesting criteria, the unvested shares are forfeited. The forfeited shares are held by the trust set up by the Scheme.

Details of Awarded Shares awarded during 2022 and 2023

Date of award	Number of Awarded Shares awarded	Average fair value per share \$	Vesting period ends
25 Feb 2022	1,600	388.90	17 May 2022 – 17 May 2024
25 Feb 2022	9,300	388.86	10 Jan 2023 – 10 Jan 2025
3 Mar 2022	42,600	366.83	28 Feb 2025
9 Mar 2022	827,630 ^{1,2}	456.07	7 Dec 2023 – 7 Dec 2024
29 Apr 2022	8,100	338.55	1 Sep 2022 – 1 Sep 2024
9 Jun 2022	21,800	357.93	13 Jan 2023 – 31 Dec 2025
13 Jun 2022	5,400	342.99	7 Feb 2023 – 11 Feb 2025
15 Jul 2022	8,400	357.26	15 Mar 2023 – 15 Mar 2025
18 Aug 2022	500	334.65	4 Sep 2022 – 4 Sep 2023
31 Aug 2022	600	319.44	1 Apr 2023 – 1 Apr 2025
1 Dec 2022	23,600	321.80	25 Nov 2024 – 25 Nov 2025
2 Dec 2022	1,300	316.30	1 Sep 2023 – 1 Sep 2025
28 Dec 2022	2,042	341.06	25 Nov 2024 – 25 Nov 2025
27 Feb 2023	1,032,050 ^{1,2}	328.89	8 Dec 2024 – 8 Dec 2025
9 Mar 2023	274	341.08	8 Dec 2024 – 8 Dec 2025
22 Mar 2023	1,693	332.73	1 Sep 2023 – 1 Sep 2026
17 Nov 2023	163	287.07	2 Feb 2024 – 2 Feb 2026
17 Nov 2023	586	287.07	17 Nov 2023 – 4 Sep 2024
17 Nov 2023	2,058	287.07	17 Nov 2023 – 15 Nov 2026
17 Nov 2023	14,095	287.07	31 Dec 2023 – 31 Dec 2026
30 Nov 2023	2,498	279.02	1 Mar 2024 – 1 Mar 2026

1 162,003 and 170,171 shares were awarded by re-granting the forfeited or unallocated shares held by the Scheme on 9 March 2022 and 27 February 2023 respectively.

2 84,603 and 88,041 shares were awarded to HKEX's Chief Executive Officer on 9 March 2022 and 27 February 2023 respectively.

In addition to the above, total Awarded Sum amounting to \$421 million were also granted to selected employees in December 2023. At 31 December 2023, the shares had not yet been awarded to the employees.

Details of Awarded Shares (excluding dividend shares) vested during 2022 and 2023

During the year, 837,299 HKEX shares (2022: 962,014 shares) were vested at an aggregate fair value of \$372 million (2022: \$340 million), of which 148,179 shares (2022: 105,878 shares) were for the HKEX's Chief Executive Officer.

43. Employee Share-based Arrangements (continued)

(b) Summary of Awarded Shares awarded and dividend shares

Movements in number of Awarded Shares awarded and dividend shares

	2023	2022
Number of Awarded Shares and dividend shares:		
Outstanding at 1 Jan	1,367,905	1,506,211
Awarded ¹	1,053,417	952,872
Forfeited	(55,425)	(131,916)
Vested	(837,299)	(962,014)
Dividend shares:		
- allocated to awardees	58,739	49,322
- allocated to awardees but subsequently forfeited	(1,583)	(3,450)
- vested ²	(40,957)	(43,120)
Outstanding at 31 Dec	1,544,797	1,367,905

1 Weighted average fair value per share was \$328.11 (2022: \$442.64).

2 In 2023, 40,957 dividend shares (2022: 43,120 shares), of which 6,677 shares (2022: 2,146 shares) were for the HKEX's Chief Executive Officer, at a cost of \$13 million (2022: \$15 million) were vested.

Remaining vesting periods or performance period of Awarded Shares awarded and dividend shares outstanding at 31 December

	At 31 Dec 2023		At 31 Dec 2022	
	Remaining vesting period	Number of Awarded Shares and dividend shares outstanding	Remaining vesting period	Number of Awarded Shares and dividend shares outstanding
Shares awarded in:				
2020	0.11 year	5,100	0.11 year to 1.11 years	19,300
2021	0.04 year to 0.92 year	12,948	0.04 year to 1.92 years	442,089
2022	0.03 year to 2.00 years	455,949	0.03 year to 3.00 years	873,400
2023	0.09 year to 3.00 years	1,021,485	-	-
Dividend shares	0.03 year to 2.67 years	49,315	0.03 year to 3.00 years	33,116
		1,544,797		1,367,905

(c) Total number of shares held by Share Award Scheme

	At 31 Dec 2023	At 31 Dec 2022
Number of Awarded Shares and dividend shares (note (b))	1,544,797	1,367,905
Forfeited or unallocated shares ¹	1,746,923	1,038,278
Number of shares held by Share Award Scheme ² (note 42)	3,291,720	2,406,183

1 The shares will be granted to eligible employees in future.

2 Excluding shares vested but not yet transferred to awardees of 61,896 shares at 31 December 2023 (31 December 2022: 52,772 shares).

44. Hedging and Revaluation Reserves

	At 31 Dec 2023 \$m	At 31 Dec 2022 \$m
Hedging reserve (note (a))	3	10
Revaluation reserve (note (b))	(147)	(276)
	(144)	(266)

(a) Hedging reserve

Accounting Policy

The Group designates bank balances and forward foreign exchange contracts as hedges of foreign exchange risks associated with the cash flows of highly probable forecast transactions (cash flow hedges).

The Group documents at the inception of the transaction the relationship between hedging instruments and hedged items, as well as its risk management objectives and strategies for undertaking various hedge transactions. The Group also documents its assessment, both at hedge inception and on an ongoing basis, of whether the hedging instruments have been and will continue to be highly effective in offsetting changes in cash flows of hedged items.

The changes in the fair value relating to the effective portion of hedging instruments that are designated and qualified as cash flow hedges is recognised in other comprehensive income and accumulated in hedging reserve in equity. The gains or losses relating to the ineffective portion are recognised immediately in the consolidated income statement.

Amounts accumulated in hedging reserve are reclassified to the consolidated income statement in the periods when the hedged item is recognised in the consolidated income statement. Where the hedged item subsequently results in the recognition of a non-financial asset (such as fixed or intangible assets), the amounts accumulated in hedging reserve are reclassified and included in the initial measurement of the cost of the asset.

44. Hedging and Revaluation Reserves (continued)

(a) Hedging reserve (continued)

The movements of hedging reserve were as follows:

	2023 \$m	2022 \$m
At 1 Jan	10	(2)
Cash flow hedges:		
- net fair value gains/(losses) of hedging instruments recognised in other comprehensive income	27	(33)
- reclassified to operating expenses as staff costs and related expenses and information technology and computer maintenance expenses	(22)	30
- reclassified to intangible assets	(14)	18
- deferred tax credited/(charged) to other comprehensive income	2	(3)
At 31 Dec	3	10

- (i) The functional currencies of LME and LME Clear are United States Dollars (USD). To hedge the foreign currency exposure of their operating expenses payable in Pound sterling (GBP), these entities have designated forward foreign exchange contracts as cash flow hedges for hedging the foreign exchange risk of their staff costs and related expenses, information technology and computer maintenance expenses and intangible assets.

Further details of the forward foreign exchange contracts that have been designated as cash flow hedge of the Group's highly probable forecast transactions at the end of the reporting period are as follows:

	At 31 Dec 2023	At 31 Dec 2022
Carrying amount (\$m)	4	13
Notional amount	GBP 113m	GBP 97m
Maturity date	0-12 months	0-12 months
Hedge ratio	1:1	1:1
Change in value of outstanding hedging instruments since inception of the hedge (\$m)	4	13
Change in value of hedged item used to determine hedge ineffectiveness (\$m)	(4)	(13)
Weighted average hedged rate for outstanding hedging instruments (GBP vs USD)	1.27	1.19

- (ii) The total amounts arising from ineffective cash flow hedges recognised in the consolidated income statement of the Group during the year were less than \$1 million (2022: \$Nil).

44. Hedging and Revaluation Reserves (continued)

(b) Revaluation reserve

	2023 \$m	2022 \$m
At 1 Jan	(276)	17
Changes in fair value of financial assets measured at fair value through other comprehensive income	161	(355)
Deferred tax on financial assets measured at fair value through other comprehensive income	(32)	62
At 31 Dec	(147)	(276)

45. Designated Reserves

	At 31 Dec 2023 \$m	At 31 Dec 2022 \$m
Clearing House Funds reserves (notes (a) and 37)	1,002	671
PRC statutory reserve (note (b))	16	15
	1,018	686

(a) Clearing House Funds reserves

	HKCC Reserve Fund reserve \$m	HKSCC Guarantee Fund reserve \$m	OTC Clear Rates and FX Guarantee Fund reserve \$m	OTC Clear Rates and FX Guarantee Resources reserve \$m	SEOCH Reserve Fund reserve \$m	Total \$m
At 1 Jan 2022	244	165	74	15	114	612
Surplus of net investment income net of expenses of Clearing House Funds transfer from retained earnings (note 46)	7	10	36	3	3	59
At 31 Dec 2022	251	175	110	18	117	671
At 1 Jan 2023	251	175	110	18	117	671
Surplus of net investment income net of expenses of Clearing House Funds transfer from retained earnings (note 46)	22	93	194	9	13	331
At 31 Dec 2023	273	268	304	27	130	1,002

(b) PRC statutory reserve

	2023 \$m	2022 \$m
At 1 Jan	15	11
Transfer from retained earnings (note 46)	1	4
At 31 Dec	16	15

Pursuant to relevant PRC laws, each of the subsidiaries in Mainland China is required to appropriate 10 per cent of its net profit to a non-distributable statutory reserve until such reserve reaches 50 per cent of the subsidiary's registered capital. The statutory reserve can be utilised, upon approval by the shareholders of the subsidiary, to offset accumulated losses or to increase the paid-in capital of the subsidiary, provided that the balance of the reserve after transfer to paid-up capital is not less than 25 per cent of the subsidiary's registered capital.

46. Retained Earnings

	2023 \$m	2022 \$m
At 1 Jan	18,547	18,173
Profit attributable to shareholders	11,862	10,078
Transfer to Clearing House Funds reserves (note 45(a))	(331)	(59)
Transfer to PRC statutory reserve (note 45(b))	(1)	(4)
Dividends:		
2022/2021 second interim dividend	(4,669)	(5,290)
2023/2022 first interim dividend	(5,695)	(4,366)
Unclaimed HKEX dividends forfeited (note 34(a))	23	26
Vesting of shares of Share Award Scheme	(13)	(15)
UK tax relating to Share Award Scheme	–	(3)
Change in ownership interest in a subsidiary	–	7
At 31 Dec	19,723	18,547

47. Notes to the Consolidated Statement of Cash Flows

(a) Reconciliation of profit before taxation to net cash inflow from principal operating activities

	2023 \$m	2022 \$m
Profit before taxation	13,332	11,659
Adjustments for:		
Net interest income	(4,828)	(1,880)
Net fair value (gains)/losses on financial assets mandatorily measured at fair value through profit or loss and derivative financial instruments	(120)	507
Finance costs	135	138
Depreciation and amortisation	1,443	1,459
Employee share-based compensation benefits	399	380
Share of profits less losses of joint ventures	(82)	(71)
Other non-cash adjustments	(5)	(53)
Net decrease/(increase) in financial assets of Margin Funds	51,898	(24,253)
Net (decrease)/increase in financial liabilities of Margin Funds	(51,737)	23,898
Net increase in Clearing House Fund financial assets	(1,070)	(2,077)
Net increase in Clearing House Fund financial liabilities	739	2,018
Decrease in cash prepayments and collateral for A-shares	77	4,562
Increase in Corporate Funds used for supporting Skin-in-the-Game and default fund credits	(273)	(31)
Corporate Funds transferred to SHCH as inter-CCP margin	(113)	–
Net increase in foreign exchange derivative contracts	(62)	–
(Increase)/decrease in accounts receivable, prepayments and deposits	(8,231)	4,869
Increase/(decrease) in other liabilities	8,754	(9,162)
Net cash inflow from principal operations	10,256	11,963
Interest received from financial assets measured at amortised cost and cash and cash equivalents	9,998	3,944
Interest paid to Participants	(6,013)	(2,271)
Income tax paid	(2,947)	(574)
Net cash inflow from principal operating activities (non-HKFRS measure)	11,294	13,062

47. Notes to the Consolidated Statement of Cash Flows (continued)

(b) Reconciliation of liabilities arising from financing activities

	Borrowings \$m	Lease liabilities \$m
At 1 Jan 2022	426	2,059
Issuance of written put options to non-controlling interests (note 39)	61	–
Additions of leases	–	17
Interest on borrowings (note 14)	4	–
Interest on lease liabilities (note 14)	–	68
Cash flows		
– Payments of capital elements of lease liabilities	–	(309)
– Payments of interest elements of lease liabilities	–	(68)
Exchange differences	–	(22)
At 31 Dec 2022	491	1,745
At 1 Jan 2023	491	1,745
Additions of leases	–	159
Modification of leases	–	(1)
Interest on borrowings (note 14)	7	–
Interest on lease liabilities (note 14)	–	59
Cash flows		
– Payments of capital elements of lease liabilities	–	(307)
– Payments of interest elements of lease liabilities	–	(59)
– Payment for written put options exercised by non-controlling interests (note 39)	(51)	–
Exchange differences	–	8
At 31 Dec 2023	447	1,604

(c) Cash outflow for leases

Amounts for leases included in the consolidated statement of cash flow comprise the following:

	2023 \$m	2022 \$m
Within operating cash flows	–	(1)
Within financing cash flows	(366)	(377)
Total lease rental paid	(366)	(378)

48. Commitments

Commitments in respect of capital expenditures

	At 31 Dec 2023 \$m	At 31 Dec 2022 \$m
Contracted but not provided for:		
– fixed assets	14	22
– intangible assets	157	159
Authorised but not contracted for:		
– fixed assets	505	323
– intangible assets	879	520
	1,555	1,024

49. Contingent Liabilities and Contingent Assets

Accounting Policy

A contingent liability is a possible obligation that arises from past events and whose existence will only be confirmed by the occurrence or non-occurrence of one or more uncertain future events not wholly within the control of the Group. It can also be a present obligation arising from past events that is not recognised because it is not probable that outflow of economic resources will be required or the amount of obligation cannot be measured reliably.

A contingent liability is not recognised but is disclosed in the consolidated financial statements. When a change in the probability of an outflow occurs so that outflow is probable or when the amount of obligation becomes reliably measurable, it will then be recognised as a provision.

A contingent asset is a possible asset that arises from past events and whose existence will only be confirmed by the occurrence or non-occurrence of one or more uncertain future events not wholly within the control of the Group. It is not recognised but is disclosed in the consolidated financial statements where an inflow of economic benefits is probable. It is recognised when the realisation of income is virtually certain.

At 31 December 2023, the Group's material contingent liabilities and contingent assets 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 2022: \$71 million). Up to 31 December 2023, 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 (note 36(a)). In the unlikely event that all of its 574 trading Participants (31 December 2022: 598) covered by the indemnity at 31 December 2023 defaulted, the maximum liability of the Group under the indemnity would amount to \$115 million (31 December 2022: \$120 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.

49. Contingent Liabilities and Contingent Assets (continued)

(d) Material litigation

The LME and LME Clear were named as defendants in two judicial review claims filed in the English High Court (the Court) in 2022 (the Proceedings) and three related claims filed in the Court in 2023. The total claims amount to approximately US\$600 million.

On 8 March 2022, the LME, in consultation with LME Clear, suspended trading in all nickel contracts with effect from 08:15 UK time, and cancelled all trades executed on or after 00:00 UK time on 8 March. This decision to suspend trading was taken because the nickel market had become disorderly. Cancellations were made retrospectively to take the market back to the last point in time at which the LME could be confident that the market was operating in an orderly manner. At all times the LME sought to act in the interests of the market as a whole.

The Proceedings sought to challenge the LME's decision to cancel the claimants' alleged trades in nickel contracts executed on or after 00:00 UK time on 8 March 2022 (the Decision). The claimants have alleged that this was unlawful on public law grounds and/or constituted a violation of their human rights.

The hearing of the judicial review took place from 20 to 22 June 2023, at which the Court heard submissions from the parties on the issue of whether the Decision was unlawful on public law grounds and/or constituted a violation of the claimants' human rights.

On 29 November 2023, the Court gave judgment in the LME and LME Clear's favour on all grounds, and ordered the claimants to pay the LME and LME Clear's costs of the Proceedings, which are to be assessed by the Court if not agreed with the claimants.

One of the claimants has sought and been granted permission to appeal. The appeal is likely to be heard by the Court of Appeal during 2024. The LME management is of the view that the appeal is without merit and LME and LME Clear will contest it vigorously.

A further three claims were issued in the Court in March 2023, by claimants seeking damages for losses alleged to have been suffered as a result of the Decision, alleging that this was an unlawful interference with their human rights. These claims remain stayed, pending the final determination of the Proceedings. The limitation period for similar damages claims under the Human Rights Act has now expired.

In light of the judgement of the Court, no provision has been made in the consolidated financial statements.

The Group has not recognised any recovery of costs of the Proceedings as receivables in the consolidated financial statements at 31 December 2023 as the amount is still subject to negotiation with the claimants.

50. Connected Transactions and Material Related Party Transactions

(a) Connected transactions and related party transactions

Certain Directors of HKEX may be directors and/or shareholders of (i) Exchange Participants of the Stock Exchange, Futures Exchange, the LME and QME (Exchange Participants) and Clearing Participants of HKSCC, HKCC, SEOCH, LME Clear and OTC Clear (Clearing Participants); (ii) companies listed on the Stock Exchange; and (iii) Exchange Participants for buying shares on behalf of HKSCC. Securities and derivatives contracts traded by, and fees levied on, these Exchange Participants and Clearing Participants, fees levied on these listed companies and fees paid to these Exchange Participants for buying shares on behalf of HKSCC are all undertaken in the ordinary course of business of the Group on the standard terms and conditions applicable to all other Exchange Participants, Clearing Participants, listed companies and Exchange Participants for buying shares on behalf of HKSCC.

(b) Material related party transactions

In addition to the above and those disclosed elsewhere in these consolidated financial statements, the Group entered into the following material related party transactions:

(i) Key management personnel compensation

	2023 \$m	2022 \$m
Salaries and other short-term employee benefits	211	188
Employee share-based compensation benefits	143	160
Retirement benefit costs	9	9
	363	357

(ii) Post-retirement benefit plans

The Group has sponsored an ORSO Plan and the LME Pension Scheme as its post-retirement benefit plans (note 10(a)).

(iii) Sale as aforesaid, the Group has entered into other transactions in the ordinary course of business with companies that are related parties but the amounts were immaterial.

51. Pledges of Assets

LME Clear receives securities and gold bullion as non-cash collateral for margins posted by its Clearing Participants. The total fair value of this non-cash collateral was US\$3,748 million (HK\$29,266 million) at 31 December 2023 (31 December 2022: US\$619 million (HK\$4,831 million)). LME Clear is obliged to return this non-cash collateral upon request when the Clearing Participants' collateral obligations have been substituted with cash collateral or otherwise discharged. LME Clear is permitted to sell or pledge such collateral in the event of the default of a Clearing Participant. 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\$9,095 million (HK\$71,019 million) at 31 December 2023 (31 December 2022: US\$14,982 million (HK\$116,934 million)). Such non-cash collateral, together with certain financial assets amounting to US\$1,102 million (HK\$8,604 million) at 31 December 2023 (31 December 2022: US\$923 million (HK\$7,206 million)), have been pledged to LME Clear's investment agents 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.

52. Capital Management

The Group's objectives when managing capital are:

- To safeguard the Group's ability to continue as a going concern, so that it continues to provide returns for shareholders and benefits for other stakeholders;
- To support the Group's stability and growth;
- To provide capital for the purpose of strengthening the Group's risk management capability; and
- To ensure that the Group's regulated entities comply with their respective regulatory capital requirements.

The Group actively and regularly reviews and manages its capital structure to ensure an optimal capital structure and shareholder returns. The Group takes into consideration the expected capital requirements and capital efficiency, regulatory capital requirements of its regulated entities, prevailing and projected profitability, projected operating cash flows, projected capital expenditures and projected strategic investment opportunities.

The Group has a number of regulated entities that are subject to regulatory capital requirements set by the respective regulators. The regulatory capital requirements of the Group's subsidiaries at 31 December 2023 are summarised as follows:

Subsidiaries	Regulatory authority	Regulatory capital requirements
Stock Exchange, Futures Exchange	SFC, Hong Kong	Maintain at all times net current assets funded by equity sufficient to cover each subsidiary's projected total operating expenses for at least the following six months of \$1,896 million (31 December 2022: \$1,878 million), and net current assets funded by equity or long-term loans from HKEX sufficient to cover its projected total operating expenses for at least the following twelve months of \$3,792 million (31 December 2022: \$3,756 million).
HKSCC, HKCC, SEOCH, OTC Clear	SFC, Hong Kong	Maintain at all times liquid net assets funded by equity (i.e., liquid assets of Corporate Funds (excluding those solely used to support Skin-in-the-Game and default fund credits of Clearing House Funds) minus non-current liabilities) sufficient to cover each subsidiary's projected total operating expenses for at least the following six months of \$916 million (31 December 2022: \$853 million), and net current assets funded by equity or long-term loans from HKEX (excluding those solely used to support Skin-in-the-Game and default fund credits of Clearing House Funds) sufficient to cover its projected total operating expenses for at least the following twelve months of \$1,833 million (31 December 2022: \$1,706 million).
LME	The Financial Conduct Authority, UK	Maintain at all times net capital and liquid financial resources of at least the costs of orderly closure plus a risk based capital charge, amounting to US\$106.2 million (HK\$829 million) (31 December 2022: HK\$614 million).
LME Clear	Bank of England, UK	Maintain cash or highly liquid financial instruments with minimal market and credit risk, amounting to US\$109.8 million (HK\$857 million) (31 December 2022: HK\$784 million), plus 10 per cent minimum reporting threshold of US\$11.0 million (HK\$86 million) (31 December 2022: HK\$79 million) and US\$27.5 million (HK\$215 million) (31 December 2022: HK\$196 million) financial resources available to set off losses in the event of default (Skin-in-the-Game). Capital resources must be in the form of share capital, retained earnings and reserves, reduced by intangible assets and retained losses.

At 31 December 2023, the Group had set aside \$4,000 million (31 December 2022: \$4,000 million) of shareholders' funds for the purpose of supporting the risk management regime of the clearing houses in their roles as central counterparties, of which \$2,160 million (31 December 2022: \$2,160 million) had been injected into HKSCC, HKCC and SEOCH as share capital.

52. Capital Management (continued)

All regulated entities of the Group had adequate capital to meet their regulatory requirements at 31 December 2023 and 31 December 2022.

The Group adopts a dividend policy of providing shareholders with regular dividends with a normal target payout ratio of 90 per cent of the Group's profit of the year (excluding the financial results of HKEX Foundation Limited) and it may also offer a scrip dividend alternative to shareholders if considered appropriate. The consideration of share capital issued under the scrip dividend scheme (if any), together with the 10 per cent of the profit not declared as dividends, are retained as capital of the Group for future use.

The Group monitors capital on the basis of its gross gearing ratio (i.e., gross debt divided by adjusted capital) and net gearing ratio (i.e., net debt divided by adjusted capital). For this purpose, the Group defines gross debt as the total borrowings (excluding lease liabilities), net debt as gross debt less cash and cash equivalents of Corporate Funds (excluding those reserved for supporting Skin-in-the-Game and default fund credits of Clearing House Funds), and adjusted capital as all components of equity attributable to shareholders of HKEX other than designated reserves. The Group's strategy is to maintain the ratios at less than 50 per cent.

	At 31 Dec 2023 \$m	At 31 Dec 2022 \$m
Borrowings (note 39)	447	491
Less:		
Cash and cash equivalents of Corporate Funds (note 21)	10,286	15,952
Less: Amounts reserved for supporting Skin-in-the-Game and default fund credits of Clearing House Funds (note 21(b))	(1,074)	(694)
	9,212	15,258
Net debt (note (a))	–	–
Equity attributable to shareholders of HKEX	51,344	49,728
Less: Designated reserves (note 45)	(1,018)	(686)
Adjusted capital	50,326	49,042
Gross gearing ratio	1%	1%
Net gearing ratio	0%	0%

- (a) Net debt is zero when the amount of cash and cash equivalents of Corporate Funds (excluding those reserved for supporting Skin-in-the-Game and default fund credits of Clearing House Funds) is higher than gross debt.

53. Financial Risk Management

The Group's activities expose it to a variety of financial risks: market risk (including foreign exchange risk, price risk and interest rate risk), liquidity risk and credit risk. The Group's overall risk management programme focuses on the unpredictability of financial markets and seeks to minimise potential adverse effects on the Group's performance.

(a) Market risk

Nature of risk

Market risk is the risk of loss arising from movements in observable market variables such as foreign exchange rates, equity prices and interest rates. The Group is exposed to market risk primarily through its financial assets and financial liabilities (including borrowings and lease liabilities). The Group is also exposed to credit-contingent market risk arising from the default of Clearing Participants, which is further elaborated under credit risk (note (c)).

Risk management

The Group's investment policy is to prudently invest all funds managed by the Group in a manner which will satisfy liquidity requirements, safeguard financial assets and manage risks while optimising return on investments.

Investment and fund management by HKEX and the Group's subsidiaries is governed by the HKEX Group Investment Policies, which are approved by the Board and reviewed regularly. Investment restrictions and guidelines set out in the Investment Policies form an integral part of risk control. Fund-specific restrictions and guidelines are set according to the investment objectives of each fund (i.e., Corporate Funds, Clearing House Funds, Margin Funds and Cash for A-shares). Specific limits are set to control risks where applicable (e.g., permissible asset type, asset allocation, liquidity, credit requirement, counterparty concentration, tenor, foreign exchange exposures, interest rate risks and stress loss limits under extreme but plausible conditions) of the investments.

A portion of the Corporate Funds is invested in externally-managed investment funds (External Portfolio) under the Externally-Managed Investment Policy. The policy includes an asset allocation policy which aims to preserve and enhance the return of the External Portfolio by investing in a diverse mix of asset classes whose returns are not highly correlated to each other over time to mitigate portfolio volatility and asset class concentration risk. The policy also defines the risk-return parameters for the External Portfolio and restrictions to be observed, and the governance structure on selection and monitoring of fund managers. The fund managers of the investment funds are selected based on their performance track records and areas of expertise, and each should be financially strong and stable, and their selections are approved by the Investment Committee as delegated by the Board. Specific risk management limits are set for the External Portfolio (e.g., permissible asset type, asset allocation, liquidity, foreign exchange exposures and stress loss limits under extreme but plausible conditions).

The Investment Committee, comprised of Non-executive Directors of HKEX, advises the Board on portfolio management and monitors the risk and performance of HKEX's investments. A Treasury team in the Finance Division is dedicated to the day-to-day management and investment of the internally-managed funds, and monitor the performance of the External Portfolio.

53. Financial Risk Management (continued)

(a) Market risk (continued)

(i) Foreign exchange risk

Nature of risk

Foreign exchange risk is the risk that the value or cash flows of an asset, liability or forecast transaction denominated in foreign currency (i.e., a currency other than the functional currency of the entity to which the transactions relate) will fluctuate because of changes in foreign exchange rates. The functional currency of the Hong Kong and PRC entities are either HKD or Renminbi (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.

Risk management

The Group manages its foreign exchange rate risks by setting limits of net long or short unhedged positions of each individual foreign currency.

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. In particular, the LME entities may designate forward foreign exchange contracts as cash flow hedges for hedging the foreign exchange risk of certain operating expenses and intangible assets.

Foreign exchange swaps are used for optimising foreign currency cash flows while hedging the overall foreign exchange exposures of the Group.

Under the Investment Policies, investment in non-HKD financial instruments is subject to the following restrictions:

- For the External Portfolio, at least 50 per cent of the External Portfolio must be invested in HKD or USD investments or investments hedged back to HKD or USD, except that a further portion not exceeding HK\$1 billion can be invested in RMB investments.
- For internally-managed Corporate Funds, Clearing House Funds, Margin Funds and Cash for A-shares, the net long or short position of each individual foreign currency (i.e., the net open position (NOP)) is monitored. Except for the Group's investment in minority stakes of unlisted companies, the NOP exposures of USD, RMB and other foreign currencies should generally not exceed USD1 billion, RMB1 billion and HKD500 million (for each other foreign currency) respectively.

For LME Clear, investments of the Margin Fund and Default Fund will generally be in the currency in which cash was received.

53. Financial Risk Management (continued)

(a) Market risk (continued)

(i) Foreign exchange risk (continued)

Exposure

The following table details the Group's financial assets and financial liabilities denominated in a currency other than the functional currency of the entity to which they relate and the net open foreign currency positions (i.e., gross positions less forward foreign exchange contracts, foreign exchange swaps and other offsetting exposures (hedges)) at 31 December presented in HKD equivalents.

	Foreign currency	At 31 Dec 2023			At 31 Dec 2022		
		Gross open position \$m	Hedges ³ \$m	Net open position \$m	Gross open position \$m	Hedges \$m	Net open position \$m
Financial assets ¹	EUR	2,455	(2,431)	24	11,992	(11,986)	6
	GBP	3,078	(2,699)	379	2,878	(2,584)	294
	JPY	1,593	(1,588)	5	1,265	(1,261)	4
	RMB	26,351	(26,040)	311	19,105	(18,950)	155
	USD	8,191	(7,810)	381	8,575	(6,542)	2,033
	Others	2	(1)	1	3	(1)	2
Financial liabilities ²	EUR	(2,586)	2,586	–	(11,986)	11,986	–
	GBP	(3,067)	2,699	(368)	(2,846)	2,584	(262)
	JPY	(5,798)	5,798	–	(1,261)	1,261	–
	RMB	(20,328)	20,324	(4)	(18,956)	18,950	(6)
	USD	(6,126)	6,018	(108)	(6,648)	6,542	(106)
	Others	(2)	1	(1)	(1)	1	–
Total net open positions for the Group	EUR			24			6
	GBP			11			32
	JPY			5			4
	RMB			307			149
	USD			273			1,927
	Others			–			2
				620			2,120

1 Financial assets comprised cash and cash equivalents, base metals derivatives contracts, financial assets measured at fair value through other comprehensive income, financial assets measured at amortised cost, and accounts receivable and deposits.

2 Financial liabilities comprised margin deposits, Mainland security and settlement deposits, and cash collateral from Participants, Participants' contributions to Clearing House Funds, base metals derivatives contracts, borrowings, lease liabilities, and accounts payable and other liabilities.

3 The amounts include foreign exchange swaps for optimising foreign currency cash flows while hedging the overall foreign exposure of the Group (note 26(b)).

In addition, at 31 December 2023, the LME entities have entered into certain forward foreign exchange contracts amounting to GBP113 million (31 December 2022: GBP97 million) and designated them as cash flow hedges for hedging the foreign currency risk of their operating expenses and intangible assets (note 44(a)).

53. Financial Risk Management (continued)

(a) Market risk (continued)

(ii) Equity and commodity price risk

Nature of risk

The Group is exposed to equity price risk from equity investments in investment funds held as part of the External Portfolio. The Group is also exposed to equity price risk on the investments in minority stakes in unlisted companies (note 53(d)(i)).

The movements of fair value of base and ferrous metals futures and options contracts cleared through LME Clear would not have any financial impact on the Group's results as the assets and liabilities will move by the same amount and fully offset each other.

Risk management

The Group sets prudent investment limits and restrictions to control investments in investment funds and a stress loss limit is set to limit its exposures. The Group selects fund managers after an extensive assessment of the underlying funds, their strategy and the overall quality of the fund managers, and the performance of the funds is monitored on a monthly basis, or on an ad hoc basis during adverse market conditions.

(iii) Interest rate risk

Nature of risk

There are two types of interest rate risk:

- Fair value interest rate risk – the risk that the value of a financial instrument will fluctuate because of changes in market interest rates; and
- Cash flow interest rate risk – the risk that the future cash flows of a financial instrument will fluctuate because of changes in market interest rates.

The Group is exposed to both fair value and cash flow interest rate risks as the Group has significant assets and liabilities (including borrowings) which are interest-bearing.

Risk management

The Group manages its interest rate risks by monitoring the interest rate impact on quarterly earnings per share. Limits are also set for tenor of the investments under the internally managed funds.

Exposure

The following tables present the carrying value and highest and lowest contractual interest rates of the financial assets held by the Group (excluding investments in investment funds, zero-coupon Exchange Fund Bills, and bank deposits held at savings and current accounts) at 31 December:

	Fixed rate financial assets		Floating rate financial assets	
	At 31 Dec 2023	At 31 Dec 2022	At 31 Dec 2023	At 31 Dec 2022
Carrying value (\$m)	103,713	114,983	81,028	117,535
Highest contractual interest rates	5.93%	5.95%	6.79%	5.99%
Lowest contractual interest rates ¹	1.72%	0.25%	3.54%	-2.00%

1 The contractual interest rates for certain reverse repurchase investments denominated in Euro held by LME Clear at 31 December 2022 were below 0 per cent.

53. Financial Risk Management (continued)

(a) Market risk (continued)

(iv) Sensitivity analysis

Investments other than investment funds

The Group performs sensitivity analysis to identify and measure foreign exchange risk and interest rate risks of the Group's investments other than investment funds.

Foreign exchange risk

The following table indicates the instantaneous change in the Group's profit after tax (and retained earnings) and other components of equity that would arise if foreign exchange rates to which the Group has significant exposure at the end of the reporting period had changed at that date, assuming all other risk variables remained constant. In this respect, it is assumed that the pegged rate between HKD and USD would only move within the limits undertaken by the Hong Kong Monetary Authority.

	At 31 Dec 2023			At 31 Dec 2022		
	Increase/ (decrease) in foreign exchange rates	Effect on profit after tax and retained earnings \$m	Effect on other components of equity \$m	Increase/ (decrease) in foreign exchange rates	Effect on profit after tax and retained earnings \$m	Effect on other components of equity \$m
GBP	5%	<1	43	5%	1	37
	(5%)	<(1)	(43)	(5%)	(1)	(37)
RMB	5%	15	-	5%	7	-
	(5%)	(15)	-	(5%)	(7)	-
USD	1%	3	-	1%	19	-
	(1%)	(3)	-	(1%)	(19)	-

The analysis above represents an aggregation of the instantaneous effects on each of the group entities' profit after tax and other comprehensive income measured in the respective functional currencies, translated into HKD at the exchange rate ruling at the end of the reporting period for presentation purposes.

The sensitivity analysis assumes that the change in foreign exchange rates had been applied to re-measure those financial instruments which expose the Group to foreign currency risk at the end of the reporting period. The analysis excludes differences that would result from the translation of the financial statements of foreign operations into the Group's presentation currency.

Interest rate risk

At 31 December 2023, it is estimated that a general increase/decrease of 75 basis points (31 December 2022: 25 basis points) in interest rates, with all other variables held constant, would have increased/decreased the Group's profit after tax and retained earnings by approximately \$242 million (31 December 2022: \$99 million). Other components of equity would have decreased/increased by approximately \$85 million (31 December 2022: \$33 million) in response to the general increase/decrease in interest rates.

The sensitivity analysis above indicates the instantaneous change in the Group's profit after tax (and retained earnings) and other components of the equity that would arise assuming that the change in interest rates had occurred at the end of the reporting period and had been applied to remeasure those financial instruments which expose the Group to fair value interest rate risk at the end of the reporting period. In respect of the exposure to cash flow interest rate risk arising from non-derivative instruments held by the Group at the end of the reporting period, the impact on the Group's profit after tax (and retained earnings) is estimated as an annualised impact on interest expense or income of such a change in interest rates.

53. Financial Risk Management (continued)

- (a) Market risk (continued)
- (iv) Sensitivity analysis (continued)

Investment funds

At 31 December, the fair value of the Group's External Portfolio by strategy employed was as follows:

Strategy	At 31 Dec 2023 \$m	At 31 Dec 2022 \$m
Public Equities	1,071	1,027
Diversifiers ¹	4,096	3,943
Government Bonds and Mortgage-backed Securities	1,401	1,340
Total	6,568	6,310
Number of investment funds	34	32

1 Diversifiers comprise Absolute Return and Multi-Sector Fixed Income asset classes.

The Group monitors market risk exposures of the External Portfolio through a stress testing limit framework to control the potential market risk loss of the portfolio under stressed market conditions over a quarter's earnings cycle. The stress testing applied by the Group estimates potential extreme losses through a set of stress scenarios derived from historical stress events (such as the Asian Financial Crisis in 1997, the Great Financial Crisis in 2008, etc.). The Group monitors the External Portfolio's limit utilisation monthly, and there was no limit breach during 2023 and 2022.

To illustrate the sensitivity of the External Portfolio's market value as a result of potential market moves, the Group also calculates a 1-year Value at Risk (VaR) estimation for the External Portfolio at a 95 per cent confidence interval. The VaR calculation is a statistical estimation of the potential changes in the market value of the External Portfolio over a 1-year period based on returns and volatilities observed historically. The 95 per cent confidence interval implies that the 1-year loss for the External Portfolio could be equal to or larger than the VaR estimation once in every 20 years on average. As of 31 December 2023, the estimated 1-year VaR was 4.9 per cent (31 December 2022: 4.2 per cent), implying the market value of the External Portfolio could potentially change by approximately \$322 million (2022: \$265 million) in the next year.

The 1-year VaR is a statistical measure of the historical risks and has limitations associated with the assumptions employed. Historical simulation assumes that actual observed historical changes in the respective investment fund's monthly performance reflect possible future changes. This implies that the approach is vulnerable to sudden changes in market behaviour. In addition, it does not cover stressed market events, nor does it represent the Group's forecast of the External Portfolio's future returns.

53. Financial Risk Management (continued)

(b) Liquidity risk

Nature of risk

Liquidity risk is the risk that an entity will encounter difficulty in meeting obligations associated with financial liabilities that are settled by delivering cash or another financial asset, and it results from amount and maturity mismatches of assets and liabilities.

Risk management

The Group employs projected cash flow analysis to manage liquidity risk by forecasting the amount of cash required and monitoring the working capital of the Group to ensure that all liabilities due and known funding requirements could be met.

Investments are kept sufficiently liquid to meet operational needs and regulatory requirements, and possible liquidity requirements of the Clearing House Funds and Margin Funds. The Group sets liquidity metrics for Corporate Funds, Clearing House Funds and Margin Funds. In particular, Clearing House Funds and Corporate Funds solely used for supporting the Skin-in-the Game and default fund credits of Clearing House Funds are invested in overnight deposits, reverse repurchase investments or Exchange Fund Bills issued by the Hong Kong Monetary Authority and should be available on a daily basis.

As recognised clearing houses, the Group's clearing houses have to observe the liquidity requirements laid down in Principles for Financial Market Infrastructures (PFMI requirements) issued by the Committee on Payments and Market Infrastructures (CPMI) and the International Organization of Securities Commissions (IOSCO). In particular, the clearing houses conduct daily liquidity stress testing that covers a number of potential stress scenarios, and sufficient liquidity has to be set aside to cover such stress testing.

Banking facilities have been put in place for contingency purposes. At 31 December 2023, the Group's total available banking facilities for its daily operations amounted to \$25,912 million (31 December 2022: \$22,839 million), which included \$18,972 million (31 December 2022: \$16,338 million) of committed banking facilities and \$6,500 million (31 December 2022: \$6,500 million) of repurchase facilities.

The Group also put in place foreign exchange facilities for its daily clearing operations and for the RMB Equity Trading Support Facility to support the trading of RMB stocks listed on the Stock Exchange. At 31 December 2023, the total amount of such facilities was \$33,852 million (31 December 2022: \$28,493 million).

In addition, the Group has arranged contingency banking facilities amounting to RMB13,000 million (HK\$14,256 million) (31 December 2022: RMB13,000 million (HK\$14,665 million)) for settling payment obligations to ChinaClear should there be events that disrupt normal settlement arrangements for Stock Connect.

53. Financial Risk Management (continued)

(b) Liquidity risk (continued)

Exposure

The Group is not exposed to liquidity risk on the outstanding base and ferrous metals futures and options contracts cleared through LME Clear. Accordingly, they are not included in the analyses for financial assets and financial liabilities in the tables below.

The tables below analyse the Group's non-derivative financial assets into the relevant maturity buckets based on the following criteria:

- investments held under the investment funds are allocated taking into account the redemption notice periods, lock-up periods and redemption restrictions;
- the expected amounts, subject to costs to liquidate that are expected to be immaterial, that could be realised from the investments (other than investment funds), bank deposits and cash and cash equivalents within one month to meet cash outflows on financial liabilities if required are allocated to the up to 1-month bucket;
- investments in minority stakes in unlisted companies are allocated to the >5 years bucket;
- accounts receivable are allocated based on their due dates; and
- other financial assets are allocated based on their contractual maturity dates or the expected dates of disposal.

	At 31 Dec 2023					
	Up to 1 month \$m	>1 month to 3 months \$m	>3 months to 1 year \$m	>1 year to 5 years \$m	>5 years \$m	Total \$m
Cash and cash equivalents	125,107	-	-	-	-	125,107
Financial assets measured at fair value through profit or loss	3,270	2,016	1,071	211	393	6,961
Financial assets measured at fair value through other comprehensive income	18,250	-	-	-	-	18,250
Financial assets measured at amortised cost	76,554	-	-	88	7	76,649
Accounts receivable and deposits ¹	33,090	27	-	-	-	33,117
Total non-derivative financial assets	256,271	2,043	1,071	299	400	260,084

	At 31 Dec 2022					
	Up to 1 month \$m	>1 month to 3 months \$m	>3 months to 1 year \$m	>1 year to 5 years \$m	>5 years \$m	Total \$m
Cash and cash equivalents	184,965	-	-	-	-	184,965
Financial assets measured at fair value through profit or loss	3,089	2,046	1,042	133	654	6,964
Financial assets measured at fair value through other comprehensive income	14,962	-	-	-	-	14,962
Financial assets measured at amortised cost	70,398	-	-	85	11	70,494
Accounts receivable and deposits ¹	25,138	21	3	-	-	25,162
Total non-derivative financial assets	298,552	2,067	1,045	218	665	302,547

1 Amounts exclude prepayments of \$215 million (31 December 2022: \$213 million).

53. Financial Risk Management (continued)

(b) Liquidity risk (continued)

Exposure (continued)

The table below analyses the Group's non-derivative financial liabilities at 31 December into relevant maturity buckets based on their contractual maturity dates. The amounts disclosed in the tables are the contractual undiscounted cash flows and represent the earliest date the Group can be required to pay.

	At 31 Dec 2023					
	Up to 1 month \$m	>1 month to 3 months \$m	>3 months to 1 year \$m	>1 year to 5 years \$m	>5 years \$m	Total \$m
Margin deposits, Mainland security and settlement deposits, and cash collateral from Participants	176,165	-	-	-	-	176,165
Accounts payable, accruals and other liabilities	27,713	16	118	2	-	27,849
Other financial liabilities:						
Other financial liabilities of Clearing House Funds	9	-	-	-	-	9
Other financial liabilities of Corporate Funds:						
Financial guarantee contract (maximum amount guaranteed) (note 49(b))	115	-	-	-	-	115
Participants' contributions to Clearing House Funds	21,486	422	47	-	-	21,955
Borrowings:						
Written put options to non-controlling interests	-	-	382	85	-	467
Lease liabilities	33	52	243	1,120	341	1,789
Total non-derivative financial liabilities	225,521	490	790	1,207	341	228,349

	At 31 Dec 2022					
	Up to 1 month \$m	>1 month to 3 months \$m	>3 months to 1 year \$m	>1 year to 5 years \$m	>5 years \$m	Total \$m
Margin deposits, Mainland security and settlement deposits, and cash collateral from Participants	227,902	-	-	-	-	227,902
Accounts payable, accruals and other liabilities	18,918	16	120	-	-	19,054
Other financial liabilities:						
Other financial liabilities of Clearing House Funds	15	5	-	-	-	20
Other financial liabilities of Corporate Funds:						
Financial guarantee contract (maximum amount guaranteed) (note 49(b))	120	-	-	-	-	120
Participants' contributions to Clearing House Funds	20,713	442	50	-	-	21,205
Borrowings:						
Written put options to non-controlling interests	-	-	433	85	-	518
Lease liabilities	35	56	259	1,049	581	1,980
Total non-derivative financial liabilities	267,703	519	862	1,134	581	270,799

53. Financial Risk Management (continued)

(b) Liquidity risk (continued)

Exposure (continued)

As at 31 December 2023, the maximum gross nominal values of outstanding forward foreign exchange contracts and foreign exchange swaps held by the Group were \$1,120 million (31 December 2022: \$914 million) and \$10,722 million (31 December 2022: \$Nil) respectively. The table below analyses the Group's outstanding foreign exchange derivative contracts as at 31 December (which include all contracts regardless of whether they had gains or losses at the end of reporting period) that would be settled on a gross basis into relevant maturity buckets based on their remaining contractual maturity dates. The amounts disclosed in the table are contractual undiscounted cash flows, which are different from the carrying amount (i.e., market value) in the consolidated statement of financial position.

	31 Dec 2023			
	Up to 1 month \$m	>1 month to 3 months \$m	>3 months to 1 year \$m	Total \$m
Forward foreign exchange contracts				
– outflows	89	184	843	1,116
– inflows	89	184	847	1,120
Foreign exchange swaps				
– outflows	10,699	–	–	10,699
– inflows	10,722	–	–	10,722

	31 Dec 2022			
	Up to 1 month \$m	>1 month to 3 months \$m	>3 months to 1 year \$m	Total \$m
Forward foreign exchange contracts				
– outflows	65	142	694	901
– inflows	66	144	704	914

(c) Credit risk

Nature of risk

The Group is exposed to credit risk, which is the risk that a counterparty will be unable to pay amounts in full when due. It arises primarily from the Group's investments and accounts receivable. Impairment provisions are made against the Group's investments and accounts receivable based on the accounting policy set out in notes 23 and 24.

The Group is also exposed to clearing and settlement risk, as the clearing houses of the Group act as the counterparties to eligible trades concluded on the Stock Exchange, the Futures Exchange, the over-the-counter market, and the LME through the novation of the obligations of the buyers and sellers. HKSCC is also responsible for the good title to the securities deposited and accepted in the CCASS depository. As a result, the Group has considerable market risk and credit risk since the Participants' ability to honour their obligations in respect of their trades and securities deposited may be adversely impacted by economic conditions. If the Participants default on their obligations on settlement or there are defects in the title of securities deposited and accepted in the CCASS depository, the Group could be exposed to potential risks not otherwise accounted for in these consolidated financial statements.

53. Financial Risk Management (continued)

(c) Credit risk (continued)

Risk management – Investment and accounts receivable risk

The Group limits its exposure to credit risk by rigorously selecting the counterparties (i.e., deposit-takers, bond issuers, debtors and fund managers) and by diversification. All investments (excluding those held by the investment funds) were governed by the Group Credit Limit for Settlement and Investments framework. Under the framework, specific limits are set on an investment portfolio level, on a single counterparty level and on a geographical level. The investment portfolio is subject to a maximum portfolio expected loss limit, each investment counterparty is subject to a minimum investment grade rating, each investment is subject to maximum concentration limit per counterparty and the total investment in each country is subject to maximum concentration limit per country. Fund managers of investment funds are financially strong and stable, and their selections are approved by the Investment Committee as delegated by the Board.

At 31 December 2023, the investments in debt securities held by the Group (excluding those held by the investment funds) were of investment grade and had a weighted average credit rating of Aa2 (Moody) (31 December 2022: Aa2 (Moody)). Deposits are placed only with the investment grade banks, licensed banks and restricted licence banks regulated by the Hong Kong Monetary Authority, and banks regulated by local banking regulators in the countries where the Group's subsidiaries operate. LME entities invest a significant portion of cash in reverse repurchase investments, where high quality assets are held against such investments as collateral.

The Group mitigates its exposure to risks relating to accounts receivable from its Participants by requiring the Participants to meet the Group's established financial requirements and criteria for admission as Participants.

Risk management – Clearing and settlement risk

The Group mitigates its exposure to clearing and settlement-related risks by requiring the Participants to meet the Group's established financial requirements and criteria for admission as Participants, monitoring compliance with risk management measures such as imposing position limits and requiring Clearing Participants and other clearing house participants to deposit margins, Mainland security and settlement deposits, and cash collateral and contribute to the Clearing House Funds set up by the Group's five clearing houses. HKSCC also retains recourse against those Participants whose securities are deposited and accepted in the CCASS depository.

Under the Margin Fund and Guarantee Fund arrangements, each HKSCC Clearing Participant is granted by HKSCC a Margin Credit of \$5 million and a Dynamic Contribution Credit of \$1 million, and each HKCC Clearing Participant is granted a Dynamic Contribution Credit of HKCC Reserve Fund of \$1 million. If a HKSCC or HKCC Clearing Participant defaults and any loss arises, HKSCC will absorb the default loss up to the Margin Credit and Dynamic Contribution Credit utilised by the defaulting HKSCC Clearing Participant, after deducting its collateral and Guarantee Fund contribution maintained with HKSCC, and HKCC will absorb the default loss up to the Dynamic Contribution Credit utilised by the defaulting HKCC Clearing Participant, after deducting its collateral and Reserve Fund contribution maintained with HKCC. After the initial losses, HKSCC is required to absorb further losses after the HKSCC Guarantee Fund reserve and the Guarantee Fund contribution (excluding the Dynamic Contribution portion) of non-defaulting HKSCC Clearing Participants are depleted, and HKCC is required to absorb further losses after the HKCC Reserve Fund reserve and the Reserve Fund contribution (excluding the Dynamic Contribution portion) of non-defaulting HKCC Clearing Participants are depleted. The amount of losses borne by HKSCC and HKCC will be calculated on a pro rata basis with reference to the non-defaulting HKSCC and HKCC Clearing Participants' Dynamic Contributions and Dynamic Contribution Credits granted by HKSCC and HKCC respectively.

53. Financial Risk Management (continued)

(c) Credit risk (continued)

Risk management – Clearing and settlement risk (continued)

At 31 December 2023, HKSCC had 587 Clearing Participants (31 December 2022: 618) and the total amounts of Margin Credit and Dynamic Contribution Credit utilised by HKSCC Clearing Participants amounted to \$763 million (31 December 2022: \$823 million), while HKCC had 139 Clearing Participants (31 December 2022: 149) and the total amount of Dynamic Contribution Credit utilised by HKCC Clearing Participants amounted to \$79 million (31 December 2022: \$57 million).

The HKSCC Margin Credit and Dynamic Contribution Credit and the HKCC Dynamic Contribution Credit are supported by the \$4,000 million of shareholders' funds set aside by the HKE Group for risk management purpose, of which \$1,060 million and \$830 million were injected into HKSCC and HKCC respectively.

Exposure

At 31 December, the maximum exposure to credit risk of the financial assets of the Group was equal to their carrying amounts. The maximum exposure to credit risk of the financial guarantee contract issued by the Group was as follows:

	At 31 Dec 2023		At 31 Dec 2022	
	Carrying amount in consolidated statement of financial position \$m	Maximum exposure to credit risk \$m	Carrying amount in consolidated statement of financial position \$m	Maximum exposure to credit risk \$m
Financial guarantee contract				
Undertaking to indemnify the Collector of Stamp Revenue (note 49(b))	(20)	115	(20)	120

Collateral held for mitigating credit risk

Certain securities, cash deposits and non-cash collateral are being held by the Group to mitigate the Group's exposure to credit risk. The financial effect of the collateral, which is capped by the amount receivable from each counterparty, was as follows:

	At 31 Dec 2023		At 31 Dec 2022	
	Carrying amount in consolidated statement of financial position \$m	Collateral held for mitigating credit risk \$m	Carrying amount in consolidated statement of financial position \$m	Collateral held for mitigating credit risk \$m
Accounts receivable and deposits ¹	33,117	7,444	25,162	4,862
Fair value of base and ferrous metals futures and options contracts cleared through LME Clear	58,097	58,097	80,705	80,705
Reverse repurchase investments	69,132	69,132	111,418	111,418

1 Amounts exclude prepayments of \$215 million (31 December 2022: \$213 million).

53. Financial Risk Management (continued)

(d) Fair values of financial assets and financial liabilities

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

At 31 December 2023 and 31 December 2022, no non-financial assets or liabilities were carried at fair values.

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

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

Recurring fair value measurements:	At 31 Dec 2023				At 31 Dec 2022			
	Level 1 \$m	Level 2 \$m	Level 3 \$m	Total \$m	Level 1 \$m	Level 2 \$m	Level 3 \$m	Total \$m
Financial assets								
Financial assets measured at fair value through profit or loss:								
– investment funds	870	5,698	–	6,568	662	5,648	–	6,310
– equity securities	–	–	393	393	–	–	654	654
Financial assets measured at fair value through other comprehensive income:								
– debt securities	16,296	1,954	–	18,250	12,045	2,917	–	14,962
Derivative financial instruments:								
– base and ferrous metals futures and options contracts cleared through LME Clear	–	58,097	–	58,097	–	80,705	–	80,705
– forward foreign exchange contracts	–	4	–	4	–	13	–	13
– foreign exchange swaps	–	26	–	26	–	–	–	–
	17,166	65,779	393	83,338	12,707	89,283	654	102,644
Financial liabilities								
Derivative financial instruments:								
– base and ferrous metals futures and options contracts cleared through LME Clear	–	58,097	–	58,097	–	80,705	–	80,705
– foreign exchange swaps	–	3	–	3	–	–	–	–
	– 58,100	– 58,100	– 58,100	– 58,100	– 80,705	– 80,705	– 80,705	– 80,705

53. Financial Risk Management (continued)

(d) Fair values of financial assets and financial liabilities (continued)

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

During 2023 and 2022, there were no transfers of instruments between Level 1 and Level 2 or transfer into or out of Level 3.

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

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

Fair value measurements using significant unobservable inputs (Level 3)

	2023 \$m	2022 \$m
At 1 Jan	654	694
Losses recognised in consolidated income statement under net investment income (note 6)	(253)	(21)
Losses recognised in other comprehensive income	(8)	(19)
At 31 Dec	393	654
Total losses recognised in the consolidated income statement for assets held at 31 Dec	(253)	(21)

At 31 December 2023, the Group held minority stakes in three unlisted investments – Fusion Bank Limited, Huakong TsingJiao Information Science (Beijing) Limited, and Guangzhou Futures Exchange.

Fusion Bank Limited is a virtual bank in Hong Kong with a license granted by the Hong Kong Monetary Authority. The company offers a variety of banking services including savings, time deposits, loans, local fund transfers and foreign exchange.

Huakong TsingJiao Information Science (Beijing) Limited is a data technology company, which specialises in the research and development of multi-party computation technologies, allowing collaborative data analysis without revealing private data during the computation and analysis process.

Guangzhou Futures Exchange is an exchange in the Greater Bay Area focusing on serving the real economy and green development initiatives. Since its set up in 2021, the exchange has successfully launched its first two products, industrial silicon and lithium carbonate futures and options, and will continue to develop more products related to green development in the future.

As these investments are not traded in an active market, these investments are classified as Level 3 investments. Valuations are prepared on bi-annually basis, at each interim and annual reporting date. The assumptions and inputs to the valuation model, valuation techniques and valuation results are reviewed and approved by management.

At 31 December 2023, the total fair value of the three investments was \$393 million (31 December 2022: \$654 million). Market-based approach and asset-based approach have been adopted to determine their fair values, which are estimated based on the analysis of the investments' financial position, operating results and prospects, and by reference to trading multiples and financial data of other comparable companies.

53. Financial Risk Management (continued)

(d) Fair values of financial assets and financial liabilities (continued)

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

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

	At 31 Dec 2023		At 31 Dec 2022	
	Carrying amount in consolidated statement of financial position \$m	Fair value \$m	Carrying amount in consolidated statement of financial position \$m	Fair value \$m
Assets				
Financial assets measured at amortised cost:				
– debt securities maturing over one year ¹	1,570	1,593	113	113
– other financial assets maturing over one year ²	95	74	96	70
Liabilities				
Borrowings:				
– written put options to non-controlling interests ³	447	452	491	490
Financial guarantee to the Collector of Stamp Revenue ⁴	20	30	20	29

1 The fair values are provided by a reputable independent financial institution.

2 The fair values are based on cash flows discounted using Hong Kong Government bond rates of a tenor similar to the contractual maturity of the respective assets, adjusted by an estimated credit spread. The discount rates used ranged from 3.61 per cent to 4.61 per cent at 31 December 2023 (31 December 2022: 4.79 per cent to 5.32 per cent).

3 The fair values are based on cash flows discounted using the prevailing market interest rates for loans with similar credit rating and similar tenor of the respective loans. The discount rates used was 4.26 per cent at 31 December 2023 (31 December 2022: 4.88 per cent to 5.74 per cent).

4 The fair values are based on the fees charged by financial institutions for granting such guarantees discounted to perpetuity using a ten-year Hong Kong Government bond rate, adjusted by an estimated credit spread, but capped at the maximum exposure of the financial guarantee. The discount rate used was 4.80 per cent at 31 December 2023 (31 December 2022: 5.19 per cent).

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

53. Financial Risk Management (continued)

(e) Offsetting financial assets and financial liabilities

Accounting Policy

Financial assets and liabilities are offset and the net amount reported in the consolidated statement of financial position when there is a legally enforceable right to offset the recognised amounts and there is an intention to settle on a net basis or realise the asset and settle the liability simultaneously. The legally enforceable right must not be contingent on future events and must be enforceable in the normal course of business and in the event of default, insolvency or bankruptcy of the company or the counterparty.

For base and ferrous metals futures and options contracts cleared through LME Clear, the asset and liability positions of LME Clear arising through its activities as a central counterparty are matched. Therefore, the same amounts are recorded for both assets and liabilities with the fair value gains and losses recognised, but offset, in the consolidated income statement.

The disclosures set out in the tables below include financial assets and financial liabilities that:

- are offset in the Group's consolidated statement of financial position; or
- are subject to an enforceable master netting arrangement or similar agreement that covers similar financial instruments, irrespective of whether they are offset in the consolidated statement of financial position.

(i) Financial assets and financial liabilities subject to offsetting, enforceable master netting arrangements or similar agreements

Type of financial instruments	At 31 Dec 2023					
	Gross amounts \$m	Gross amounts set off in the consolidated statement of financial position \$m	Net amounts presented in the consolidated statement of financial position ³ \$m	Related amounts not offset in the consolidated statement of financial position		
				Amounts subject to master netting arrangements \$m	Cash collateral \$m	Net amounts \$m
Financial assets:						
CNS money obligations receivable ¹	259,093	(237,663)	21,430	(3,727)	(5,264)	12,439
Base and ferrous metals futures and options contracts cleared through LME Clear ²	1,189,427	(1,131,330)	58,097	(44,730)	(13,367)	-
Other accounts receivable from Participants, ChinaClear, information vendors and hosting services customers, net of provision for impairment losses	10,415	-	10,415	(1,657)	(339)	8,419
Total	1,458,935	(1,368,993)	89,942	(50,114)	(18,970)	20,858
Financial liabilities:						
CNS money obligations payable ¹	261,800	(237,663)	24,137	(5,369)	-	18,768
Base and ferrous metals futures and options contracts cleared through LME Clear ²	1,189,427	(1,131,330)	58,097	(44,730)	-	13,367
Other payable to ChinaClear	15	-	15	(15)	-	-
Total	1,451,242	(1,368,993)	82,249	(50,114)	-	32,135

53. Financial Risk Management (continued)

(e) Offsetting financial assets and financial liabilities (continued)

(i) Financial assets and financial liabilities subject to offsetting, enforceable master netting arrangements or similar agreements (continued)

Type of financial instruments	At 31 Dec 2022					
	Gross amounts \$m	Gross amounts set off in the consolidated statement of financial position \$m	Net amounts presented in the consolidated statement of financial position ³ \$m	Related amounts not offset in the consolidated statement of financial position		
				Amounts subject to master netting arrangements \$m	Cash collateral \$m	Net amounts \$m
Financial assets:						
CNS money obligations receivable ¹	228,859	(216,066)	12,793	(2,580)	(4,137)	6,076
Base and ferrous metals futures and options contracts cleared through LME Clear ²	1,538,681	(1,457,976)	80,705	(52,974)	(27,731)	-
Other accounts receivable from Participants, ChinaClear, information vendors and hosting services customers, net of provision for impairment losses	10,758	-	10,758	(159)	(112)	10,487
Total	1,778,298	(1,674,042)	104,256	(55,713)	(31,980)	16,563
Financial liabilities:						
CNS money obligations payable ¹	231,593	(216,066)	15,527	(2,716)	-	12,811
Base and ferrous metals futures and options contracts cleared through LME Clear ²	1,538,681	(1,457,976)	80,705	(52,974)	-	27,731
Other payable to ChinaClear	23	-	23	(23)	-	-
Total	1,770,297	(1,674,042)	96,255	(55,713)	-	40,542

1 HKSCC currently has a legally enforceable right to set off certain CNS money obligations receivable and payable relating to the same Clearing Participant and it intends to settle on a net basis.

2 LME Clear has a legally enforceable right to set off open positions of certain contracts within an individual member's account for those contracts settling on the same date and it intends to settle on a net basis.

3 For the net amounts of CNS money obligations receivable or payable and net fair value of base and ferrous metals futures and options contracts (i.e., after set-off), other accounts receivable and other payable due from/to customers, they do not meet the criteria for offsetting in the consolidated statement of financial position since the right of set-off of the recognised amounts is only enforceable following an event of default of the customers. In addition, the Group does not intend to settle the balances on a net basis.

53. Financial Risk Management (continued)

- (e) Offsetting financial assets and financial liabilities (continued)
- (ii) The tables below reconcile the “net amounts of financial assets and financial liabilities presented in the consolidated statement of financial position”, as set out above, to the “accounts receivable, prepayments and deposits”, “accounts payable, accruals and other liabilities” and “derivative financial instruments” presented in the consolidated statement of financial position.

	Accounts receivable, prepayments and deposits		Derivative financial instruments (assets)	
	At 31 Dec 2023 \$m	At 31 Dec 2022 \$m	At 31 Dec 2023 \$m	At 31 Dec 2022 \$m
Net amount of financial assets after offsetting as stated above:				
– CNS money obligations receivable	21,430	12,793	–	–
– Other accounts receivable from Participants, ChinaClear, information vendors and hosting services customers, net of provision for impairment losses	10,415	10,758	–	–
– Base and ferrous metals futures and options contracts cleared through LME Clear	–	–	58,097	80,705
Financial assets not in scope of offsetting disclosures	1,272	1,611	30	13
Prepayments	215	213	–	–
Amounts presented in the consolidated statement of financial position	33,332	25,375	58,127	80,718
	Accounts payable, accruals and other liabilities		Derivative financial instruments (liabilities)	
	At 31 Dec 2023 \$m	At 31 Dec 2022 \$m	At 31 Dec 2023 \$m	At 31 Dec 2022 \$m
Net amount of financial liabilities after offsetting as stated above:				
– CNS money obligations payable	24,137	15,527	–	–
– Other payable to ChinaClear	15	23	–	–
– Base and ferrous metals futures and options contracts cleared through LME Clear	–	–	58,097	80,705
Financial liabilities not in scope of offsetting disclosures	3,697	3,504	3	–
Amounts presented in the consolidated statement of financial position	27,849	19,054	58,100	80,705

54. Statement of Financial Position and Reserve Movements of HKEX

Accounting Policy

In HKEX's statement of financial position, investments in subsidiaries are stated at cost less impairment losses, if necessary. The results of subsidiaries are accounted for by HKEX on the basis of dividends received and receivable.

Investment in a subsidiary is tested for impairment upon receiving a dividend from that subsidiary if the dividend exceeds the total comprehensive income of the subsidiary concerned in the period the dividend is declared or if the carrying amount of the subsidiary in HKEX's statement of financial position exceeds the carrying amount of the subsidiary's net assets.

The financial statements of the controlled special purpose entity, The HKEX Employees' Share Award Scheme, are included in HKEX's financial statements.

Written put options to non-controlling interests initially recognised at fair value are accounted for as an investment in subsidiaries with a corresponding credit to financial liabilities at fair value through profit or loss. Subsequent changes in fair value of the financial liabilities are recognised in HKEX's income statement. Upon exercise of written put options by the non-controlling interests, the amount previously recognised as investments in subsidiaries are reversed with a corresponding decrease in financial liabilities at fair value through profit or loss. Written put options to non-controlling interests are included under financial liabilities at fair value through profit or loss on the statement of financial position.

54. Statement of Financial Position and Reserve Movements of HKEX (continued)

Statement of Financial Position of HKEX

	At 31 Dec 2023			At 31 Dec 2022		
	Current \$m	Non-current \$m	Total \$m	Current \$m	Non-current \$m	Total \$m
Assets						
Cash and cash equivalents	1,232	–	1,232	2,545	–	2,545
Financial assets measured at fair value through profit or loss	6,357	441	6,798	6,177	370	6,547
Financial assets measured at amortised cost	6,504	1,653	8,157	6,923	187	7,110
Derivative financial instruments	10	–	10	–	–	–
Accounts receivable, prepayments and deposits	307	19	326	337	21	358
Amounts due from subsidiaries	1,231	11,817	13,048	1,103	11,582	12,685
Interests in joint ventures	–	114	114	–	114	114
Intangible assets	–	435	435	–	429	429
Fixed assets	–	333	333	–	387	387
Right-of-use assets	–	1,370	1,370	–	1,446	1,446
Investments in subsidiaries	–	16,931	16,931	–	16,820	16,820
Total assets	15,641	33,113	48,754	17,085	31,356	48,441
Liabilities and equity						
Liabilities						
Financial liabilities at fair value through profit or loss	267	–	267	340	–	340
Derivative financial instruments	10	–	10	–	–	–
Accounts payable, accruals and other liabilities	704	–	704	614	–	614
Amounts due to subsidiaries	642	–	642	694	–	694
Taxation payable	358	–	358	356	–	356
Other financial liabilities	11	–	11	11	–	11
Lease liabilities	238	1,215	1,453	228	1,321	1,549
Provisions	52	97	149	53	63	116
Deferred tax liabilities	–	80	80	–	84	84
Total liabilities	2,282	1,392	3,674	2,296	1,468	3,764
Equity						
Share capital			31,946			31,918
Shares held for Share Award Scheme			(1,009)			(918)
Employee share-based compensation reserve			373			346
Merger reserve			694			694
Retained earnings			13,076			12,637
Equity attributable to shareholders of HKEX			45,080			44,677
Total liabilities and equity			48,754			48,441
Net current assets			13,359			14,789

Approved by the Board of Directors on 29 February 2024

Laura M CHA

Director

Nicholas C ALLEN

Director

54. Statement of Financial Position and Reserve Movements of HKEX (continued)

(a) Reserve movements of HKEX

	Employee share-based compensation reserve \$m	Merger reserve \$m	Retained earnings \$m
At 1 Jan 2022	306	694	13,861
Profit attributable to shareholders	–	–	8,421
2021 second interim dividend at \$4.18 per share	–	–	(5,290)
2022 first interim dividend at \$3.45 per share	–	–	(4,366)
Unclaimed HKEX dividends forfeited	–	–	26
Vesting of shares of Share Award Scheme	(340)	–	(15)
Employee share-based compensation benefits	380	–	–
At 31 Dec 2022	346	694	12,637
At 1 Jan 2023	346	694	12,637
Profit attributable to shareholders	–	–	10,793
2022 second interim dividend at \$3.69 per share	–	–	(4,669)
2023 first interim dividend at \$4.50 per share	–	–	(5,695)
Unclaimed HKEX dividends forfeited	–	–	23
Vesting of shares of Share Award Scheme	(372)	–	(13)
Employee share-based compensation benefits	399	–	–
At 31 Dec 2023	373	694	13,076

Shareholder Information

Financial Calendar 2024

		For Shareholders to Attend and Vote at 2024 AGM
Announce 2023 final results	29 February	Latest time to lodge transfer documents for registration with HKEX's registrar
2024 AGM	24 April	At 4:30 pm on 18 April 2024
Announce 2024 first quarter results	April	Closure of HKEX's Register of Members
Announce 2024 interim results	August	19 to 24 April 2024 (both dates inclusive)
Announce 2024 third quarter results	October	Record date
		24 April 2024

Dividend Policy

HKEX adopts a dividend policy of providing Shareholders with regular dividends. In general, HKEX will declare/propose dividends semi-annually when the Board approves the interim results and the annual results.

In determining the appropriate amount of dividend, the Group actively and regularly reviews and manages its capital structure to ensure an optimal capital structure and shareholder returns by considering:

- the expected capital requirements and capital efficiency;
- regulatory capital requirements of its regulated entities;
- prevailing and projected profitability;
- projected operating cash flows; and
- projected capital expenditures and strategic investment opportunities.

The normal target payout ratio is 90 per cent of the Group's profit attributable to Shareholders of the year, excluding the financial results of HKEX Foundation.

2023 Dividends

First interim dividend	\$4.50 per share
Second interim dividend	\$3.91 per share
Dividend payout ratio	90 per cent *

* Based on the Group's profit attributable to Shareholders for the year ended 31 December 2023, excluding the financial results of HKEX Foundation

The second interim dividend for 2023 will be payable wholly in cash in Hong Kong dollars.

Key Dates for 2023 Second Interim Dividend

Ex-dividend date	13 March 2024
Latest time to lodge transfer documents for registration with HKEX's registrar	At 4:30 pm on 14 March 2024
Closure of HKEX's Register of Members	15 to 18 March 2024 (both dates inclusive)
Record date	18 March 2024
Despatch of dividend warrants	27 March 2024

RMB Counter

HKEX launched a RMB counter for trading of HKEX shares under the HKD-RMB Dual Counter Model with effect from 19 June 2023.

As the RMB counter is offered for secondary market trading and settlement of HKEX shares only, no physical certificate deposit or withdrawal service is provided for RMB-traded Shares.

RMB-traded Shares and HKD-traded Shares are of the same class of shares in the share capital of HKEX and are interchangeable from one counter to another. They rank equally in all respects, including in relation to dividends, distributions and voting. Shareholders holding HKD-traded Shares and Shareholders holding RMB-traded Shares have identical shareholders' rights and enjoy the same treatment under all corporate actions of HKEX.

More information about trading and settlement of RMB-traded Shares and HKD-traded Shares under the HKD-RMB Dual Counter Model is available in the Our Services (Trading) section of the HKEX Market website (www.hkex.com.hk).

Share Information

HKEX shares are listed on the Stock Exchange and are eligible for Southbound Trading under Stock Connect. HKEX is currently a constituent stock of the HSI and a number of sustainability indices as disclosed on the HKEX Group website [IR](#).

[Listing](#)

As at 31 December 2023

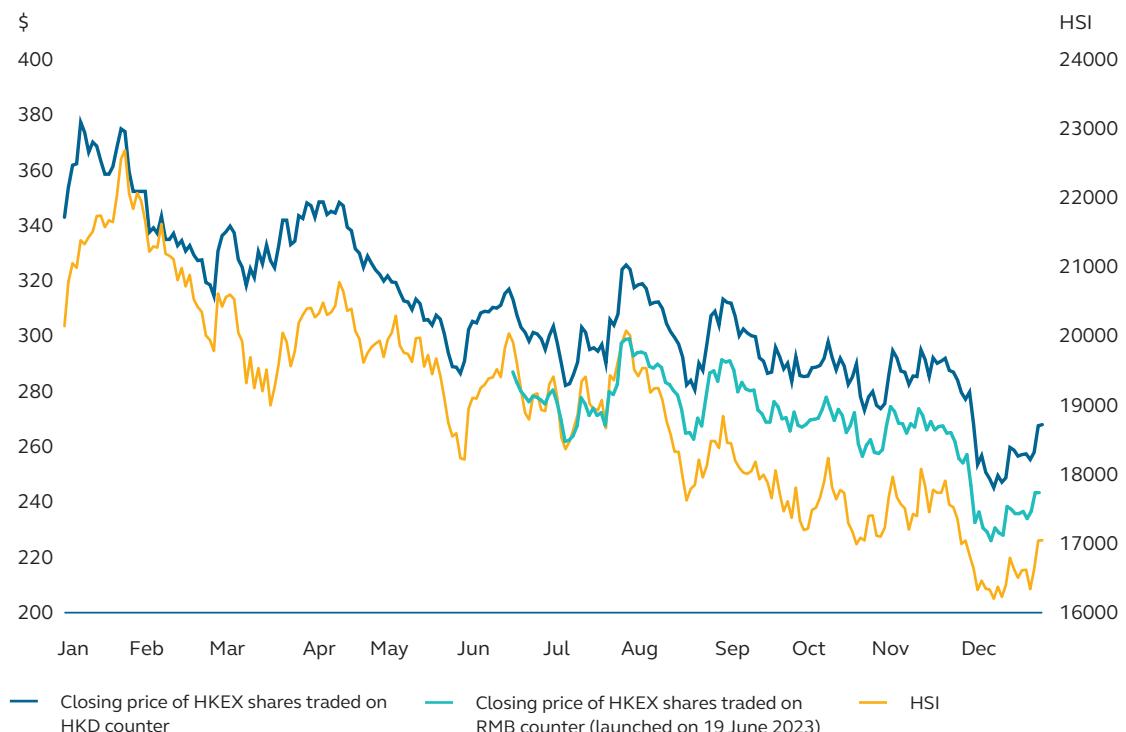
- Number of issued shares 1,267,836,895 shares
- Market capitalisation \$340 billion
- Board lot size 100 shares

	HKD Counter	RMB Counter
Stock code	388	80388
English stock		
short name	HKEX	HKEX-R
Chinese stock short name	香港交易所	香港交易所-R
Bloomberg	388 HK Equity	80388 HK Equity
Reuters	0388.HK	80388.HK
ISIN	HK0388045442	HK0000931664
SEDOL1	6267359 HK	-

[American Depository Receipt](#)

Ticker Symbol	HKXCY
CUSIP	43858F109

[HKEX Share Price Performance vs HSI in 2023](#)



Shareholding Distribution as at 31 December 2023 (based on HKEX's Register of Members)

Size of shareholding	Number of Shareholders	% of ¹ Shareholders	Number of shares held	% of HKEX shares in issue
1 – 1,000	2,437	51.7	1,004,604	0.1
1,001 – 5,000	1,396	29.6	3,435,496	0.3
5,001 – 10,000	342	7.3	2,556,097	0.2
10,001 – 100,000	426	9.0	13,230,916	1.0
100,001 and above	110	2.3	1,247,609,782	98.4
Total	4,711	100.0	1,267,836,895	100.0

¹ Percentage is for reference only, and may not add up to the total due to rounding.

Details about HKEX's major Shareholder is disclosed in the Corporate Governance Report contained in this Annual Report.

Electronic Communication

This Annual Report is printed in English and Chinese, and is available in the Investor Relations (Regulatory Disclosure) section of the HKEX Group website [IR](#).

Shareholders are encouraged to access HKEX's corporate communications electronically via the HKEX Group website to help protect the environment. Shareholders may at any time change their choice of language or means of receiving HKEX's corporate communications free of charge by giving not less than seven days' notice to HKEX's registrar. The Investor Relations (Shareholder Services) section of the HKEX Group website sets out the relevant arrangements for Shareholders to make such change request(s).

Registration for News Alerts

Shareholders who would like to be notified when HKEX publishes its corporate communications on the HKEXnews website can register for the News Alerts service in the Market Data section of the HKEX Market website (www.hkex.com.hk). Further information about Shareholder communications can be found in the Corporate Governance Report contained in this Annual Report.

HKEX's Registrar – Hong Kong Registrars Limited

For corporate communications:

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

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

For transfer of shares:

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

Tel: +852 2862 8555

Fax: +852 2865 0990/+852 2529 6087

Feedback on Annual Report

HKEX values feedback on this Annual Report as well as its reporting of the Group's financial and governance performance. Shareholders may give their comments via the online form at www.hkexgroup.com/Investor-Relations/Regulatory-Disclosure/Regulatory-Reports or email at ssd@hkex.com.hk.

Glossary

2023 AGM • AGM held on 26 April 2023 at 4:30 pm at the HKEX Connect Hall on the 1st Floor, One and Two Exchange Square, Central, Hong Kong

2024 AGM • AGM to be held on 24 April 2024

ADT • Average daily turnover value

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

AGM(s) • HKEX's annual general meeting(s)

Awarded Shares • Shares awarded under the Share Award Scheme

BayConnect • BayConnect Technology Company Limited

BBS • Bronze Bauhinia Star

Board • HKEX's board of directors

Bond Connect • A mutual bond market access programme between Hong Kong and Mainland China, under which Northbound trading enables overseas investors to invest in the China Interbank Bond Market, and Southbound trading 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

CCP • Central counterparty

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

Commodities Market • Commodities related business of HKFE, the LME Group and QME

Corporate Governance Code • Refers to Appendix C1 (formerly Appendix 14) to the Main Board Listing Rules

CP(s) • Clearing Participant(s)

CSR • Corporate Social Responsibility

CSRC • China Securities Regulatory Commission

DAML • Digital Asset Modeling Language

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

Director(s) • HKEX's director(s)

DWs • Derivative warrants

Elected Directors • Directors elected by the Shareholders at general meetings

EP(s) • Exchange Participant(s)

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

EU • European Union

Euro • The official currency of the Eurozone

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

External Portfolio • Externally-managed investment funds

FCA • Financial Conduct Authority

FIC • Fixed income and currency

Financial Secretary • Financial Secretary of the HKSAR

FINI • Fast Interface for New Issuance

Futures Exchange or HKFE • Hong Kong Futures Exchange Limited

GBM • Grand Bauhinia Medal

GBS • Gold Bauhinia Star

GEM Listing Rules • Rules Governing the Listing of Securities on GEM of The Stock Exchange of Hong Kong Limited	ISIN • International Securities Identification Number
Government • HKSAR Government	ISSB • International Sustainability Standards Board
Government Appointed Director(s) • Director(s) appointed by the Financial Secretary pursuant to Section 77 of the SFO	IT • Information Technology
Greater Bay Area • Guangdong-Hong Kong-Macao Greater Bay Area	JP • Justice of the Peace
Group or HKEX Group • HKEX and its subsidiaries	L&I Products • Leveraged and Inverse Products
Headline ADT • ADT of equity products, DWs, CBBCs and warrants traded on the Stock Exchange	LGBT+ • Lesbian, gay, bisexual and transgender plus
HKCC • HKFE Clearing Corporation Limited	Listing Committee • Listing Committee of the Main Board and GEM
HKD-traded Shares • Shares of HKEX, which are traded under the HKD counter	Listing Rule(s) • Main Board Listing Rules and GEM Listing Rules
HKEX Foundation • HKEX Foundation Limited	LME • The London Metal Exchange
HKEX or the Company • Hong Kong Exchanges and Clearing Limited	LME Clear • LME Clear Limited
HKEX Group website • www.hkexgroup.com	LME Group • HKEX Investment (UK) Limited, LMEH, LME and LME Clear
HKEX Market website • www.hkex.com.hk	LMEH • LME Holdings Limited
HKEX Websites • HKEX Group website and HKEX Market website	LMEmercury • LME Clear's clearing system which enables its Members to view their risk positions in real time
HKEX's Articles • HKEX's Articles of Association	London Metal Mini Futures • London Aluminium/Zinc/Copper/Nickel/Tin/Lead Mini Futures
HKFRS(s) • Hong Kong Financial Reporting Standard(s)	LSEG • London Stock Exchange Group plc
HKICPA • Hong Kong Institute of Certified Public Accountants	Main Board Listing Rules • Rules Governing the Listing of Securities on The Stock Exchange of Hong Kong Limited
HKIDR • Hong Kong Investor Identification Regime	MH • Medal of Honour
HKSAR or Hong Kong SAR • Hong Kong Special Administrative Region of the People's Republic of China	MiFID II • Markets in Financial Instruments Directive II
HKSCC • Hong Kong Securities Clearing Company Limited	MiFIR • Markets in Financial Instruments Regulation
HSCEI • Hang Seng China Enterprises Index	Model Code • Model Code for Securities Transactions by Directors of Listed Issuers, Appendix C3 to the Main Board Listing Rules
HSI • Hang Seng Index	MOU(s) • Memorandum or Memoranda of Understanding
INED(s) • Independent Non-executive Director(s) of HKEX	MSCI • MSCI Inc.
IPO(s) • Initial Public Offering(s)	Northbound Trading or Stock Connect
Iron Ore Futures • TSI Iron Ore Fines 62 per cent Fe CFR China Futures	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

OECD • The Organisation for Economic Co-operation and Development

OTC • Over-the-counter

OTC Clear • OTC Clearing Hong Kong Limited

PFMI • “Principles for financial market infrastructures” published by the Committee on Payment and Settlement Systems (now known as the Committee on Payments and Market Infrastructures) and the International Organization of Securities Commissions

PRC • The People’s Republic of China

QME • Qianhai Mercantile Exchange Co., Ltd.

RMB • Renminbi

RMB-traded Shares • Shares of HKEX, which are traded under the RMB counter

Senior Management • Chief Executive Officer and other members of senior management of HKEX as set out in the Board of Directors and Senior Management section of this Annual Report

SEOCH • 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 and the HKEX Employees’ Share Award 2023 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

STAGE • HKEX’s Sustainable and Green Exchange

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

Swap Connect • A mutual market access programme that provides Hong Kong and international investors access to the onshore interest rate swap market through a Northbound channel launched in May 2023

UK • United Kingdom

US • United States of America

US\$/USD • United States dollar

\$/HK\$/HKD • Hong Kong dollar

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

\$m • Hong Kong dollar in million

£/GBP • Pound sterling

1H, 2H • First half, second half (of the year)

Q1, Q2, Q3, Q4 • First quarter, second quarter, third quarter, fourth quarter (of the year)



**Hong Kong Exchanges and
Clearing Limited**

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