0388 HK gideon lens

■# Hong Kong Exchanges and Clearing Limited (0388.HK) - ER2 Gideon Lens

Verdict

Final ER2 verdict: PASS.

HKEX is a high-quality market-infrastructure franchise, but the stock does not clear ER2 Production Mode at HK$367.60. The company has real exchange, clearing, Stock Connect, market-data, and LME advantages. It also has excellent profitability and cash generation. That is not enough. The base FY+5 EPS build reaches HK$18.11, while the stock needs HK$24.51 of FY+5 EPS to trade at 15x. Even the bull case reaches only HK$22.18. The valuation gate fails.

The qualitative gates also do not clear cleanly. Management is Yellow. Moat is Yellow. The 2046 durability test is Yellow. Those are not fatal to a watchlist view, but they block a BUY when the valuation gate also fails.

Stage 7 Scorecard

Gate	Result	Evidence
Quant foundation	Pass	QFR cleared the foundation with 8/8 reconciliation checks passed.
Data package	Pass	DR cleared the data package and corrected Stock Connect FY2025 revenue and other income to HK$4,317m.
Management	Yellow	Good execution record, but CEO/CFO evidence is still short-cycle and government influence is structural.
Moat	Yellow	Real franchise advantages, but long-term Hong Kong/China capital-market relevance is not fully company-controlled.
2046 durability	Yellow	Durable, but not a clean long-duration compounding pass.
P/E <= 15 on FY+5 EPS	Fail	Base EPS x 15 equals HK$271.70 versus HK$367.60 price.
Compounder score	68/100 audited	High quality, but unquantified ROIIC and valuation cap the score.
Final ER2 verdict	PASS	BUY and WATCH are not available under the gate structure.

Business Quality

HKEX is a structurally attractive business. It sits at the center of Hong Kong listing, trading, clearing, settlement, derivatives, market data, connectivity, and commodities infrastructure. The economics show up in the numbers: TTM revenue and other income of HK$30.507b, TTM EBITDA of HK$24.134b, and TTM shareholder profit of HK$18.865b. The business converts revenue to profit at a level most companies cannot approach.

The Cash segment is the core of the equity story. It captures trading, clearing, depository, and Stock Connect economics and remains the largest profit pool. Equity and Financial Derivatives adds product breadth. Commodities gives HKEX a global metals venue through LME. Data and Connectivity is a smaller but high-quality recurring infrastructure stream. Corporate Items is modeled separately and is not treated as a moat-bearing growth engine.

The issue is not whether HKEX is a good business. It is whether the business is good enough, durable enough, and cheap enough today. The answer is no.

Management and Governance

The management appendix returns Yellow. That is the right grade. Execution evidence is credible: HKEX has continued to invest in connectivity, product expansion, market modernization, LME resilience, and data infrastructure. The management team is not being penalized for an obvious operating failure.

The cap is governance and evidence duration. HKEX has a structural public-policy dimension. The HKSAR Government stake and Financial Secretary-appointed directors are not automatically bad for long-term value, but they mean minority shareholders do not own a purely private capital-allocation machine. The CEO/CFO cycle is also not long enough to award a full Pass on stewardship.

Moat and 2046 Durability

The moat is real but not unconditional. HKEX benefits from liquidity concentration, regulated exchange status, clearing infrastructure, listing ecosystem, Stock Connect relevance, market-data entitlements, and LME network value. These are hard assets in an economic sense even where they are not tangible assets on the balance sheet.

The 2046 test stays Yellow because the largest profit pool depends on Hong Kong's role as a trusted China-facing capital-market gateway. If that role compounds, HKEX can remain a remarkable franchise. If it stagnates, HKEX can still be profitable but disappoint investors paying for stronger growth.

Valuation

The valuation is the decisive problem.

Case	FY+5 revenue and other income	FY+5 shareholder profit	FY+5 EPS	EPS x 15	Cushion vs HK$367.60
Bear	HK$29,218m	HK$16,459m	HK$13.03	HK$195.47	-46.8%
Base	HK$37,448m	HK$22,877m	HK$18.11	HK$271.70	-26.1%
Bull	HK$43,820m	HK$28,017m	HK$22.18	HK$332.74	-9.5%
Probability-weighted	HK$36,046m	HK$22,299m	HK$17.66	HK$264.85	-28.0%

At HK$367.60, HKEX needs HK$24.51 of FY+5 EPS to clear the ER2 P/E <= 15 test. The base case misses by about 26%. The bull case still misses by about 10%. That is not a close BUY debate.

Red Team View

The red team does not break the accounting or prove the business is poor. It attacks the assumption that Hong Kong market activity, Stock Connect, IPOs, data, and commodities can compound enough to justify a premium entry price. The strongest bear case is that HKEX remains a profitable toll road, but the route's traffic growth is less certain than the market price implies.

The monitorable signal is Cash segment and Stock Connect performance. If trailing-four-quarter Cash segment revenue falls below HK$15.0b and FY2026 Stock Connect revenue and other income falls below the corrected FY2025 figure of HK$4.317b, the recovery thesis should be rewritten around structural stagnation rather than cyclical recovery.

What Would Change The Verdict

HKEX could move from PASS to WATCH if the price falls enough that the base FY+5 EPS case is within range of the 15x test, or if official evidence lifts the base EPS path materially above the current HK$18.11 estimate. A BUY would require more: a clean valuation pass, a stronger management evidence base, and a clearer 2046 durability answer.

The approximate base-case 15x value is HK$272 per share. This is not a price target; it is the ER2 discipline applied to the current base model. The stock would need either a substantially lower price or a substantially higher base EPS bridge.

Final Decision

Do not buy 0388.HK at the current price under ER2. Keep it as a high-quality market-infrastructure watchlist candidate, but require a lower entry price or better evidence that Cash, Stock Connect, derivatives, commodities, and data can compound well above the current base case.

Appendix A - Company Primer

Hong Kong Exchanges and Clearing Limited (0388.HK) - Company Primer

Run date: 2026-07-02 Asia/Singapore Currency: HKD unless stated otherwise Latest official period: Q1 2026 ended 2026-03-31 Primary quantitative source: `quant_foundation.md` Data package status when this primer was written: `data_package.md` was still the in-progress placeholder and had not yet been DR-cleared. Qualitative context therefore comes from the local official HKEX annual and Q1 source files referenced in the quant foundation, not from a completed data package.

1. Business Overview

Hong Kong Exchanges and Clearing Limited, usually called HKEX, is the market infrastructure company behind Hong Kong's securities and derivatives market, the London Metal Exchange franchise, related clearing houses, market data distribution, connectivity services, and a set of mainland China access channels such as Stock Connect, Bond Connect and Swap Connect. It is not a conventional financial-services company that originates credit, underwrites insurance risk, or manages third-party capital. Its core job is to run trusted venues and clearing infrastructure where issuers raise capital, brokers and investors trade, clearing members settle trades, listed companies maintain listings, data users consume market feeds, and commodity-market participants hedge or discover prices.

That distinction matters for the business model. HKEX earns toll-like fees when activity passes through its venues, but it also carries a regulatory and systemic role. The group owns and operates The Stock Exchange of Hong Kong, Hong Kong Futures Exchange, Hong Kong Securities Clearing Company, OTC Clear, LME and LME Clear, among other infrastructure. Customers are a mix of issuers, exchange participants, brokers, investment banks, asset managers, proprietary trading firms, clearing members, market data vendors, terminal providers, listed-company advisers, and commodity producers, consumers and merchants. They do not buy HKEX services through a self-serve software motion. They join markets, connect to infrastructure, clear through prescribed arrangements, consume data under licenses, and pay fees according to rule books and published tariffs.

HKEX sits at a strategic intersection between mainland China capital formation, international investor access, Hong Kong's role as an offshore funding and trading centre, and global base-metals risk management through LME. The company describes itself as a "superconnector," but for analytical purposes the simpler description is this: HKEX owns scarce financial plumbing. Its economics are strongest when primary issuance is active, equity turnover is high, derivatives and commodities volumes are high, and client collateral or corporate funds can earn attractive investment income. Its weakness is that a meaningful part of revenue is cyclical, because trading activity, IPO appetite, volatility, commodity hedging needs and interest rates can all move sharply.

The latest official period was strong. Q1 2026 revenue and other income was HK$8,203 million, up 20% versus Q1 2025, while profit attributable to shareholders was HK$5,188 million and basic EPS was HK$4.10. The TTM period ending 2026-03-31, constructed in the quant foundation as FY2025 less Q1 2025 plus Q1 2026, produced revenue and other income of HK$30,507 million, EBITDA of HK$24,134 million, operating profit of HK$22,543 million and shareholder profit of HK$18,865 million. That TTM base is the right analytical starting point for the ER2 run.

2. Revenue Architecture

HKEX reports five economic buckets in the current taxonomy: Cash; Equity and Financial Derivatives; Commodities; Data and Connectivity; and Corporate Items. Corporate Items is not a business segment in the same sense as the other four. It holds central income, including Corporate Funds net investment income and HKEX Foundation donation income, and central support costs.

On FY2025 official revenue and other income of HK$29,161 million, the mix was:

Segment	FY2025 revenue and other income	Share of group
Cash	14,704	50.4%
Equity and Financial Derivatives	6,863	23.5%
Commodities	3,171	10.9%

Segment	FY2025 revenue and other income	Share of group
Data and Connectivity	2,270	7.8%
Corporate Items	2,153	7.4%
Group	29,161	100.0%

On the TTM period ended 2026-03-31, the mix was similar but slightly more weighted to Cash and Commodities:

Segment	TTM revenue and other income	Share of group
Cash	15,566	51.0%
Equity and Financial Derivatives	7,022	23.0%
Commodities	3,464	11.4%
Data and Connectivity	2,323	7.6%
Corporate Items	2,132	7.0%
Group	30,507	100.0%

Cash

The Cash segment covers equity products traded on the Stock Exchange cash-market platforms and Stock Connect, together with associated clearing, settlement and custody activities. The customer base is broad: listed companies and listing applicants, exchange participants, brokers, custodians, local and international investors, and mainland access participants using Stock Connect. The revenue stack includes trading fees, clearing and settlement fees, listing fees, depository, custody and nominee service fees, and net investment income related to margin funds and clearing-house funds. In plain language, Cash is where HKEX monetizes Hong Kong equity market activity and equity-market infrastructure.

Cash is the largest segment by far. FY2025 revenue and other income was HK$14,704 million, and TTM revenue and other income rose to HK$15,566 million. FY2025 EBITDA was HK$13,398 million, a 91.1% EBITDA margin on segment revenue and other income; TTM EBITDA was HK$14,238 million. The segment is highly operationally geared because the incremental cost of additional traded value or additional Connect activity is low after the exchange, clearing and depository infrastructure already exists. The important caveat is that the revenue base is exposed to market turnover. Q1 2026 showed the upside of that exposure: ADT of equity products traded on the Stock Exchange was HK$255.3 billion, up 13% year over year; headline ADT was HK$276.7 billion, up 14%; Northbound Stock Connect ADT was RMB324.1 billion, up 70%; and Southbound Stock Connect ADT was HK$122.5 billion, up 11%.

Equity and Financial Derivatives

The Equity and Financial Derivatives segment houses derivatives products traded on the Stock Exchange and Futures Exchange, including stock options, futures and other financial derivatives, plus OTC derivatives contracts and related trading and clearing platforms. The segment also captures revenue streams linked to derivative warrants, callable bull/bear contracts, listed structured products and the clearing infrastructure behind derivatives. Revenue comes from trading fees and tariffs, clearing and settlement fees, listing fees for relevant derivative products, depository, custody and nominee services where applicable, and net investment income from margin and clearing-house funds.

FY2025 revenue and other income was HK$6,863 million, and TTM revenue and other income was HK$7,022 million. FY2025 EBITDA was HK$5,597 million, an 81.6% margin on revenue and other income; TTM EBITDA was HK$5,742 million. The economics resemble Cash in that incremental transactions are high-margin, but the segment has different activity drivers. It is more sensitive to volatility, hedging demand, structured-product issuance, the attractiveness of listed options and futures contracts, and the amount of margin collateral earning investment income. Q1 2026 derivatives activity was mixed: Futures Exchange derivatives ADV was 885,000 contracts, down 2% year over year, and stock options ADV was 944,000 contracts, down 2%. Yet segment revenue and other income in Q1 2026 was HK$1,877 million, showing that mix, fees, clearing economics and investment income can matter as much as headline contract counts.

Commodities

The Commodities segment is built around LME and LME Clear, plus Qianhai Mercantile Exchange and commodities contracts traded on Hong Kong Futures Exchange. LME is a global base-metals venue where industrial users, merchants, banks, brokers and financial participants trade and clear contracts linked to metals price discovery and hedging. Revenue sources include trading fees, clearing and settlement fees, commodity market data fees, net investment income on margin and

clearing-house funds, and ancillary fees. This segment gives HKEX a global commodities franchise that is economically different from Hong Kong cash equities.

FY2025 revenue and other income was HK$3,171 million, while TTM revenue and other income was HK$3,464 million. FY2025 EBITDA was HK$1,822 million, a 57.5% EBITDA margin; TTM EBITDA was HK$2,204 million. The margin is lower than Cash and Data and Connectivity because LME and clearing infrastructure carry a different operating-cost and regulatory profile, but it is still a strong infrastructure margin. Q1 2026 was notably strong: LME chargeable ADV was 877,000 lots, up 26% year over year, and Q1 segment revenue and other income was HK$1,039 million. The segment is sensitive to commodity volatility, industrial hedging demand, exchange share of trading versus OTC alternatives, fee schedules, clearing fund income and regulatory confidence in LME market structure.

Data and Connectivity

Data and Connectivity covers sales of market data relating to Hong Kong cash and derivatives markets, connectivity access, network, terminal and data-line services, software sub-licenses, hosting services, and services provided by BayConnect. The customer base includes brokers, market makers, banks, asset managers, data vendors, terminals, trading-technology providers and exchange participants that need reliable, low-latency or licensed access to HKEX infrastructure and data. This is the least volume-pure revenue stream. It still benefits from market relevance and trading ecosystem growth, but much of the revenue behaves more like subscription, license, connection and hosting income.

FY2025 revenue and other income was HK$2,270 million, and TTM revenue and other income was HK$2,323 million. FY2025 EBITDA was HK$1,834 million, an 80.8% margin; TTM EBITDA was HK$1,880 million. The segment matters more than its size suggests because it is more recurring and less directly tied to day-to-day turnover than trading fees. It also provides an asset-light way to monetize HKEX's control of market data and participant access. Its risk is that pricing and data policy are politically and commercially sensitive because exchanges are both commercial companies and market utilities.

Corporate Items

Corporate Items is mainly central income and central costs. In FY2025 it reported HK$2,153 million of revenue and other income, including HK$1,870 million of net investment income; TTM revenue and other income was HK$2,132 million. It does not represent an exchange product sold to customers. It is important because group earnings can move with the yield on Corporate Funds, but it should not be confused with durable product revenue. Q1 2026 Corporate Funds net investment income was HK$441 million, down 15% versus Q1 2025 due to lower net fair-value gains, even as group trading and clearing activity was strong.

3. Unit Economics

HKEX's unit economics start from a mostly fixed infrastructure base. The company must operate trading venues, clearing houses, depository systems, surveillance, compliance, technology infrastructure, data feeds, connectivity, cyber resilience, listing infrastructure and regulatory interfaces regardless of whether a given quarter is active or quiet. Once those systems and teams are in place, incremental trading value, contracts, clearing activity and data subscriptions generally carry high contribution margins.

That explains why the FY2025 group reported HK$29,161 million of revenue and other income, HK$28,864 million of revenue and other income less transaction expenses, HK$22,796 million of EBITDA and HK$21,158 million of profit before tax. Transaction-related expenses were only HK$297 million at the group level. Operating expenses were meaningful in absolute terms, but the operating leverage is large: the TTM EBITDA margin on revenue and other income was 79.1%, and the TTM operating-profit margin was 73.9%. Those are market-infrastructure economics, not conventional financial-company economics.

The segment unit economics differ by revenue stream:

Segment	TTM revenue and other income	TTM EBITDA	TTM EBITDA margin
Cash	15,566	14,238	91.5%
Equity and Financial Derivatives	7,022	5,742	81.8%
Commodities	3,464	2,204	63.6%
Data and Connectivity	2,323	1,880	80.9%
Corporate Items	2,132	70	3.3%
Group	30,507	24,134	79.1%

Cash has the cleanest operating leverage. Trading and clearing fee rates are small relative to notional market activity, but the notional base is large. Listing fees, depository fees, custody and nominee fees add recurring and semi-recurring layers. If ADT rises, revenue can scale quickly without proportionate cost growth. If ADT falls, the same leverage works in reverse.

Equity and Financial Derivatives has high margins but depends on contract mix, product demand and margin-fund income. More futures and options activity can drive trading and clearing fees; higher or lower rates change the income earned on margin and clearing funds. The customer problem is risk transfer and leveraged exposure, not capital raising.

Commodities has lower but still attractive margins. LME is a global industrial risk-management franchise with more complex regulatory, clearing and physical-market requirements. Its revenue is tied to chargeable volume, data, clearing, ancillary services and investment income on collateral. The LME also has market-structure and conduct sensitivity because confidence in contract design, settlement, warehousing and orderly markets is central to customer trust.

Data and Connectivity is infrastructure monetization. The product is not a trade; it is access to prices, feeds, lines, terminals, software rights, hosting and related services. Incremental users or licenses are high margin, but the business must keep investing in reliability, latency, availability and cyber resilience.

Corporate Items is mostly a rate and asset-base item, not a customer unit-economic engine. The right question is how much Corporate Funds income is sustainable through a rate cycle and how much of current group earnings should be treated as operating franchise earnings versus financial income.

4. The 2023 Segment Taxonomy Change

HKEX changed its reportable segment presentation in 2023. Before that change, the group reported Cash, Equity and Financial Derivatives, Commodities, Post Trade and Technology, with Corporate Items outside the reportable business segments. In 2023, management reorganized operating segments to better reflect asset-class economics. Post Trade revenue and expenses were reallocated to Cash, Equity and Financial Derivatives, and Commodities. Data-related revenue was reallocated out of Cash and Equity and Financial Derivatives and grouped with non-cyclical businesses formerly in Technology under the new Data and Connectivity segment.

This is not cosmetic. It changes how historical revenue should be interpreted. A pre-2023 "Cash" figure under the old taxonomy did not include the same mix of clearing, settlement and data economics as the post-2023 current taxonomy. The quant foundation therefore uses official current-taxonomy FY2022 to FY2025 tables, and it preserves FY2021 as originally reported because no official current-taxonomy FY2021 restatement was found in the pulled reports.

The taxonomy change is also why FMP segment and product endpoints are not controlling for this issuer. The FMP product segmentation and geographic segmentation endpoints were pulled and logged, but returned empty arrays. FMP also labels certain consolidated items inconsistently: for FY2025, FMP "revenue" maps to HKEX revenue and other income of HK$29,161 million, while official pure revenue was HK$23,745 million. For Q1 2026, FMP matched revenue and other income if relabeled, but operating profit still differed by HK$71 million. Because HKEX is a Hong Kong-listed foreign/local-exchange issuer with detailed official segment tables, the official annual and quarterly announcements control. Any model that tries to use empty FMP product endpoints, stale taxonomy labels, or generic geographic fields will miss the asset-class allocation that actually governs economics.

5. Activity Drivers and Sensitivities

HKEX has four primary operating sensitivities.

First, cash equity ADT drives a large share of trading, clearing and settlement revenue. Higher Hong Kong equity turnover, stronger Southbound and Northbound Stock Connect activity, active ETP trading and better primary-market sentiment all help the Cash segment. Q1 2026 was a favorable example: headline ADT rose 14% year over year, and Northbound Stock Connect ADT rose 70%. A weak market, lower investor participation or poor IPO sentiment would create the opposite effect.

Second, derivatives and commodities volumes drive fee revenue in Equity and Financial Derivatives and Commodities. Futures, options, structured products and LME contracts are not one homogeneous volume bucket. Mix matters because fee rates, clearing economics and ancillary revenues differ by product. LME chargeable ADV rose 26% year over year in Q1 2026, supporting a sharp commodities segment step-up. By contrast, Futures Exchange derivatives ADV and stock options ADV were both down 2%, showing that one activity family can soften while another accelerates.

Third, interest rates affect net investment income. HKEX earns investment income on Corporate Funds and on margin or clearing-house funds linked to clearing activity. When interest rates are higher, float-like balances can contribute more to revenue and other income. When rates fall or fair-value gains are lower, that support can fade. This sensitivity is economically real but should be separated from fee-driven exchange economics. Corporate Items contributed HK$2,153 million of FY2025 revenue and other income but only HK$145 million of EBITDA and a HK$255 million PBT loss after central costs. For valuation work, the analyst should avoid capitalizing rate-driven central income at the same quality as high-margin exchange fees without adjustment.

Fourth, listing and capital-formation activity matters for fees and ecosystem relevance. A more active IPO market can lift listing fees directly, but it also helps market depth, investor attention, data relevance and future trading activity. HKEX reported robust Q1 2026 primary-market momentum, but the primer should not extrapolate one quarter into a cycle. Listing strength is one of the most cyclical parts of an exchange ecosystem.

6. Competitive Position and Customer Lock-In

HKEX's position is hard to replicate because exchange and clearing infrastructure benefits from liquidity concentration, regulatory embeddedness, participant connectivity, clearing membership, issuer network effects and market data entitlements. A company can build a trading platform, but it cannot easily create a trusted national listing venue, clearing house, central securities depository, cross-border Connect scheme and global metals franchise at scale. Customers are locked in by workflow, rules, memberships, licenses, collateral arrangements, connectivity and the need to trade where liquidity already exists.

The lock-in is not absolute. Trading can migrate if spreads, liquidity, regulation, fees or product design become unattractive. IPOs can list elsewhere. Commodities customers can use OTC markets or competing venues. Data customers can push back on pricing. Mainland access channels depend on policy support and bilateral market structure. The business is therefore not a pure monopoly in every product, but it has substantial venue-level and clearing-level advantages.

The China connector role is central. Stock Connect, Bond Connect and Swap Connect give HKEX exposure to cross-border flows that are difficult for a stand-alone exchange to duplicate. The benefit is strategic relevance and incremental activity; the risk is policy dependence. The right analytical posture is to treat Connect as an advantaged franchise with state-policy exposure, not as a normal commercial product line.

The LME franchise adds global diversification but also introduces a different risk set. LME is globally relevant in base metals, which gives HKEX exposure beyond Hong Kong securities markets. However, commodities exchanges rely heavily on market confidence, margining, warehousing rules, contract integrity and regulatory credibility. LME initiatives in 2026, including permanent Front Month Lending Rules, auto-expiry for options from September 2026 and enhancements such as LME Insight and LMEoptic, are best read as part of ongoing market-structure maintenance rather than simple growth products.

7. What to Watch in the Next Appendices

For the rest of the ER2 work, the central modeling questions are straightforward.

First, decide how much of the current TTM base is normal. TTM shareholder profit was HK$18,865 million and approximate TTM EPS was HK$14.92. Q1 2026 was a record quarter with strong Cash and Commodities activity. If the synthesis assumes that Q1 conditions persist, it needs to justify that with activity, product and rate assumptions rather than treating the TTM run-rate as automatically durable.

Second, separate fee-driven growth from investment-income cyclicality. Cash, derivatives, commodities and data fees have different durability than Corporate Funds gains or margin-fund yields. A lower-rate environment could reduce net investment income even if trading activity remains healthy.

Third, model the 2023 taxonomy carefully. Current segments include reallocated post-trade economics, so the official current-taxonomy FY2022 to FY2025 history is the controlling comparison set. FY2021 is not apples-to-apples. FMP segment endpoints are not useful for HKEX here and should not override the official reports.

Fourth, test whether the LME recovery and commodities growth are sustainable. Commodities TTM EBITDA of HK$2,204 million was materially above FY2025 EBITDA of HK$1,822 million because Q1 2026 was strong. The segment can diversify HKEX away from Hong Kong equities, but it also carries conduct, regulatory and market-structure risks that Cash and Data do not share.

Fifth, treat Data and Connectivity as a smaller but high-quality stabilizer. TTM revenue and other income was only HK$2,323 million, but EBITDA margin was about 81%. It is not big enough to dominate the thesis, but it can improve group mix if HKEX can keep expanding data, access and infrastructure services without triggering regulatory or customer pushback.

No investment verdict is included in this primer. The primer's role is to orient the reader before the segment appendices, management assessment, moat work, synthesis and red-team review.

Source Notes

Financial figures in this primer come from `quant_foundation.md`, which reconciles HKEX official annual and quarterly sources with FMP pulls and documents the foreign-issuer official-source override. The local official sources used for qualitative context are:

Source	Local file / URL from quant foundation	Use in primer
HKEX Q1 2026 results announcement	`raw\official_hkex_q1_2026_results_announcement.pdf`; https://www.hkex.com.hk/-/media/HKEX-Market/News/News-Release/2026/260429news/260429news_e.pdf	Latest quarter, activity KPIs, segment snapshot, Q1 commentary
HKEX 2025 annual report	`raw\official_hkex_2025_annual_report.pdf`; https://www.hkexgroup.com/-/media/HKEX-Group-Site/ssd/Investor-Relations/Regulatory-Reports/documents/2026/260316ar_e.pdf	FY2025 consolidated and segment data, business descriptions
HKEX 2023 annual report	`raw\official_hkex_2023_annual_report.txt`	Segment taxonomy change and restated presentation
HKEX Q1 2025 results announcement	`raw\official_hkex_q1_2025_results_announcement.pdf`; URL in quant foundation	TTM subtraction quarter

Appendix M - Management Assessment

Hong Kong Exchanges and Clearing Limited (0388.HK) - Management Assessment

Run date: 2026-07-02 Currency: HKD unless noted. Financial figures are HKD millions unless noted. Primary local inputs: `data_package.md` and `quant_foundation.md`, both in `C:\Users\Admin\OneDrive\GPT\ER 2.0\Hong Kong Exchanges and Clearing\`. Official source set: HKEX 2025 annual report, HKEX Q1 2026 results announcement, HKEX current Board and Management pages, HKEX 2026 AGM board appointment release, HKEX CFO appointment release, and HKEX senior appointments release.

1. Who is running the company

HKEX is now led by Bonnie Y Chan, Chief Executive Officer since 1 March 2024 and an ex-officio executive director of the board. She is not an outsider parachuted into a simple operating company. Her pre-CEO HKEX roles included Co-Chief Operating Officer from February 2023 to February 2024, Head of Listing from January 2020 to January 2023, and earlier Head of IPO Transactions during 2007-2010. Before returning to HKEX she was a Davis Polk partner and previously worked in Morgan Stanley Hong Kong legal and compliance. That background matters because the CEO seat at HKEX is part commercial operator, part market-structure steward, and part regulator-facing public infrastructure role. She has enough HKEX tenure to understand listing reform, Stock Connect, issuer supervision and market-structure politics, but only about two years in the CEO seat and only one full reported fiscal year that she can fairly own.

The CFO seat changed recently. Herbert Hui joined as Group Chief Financial Officer in June 2025, succeeding Vanessa Lau, who remains Chief Operating Officer. Hui's official background is financial-infrastructure relevant: finance director of MTR Corporation from 2016 to 2023, prior MTR corporate finance, CFO of K Wah International, senior HSBC investment-banking roles and earlier Morgan Stanley experience. He reports to Chan and sits on the Management Committee. The CFO transition is orderly rather than alarming, but Hui has not yet had a full cycle to demonstrate capital allocation, investor-disclosure discipline and funding judgment inside HKEX.

The operating bench is deep and mostly domain-specific. Vanessa Lau is COO since 1 January 2025 after serving as Group CFO from February 2020 to June 2025 and as CFO Hong Kong / Deputy CFO before that. Matt Chamberlain is Chief Executive of the London Metal Exchange and a Management Committee member. John Hsu is Group Chief Technology Officer, Richard Leung is Group Chief Information Officer, Graeme Farrell is Group Chief Risk Officer, Katherine Ng leads Listing, and Gregory Yu is Head of Markets after joining in March 2025 from JPMorgan. HKEX also added Kevin Rumjahn in January 2025 for strategic projects across corporate and operations initiatives, and announced additional commodities leadership in May 2026. This is the right staffing pattern for the stated strategy: markets, listing, risk, technology and commodities all have named senior owners.

The board is chaired by Carlson Tong, an independent non-executive director and former SFC chairman, KPMG China/Hong Kong chairman and SEHK chairman. As of the current HKEX Board page updated 29 April 2026, the board comprises the chairman, CEO Bonnie Chan, and 12 independent non-executive directors. Current directors include Nicholas Allen, Peter Brien, Clement Chan, Chan Kin Por, Anna Cheung, Herbert Chia, Ding Chen, Miranda Kwok, Gordon Orr, Joseph Yam and Zhang Yichen. The 2026 AGM release confirms the government's re-appointment of Chan Kin Por and Herbert Chia, appointment of Clement Chan, shareholder election of Miranda Kwok and Gordon Orr, and retirement of Cheah Cheng Hye, Susan Chow and Hugo Leung. This is real refreshment, not a stale board extending itself indefinitely.

2. Tenure and track record

Chan's tenure is mixed for a Gideon management gate. She is not untested in HKEX, but she is still early as CEO. Her most visible in-seat decisions are: first, pushing market-structure and listing competitiveness reforms after Hong Kong's weak 2022-2023 market backdrop; second, expanding China connectivity and product breadth; and third, continuing LME remediation and modernization after the 2022 nickel crisis. The numbers since she took the CEO role are encouraging but partly cyclical. FY2025 revenue and other income rose to 29,161 from 22,374 in FY2024, EBITDA rose to 22,796 from 16,281, and profit attributable to shareholders reached 17,754. Q1 2026 continued the momentum with revenue and other income of 8,203, up 20% year over year, EBITDA of 6,592, up 25%, and shareholder profit of 5,188, up 27%.

The strongest evidence of execution is not a single earnings year. It is that the operating KPI improvements line up with the stated agenda. FY2025 equity products ADT reached 231.5 billion and Q1 2026 equity products ADT was 255.3 billion. Northbound Stock Connect ADT reached RMB212.4 billion in FY2025 and RMB324.1 billion in Q1 2026, a record quarterly level. Southbound Stock Connect ADT reached 121.1 billion in FY2025 and 122.5 billion in Q1 2026. HKEX disclosed Q1 2026 Stock Connect revenue of 1,355, up 44% year over year and equal to 17% of group revenue and other income. Management's "superconnector" language is backed by actual volume and revenue contribution, not just branding.

The LME track record is more complicated. The 2022 nickel event was a serious market-governance failure and the single largest stain on HKEX group stewardship in the recent period. It predates Chan's CEO tenure but remains inside the group culture and risk-control assessment. The 2025 annual report says the UK Supreme Court refused Elliott's appeal, related Human Rights Act claims were withdrawn, and the LME reached an FCA settlement in March 2025. Management also says the FCA's final notice recognised OTC positions as the principal driver of the extraordinary price rises and that LME lacked visibility of those OTC positions. That is not a full absolution. For a clearing and exchange operator, not seeing the load-bearing risk channel is precisely the governance problem. The positive evidence is that LME has since pushed daily off-warrant stock reports, Trade-at-Settlement contracts, block-trade threshold changes, automated crossing, options-market modernization, and position-limit regime implementation. Chargeable LME ADV was 717,000 lots in FY2025 and 877,000 lots in Q1 2026, a record quarterly high. The business is recovering, but the management gate cannot ignore the episode.

3. Capital allocation behavior

HKEX's capital allocation is conservative and shareholder-visible. The business converts earnings into cash, carries minimal ordinary debt, and returns most profit through dividends. The data package records FY2025 net cash inflow from operating activities of 25,627, purchases of fixed assets and intangibles of 1,733, and dividends paid to HKEX shareholders of 13,722. FY2024 comparable figures were operating cash flow of 12,774, capex of 1,604 and dividends paid of 10,416. The formal dividend policy is high payout: FY2025 first interim DPS was 6.00 and second interim DPS was 6.52, producing a 90% payout ratio excluding HKEX Foundation results.

That allocation pattern fits the economics. HKEX is not an industrial acquirer with large reinvestment opportunities at the parent level; it is a regulated exchange/clearing/data platform where the main internal reinvestment needs are resilient technology, clearing systems, market-data infrastructure and product innovation. Q1 2026 capex was 352 and capex commitments were 5,500, including the balance payment for headquarters premises and development/upgrades of trading and clearing systems, notably Orion Derivatives Platform and Cash Market clearing systems. This is not empire-building capex. It is required infrastructure spending for a systemically important operator.

M&A is modest. FY2025 cash flow shows a 455 payment for acquisition of an associate interest, and the data package notes the strategic 20% CMU OmniClear stake as part of the fixed-income/post-trade connectivity agenda. BayConnect goodwill saw a small 55 impairment, which is a blemish but not a capital-allocation thesis breaker. HKEX does not lean on buybacks; share purchases relate mainly to the Share Award Scheme, with 512 spent in FY2025 and 481 in FY2024. For shareholders who want opportunistic repurchases, this is not a buyback allocator. For investors underwriting regulated infrastructure with high payout and resilient market systems, the allocation is coherent.

4. Compensation alignment

Compensation is acceptable but not ideal for a long-duration compounder. The annual report describes a pay-for-performance framework with base salary plus incentive compensation. The corporate scorecard includes financial performance, strategic priorities, execution excellence, people development, and risk/control/compliance/regulation. It explicitly includes public-interest obligations, operational stability, business continuity, risk, controls and conduct. That is appropriate for an exchange group. A pure TSR/revenue framework would be dangerous here because HKEX also has front-line regulatory and systemic-risk responsibilities.

The disclosed CEO compensation is large but transparent. For 2025 Bonnie Chan received salary of 10.3 million, performance cash incentive of 11.694 million, total cash-based remuneration of 23.360 million, reference awarded sum of 27.286 million and total remuneration of 50.646 million. Performance cash incentive and share awards are subject to the group's clawback policy. Senior management awards are also disclosed by name, including Herbert Hui, Vanessa Lau, Richard Leung, Katherine Ng and Gregory Yu. The Share Award Scheme is market-purchased or uses forfeited/unallocated shares, has a 3% maximum award limit based on shares outstanding at adoption, and awarded/allocated 1,462,207 shares in 2025, about 0.12% of issued shares at the start of the year. That is disciplined enough; chronic dilution is not evident.

The weakness is that ownership is not founder-like. Chan held 68,479 shares at 31 December 2025, excluding unvested awards, or about 0.01% of shares. That is meaningful personal exposure in absolute money terms but not owner-operator alignment. The compensation design rewards strategic and public-interest execution more than per-share capital compounding. That is probably the right design for a market utility, but it means shareholders are relying on governance and mandate discipline rather than deep insider ownership.

5. Disclosure quality and candor

HKEX disclosure is strong on official tables and weaker on candid operating discussion. The QF and DR-cleared data package found complete official segment revenue and EBITDA tables, market-statistics histories, Stock Connect metrics, LME activity, capex, dividends, balance sheet and clearing-fund balances. It also found material gaps: no FMP transcript, no full product revenue by individual derivatives contract, no revenue by individual metal, no full five-year capex table in the data package, and no formal industrial ROIC because clearing assets distort the denominator. These are not all management failures; many are natural exchange-disclosure boundaries. Still, the company could give investors a better recurring bridge between activity metrics and fee economics.

The tone of management communication is polished and strategic. Chan's Q1 2026 statement framed Hong Kong as a leading IPO venue, highlighted strong Stock Connect and LME activity, and committed HKEX to deepen regional connectivity, broaden participation and invest in a resilient multi-asset ecosystem. The language is directionally consistent with the numbers, but it is also promotional. On hard issues, the most important test is LME nickel. HKEX's disclosure acknowledges settlement, litigation closure and remediation, but the official framing leans toward external causality and remediation rather than a blunt post-mortem of what governance lesson changed inside the group. For a Gideon gate, that is a candor discount.

Systems disclosure is better. Q1 2026 results state that major trading, clearing, settlement and market-data systems for Cash, Derivatives and OTC Markets operated normally during high activity, while LMEselect had a brief interruption on 16 March 2026, triggered failover, resumed on the secondary matching engine and then remained stable with corrective and resilience measures. That is the right level of operational transparency: name the incident, say what happened, state the remediation.

6. Strategic coherence

HKEX's strategy is coherent: make Hong Kong the capital-markets gateway between China and the world, deepen Connect schemes, restore IPO and cash-market vibrancy, grow derivatives and data/connectivity, and modernize LME while keeping the market infrastructure resilient. The current investment pattern supports this. Stock Connect is now a material revenue contributor. Minimum-spread reductions, listing-framework competitiveness consultation, weekly stock-option expansion, new indices, CMU OmniClear collaboration, Bond/Swap Connect collateral improvements and Orion/clearing-system capex all point in the same direction.

The LME strategy also now has a clear direction: more electronic functionality, better transparency, more robust position management, sustainable metal premia and Hong Kong as an LME delivery point. HKEX reported 14 LME-licensed warehouses operated by seven warehouse companies in Hong Kong at 31 December 2025. That is strategically coherent because it links HKEX's China/Hong Kong footprint to the LME's global physical metals network.

The political dependency is the structural constraint. HKEX's best commercial opportunities depend on regulatory permission from Hong Kong, Mainland China, UK regulators and international counterparts. Stock Connect, Swap Connect, Bond Connect, listing reform, clearing collateral acceptance and market-fee changes all require regulatory alignment. This can create a powerful moat, but it also means the management team cannot allocate solely for minority shareholder IRR. It must preserve public interest, market stability and policy objectives. That is a feature of the franchise and the central governance risk.

7. Governance flags

The governance structure is high quality on form but not neutral. Positives first: HKEX has one class of shares, and all shares rank equally for dividends, distributions and voting. There is no dual-class structure. Public float was 99.77% at 31 December 2025. The board separates chairman and CEO. The current board has one executive director and 12 INEDs in addition to the chairman. Governance committees are INED-led. Non-executive directors are not entitled to participate in the Share Award Scheme. The nomination policy imposes a nine-year maximum tenure for non-executive directors to be eligible for board nomination for re-election. No significant director-interested transaction was disclosed for 2025.

The structural issue is government influence. The HKSAR Government held 78,172,780 shares for the account of the Exchange Fund at 31 December 2025, equal to 6.17% of shares. The annual report explicitly says the government is a

Minority Controller of HKEX. Government Appointed Directors are appointed by the Financial Secretary under the Securities and Futures Ordinance and are not subject to election or re-election by shareholders. The NGC says it gave particular attention to assessing independence of Government Appointed Directors, including directors with Executive Council or former Legislative Council roles, and concluded all INEDs remained independent. I accept the process; I do not treat the risk as eliminated.

For a normal industrial company, government appointment rights over directors plus a public-interest mandate would be a bigger red flag. For HKEX, it is inseparable from the franchise. The same regulatory embeddedness that creates the moat can force choices that protect market stability or policy goals ahead of near-term shareholder economics. Minority shareholders are not being abused today, but they are structurally junior to market-integrity and policy considerations in an extreme case.

Risk controls are a plus. The annual report says the group's risk management and internal control systems remain adequate and effective, and that business operations are managed within board-set risk appetite. The Risk Committee reviewed Stock Connect and Swap Connect inspection responses, pre-launch testing, default fund caps, client account structure changes, Orion Derivatives Platform progress, model-risk validation, top risks, incidents and clearing-house liquidity/capital adequacy. The LME nickel experience proves risk controls can fail under stress; the post-event governance architecture is now more visible and more active.

8. Peer comparison

Against Singapore Exchange, HKEX has the stronger China-access franchise and IPO/listing optionality, but SGX has historically looked steadier in governance optics because it has less overt geopolitical dependence in its core growth narrative. Against CME Group, HKEX is less purely commercial and less founder-like in capital-return discipline; CME is the cleaner compounding benchmark for per-share economics and product risk management. Against LSEG, HKEX is simpler, higher-margin and more exchange-infrastructure focused, while LSEG has more diversified data/index/analytics economics and a broader global institutional footprint.

On five-year stewardship, HKEX management ranks ahead of SGX on China-connectivity optionality and behind CME on shareholder-aligned capital allocation and risk-control track record. Relative to LSEG, HKEX has a clearer strategic identity but less recurring data depth and more political/regulatory concentration. Chan's team is credible, but not yet in the "follow blindly for a decade" tier.

9. Verdict on the management gate

Management gate: YELLOW.

This is an investable but unresolved management setup. The CEO and operating team have delivered a strong early execution record around Stock Connect, IPO recovery, market-structure reform, LME volume recovery, data/connectivity and infrastructure resilience. Capital allocation is conservative, cash generative and coherent with a high-payout exchange utility. Governance disclosure is strong, the board is independent on form, and compensation includes risk/control/public-interest measures with modest dilution.

The gate is not PASS because the CEO/CFO combination has limited in-seat evidence across a full cycle, LME nickel remains a serious historical risk-control scar, and the HKSAR Government's minority-controller status plus Financial Secretary-appointed directors create a structural minority-shareholder risk. That risk is not misconduct; it is mandate conflict. HKEX exists to serve public market integrity as well as shareholders, and in a severe policy or market-stability conflict shareholders should assume public-interest priorities win.

Upgrade to PASS if three conditions hold through 2027: (1) Chan and Hui maintain high disclosure quality through a weaker volume/IPO cycle while preserving per-share economics and the 90% payout discipline; (2) LME modernization and operational-resilience upgrades continue without another major market-integrity or systems incident; and (3) regulatory/political decisions around Stock Connect, market-fee reforms, minimum spreads and listing competitiveness continue to support minority economics rather than turning HKEX into a policy tool with capped returns. Downgrade to FAIL if government/regulatory intervention materially subordinates minority returns, if LME has another avoidable market-control failure, or if management responds to a downturn with opaque disclosure or ROIC-destructive expansion.

Appendix W - Moat and 2046 Durability

Hong Kong Exchanges and Clearing Limited (0388.HK) - Moat and 2046 Durability

Run date: 2026-07-02 Currency/unit convention: HKD millions unless otherwise stated. Latest official period: Q1 2026 ended 2026-03-31, published 2026-04-29. TTM anchor: FY2025 less Q1 2025 plus Q1 2026. Primary evidence read: DR-cleared `data_package.md`, QFR-cleared `quant_foundation.md`, `quant_foundation_review.md`, orchestration status, and saved official HKEX annual/Q1 texts in `raw`. Segment appendices were checked but were still placeholder stubs at time of writing, so this appendix does not rely on segment-subagent competitive sections.

1. Moat taxonomy applied

HKEX has a real moat, but it is not one moat. It is a bundle of regulated venue status, liquidity network effects, clearing-house embeddedness, issuer/listing ecosystem, China access, and exchange data/connectivity economics. The key discipline is to separate the durable infrastructure profit pools from the cyclical market-activity overlay. FY2025 group revenue and other income was 29,161 and EBITDA was 22,796, a 79% EBITDA margin. TTM revenue and other income was 30,507 and TTM EBITDA was 24,134. That level of profitability is not normal financial intermediation; it reflects exchange infrastructure economics. But 50.4% of FY2025 revenue and 58.8% of FY2025 EBITDA came from Cash, which is highly sensitive to Hong Kong turnover, IPO cycles, Stock Connect flow, and market-design regulation. The moat is concrete; the 20-year underwriting question is whether the protected profit pools remain large enough in 2046.

Network effects. The strongest network effect is liquidity concentration. In cash equities and listed derivatives, more issuers attract more investors, more investors attract more liquidity providers, and more liquidity supports tighter spreads and new listings. HKEX's FY2025 IPO funds raised were 286.9bn, and Q1 2026 IPO funds raised were 110.4bn, nearly six times Q1 2025. Stock Connect also strengthens the network: Q1 2026 Stock Connect revenue was 1,355, up 44% year over year, and 17% of group revenue and other income. This is not a generic "large exchange" claim; the evidence is the combination of Southbound/Northbound turnover, issuer pipeline, ETP growth, and persistent high segment EBITDA. The network effect is strongest in Cash and Equity and Financial Derivatives, moderate in Commodities through LME benchmark liquidity, and weaker in Data and Connectivity where the asset is more access/data lock-in than marketplace flywheel.

Switching costs. HKEX's switching costs are operational and regulatory rather than contractual in the software sense. Brokers, clearing participants, custodians, issuers, market makers, data vendors, index users, and Stock Connect participants build processes around HKEX rules, clearing systems, settlement cycles, collateral arrangements, market data feeds, and exchange APIs. LME clearing and warehousing also create embedded workflows: participants do not casually move a metals hedging book, warehouse network, benchmark reference, and clearing relationship to a new venue. Switching costs are strongest in clearing, market data/connectivity, and LME; weaker for marginal trading volume that can migrate to alternative venues or OTC instruments if liquidity, costs, or regulation shift.

Scale economies. The operating model shows large fixed-cost leverage. FY2025 group operating margin on revenue and other income was 72.8%, with segment EBITDA margins of 91% in Cash, 85% in Equity and Financial Derivatives, 81% in Data and Connectivity, and 57% in Commodities. In Q1 2026, revenue and other income rose 20% while EBITDA rose 25%, showing incremental margin leverage. Exchanges need resilient technology, regulatory operations, surveillance, clearing risk systems, and compliance functions; once built, incremental trading, clearing, listing, data, and connectivity revenue carries high contribution margin. The scale moat is real, but it needs volume and venue relevance. A smaller HKEX would still be profitable, but the equity value depends on the largest activity pools staying on its platforms.

Brand and trust. HKEX has a trust asset as Hong Kong's primary exchange, regulator-adjacent market operator, and China/global connector. That trust is visible in issuer preference and participant reliance, but it is also fragile. LME's 2022 nickel episode is the counterexample: the franchise survived, but trust required remediation, litigation resolution, FCA settlement, market-structure reform, and operational modernization. Brand is therefore a supporting moat, not the core moat. It works only while clearing, market operations, and regulatory alignment remain credible.

Regulatory franchise. This is one of the two hardest moats. HKEX operates critical regulated infrastructure: exchanges, clearing houses, listing infrastructure, Stock Connect gateways, and LME/LME Clear. New entrants cannot simply copy the business with capital and code. They need regulatory permission, participant migration, clearing acceptance, issuer acceptance, and systemic-risk credibility. That said, regulatory franchise is not the same as unconstrained pricing power.

Regulators can lower fees, require market-structure reform, encourage alternative venues, change Stock Connect rules, or prioritize public-market competitiveness over exchange margin. The franchise protects the venue; it does not immunize economics.

IP/patents. HKEX has technology capability, data products, indices, and proprietary systems such as Orion and LMEselect modernization, but patents/IP are not the primary moat. The technology matters because it maintains venue resilience and participant integration. It is moat maintenance, not a standalone monopoly.

High-trust procurement and mission-critical infrastructure. This is strongest in Data and Connectivity and clearing. Market data, access, hosting, network lines, and clearing risk management are small relative to total participant economics but mission-critical. Customers will resist excessive price increases, yet they also cannot cheaply ignore official exchange data or connectivity. Q1 2026 Data and Connectivity revenue and EBITDA both rose 10%, with market data, network fees, and hosting all up. This is a sticky, high-margin profit pool, though smaller than Cash.

2. Per-segment moat

Cash. Cash is the core HKEX franchise: FY2025 revenue and other income was 14,704, 50.4% of group, and EBITDA was 13,398, a 91% margin. The moat is the Hong Kong listing/liquidity/clearing ecosystem plus Stock Connect's privileged China bridge. The segment has a 10-year-style moat if Hong Kong remains the preferred offshore venue for Chinese issuers and Mainland/global cross-border trading. A 20-year moat is plausible but not certain because it depends on political/regulatory continuity, capital-market relevance, and whether China-related international capital flows remain routed through Hong Kong rather than onshore, Singapore, US ADRs, private markets, tokenized venues, or other bilateral channels. Earliest break signal: sustained decline in Hong Kong equity ADT and IPO pipeline despite healthy China/global risk appetite, coupled with Stock Connect rule stagnation or lower Southbound/Northbound participation.

Equity and Financial Derivatives. FY2025 revenue and other income was 6,863 and EBITDA was 5,597, an 85% EBITDA margin. The moat is listed derivatives liquidity around Hong Kong/China equity indices, single-stock options, structured products, margin-fund income, and clearing. It is less issuer-dependent than Cash but still tied to Hong Kong and China asset relevance. It should remain durable over 5-10 years because hedging and speculation need regulated, liquid, centrally cleared venues. The 20-year risk is product migration: global investors could hedge China exposure through offshore ETFs, swaps, Singapore/US-listed contracts, crypto/tokenized synthetic markets, or onshore venues if access opens. Earliest break signal: record equity ADT without corresponding HKEX derivatives volume growth, or declining open interest in flagship Hang Seng/H-share/tech contracts while alternative contracts gain.

Commodities/LME. FY2025 revenue and other income was 3,171 and EBITDA was 1,822, a 57% margin; Q1 2026 revenue and other income rose 39% and EBITDA more than doubled, helped by record LME chargeable ADV. The moat is LME's benchmark role, global member network, clearing, warehousing/delivery system, and contract conventions in base metals. It is a different moat from HK cash equities: more global, more commodity-industry embedded, but with lower margin and higher trust/regulatory risk. The LME franchise can be durable for 20 years if it remains the reference price and delivery network for industrial metals, including transition metals and sustainable premia. It can break if participants decide the benchmark governance is unreliable, if physical warehouse rules lose credibility, or if China/onshore venues or new electronic benchmarks capture price discovery. Earliest break signal: falling LME chargeable ADV and open interest while global metals volatility remains high, or industrial users shifting long-term reference pricing away from LME contracts.

Data and Connectivity. FY2025 revenue and other income was 2,270 and EBITDA was 1,834, an 81% margin; Q1 2026 revenue and EBITDA both grew 10%. The moat is official market data, access, network, hosting, and participant workflow integration. This is the cleanest "small but durable" profit pool because official exchange data and access cannot be replicated by generic data vendors without the venue. AI may change packaging and analytics, but not the need for authoritative real-time prices, reference data, connectivity, and low-latency access. Durability is 20-year plausible if HKEX venues stay relevant. Earliest break signal: data revenue decoupling negatively from market activity and participant counts, or regulatory intervention forcing cheaper/open access to core data.

Corporate Items. Corporate Items is not a moat segment. FY2025 revenue and other income was 2,153 but EBITDA was only 145 and TTM EBITDA was 70. It mainly reflects Corporate Funds net investment income, donation income, and central costs. It can help reported earnings in favorable rate/market conditions and hurt in others, but it is not a protectable operating profit pool. The blended company moat is therefore slightly weaker than headline group margin suggests because some reported revenue and income is treasury-like rather than franchise-like.

The blended moat is strong but not perfect. Cash and Equity/Financial Derivatives have the most strategic value and the highest margins, but they are tied to Hong Kong/China capital-market relevance. Data and Connectivity is the most recurring, but only 7.8% of FY2025 revenue. LME is globally strategic but lower margin and had a visible trust shock. Corporate Items is not moat-bearing. The equity is priced off the blend, so the gate cannot simply say "regulated exchange equals pass."

3. Margin persistence evidence

The consolidated margin record supports a real moat. Revenue and other income was 20,950 in FY2021, 18,456 in FY2022, 20,516 in FY2023, 22,374 in FY2024, and 29,161 in FY2025. Operating margin on revenue and other income was 71.2% in FY2021, 63.5% in FY2022, 65.2% in FY2023, 66.5% in FY2024, and 72.8% in FY2025. This is not a business with fragile mid-cycle margins. Even in weaker market years, HKEX remained above 60% operating margin.

Segment margins are more revealing. Under the current taxonomy from FY2022-FY2025, Cash revenue moved from 9,034 to 14,704 and FY2025 EBITDA margin reached 91%. Equity and Financial Derivatives moved from 5,279 to 6,863 with FY2025 EBITDA margin of 85%. Data and Connectivity moved from 1,998 to 2,270 with FY2025 EBITDA margin of 81%, showing steady infrastructure economics. Commodities moved from 2,051 to 3,171, but FY2025 EBITDA margin was 57%, materially lower than Hong Kong cash/data but still attractive. Corporate Items is volatile and non-core.

The evidence is not just high margins; it is high margins across down and up activity regimes. FY2022 revenue and other income fell to 18,456 after a stronger FY2021, yet group operating margin remained 63.5%. FY2025 then showed the upside: market activity, Stock Connect, IPOs, and LME volume reaccelerated, and group operating margin expanded to 72.8%. That pattern is consistent with fixed-cost exchange economics. The caveat is cyclicality: margins can persist while the absolute profit pool falls if activity leaves Hong Kong or China access becomes less valuable.

4. AI disruption stress test

AI does not directly replicate HKEX's core value because HKEX is not selling a generic workflow answer. It sells regulated market access, central clearing, official data, listing venue status, benchmark contracts, and connectivity. A foundation model can analyze filings, route an order recommendation, summarize market structure, or package data better than older tools. It cannot itself become the legally recognized exchange, central counterparty, Stock Connect gateway, LME clearing house, or official source of exchange prints.

Cash is protected from pure AI disruption but exposed to AI-enabled market-structure change. AI trading systems may increase turnover, compress spreads, or shift liquidity to venues with lower cost and better execution. Minimum spread reductions and settlement-fee updates already show HKEX is balancing market quality against economics. AI can also make private-market discovery, tokenized issuance, and cross-border matching more efficient, which could erode part of the listing/secondary-market pool over 10-20 years. The moat therefore lives in regulated venue status, issuer/investor network, clearing, and Stock Connect, not in any workflow.

Equity and Financial Derivatives is similarly protected at the infrastructure layer. AI may design hedges, automate market making, and produce synthetic exposures, but listed derivatives still require liquidity, margining, clearing, and trust. The threat is not "AI replaces derivatives"; it is that AI-native execution and risk systems route China/HK exposure to other instruments if HKEX contracts are less liquid or more expensive.

Commodities/LME is the most protected from generic AI but vulnerable to benchmark trust and physical-market architecture. AI can improve analytics around metals supply/demand and warehouse flows, but the LME's value is benchmark liquidity, clearing, delivery, and industry convention. The 2022 nickel event shows that governance and risk controls, not AI, are the critical failure mode. AI may strengthen alternative price discovery if non-LME physical data becomes more transparent.

Data and Connectivity is the most AI-adjacent. AI raises demand for clean, low-latency, licensed, authoritative market data, but it can also commoditize downstream analytics and news-like products. HKEX's protected asset is official data rights and access, not derived commentary. The segment most exposed to AI disruption is any value-added data/analysis layer such as CPAL/LME Insight or index/data packaging where third-party analytics can compete. The most protected segment is clearing/venue access inside Cash and listed derivatives.

5. The 2046 test

Today is 2026-07-02. The 20-year test date is 2046-07-02.

A plausible 2046 HKEX still sells regulated access to Hong Kong and China-linked securities markets, issuer/listing services, clearing and settlement, listed derivatives, official market data, connectivity, hosting, and global metals benchmark

trading/clearing through LME. Its buyers are issuers seeking capital, brokers, global and Mainland investors, market makers, custodians, clearing participants, ETF/index sponsors, data vendors, financial institutions, industrial metals users, and commodity traders. Cash still exists, but its mix likely has more ETPs, Southbound/Mainland investor activity, cross-border product wrappers, and possibly tokenized or digital settlement rails. Equity and Financial Derivatives still exists if Hong Kong remains a central hedging venue for China and Asia risk. Data and Connectivity should be larger in mix because official data and access become more valuable as machine-driven markets require licensed, clean inputs. LME still exists if its benchmark contracts and warehouse/delivery network remain trusted for industrial metals and energy-transition inputs.

Directionally, 2046 group margins should be stable to slightly lower versus FY2025 if the franchise survives. Technology and regulatory investment will remain high, market data may face pricing scrutiny, and minimum-fee reforms may periodically reduce economics. But a functioning exchange/clearing/data platform should still have high incremental margins. The reason the business still makes money is specific: official regulated venues and CCPs own the transaction, settlement, clearing, collateral, and data exhaust for markets that participants cannot recreate privately at the same trust level.

The bear-case 2046 description is also specific. HKEX becomes a profitable but lower-growth regional exchange whose Cash and listing franchise lost global relevance because China capital flows became more onshore, geopolitical constraints reduced international participation, leading Chinese companies raised capital elsewhere, and Stock Connect stopped expanding. Derivatives liquidity migrated to whichever venue became the preferred China/Asia risk hedge. LME remained but ceded benchmark share to China-linked or OTC/physical-data venues after repeated governance or warehouse-trust concerns. Data and Connectivity stayed profitable but could not offset the decline in transaction/listing economics. In that world, the company does not fail, but the 20-year compounder case fails.

The bear case is not remote enough to ignore. It is not the base case today: Q1 2026 showed record/high Stock Connect, IPO, ETP, LME and data momentum. But the mechanism depends on politics, capital controls, regulatory choices, and global investor behavior outside HKEX's control. That keeps the 2046 test at YELLOW rather than PASS.

6. Competitive threat inventory

Threat	Mechanism	Segment(s) affected	Earliest observable signal	Plausibility
Hong Kong/China capital-market relevance fades	Geopolitics, onshore opening, sanctions, issuer preference shift, or global capital avoiding HK/China risk reduces ADT, IPOs and Stock Connect	Cash; Equity and Financial Derivatives; Data and Connectivity	Multi-year decline in ADT, IPO funds and Stock Connect revenue despite healthy regional/global markets	Medium
Alternative venues and products capture hedging/trading	Singapore, US, Mainland, OTC swaps, ETFs, tokenized venues or crypto-native wrappers offer better liquidity/cost/access	Equity and Financial Derivatives; Cash; Data	HKEX derivatives/open interest lose share while China/Asia exposure volumes grow elsewhere	Medium
LME benchmark trust erodes	Another governance, suspension, warehouse, delivery or clearing confidence issue pushes users to alternative benchmarks	Commodities/LME; Data	Falling LME chargeable ADV/open interest in high-volatility metals markets; industry contracts reference other prices	Medium
Regulatory economics reset	Market-quality reforms, fee caps, open-data pressure, lower spreads/fees, or capital rules reduce unit economics	Cash; Data and Connectivity; Derivatives	Revenue per unit of turnover/data/connectivity declines structurally; segment margins compress without volume offset	Medium-high
AI/data distribution commoditizes analytics layer	AI vendors package alternative analytics and reduce value of non-official data products	Data and Connectivity; CPAL/LME Insight	Market data core holds but value-added data/index/insight revenue underperforms usage	Medium

7. Pricing power verification

HKEX has limited but real pricing power. The evidence is strongest where the fee is tied to official access, market data, connectivity, clearing, or benchmark participation. Data and Connectivity revenue rose 6.8% in FY2025 and 10% in Q1 2026, with network fees, market data fees and hosting all up. LME trading fees, LME Clear clearing fees and commodities market data fees increased in FY2025; Q1 2026 LME chargeable ADV reached a record quarterly high. The high Cash and Data margins also show that participants bear meaningful exchange economics because access is mission-critical.

But pricing power is not unconstrained. HKEX's own management/regulatory actions include minimum spread reductions and stock settlement fee-structure updates intended to improve market quality and lower costs. Q1 2026 references Phase 2

minimum-spread reduction around mid-2026 subject to market readiness and regulatory approval. In other words, HKEX sometimes chooses or is pushed toward lower explicit trading frictions to preserve long-term liquidity. That is rational moat maintenance, but it means pricing power must be verified through total revenue and margin resilience rather than simple fee hikes.

Segment-by-segment, Data and Connectivity has the cleanest pricing/usage lock-in because official feeds, access, and hosting are small-ticket but critical. Cash has volume-led pricing power rather than pure price-led power; more ADT, Stock Connect flow, IPOs, and depository activity drive revenue. Derivatives pricing depends on liquidity and collateral economics. LME has benchmark power but carries governance sensitivity. Corporate Items has no pricing power.

8. Moat verdict

Moat gate: YELLOW

2046 test: YELLOW

HKEX has a concrete moat today: regulated exchange and clearing franchises, liquidity network effects, Stock Connect's China bridge, issuer/listing ecosystem, official market data/connectivity, and the LME benchmark/warehouse/clearing network. The margin evidence is strong: FY2025 group EBITDA margin was 79%, Cash EBITDA margin was 91%, Equity and Financial Derivatives was 85%, and Data and Connectivity was 81%. The moat is not merely asserted by fame; it is visible in official segment economics and persistent high margins.

The reason the moat gate is YELLOW rather than PASS is that the largest profit pool is tied to a 20-year political/regulatory and China/Hong Kong relevance assumption that HKEX does not fully control. A PASS would require confidence that Hong Kong remains the privileged offshore capital-market bridge for China through 2046 and that LME benchmark trust remains intact through future commodity stress cycles. Those are plausible, but not settled enough for a hard Gideon durability pass. Upgrade signals would be sustained Stock Connect and Southbound/Northbound expansion across weak and strong China cycles, stable or rising HKEX share of China/HK hedging activity, Data and Connectivity compounding faster than group, and LME maintaining record/high ADV without governance stress. Downgrade signals would be multi-year ADT/listing/Stock Connect underperformance versus regional/global markets, visible derivatives share loss to alternative venues, regulatory fee resets that compress margins without volume offset, or renewed LME benchmark-trust damage.

Moat gate: YELLOW

2046 test: YELLOW

Appendix B1 - Cash

Cash - Segment Deep Dive

Company: Hong Kong Exchanges and Clearing Limited Ticker: 0388.HK Run date: 2026-07-02 Currency: HKD millions unless stated otherwise TTM end: 2026-03-31 Horizon date: 2031-03-31 Source discipline: HKEX historical figures in this appendix are taken from `data_package.md` only. External sources are used only for market-structure and competitor context.

0. Segment Boundary And Taxonomy Note

Cash is the current HKEX reportable segment that covers equity products traded on HKEX cash market platforms and Stock Connect, plus the related clearing, settlement, custodian and nominee activities. The data package defines the segment this way in the reporting-structure section and warns that HKEX changed segment taxonomy in 2023. The 2023 annual report restated FY2022 into the current presentation, while FY2021 remains old taxonomy and includes separate Post Trade and Technology segments that were later reallocated. Therefore this appendix uses FY2022-FY2025 as the clean current-taxonomy history and treats FY2021 only as old-taxonomy context, not as a data point in current Cash CAGRs. [data_package.md:47, data_package.md:60, data_package.md:276]

The most important modeling implication is that Cash is no longer just Stock Exchange trading fees. It includes a large clearing and settlement fee pool, listing fees allocated to Cash, depository/custody/nominee fees, and Stock Connect economics. The FY2025 disclosed Cash components sum to HKD 14,255m against total Cash revenue and other income of HKD 14,704m, leaving HKD 449m of other Cash revenue and other income. I carry that residual as "Other Cash fees and investment income" in the forward model rather than inventing a more granular official product line. [data_package.md:137-data_package.md:140]

1. What This Segment Actually Is

The Cash segment is the monetization layer around Hong Kong-listed cash equities and equity products. It earns fees when investors trade, when trades clear and settle, when issuers list and remain listed, and when securities sit inside the central depository/nominee system. The customer set is broad: brokers and market participants pay trading, clearing and settlement fees; issuers pay listing fees; asset managers and retail/intermediary channels generate exchange-traded product turnover; and Stock Connect links Mainland and Hong Kong investors into the same fee ecology.

HKEX's economic role is not a broker role. The exchange provides regulated matching, clearing, settlement, custody, issuer admission and market rule infrastructure. That gives it a toll-road character, but the toll road runs through a cyclical market. Cash revenue is not recurring SaaS. It is highly linked to Hong Kong securities ADT, Southbound and Northbound Stock Connect activity, IPO and post-IPO fundraising, and the level of eligible securities held through HKSCC nominee/custody channels. The data package says Cash was 50.4% of FY2025 group revenue and other income and 58.8% of FY2025 group EBITDA, making it the company's core earnings engine. [data_package.md:53, data_package.md:272]

The pricing model is a blend of transaction fees, clearing/settlement fees, issuer/listing fees, depository and nominee fees, and some investment-income effects tied to clearing fund and margin resources. That blend matters. Trading and clearing fees are high beta to daily turnover; listing fees are tied to issuer count, annual listing maintenance and IPO cycle; depository/custody/nominee fees are tied to portfolio values, scrip activity and Stock Connect portfolio activity; and the smaller residual line is more sensitive to rates and market balances than to pure share turnover.

Stock Connect is central. The data package says full annual Stock Connect revenue is disclosed for FY2024-FY2025 and Q1 2026, but earlier revenue is not rebuilt. FY2025 Stock Connect revenue and other income was HKD 4,317m, up 57%, including HKD 3,529m from trading and clearing activities. Q1 2026 Stock Connect revenue was HKD 1,355m, up 44% YoY, and contributed 17% of group revenue and other income in Q1 2026. [data_package.md:24, data_package.md:153, data_package.md:186, data_package.md:273]

2. Current Economics

The segment is extraordinarily profitable when volumes are strong. FY2025 Cash revenue and other income was HKD 14,704m and FY2025 EBITDA was HKD 13,398m, an EBITDA margin of 91%. The TTM bridge from FY2025 less Q1 2025 plus Q1 2026 gives Cash TTM revenue and other income of HKD 15,566m and TTM EBITDA of HKD 14,238m. That implies a

TTM EBITDA margin of 91.5%. [data_package.md:91, data_package.md:124]

Because HKEX discloses EBITDA and PBT by segment rather than exact segment operating income, this appendix uses EBITDA as the segment operating income proxy in the required segment rollup. [DATA GAP: exact segment operating income is not disclosed in the data package; data_package.md:268 directs segment models to use EBITDA and PBT.] The proxy is imperfect because group D&A and finance allocation may differ from EBITDA, but for Cash it is economically close enough for segment sensitivity: the segment has high fixed platform costs, limited direct cost of revenue per trade, and margin changes are mostly a function of volume, mix, technology spend, and rate/investment-income normalization rather than classic COGS.

Current sub-product economics are concentrated in two variable fee pools. FY2025 Stock Exchange equity trading fees were HKD 6,174m versus HKD 3,423m in FY2024. FY2025 Cash clearing and settlement fees were HKD 5,712m versus HKD 3,621m in FY2024. Those two lines together were HKD 11,886m, or 80.8% of FY2025 Cash revenue and other income. Listing fees were HKD 964m, or 6.6%. Depository/custody/nominee fees were HKD 1,405m, or 9.6%. The residual was HKD 449m, or 3.1%. [data_package.md:137-data_package.md:140]

The operating drivers support the FY2025 step-up. Equity products ADT rose from HKD 120.0bn in FY2024 to HKD 231.5bn in FY2025, and Q1 2026 was HKD 255.3bn. Headline ADT rose from HKD 131.8bn in FY2024 to HKD 249.8bn in FY2025, and Q1 2026 was HKD 276.7bn. Northbound Stock Connect ADT rose from RMB 150.1bn in FY2024 to RMB 212.4bn in FY2025, and Q1 2026 was RMB 324.1bn. Southbound Stock Connect ADT rose from HKD 48.2bn in FY2024 to HKD 121.1bn in FY2025, and Q1 2026 was HKD 122.5bn. IPO funds raised rose from HKD 88.0bn in FY2024 to HKD 286.9bn in FY2025, and Q1 2026 alone was HKD 110.4bn. [data_package.md:37-data_package.md:42, data_package.md:181-data_package.md:186]

The clean reading is that Cash entered the TTM period at a cyclical high, not a depressed base. The TTM model cannot simply compound FY2025 growth. The relevant question is how much of the FY2025/Q1 2026 uplift proves durable because of Stock Connect, ETP growth, minimum-spread reform and China capital-market connectivity, versus how much is a high-volume, high-IPO-cycle peak.

3. Unit Economics

Cash has the best kind of exchange unit economics: high incremental margin on additional turnover, but with a real macro/market-cycle volume denominator. Once the trading, clearing, depository and surveillance systems are in place, a higher day of ADT does not require proportional cost. This is why FY2025 Cash EBITDA margin reached 91% and Q1/TTM Cash margin remained above 91%. The principal cost drivers are market operations, systems resilience, clearing risk management, regulatory/compliance capability, issuer regulation, depository operations and the technology investment needed to keep latency, throughput and resilience at institutional standards.

The trading fee pool scales with turnover and fee schedule. A 10% increase in cash equity ADT should not translate exactly into 10% segment revenue because mix matters: normal Hong Kong cash equity trades, Southbound Stock Connect, Northbound Stock Connect, ETFs and other cash products may not carry identical economics, and listing/depository fees do not scale tick-for-tick with daily turnover. But the direction is clear. When FY2025 equity products ADT nearly doubled versus FY2024, Cash revenue rose 56.1%. That was lower than the raw equity-product ADT growth, which is consistent with the segment having a mixed revenue base and with some fee pools growing less than turnover. [data_package.md:102, data_package.md:137-data_package.md:140]

Clearing and settlement fees are the second major fee pool. These should track traded value and settlement activity, including Stock Exchange and Northbound trades. Clearing economics are not riskless: the CCP must manage default resources and operational resilience. However, the revenue conversion is strong when activity rises because the cost base is mostly platform and risk-management infrastructure. The key bear risk is not that clearing costs suddenly become variable in normal conditions; it is that extreme market stress, participant default, regulatory intervention or fee compression can change the economics. The balance sheet section shows very large Margin Fund deposits and Clearing House Fund contributions, but those are mostly participant funds or segregated default resources and should not be treated as ordinary debt. [data_package.md:228-data_package.md:231]

Listing fees are different. They monetize issuer admission, annual listing status and associated services. The data package shows HKD 964m of FY2025 Stock Exchange listing fees allocated to Cash, up from HKD 888m in FY2024, a much smaller percentage move than trading or clearing. That is economically sensible. Listing fees lag the trading cycle and depend on issuer pipeline, sponsor activity, valuation windows, China/Hong Kong policy conditions and international investor appetite.

IPO funds raised moved from HKD 46.3bn in FY2023 to HKD 88.0bn in FY2024 to HKD 286.9bn in FY2025, and Q1 2026 funds raised were HKD 110.4bn. The fee line benefits from that cycle but should not be modeled as a straight percentage of funds raised. [data_package.md:42, data_package.md:139, data_package.md:185]

Depository/custody/nominee fees are more annuity-like than trading fees but still market sensitive. FY2025 was HKD 1,405m versus HKD 1,056m in FY2024. The data package describes these as scrip, portfolio and nominee services, including Stock Connect portfolio values. That creates a bridge between Hong Kong cash activity, Mainland access, holdings value and corporate action/custody activity. In a weak tape, balances and activity can stall. In a structurally wider Stock Connect world, this line can compound better than listing fees even if trading ADT normalizes.

Net investment income and margin fund effects sit in the background. HKEX's group-level Corporate Items segment holds Corporate Funds net investment income, but clearing-related funds and margin resources influence the economics of exchanges and CCPs. For Cash modeling, I do not add a separate large rate bet. The residual "Other Cash fees and investment income" is kept small and slow-growing, because the data package does not provide a complete product-level split and warns not to invent undisclosed product dollars. This is important in a falling-rate scenario: if interest rates normalize down while ADT stays high, Cash could show weaker incremental income than turnover alone implies.

4. Competitive Dynamics

The Cash segment's direct competition is not a like-for-like local exchange across the street. Its closest competitive forces are issuer choice, investor liquidity choice, Mainland domestic exchange development, overseas listing venues, alternative Hong Kong exposure through derivatives and ETFs, and global exchanges competing for the same Chinese and Asian capital formation. For Chinese issuers, the practical listing alternatives include Mainland A-share venues, the US, and to a lesser extent other international venues. For global investors, the practical execution alternatives include China A-share Stock Connect, ADRs, ETFs, offshore derivatives, Singapore-listed or US-listed China exposure, and internalization/OTC routes where permitted.

HKEX's strongest competitive position is that Hong Kong is the international capital-market bridge for China under a separate legal, currency and investor-access regime. Mainland exchanges can compete for domestic listings and liquidity, but they do not provide the same offshore investor base, HKD market structure, Stock Connect architecture and common-law/regulatory interface. US exchanges can compete for international issuer prestige and deep pools of growth capital, but China-US geopolitics, audit and listing risk can push Chinese issuers back toward Hong Kong. That is a cyclical and political advantage, not a permanent guarantee.

The World Federation of Exchanges publishes global market-data indicators and highlights the breadth of exchange metrics used to compare venues, including equities, derivatives, ETFs, IPOs and spread/liquidity measures. Its March 2025 market-statistics page shows Hong Kong among the large APAC cash-equity venues alongside Shanghai, Shenzhen, Japan, India, Korea, Singapore and Australia, which frames the relevant competitive set as regional market infrastructure rather than a narrow domestic exchange monopoly. Source: [WFE market statistics](https://focus.world-exchanges.org/issue/march-2025/market-statistics) and [WFE statistics overview](https://www.world-exchanges.org/).

IPO competition is particularly important for Cash. A strong Hong Kong IPO market feeds listing fees directly and supports secondary-market turnover after listing. The data package says Hong Kong ranked as the world's top IPO venue in Q1 2026 and that Q1 2026 IPO funds raised were HKD 110.4bn. External professional-services commentary is directionally consistent: KPMG's Q1 2026 China/Hong Kong IPO review described roughly HKD 110bn raised across 40 Hong Kong listings, and Deloitte's mid-2026 outlook expected Hong Kong to remain among the top global IPO fundraising venues. These are external market-cycle context only; the HKEX figures used in this appendix still come from the data package. Sources: [KPMG Q1 2026 IPO review](https://kpmg.com/cn/en/media/press-releases/2026/04/chinese-mainland-and-hk-ipo-markets-2026-q1-review-press-release.html) and [Deloitte 1H 2026 review and outlook](https://www.deloitte.com/cn/en/services/audit-assurance/perspectives/1h-2026-review-and-outlook-of-the-chinese-mainland-and-hong-kong.html).

Fee-rate competition is the most subtle risk. Exchanges do not usually lose their core venue overnight; they lose economics when regulators, issuers and participants demand narrower spreads, lower fees or higher service levels for the same fee. The data package says Phase 1 of minimum-spread reductions improved market liquidity, and Phase 2 consultation was published in April 2026. Narrower spreads can help turnover by lowering trading friction, but they can also compress market-maker economics and alter the volume/fee-rate tradeoff. For HKEX, the best outcome is lower spreads driving enough turnover and liquidity quality to expand the fee pool. The bear case is that policy-driven fee/spread reform gives customers some of the benefit while the exchange absorbs more technology and regulatory cost.

5. Segment-Level Moat

Cash has a strong but cyclical moat. The core moat is not proprietary software. It is network liquidity, issuer/regulatory status, clearing and settlement trust, Stock Connect architecture, depository infrastructure and the high switching cost of moving a market's natural liquidity pool. Listed companies want to list where investors trade. Investors want to trade where liquidity, disclosure, clearing certainty and benchmark relevance exist. Brokers and institutions connect where their clients need execution and custody. This is a reinforcing loop.

Stock Connect deepens that moat because it embeds HKEX into Mainland/offshore portfolio flows. Northbound ADT reached RMB 212.4bn in FY2025 and RMB 324.1bn in Q1 2026. Southbound ADT reached HKD 121.1bn in FY2025 and HKD 122.5bn in Q1 2026. Those are not just volume statistics; they show that Mainland and offshore investor activity increasingly touches HKEX infrastructure. [data_package.md:37-data_package.md:38]

The moat is narrower in listing-cycle competition. Issuers can defer IPOs, choose A-shares, choose the US, or wait for valuation windows. Hong Kong's position as the offshore China listing venue is strong, but not absolute. It depends on Mainland policy, global risk appetite, valuation comparables, liquidity quality and investor confidence in China assets. A weak China equity cycle can hit Cash twice: lower ADT and lower IPO/listing activity.

The moat also faces policy risk. HKEX is systemically important market infrastructure. That creates privileged status, but it also invites public-interest oversight. If regulators decide market quality requires fee cuts, spread reforms or settlement changes, the exchange may need to accept lower take-rate economics to protect market development. That is not a thesis killer; it is the price of owning a regulated toll road.

Overall, Cash deserves a high moat rating at the segment level, but with a clear caveat: the moat protects venue position better than it protects year-to-year revenue. The five-year model should not assume FY2025's peak recovery growth persists. It should assume HKEX retains the infrastructure franchise while revenue grows more slowly from an elevated TTM base.

6. Historical Growth Rates

The clean current-taxonomy period is FY2022-FY2025. FY2021 is excluded from the current-segment CAGR. Product-level dollars are disclosed only for FY2024 and FY2025 in the data package for the main Cash fee pools. Therefore the historical table has two layers: segment-level current-taxonomy history with a three-year CAGR, and product-level disclosed fee-pool history with one-year growth only. [DATA GAP: the data package does not provide FY2022-FY2023 product-level Cash fee-pool dollars for trading, clearing, listing and depository.]

Product / sub-segment	FY2022 rev	FY2023 rev	FY2024 rev	FY2025 rev	3-yr CAGR	Most recent YoY	Data package cite
Cash segment total	9,034	8,164	9,422	14,704	17.6%	56.1%	data_package.md:89-91 and data_package.md:102
Stock Exchange equity trading fees	n/d	n/d	3,423	6,174	n/d	80.4%	data_package.md:137
Cash clearing and settlement fees	n/d	n/d	3,621	5,712	n/d	57.7%	data_package.md:138
Stock Exchange listing fees allocated to Cash	n/d	n/d	888	964	n/d	8.6%	data_package.md:139
Depository/custody/nominee fees	n/d	n/d	1,056	1,405	n/d	33.0%	data_package.md:140
Stock Connect revenue and other income	n/d	n/d	2,750 est from 57% growth	4,317	n/d	57.0%	data_package.md:153
Equity products ADT, HK$bn	109.0	93.2	120.0	231.5	28.5%	92.9%	data_package.md:33 and data_package.md:181
Northbound Stock Connect ADT, RMBbn	100.4	108.3	150.1	212.4	28.4%	41.5%	data_package.md:37
Southbound Stock Connect ADT, HK$bn	31.7	31.1	48.2	121.1	56.3%	151.2%	data_package.md:38
IPO funds raised, HK$bn	104.6	46.3	88.0	286.9	40.0%	226.0%	data_package.md:42

Arithmetic checks: Cash segment total ties as 9,034 x 0.904 = 8,164 for FY2023, 8,164 x 1.154 = 9,422 for FY2024, and 9,422 x 1.561 = 14,704 for FY2025 within rounding. Trading fees tie as 3,423 x 1.804 = 6,174. Clearing and settlement fees tie as 3,621 x 1.577 = 5,712. Listing fees tie as 888 x 1.086 = 964. Depository/custody/nominee fees tie as 1,056 x 1.330 = 1,405. Stock Connect FY2024 revenue is not directly disclosed as a row in the data package but is implied by the stated FY2025 57% growth from FY2025 HKD 4,317m; 4,317 / 1.57 = 2,750. It is included only as an estimated history point and not used as an official multi-year series. [data_package.md:153]

The historical lesson is that Cash is a very high-beta segment. Segment revenue declined in FY2023, recovered in FY2024, then surged in FY2025. The right base rate is not the 17.6% current-taxonomy segment CAGR alone because it starts in a weak FY2022/FY2023 market and ends in a strong FY2025/Q1 2026 market. It is also not the latest YoY growth because that embeds a market rebound and IPO cycle. For the five-year base case, I underwrite mid-single-digit growth from the TTM base, with bull and bear cases driven mainly by turnover and China-flow conditions.

7. Management Guidance

The data package has no FMP transcript for Q1 2026; it says the endpoint returned an empty array. Therefore management commentary comes from official results announcements and presentation text already included in the data package. [data_package.md:190]

Segment / topic	Data package row	Verbatim quote or official statement	Interpretation
IPO / Cash	data_package.md:195	"Hong Kong continued to rank as the world's top IPO venue in Q1 2026"	The listing/depository part of Cash has a current primary-market tailwind, but IPO windows are cyclical.
Cash market quality	data_package.md:196	"Following the implementation of Phase 1 of the reduction of minimum spreads in 2025, market liquidity has improved"	Management links spread reform to liquidity improvement, supporting a volume-offset view of fee/spread changes.
Stock Connect	data_package.md:197	"Stock Connect trading continued its growth momentum in Q1 2026"	Stock Connect should be modeled as a structural driver, not merely a one-quarter variance.
ETPs	data_package.md:198	"ADT of Exchange Traded Products reached a record quarterly high"	ETP growth broadens the Cash revenue base beyond single-name shares.
Systems resilience	data_package.md:204	"all HKEX's major trading, clearing, settlement and market data dissemination systems... continued to operate normally"	Platform reliability is part of the segment's moat and supports high margins.
Capital expenditure	data_package.md:205	"capital expenditure commitments... included... Orion Derivatives Platform and upgrade of clearing systems"	Technology investment should be treated as required moat maintenance across market infrastructure.

The guidance does not give explicit FY2026 or five-year Cash revenue targets. It does, however, identify the forward drivers: liquidity reforms, Stock Connect, ETPs, IPO momentum, resilient systems and clearing-system upgrades. I treat those as qualitative support for continued growth, but not as a license to extrapolate FY2025's 56.1% Cash revenue growth.

8. Forward Growth Assumptions

The model starts from Cash TTM revenue of HKD 15,566m. Because product-level TTM revenue is not disclosed for all Cash fee pools, I allocate the TTM base using FY2025 disclosed product weights. This is a modeling allocation, not an official HKEX historical disclosure. The allocation is: trading fees HKD 6,536m, clearing/settlement HKD 6,047m, listing fees HKD 1,021m, depository/custody/nominee HKD 1,487m, and other Cash fees/investment income HKD 475m. The allocation ties exactly to the segment TTM total. [data_package.md:124, data_package.md:137-data_package.md:140]

Base case: the TTM base is elevated, so the five-year CAGRs are below the FY2022-FY2025 segment CAGR and far below FY2025 YoY. The base case assumes Hong Kong remains the offshore China capital-market bridge, Stock Connect and ETPs continue to broaden activity, but FY2025/Q1 2026 conditions normalize into a less explosive cycle.

Product	3-yr historical CAGR	Latest YoY	Mgmt FY+1 guide	Base CAGR TTM to TTM+5y	Justification
Stock Exchange equity trading fees	n/d product; segment 17.6%	80.4%	Liquidity improved after minimum-spread reform	4.5%	Turnover remains above FY2024 but FY2025 rebound is not extrapolated. Stock Connect and ETP growth offset some normalization.

Product	3-yr historical CAGR	Latest YoY	Mgmt FY+1 guide	Base CAGR TTM to TTM+5y	Justification
Cash clearing and settlement fees	n/d product; segment 17.6%	57.7%	Stock Connect growth momentum	5.0%	Clearing tracks trading value and Northbound/Southbound settlement, with slightly better mix from Connect flows.
Listing fees allocated to Cash	n/d product; segment 17.6%	8.6%	Hong Kong ranked top IPO venue in Q1 2026	3.5%	IPO pipeline stays active, but listing fees are less volatile than funds raised and not modeled at IPO-cycle growth rates.
Depository/custody/nominee fees	n/d product; segment 17.6%	33.0%	Stock Connect and ETP growth	5.5%	Portfolio values, nominee activity and Connect holdings compound faster than listing fees but slower than FY2025 rebound.
Other Cash fees and investment income	n/d	n/d	No explicit guide	2.0%	Small residual grows with balances and activity, but lower rates can limit investment-income contribution.

Bull case: Hong Kong sustains elevated China/offshore allocation, Southbound and Northbound flows remain structurally strong, IPO windows stay open, and minimum-spread/market quality reforms expand turnover rather than compress the fee pool.

Product	3-yr historical CAGR	Latest YoY	Mgmt FY+1 guide	Bull CAGR TTM to TTM+5y	Justification
Stock Exchange equity trading fees	n/d product; segment 17.6%	80.4%	Liquidity improved after minimum-spread reform	8.0%	ADT remains closer to FY2025/Q1 2026 levels and grows with China tech, ETP and offshore allocation demand.
Cash clearing and settlement fees	n/d product; segment 17.6%	57.7%	Stock Connect growth momentum	8.5%	Clearing benefits from both higher traded value and Connect settlement mix.
Listing fees allocated to Cash	n/d product; segment 17.6%	8.6%	Top IPO venue in Q1 2026	6.5%	Hong Kong remains a top global IPO venue and annual listing base expands.
Depository/custody/nominee fees	n/d product; segment 17.6%	33.0%	Stock Connect and ETP growth	8.0%	Larger Connect holdings and ETP ecosystem lift portfolio and nominee fee activity.
Other Cash fees and investment income	n/d	n/d	No explicit guide	3.0%	Higher balances and stable rates keep residual income positive.

Bear case: FY2025/Q1 2026 proves cyclical, China equities lose momentum, IPO activity cools, and regulatory/spread reform gives more of the value back to market users. I do not assume a structural collapse, because the segment moat and market role remain intact, but I do assume five-year revenue can be flat to slightly down from a high TTM base.

Product	3-yr historical CAGR	Latest YoY	Mgmt FY+1 guide	Bear CAGR TTM to TTM+5y	Justification
Stock Exchange equity trading fees	n/d product; segment 17.6%	80.4%	Liquidity improved after minimum-spread reform	-1.0%	ADT normalizes below FY2025/Q1 2026 and fee/spread reform offsets part of volume.
Cash clearing and settlement fees	n/d product; segment 17.6%	57.7%	Stock Connect growth momentum	-0.5%	Connect remains relevant, but lower market turnover and weaker Northbound/Southbound risk appetite reduce clearing growth.
Listing fees allocated to Cash	n/d product; segment 17.6%	8.6%	Top IPO venue in Q1 2026	-2.0%	IPO windows close or valuation pressure lowers new listing and related issuer activity.
Depository/custody/nominee fees	n/d product; segment 17.6%	33.0%	Stock Connect and ETP growth	1.0%	Custody/nominee balances are stickier than trading, but weak markets cap growth.
Other Cash fees and investment income	n/d	n/d	No explicit guide	0.0%	Lower rates and lower balances offset activity growth.

The base-case deceleration is deliberate. Equity products ADT and Stock Connect metrics grew rapidly in FY2025 and Q1 2026, but the horizon model compounds from a TTM ending 2026-03-31 that already includes that uplift. A 4.5%-5.5% base-case CAGR from this base still implies a meaningfully larger segment by 2031; it is not a pessimistic view. The bear case tests whether the segment can hold most of the TTM recovery even if the cycle fades. The bull case tests whether China offshore liquidity and Stock Connect can make the FY2025 step-up a new platform rather than a peak.

9. Forward Operating Margin Assumptions

The current margin reference is the Cash TTM EBITDA margin of 91.5%, calculated from TTM EBITDA of HKD 14,238m and TTM revenue and other income of HKD 15,566m. [data_package.md:124] Because exact segment operating income is not disclosed, all forward "operating margin" and "operating income" values in this appendix are EBITDA-like segment operating profit proxies.

Case	Current segment margin	TTM+5y operating margin proxy	Change	Mechanism
Bear	91.5%	88.5%	-300 bps	Lower volumes from a high base, fee/spread reform pressure, and required technology/regulatory investment create negative operating leverage.
Base	91.5%	90.5%	-100 bps	High incremental margin persists, but normalization of investment income and ongoing systems spending modestly reduce margin.
Bull	91.5%	92.0%	+50 bps	Sustained high ADT and Connect volumes create operating leverage that more than offsets system and clearing investment.

The bear margin is not a collapse scenario. Exchanges can still run very high segment margins in weak markets because the fixed platform is already built. The margin damage comes from lower revenue over a cost base that cannot be cut aggressively without harming market quality, surveillance, issuer regulation or clearing resilience. The base margin assumes HKEX continues spending to maintain systems and clearing reliability. The bull margin assumes volume and Connect mix remain strong enough that the incremental revenue almost entirely drops through.

Product-level margin is not separately disclosed. I therefore do not assign fake product margins such as "listing is 95%" or "clearing is 90%." The model uses a segment-level blended margin, which is the right level of precision given the data package. [DATA GAP: product-level operating margins for trading, clearing, listing and depository are not disclosed.]

Net investment income is a swing factor. In a higher-rate environment, margin and clearing fund balances can support income. In a lower-rate environment, that support fades. I keep this in the residual line and margin cases rather than making it a separate large growth engine. This avoids double counting rates in both revenue and margin.

10. Segment Rollup

The rollup below allocates Cash TTM revenue to product buckets using FY2025 disclosed product weights, applies the case CAGRs for exactly five years from the 2026-03-31 TTM anchor to 2031-03-31, and applies the blended margin assumptions from Section 9. Totals reconcile to the product-level assumptions within rounding.

Product / bucket	TTM allocated base	Bear CAGR	Bear TTM+5y rev	Base CAGR	Base TTM+5y rev	Bull CAGR	Bull TTM+5y rev
Stock Exchange equity trading fees	6,536	-1.0%	6,216	4.5%	8,145	8.0%	9,603
Cash clearing and settlement fees	6,047	-0.5%	5,897	5.0%	7,717	8.5%	9,092
Stock Exchange listing fees allocated to Cash	1,021	-2.0%	922	3.5%	1,212	6.5%	1,398
Depository/custody/nominee fees	1,487	1.0%	1,563	5.5%	1,944	8.0%	2,185
Other Cash fees and investment income	475	0.0%	475	2.0%	525	3.0%	551

Product / bucket	TTM allocated base	Bear CAGR	Bear TTM+5y rev	Base CAGR	Base TTM+5y rev	Bull CAGR	Bull TTM+5y rev
Cash segment total	15,566	-0.6% blended	15,074	4.7% blended	19,543	8.0% blended	22,830

Case	Segment TTM+5y Revenue	Segment TTM+5y Op Margin Proxy	Segment TTM+5y Op Income Proxy	Probability
Bear	15,074	88.5%	13,340	25%
Base	19,543	90.5%	17,687	55%
Bull	22,830	92.0%	21,004	20%

The expected-value revenue using those probabilities is HKD 19,083m, and expected operating income proxy is HKD 17,264m. The base case contributes HKD 3.98bn of incremental revenue versus the TTM base and HKD 3.45bn of incremental operating income proxy. The bull case adds HKD 7.26bn of revenue and HKD 6.77bn of operating income proxy. The bear case produces modest revenue decline but larger income pressure because the margin falls from 91.5% to 88.5%.

The model is deliberately sensitive to ADT and Stock Connect rather than to pure listing fees. Trading plus clearing are more than three quarters of the disclosed FY2025 Cash fee pools, so the segment's five-year outcome depends most on Hong Kong securities turnover, Stock Connect turnover, and the fee-rate/volume tradeoff. Listing/depository can help or hurt, but they are not large enough to rescue the segment if ADT rolls over hard from the TTM base.

11. Key Risks And Wildcards

The first risk is market-cycle mean reversion. FY2025 and Q1 2026 were strong for turnover, IPOs and Stock Connect. If that period represents a cyclical top, the next five years can show disappointing growth despite HKEX keeping its market position. This risk mostly affects the bear case.

The second risk is China/Hong Kong equity confidence. Cash is structurally linked to investor appetite for Chinese and Hong Kong risk assets. A weaker China macro cycle, geopolitical escalation, sanction risk, capital-flow controls, property/banking stress or technology-sector drawdown can reduce ADT, IPO windows and Connect flows at the same time. This risk affects all cases but is decisive in bear.

The third risk is fee-rate and spread policy. Minimum-spread reform can improve liquidity, but it can also transfer economics to market users if the volume response is insufficient. Future fee reductions, market-making incentives or regulatory initiatives could lower take rates. This is a bear and base-case margin risk.

The fourth risk is IPO quality and aftermarket performance. Strong funds raised help listing and post-listing activity, but weak aftermarket returns can eventually reduce investor appetite and issuer confidence. A high fundraising year with poor secondary performance can borrow demand from future years. This mainly affects listing fees, depository activity and sentiment-sensitive ADT.

The fifth risk is clearing and operational resilience. HKEX's moat depends on trust in trading, clearing, settlement and market-data systems. The data package says major systems operated normally in Q1 2026, but this is a must-keep standard. A major outage, settlement failure or clearing stress event could damage volumes, invite regulatory intervention and force higher investment. This is a margin and moat risk across all cases. [data_package.md:204]

The sixth risk is rate normalization. A lower-rate environment can reduce investment-income contribution from funds and balances. Because the data package does not provide a clean Cash product-by-product NII schedule, the model keeps this conservative. The risk is that Cash profitability is more rate-sensitive than the model shows. This affects bear and base.

The main upside wildcard is that Stock Connect becomes a larger permanent bridge for Mainland and offshore investors. If Northbound and Southbound flows remain high and broaden into more products, Cash could compound closer to the bull case without needing another FY2025-style IPO boom. A second upside wildcard is sustained ETP adoption. The data package says Q1 2026 ETP ADT reached a record quarterly high; if ETPs become a larger structural liquidity layer, they can make Cash less dependent on single-name equity cycles. [data_package.md:154, data_package.md:198]

Summary Table

Case	Segment TTM+5y Revenue	Segment TTM+5y Op Margin	Segment TTM+5y Op Income	Probability
Bear	15,074	88.5%	13,340	25%
Base	19,543	90.5%	17,687	55%

Case	Segment TTM+5y Revenue	Segment TTM+5y Op Margin	Segment TTM+5y Op Income	Probability
Bull	22,830	92.0%	21,004	20%

Model flags: [DATA GAP: exact segment operating income is not disclosed; EBITDA is used as the operating income proxy.] [DATA GAP: product-level FY2022-FY2023 Cash fee-pool dollars and product-level operating margins are not disclosed.] The most important synthesis handoff is that Cash is a high-quality, high-margin, high-beta segment. The base case should not penalize the franchise for being cyclical, but it should not value FY2025/Q1 2026 as a new straight-line growth rate either.

Appendix B2 - Equity and Financial Derivatives

Equity and Financial Derivatives - Segment Deep Dive

Company: Hong Kong Exchanges and Clearing Limited Ticker: 0388.HK Segment: Equity and Financial Derivatives Currency: HKD millions unless stated otherwise Run date: 2026-07-02 TTM end: 2026-03-31 Horizon date: 2031-03-31

Important modeling note: HKEX discloses reportable-segment revenue and other income plus segment EBITDA, not exact segment operating income. The data package explicitly flags "Segment operating income" as a true non-disclosure and instructs downstream models to use EBITDA and PBT for segment models. This appendix therefore uses segment EBITDA as the operating-income proxy for the Equity and Financial Derivatives segment. Every HKEX historical figure below comes from the DR-cleared `data_package.md`; no HKEX historical number is re-fetched or invented.

0. Segment boundary and taxonomy note

Equity and Financial Derivatives is one of HKEX's five current reportable segments. The data package defines it as HKFE derivatives, stock options, derivative warrants, callable bull/bear contracts, warrants, OTC derivatives and related clearing platforms [data_package.md:47]. The taxonomy changed in 2023: FY2022 was restated to the current presentation, while FY2021 remains old-taxonomy context and should not be spliced into current segment CAGRs [data_package.md:60]. This appendix therefore uses FY2022-FY2025 as the clean historical base, with Q1 2026 and TTM used as the forecast anchor. FY2021 is only mentioned as background when discussing structural scale.

The segment is not just a futures exchange. It includes three economics that behave differently: exchange trading and trading-tariff fees from listed derivatives and structured products, clearing fees from the related derivative clearing activity, and a large residual pool that includes non-product-split revenue and other income, including margin/investment-income effects where they fall into the segment. The data package gives FY2025 segment revenue and other income of 6,863 and EBITDA of 5,597 [data_package.md:54], and it separately says the segment table gives FY2025 trading/trading-tariff total of 2,597 and clearing of 621, with the product split only partial [data_package.md:141]. The residual is therefore a derived balancing item, not a separately disclosed product line.

1. What this segment actually is

The segment monetizes risk transfer around Hong Kong and China-linked equities. Customers include banks, proprietary trading firms, market makers, structured-product issuers, brokerages, asset managers and hedgers that need listed futures, options, warrants, CBBCs or OTC derivative infrastructure. The core products are Hang Seng Index and Hang Seng China Enterprises Index futures/options, single-stock options, other HKFE products, derivative warrants, CBBCs and warrants listed on the exchange, plus related clearing. The data package also identifies OTC derivatives and related clearing platforms inside the segment boundary [data_package.md:47].

The business model is toll-road economics with convexity to trading activity. A cash equities exchange often earns from turnover; this segment earns from contracts, option exercise/hedging demand, structured-product turnover, clearing activity and collateral/margin economics. Contract volume matters, but contract mix matters as much. Index futures and options are institutional risk-management products, stock options skew toward single-name positioning and volatility demand, while DWs/CBBCs/warrants are more retail and issuer-led structured products. Clearing revenue has higher linkage to trading volume and open interest. Margin/investment income depends on rates, collateral balances, volatility-driven margin requirements and client activity.

The go-to-market is mostly embedded in HKEX's market infrastructure. Participants do not choose HKEX derivatives because of a field sales motion in the SaaS sense; they choose it because the exchange controls the most relevant local underlyings, the clearing house, the trading calendar, the settlement ecosystem, and the local regulatory perimeter. Product innovation matters, but liquidity network effects matter more. Once liquidity concentrates in a contract, market makers quote tighter spreads, hedgers face lower execution cost, and the incumbent contract becomes harder to displace.

At the same time, not all China risk needs to be expressed in Hong Kong. SGX reports that its FTSE China A50 Index Futures reached 112 million contracts in 2025 and described the contract as the most liquid international futures for Chinese equities in its January 2026 market-statistics release. Eurex describes a broad MSCI derivatives suite with China and other country-index products, while CME offers a FTSE China H50 index future that trades on Globex and ClearPort. These are not perfect substitutes for HKEX's local Hang Seng, HSCEI, stock-option and structured-product franchise, but they show that

global investors can route China equity risk to non-HKEX venues when product design, currency, margin offsets or trading hours suit them better.

External market-structure sources used in this section and Section 4: [SGX January 2026 market-statistics release](https://links.sgx.com/1.0.0/corporate-announcements/H3L2VGGP9YCWRZI2/), [Eurex MSCI derivatives overview](https://www.eurex.com/ex-en/markets/idx/msci), [CME E-mini FTSE China H50 futures overview](https://www.cmegroup.com/education/articles-and-reports/trading-e-mini-ftse-china-h50-index-futures), and [Cboe about page](https://www.cboe.com/about/).

2. Current economics

The latest clean base is TTM ended 2026-03-31. The data package's QF bridge gives Equity and Financial Derivatives FY2025 revenue and other income of 6,863, subtracts Q1 2025 revenue of 1,718, adds Q1 2026 revenue of 1,877, and arrives at TTM revenue and other income of 7,022. TTM EBITDA is 5,742 [data_package.md:125]. The implied TTM EBITDA margin on segment revenue and other income is 81.8%. Because exact segment operating income is not disclosed, this 81.8% is the current operating-margin proxy used in this appendix.

The segment was 23.5% of FY2025 group revenue and other income and 24.6% of FY2025 group EBITDA. The data package reports FY2025 segment revenue and other income of 6,863, FY2025 EBITDA of 5,597, and an EBITDA margin of 85% on the company presentation basis [data_package.md:54]. The difference between the disclosed 85% margin label and the simple 5,597 / 6,863 math is likely due to HKEX's margin denominator convention, which can exclude transaction expenses or use segment-specific presentation. For modeling, I use the mechanically reconstructable EBITDA/revenue proxy because it is what the synthesis can tie to the TTM bridge.

The segment has momentum but not explosive momentum. Q1 2026 revenue and other income was 1,877, up 9% year over year; Q1 2026 EBITDA was 1,548, up 10% [data_package.md:168]. Futures Exchange derivatives ADV was 885,000 contracts in Q1 2026, down 2% year over year but still described in the data package as a high absolute level; stock options ADV was 944,000 contracts, also down 2% year over year [data_package.md:182-183]. The current-year picture is therefore mixed: revenue and EBITDA grew high-single-digits, but the main contract-volume KPIs were not accelerating year over year in Q1.

The longer activity history is healthier. Futures Exchange derivatives ADV rose from 715,000 contracts in FY2022 to 783,000 in FY2025, a 3.1% CAGR, despite FY2025 being below FY2024. Stock options ADV rose from 588,000 contracts in FY2022 to 880,000 in FY2025, a 14.4% CAGR [data_package.md:39-40]. That mix supports a base case where stock options and structured products can grow faster than the segment average when Hong Kong/China risk appetite is favorable, while index futures can be more cyclical around volatility and macro hedging.

The segment is very profitable because the incremental cost of more contracts is low once the platform, clearing, risk, surveillance and market-maker ecosystem are in place. Capex and technology costs are real: the data package notes Q1 2026 capital-expenditure commitments that include the Orion Derivatives Platform and clearing-system upgrades [data_package.md:205]. But those costs are largely platform maintenance and capability investment rather than unit-variable cost. In normal markets, revenue changes flow through at high incremental margins. In stressed markets, the segment can also benefit from higher hedging demand and higher margin balances, but that benefit is not one-way: stressed conditions can invite regulatory intervention, position-limit scrutiny, default-risk provisions and lower customer risk appetite after the spike.

3. Unit economics

The segment has three unit-economic engines.

First, trading and trading-tariff fees are driven by contracts, notional value, product mix and fee schedules. The data package discloses FY2025 trading/trading-tariff total of 2,597 for the segment table, with product split partial [data_package.md:141]. This pool should track a blended basket of HKFE futures/options and structured products. It is exposed to market volatility, China/Hong Kong equity beta, structured-product issuer appetite and market-maker economics. In a bull market, directional and structured-product demand can rise. In a bear or high-volatility market, hedging can rise, but retail structured-product turnover can shrink if losses or regulatory scrutiny reduce participation.

Second, clearing fees are driven by cleared contracts, risk-management services and open-interest-related activity. The data package discloses FY2025 clearing of 621 for the segment table [data_package.md:141]. Clearing economics are highly attractive, but not risk-free. A clearing house earns a spread for mutualized risk management and post-trade infrastructure. It also needs robust margining, default management, capital resources, technology resilience and regulator trust. The segment

benefits when contract volumes and open interest rise, but the clearing franchise becomes more scrutinized when volatility spikes or when a product design creates one-sided positioning.

Third, the residual pool is large. FY2025 segment revenue and other income was 6,863, while the partial trading/trading-tariff and clearing disclosure sums to 3,218. The derived balancing item is 3,645. The data package separately flags that product-by-contract revenue is not fully disclosed and that downstream appendices should use segment revenue, fee-pool totals and ADV by product family rather than invented product dollars [data_package.md:159, data_package.md:263]. This residual likely contains margin-fund net investment income and other revenue/other income components within the segment, but the data package does not provide a product-level bridge. I therefore model it as "other, margin and undisclosed balance" rather than pretending it is a product.

The margin profile follows from those engines. The current TTM EBITDA margin proxy is 81.8%. If volumes rise without a major fee cut or systems incident, the segment can hold or slightly expand margin because incremental transaction revenue has limited variable cost. If growth comes mainly from margin/investment income, margin may remain high but durability is lower because rates and balances can reverse. If the regulator pushes lower fees, wider access, market-maker incentives or mandatory system investment, revenue can grow while margin stalls.

4. Competitive dynamics

HKEX's first competitive advantage is local relevance. For Hong Kong equities, Hang Seng benchmarks, Hong Kong-listed single names and structured products tied to local underlyings, HKEX has the natural venue. Market makers and issuers need the local underlying market, local settlement linkages, local clearing and a regulatory framework investors recognize. The exchange also controls key local market structure, including product listings, trading rules, clearing arrangements and technology roadmap.

The second advantage is liquidity concentration. Index futures, stock options and structured products are path-dependent markets. Users want liquidity; liquidity providers quote where users trade; issuers list where investors can trade and hedge; clearing members support where open interest and collateral are meaningful. That feedback loop is a real moat, especially for local index and single-stock risk. It does not make HKEX immune to competition, but it raises the hurdle for a rival to displace an established contract.

The main direct competitive threat is not another Hong Kong cash exchange. It is alternative venues for China/Hong Kong equity risk. SGX is the most visible competitor for offshore China index derivatives: its January 2026 release reported 112 million FTSE China A50 contracts in 2025 and US$17 billion of open interest, while describing the contract as the most liquid international futures for Chinese equities. That matters because global macro and hedge-fund flows can choose SGX A50 exposure when they want USD-denominated, A-share-linked, internationally distributed futures rather than Hong Kong-listed index or stock-option exposure.

Eurex is a different threat: not a local Hong Kong substitute, but a global portfolio-margin and MSCI benchmark platform. Its MSCI derivatives overview describes MSCI indexes as linked to large benchmarked AUM and says it offers 146 MSCI futures and 23 MSCI options across regional and country indexes. A global asset manager running a multi-country MSCI hedge can prefer Eurex if the risk is benchmark-relative rather than local Hong Kong execution. The competitive point is not that Eurex will take HKEX's retail CBBC flow. It is that international institutional demand has credible alternatives when the objective is broad China or EM Asia beta hedging.

CME's E-mini FTSE China H50 contract is another alternative for offshore users. CME says the contract trades on Globex and ClearPort and offers around-the-clock access. That kind of access matters for US and global participants who want futures execution outside Hong Kong hours. Cboe's global derivatives footprint is less directly China-specific in the sources used here, but it reinforces a broader point: options and volatility users are accustomed to cross-border venues, margin offsets, multiple clearing models and electronic access. HKEX cannot assume that international derivatives flow is captive.

For structured products, competition is subtler. DWs, CBBCs and warrants depend on local investor risk appetite, issuer economics and hedging efficiency. The data package gives a partial FY2025 segment fee-pool disclosure but does not disclose DW/CBBC/warrant revenue by product [data_package.md:141]. The moat is the local listing and trading ecosystem, not a unique payoff. Structured products are easily designed, but local liquidity and distribution are hard to recreate. The risk is regulatory: if structured products are perceived as unsuitable, too leveraged or too retail-loss-prone, regulators can tighten disclosure, leverage, issuer conduct or distribution rules. That would reduce turnover even if product innovation continues.

Overall, the competitive map supports a mid-single-digit base case, not a heroic growth case. HKEX owns the local Hong Kong derivatives and structured-product ecosystem, but non-HKEX venues have deep China-risk products. The segment can

grow faster than Hong Kong GDP when volatility, China technology sentiment and Stock Connect-related participation are healthy. It should not be underwritten as a secular compounder at double-digit growth unless the data show sustained product-level contract expansion and management proves the new derivatives platform unlocks materially higher participation.

5. Moat at the segment level

The segment-level moat is strong but narrower than the group-level moat. It is strongest in local single-stock options, Hang Seng/HSCEI risk transfer, DW/CBBC/warrant trading and related clearing. It is weaker in generic China beta, where SGX, CME, Eurex and onshore Chinese venues can all serve parts of institutional demand.

The moat is built from four layers. The first is benchmark and underlying proximity: HKEX's contracts sit next to the Hong Kong cash market and the local listed issuer base. The second is clearing trust: participants use the clearing house because they need robust margining, default management and settlement finality. The third is liquidity network effects: the largest contracts become cheaper to trade because liquidity providers and hedgers reinforce one another. The fourth is regulatory embedding: HKEX works within the Hong Kong market structure and can coordinate product, clearing and rule changes in a way that a foreign competitor cannot fully replicate.

The moat is not costless. The data package's systems-resilience note says all major trading, clearing, settlement and market-data dissemination systems continued to operate normally in Q1 2026 [data_package.md:204]. That is not a throwaway operational detail; it is the product. If a derivatives exchange loses uptime or trust during a volatile period, liquidity can migrate and regulators can force costly remediation. The data package also highlights Orion Derivatives Platform and clearing-system upgrades within capital-expenditure commitments [data_package.md:205]. Those investments defend the moat but also cap margin expansion.

The moat should last over five years if HKEX keeps product coverage current and systems resilient. It is less certain over ten years because China risk could migrate onshore, offshore competitors could build better margin offsets, and retail structured-product rules could tighten. In base case, I assume the moat preserves high margins and allows revenue to compound from the TTM base at a modest mid-single-digit rate. In bull case, the moat monetizes renewed China/HK risk appetite and product innovation. In bear case, it preserves profitability but not growth.

6. Historical growth rates - reproduced from data package

The following table uses only current-taxonomy FY2022-FY2025 segment data and disclosed activity KPIs from the data package. Product-level dollar history by contract family is not disclosed, so no contract-family revenue history is back-solved.

Product / sub-segment	FY2022 rev or KPI	FY2023 rev or KPI	FY2024 rev or KPI	FY2025 rev or KPI	3-yr CAGR	Most recent YoY	Data package cite
Equity and Financial Derivatives revenue and other income	5,279	6,502	6,204	6,863	9.1%	FY2025 +10.6%; Q1 2026 revenue +9%	data_package.md:89-92; data_package.md:103; data_package.md:168
Futures Exchange derivatives ADV, 000 contracts	715	742	830	783	3.1%	Q1 2026 -2% YoY	data_package.md:39; data_package.md:182
Stock options ADV, 000 contracts	588	612	720	880	14.4%	Q1 2026 -2% YoY	data_package.md:40; data_package.md:183
Trading and trading-tariff fee pool	n/d	n/d	n/d	2,597	n/d	n/d	data_package.md:141
Clearing fee pool	n/d	n/d	n/d	621	n/d	n/d	data_package.md:141
DWs, CBBCs and warrants	n/d	n/d	n/d	included in partial pool	n/d	n/d	data_package.md:47; data_package.md:141

Arithmetic checks: segment revenue satisfies the disclosed YoY path: 5,279 to 6,502 is +23.2%, 6,502 to 6,204 is -4.6%, and 6,204 to 6,863 is +10.6%, matching the data-package growth row [data_package.md:103]. Futures Exchange derivatives ADV from 715 to 783 implies a 3.1% three-year CAGR; stock options ADV from 588 to 880 implies a 14.4% three-year CAGR. Q1 2026 segment revenue of 1,877 versus 1,718 is +9.3%, consistent with the rounded +9% in the data package [data_package.md:168]. No product revenue was back-solved, consistent with the data-package instruction that product-by-contract revenue is a true non-disclosure [data_package.md:263].

The segment's historical record is good but cyclically uneven. FY2023 was strong, FY2024 declined despite healthy stock-option activity, and FY2025 recovered. The clean historical CAGR is flattered by the depressed FY2022 base and by the post-2024 recovery in Hong Kong/China risk appetite. The most recent quarter still grew revenue and EBITDA, but the two headline derivatives contract KPIs declined 2% year over year. This is exactly the profile of a high-margin, volatility-sensitive exchange segment: durable profitability, but forward growth needs a view on activity, not just a straight-line extrapolation.

7. Management guidance and official commentary

The data package reports no FMP transcript for Q1 2026; management commentary therefore comes from official results announcements and presentation text [data_package.md:190-191]. The relevant segment-specific comments are limited, and that limitation matters. There is no product-level revenue guide, no five-year derivatives-volume target, and no disclosed margin guide for this segment.

Topic	Data package row	Verbatim quote or official statement	Interpretation
Derivatives demand	data_package.md:199	"Sustained strong investor interest in Chinese Mainland technology stocks continued to drive the growth momentum"	The near-term growth driver is China technology and index risk appetite, not a purely structural recurring fee stream.
Systems resilience	data_package.md:204	"all HKEX's major trading, clearing, settlement and market data dissemination systems... continued to operate normally"	Reliability is a core operating KPI for derivatives and clearing; outage risk would directly damage the franchise.
Derivatives and clearing investment	data_package.md:205	"capital expenditure commitments... included... Orion Derivatives Platform and upgrade of clearing systems"	HKEX is investing in derivatives and clearing infrastructure; this supports durability but limits free margin expansion.
Q1 segment trend	data_package.md:168	Q1 2026 revenue +9%; Q1 2026 EBITDA +10%	Management has entered the horizon with positive segment economics, but not with accelerating contract KPIs.
Activity KPIs	data_package.md:182-183	Futures Exchange derivatives ADV -2%; stock options ADV -2% in Q1 2026	Current revenue growth includes mix, fee and other-income effects; contract-count growth is not the sole driver.

[DATA GAP: The data package does not provide a five-year target, FY2026 guide, product-level revenue guide, or product-level margin guide for Equity and Financial Derivatives.]

8. Forward growth assumptions - explicit, per product

The TTM base is 7,022 of segment revenue and other income. Because HKEX does not disclose complete product-level TTM revenue, I allocate the TTM base using FY2025 disclosed fee-pool shares. The FY2025 trading/trading-tariff pool of 2,597 equals 37.8% of FY2025 segment revenue; the clearing pool of 621 equals 9.0%; the residual balance equals 53.1%. Applied to TTM revenue of 7,022, the starting model pools are 2,657 for trading/trading tariff, 635 for clearing, and 3,729 for other, margin and undisclosed balance. This allocation is a modeling bridge, not a company disclosure.

Base case:

Product	TTM revenue base	3-yr historical CAGR	Latest YoY	Mgmt FY+1 guide	Base CAGR TTM to TTM+5y	Justification
Trading and trading-tariff fee pool	2,657	Segment revenue +9.1%; futures ADV +3.1%; stock options ADV +14.4%	Segment Q1 revenue +9%; futures and stock-options ADV both -2%	No explicit guide; China tech interest cited	5.5%	Uses mid-single-digit growth because stock options and structured products can outgrow index futures, but Q1 contract KPIs are not accelerating.
Clearing fee pool	635	Segment revenue +9.1%; product history n/d	Segment Q1 EBITDA +10%	No explicit guide	4.0%	Clearing grows with contracts and open interest but is modeled below trading because fee schedules and clearing economics are less directly levered to retail structured-product turnover.

Product	TTM revenue base	3-yr historical CAGR	Latest YoY	Mgmt FY+1 guide	Base CAGR TTM to TTM+5y	Justification
Other, margin and undisclosed balance	3,729	Segment revenue +9.1%; product history n/d	Segment Q1 revenue +9%	No explicit guide	3.5%	Balancing pool includes other income and margin effects; base assumes activity and balances grow, partly offset by normalization risk in rates and margin fund income.

Bull case:

Product	TTM revenue base	3-yr historical CAGR	Latest YoY	Mgmt FY+1 guide	Bull CAGR TTM to TTM+5y	Justification
Trading and trading-tariff fee pool	2,657	Segment revenue +9.1%; stock options ADV +14.4%	Segment Q1 revenue +9%	China technology interest cited	8.5%	Bull assumes sustained China/HK technology risk appetite, successful derivatives-platform upgrade, and stronger structured-product turnover without punitive fee cuts.
Clearing fee pool	635	Segment revenue +9.1%	Segment Q1 EBITDA +10%	No explicit guide	6.5%	Clearing benefits from higher open interest, more options usage and better product breadth, but stays below trading growth due to fee-pool maturity.
Other, margin and undisclosed balance	3,729	Segment revenue +9.1%	Segment Q1 revenue +9%	No explicit guide	6.0%	Bull assumes higher volatility and margin balances remain supportive while investment income does not normalize sharply lower.

Bear case:

Product	TTM revenue base	3-yr historical CAGR	Latest YoY	Mgmt FY+1 guide	Bear CAGR TTM to TTM+5y	Justification
Trading and trading-tariff fee pool	2,657	Segment revenue +9.1%; futures ADV +3.1%	Futures and stock-options ADV both -2%	No explicit guide	1.0%	Bear assumes China/HK risk appetite fades, structured-product turnover cools, and international hedging flow chooses SGX/Eurex/CME alternatives for part of broad China beta.
Clearing fee pool	635	Segment revenue +9.1%	Segment Q1 EBITDA +10%	No explicit guide	0.0%	Clearing is resilient but volume-linked; weak contracts and lower open interest leave the fee pool flat.
Other, margin and undisclosed balance	3,729	Segment revenue +9.1%	Segment Q1 revenue +9%	No explicit guide	-0.5%	Bear assumes rate/margin income normalizes and lower risk appetite reduces balances, partly offset by the platform's fixed franchise value.

Thesis-consistency check: The base case does not extrapolate the 9.1% segment historical CAGR or the 14.4% stock-options ADV CAGR. It deliberately steps the blended segment growth rate down to roughly 4.3% from the allocated product build, because Q1 2026 contract KPIs were down 2% year over year and product-level revenue by contract is not disclosed. The bull case only reaches about 7.0% blended revenue growth, still below the historical stock-options ADV CAGR, because competition and product-mix uncertainty cap the underwrite. The bear case is nearly flat, not sharply negative, because high-margin local exchange infrastructure rarely collapses without a market-structure or regulatory shock.

9. Forward operating margin assumptions

Current margin reference: TTM EBITDA of 5,742 divided by TTM revenue and other income of 7,022 implies an 81.8% segment operating-income proxy margin [data_package.md:125]. FY2025 segment EBITDA of 5,597 on revenue and other

income of 6,863 implies 81.6% on the same mechanical basis, while the company table labels the margin as 85% on its presentation basis [data_package.md:54]. For comparability, the forecast uses the mechanical EBITDA/revenue proxy.

Base case margin:

Product	Current margin reference	TTM+5y margin	Change vs current	Justification
Trading and trading-tariff fee pool	Segment proxy 81.8%	84.0%	+220 bps	Scale leverage and product mix offset ongoing Orion and market-maker support costs.
Clearing fee pool	Segment proxy 81.8%	84.0%	+220 bps	Clearing volume growth has high incremental margin, but risk and regulatory costs prevent a larger step-up.
Other, margin and undisclosed balance	Segment proxy 81.8%	80.0%	-180 bps	Other income and margin/investment effects are high-margin but less durable; base case builds in modest normalization.

Bull case margin:

Product	Current margin reference	TTM+5y margin	Change vs current	Justification
Trading and trading-tariff fee pool	Segment proxy 81.8%	86.0%	+420 bps	Higher volume on the same platform improves operating leverage and product mix.
Clearing fee pool	Segment proxy 81.8%	86.0%	+420 bps	Higher open interest and clearing activity scale over fixed risk and technology costs.
Other, margin and undisclosed balance	Segment proxy 81.8%	82.0%	+20 bps	Margin/investment income remains supportive and does not require heavy incremental operating cost.

Bear case margin:

Product	Current margin reference	TTM+5y margin	Change vs current	Justification
Trading and trading-tariff fee pool	Segment proxy 81.8%	80.0%	-180 bps	Lower volume and more incentives/fee support compress incremental economics.
Clearing fee pool	Segment proxy 81.8%	80.0%	-180 bps	Clearing remains profitable, but risk-management and resilience spending absorb more of the fee pool.
Other, margin and undisclosed balance	Segment proxy 81.8%	74.0%	-780 bps	Lower rates, smaller margin balances or regulatory changes reduce the residual pool's profitability.

The margin range is deliberately tight for trading and clearing, and wider for the residual pool. A derivatives platform with 80%+ current margins has room for upside, but margin expansion is not the core thesis. The bigger swing factor is whether TTM revenue of 7,022 compounds toward 8.7-9.9 billion or stagnates near 7.1 billion. The margin/investment-income component deserves a lower-quality multiple than trading and clearing fees because the data package does not disclose its mechanics at product level.

10. Segment rollup - built bottoms-up

The rollup below compounds each allocated TTM pool for exactly five years from the TTM end date to 2031-03-31. Revenue totals reconcile to the product assumptions in Section 8, with displayed totals calculated from the rounded component rows. Operating income is the EBITDA-based operating-income proxy described above.

Case	Trading and tariff revenue	Clearing revenue	Other, margin and undisclosed revenue	Segment TTM+5y revenue	Blended op margin proxy	Segment TTM+5y op income proxy
Bear	2,793	635	3,637	7,065	76.9%	5,434

Case	Trading and tariff revenue	Clearing revenue	Other, margin and undisclosed revenue	Segment TTM+5y revenue	Blended op margin proxy	Segment TTM+5y op income proxy
Base	3,473	773	4,429	8,675	82.0%	7,110
Bull	3,995	870	4,990	9,855	84.0%	8,276

Arithmetic check: Bear product revenues sum to 7,065 and product operating-income proxies sum to 5,434, giving a blended margin of 76.9%. Base product revenues sum to 8,675 and product operating-income proxies sum to 7,110, giving a blended margin of 82.0%. Bull product revenues sum to 9,855 and product operating-income proxies sum to 8,276, giving a blended margin of 84.0%. Each case ties to the Section 8 growth rates and Section 9 margin assumptions within rounding.

This rollup implies a base-case segment revenue CAGR of roughly 4.3% from TTM to TTM+5y. That is below the FY2022-FY2025 current-taxonomy segment CAGR of 9.1%, and it treats FY2025/Q1 2026 strength as partly cyclical. It is also above a simple mature-exchange inflation assumption because stock options, structured products, ETP-related hedging, China technology risk appetite and clearing/margin effects can drive higher activity than nominal GDP in favorable markets.

11. Key risks and wildcards

Bear case risks:

- China/Hong Kong risk appetite reverses. The data package's management commentary ties derivatives growth to Chinese Mainland technology-stock interest [data_package.md:199]. If that interest fades, trading and structured-product turnover can underperform even if the exchange remains strategically important.
- Contract-volume indicators already warn against complacency. Q1 2026 Futures Exchange derivatives ADV and stock options ADV were both down 2% year over year [data_package.md:182-183]. Revenue growth can persist for a while through mix and other income, but sustained volume weakness would eventually pressure the fee pools.
- Offshore competition absorbs generic China beta. SGX, Eurex and CME give global investors non-HKEX choices for China equity derivatives. HKEX keeps the local moat, but not every China hedge needs local Hong Kong contracts.
- Margin/investment income normalizes. Margin Fund deposits were 267,600 at Q1 2026 and Clearing House Fund contributions were 35,200 [data_package.md:240-241]. The balances are core risk resources, not ordinary debt, but income on collateral and margin balances can move with rates and risk appetite.

Base case risks:

- Product innovation may protect share but not expand the market. The Orion Derivatives Platform and clearing-system upgrades support durability [data_package.md:205], but technology investment may be necessary just to keep pace with global electronic derivatives standards.
- Structured-product regulation can tighten. DWs, CBBCs and warrants are valuable local products, but they are retail-sensitive. Conduct or suitability rules could reduce turnover without destroying the franchise.
- Fee competition can show up as incentives. If HKEX needs more market-maker support or fee rebates to defend liquidity, revenue growth may not flow through as expected.

Bull case wildcards:

- China technology sentiment stays strong for multiple years. If the Q1 2026 management comment proves to be the start of a longer cycle, stock options and index derivatives can outgrow this base case.
- ETP and ETF activity broadens the hedging ecosystem. The data package reports Q1 2026 ETP ADT at a record quarterly high, up 14% year over year [data_package.md:154, data_package.md:198]. ETP revenue sits mainly outside this segment, but ETP growth can increase hedging, options and structured-product demand around listed exposures.
- Volatility rises without a market-structure break. Moderate volatility is good for derivatives. Extreme volatility is ambiguous because it can trigger regulatory scrutiny, participant losses or clearing risk.
- Platform modernization improves participation. If Orion materially reduces latency, improves product flexibility or supports more efficient market-maker workflows, HKEX may capture more offshore and institutional derivatives flow than assumed.

The most important single monitoring variable is not revenue; it is whether segment revenue growth is accompanied by healthy Futures Exchange derivatives ADV, stock-options ADV and disclosed structured-product turnover. Revenue growth driven mostly by residual other income or margin effects would be lower quality. Revenue growth accompanied by rising contracts, wider participant breadth and stable systems would be much higher quality.

Summary table

Case	Segment TTM+5y Revenue	Segment TTM+5y Op Margin	Segment TTM+5y Op Income	Probability
Bear	7,065	76.9%	5,434	25%
Base	8,675	82.0%	7,110	50%
Bull	9,855	84.0%	8,276	25%

[DATA GAP: HKEX does not disclose exact segment operating income, product-level revenue by individual derivatives contract, or complete product-level revenue history for DWs, CBBCs, warrants, futures, options and OTC derivatives. This appendix uses segment EBITDA as the operating-income proxy and uses only data-package fee-pool disclosures for HKEX historical figures.]

Appendix B3 - Commodities

Commodities - Segment Deep Dive

Company: Hong Kong Exchanges and Clearing Limited Ticker: 0388.HK Segment: Commodities Currency: HKD millions unless stated otherwise Run date: 2026-07-02 TTM end: 2026-03-31 Horizon date: 2031-03-31

0. Segment boundary and taxonomy note

The Commodities segment covers the London Metal Exchange, LME Clear, Qianhai Mercantile Exchange, and commodities contracts traded on HKEX platforms. The DR-cleared data package defines the segment this way and also states that current reportable segments are Cash, Equity and Financial Derivatives, Commodities, Data and Connectivity, and Corporate Items [data_package.md lines 45-47]. The relevant taxonomy warning is that HKEX changed reportable segments in 2023; FY2022 was restated to the current presentation, while FY2021 remains old-taxonomy context only [data_package.md lines 60 and 276]. This appendix therefore uses FY2022-FY2025 and TTM as the clean history for Commodities. FY2021 is mentioned only as context, not as an input to current-taxonomy CAGR calculations.

Two source constraints shape the model. First, official HKEX tables control every HKEX historical figure because FMP segment and geographic endpoints were empty or label-mismatched [data_package.md lines 12-16 and 261-262]. Second, the data package states that exact segment operating income is a true non-disclosure because HKEX discloses segment EBITDA and PBT, not segment operating income [data_package.md line 268]. Since this Sub-Agent B is not permitted to re-fetch or invent HKEX historical figures, the forward tables use segment EBITDA as the operating-income proxy. I label it that way throughout. The synthesis agent can convert EBITDA proxy to group operating profit using the group-level D&A and central-cost bridge if it needs a formal GAAP operating-profit line. Nickel/FCA discussion is risk context only; it does not restate or adjust HKEX's reported historical Commodities revenue, EBITDA, or current-taxonomy boundary.

[DATA GAP: HKEX does not disclose exact segment operating income in the DR-cleared data package; this appendix reports "operating income proxy" as segment EBITDA.]

1. What this segment actually is

Commodities is HKEX's global metals infrastructure business. It is not primarily a Hong Kong local securities-market business. The segment is anchored by LME and LME Clear: the exchange venue, contract standard, price-discovery process, clearing house, warehouse and warrant ecosystem, and market-data franchise around base metals. The segment also includes QME and commodities contracts traded on HKEX platforms, but the data package does not disclose a separate QME revenue line. The model therefore treats QME and HKEX-platform commodity contracts as part of "other / ancillary" rather than pretending they are separate dollar-reported businesses.

The economic product is a bundle. A metal producer, consumer, merchant, physical trader, financial investor, broker, or bank uses LME contracts to hedge or express exposure to copper, aluminium, nickel and other industrial metals. LME collects trading fees when participants transact. LME Clear collects clearing fees and default-management resources support the risk-transfer function. LME market-data products monetize the benchmark and price-discovery layer. Warehouse licensing, warranting, approved brands, settlement mechanics, and physical-delivery rules support the contract's role as a bridge between paper risk and physical metal.

This matters because the revenue driver is not "commodity prices" alone. Higher metals volatility can lift hedging and speculative turnover, but the stronger structural driver is sustained participant need for a trusted benchmark and clearing venue. A commodity exchange with weak governance can still see bursts of volume during volatility; it does not necessarily deserve a high terminal multiple. A commodity exchange with trusted benchmark status, robust clearing, and broad physical-market acceptance can compound modestly for a long time even when metal prices cycle. LME sits in the second category, but the nickel event showed that the moat is not costless: trust can be damaged quickly, and restoring it requires controls, market-structure reform, and regulator confidence.

The data package points to the live state of the business entering the forecast period. FY2025 Commodities revenue and other income was 3,171, 10.9% of group revenue and other income, with FY2025 EBITDA of 1,822 and a 57% EBITDA margin [data_package.md lines 49-56]. TTM revenue and other income was 3,464 and TTM EBITDA was 2,204 [data_package.md lines 120-127]. Q1 2026 showed sharper momentum: Commodities revenue and other income rose 39% year on year to 1,039 and EBITDA rose 105% to 747 [data_package.md lines 165-170]. That Q1 strength is not a normalized

base by itself, but it explains why the TTM base is meaningfully above FY2025.

2. Current economics

The current economics are exchange-like, but not as cleanly high-margin as HKEX's Hong Kong cash or data businesses. On the FY2025 segment mix table, Commodities had 3,171 of revenue and other income and 1,822 of EBITDA, implying a 57% EBITDA margin [data_package.md lines 51-56]. On the latest TTM bridge, Commodities revenue and other income was 3,464 and TTM EBITDA was 2,204 [data_package.md lines 120-127], implying a TTM EBITDA margin of 63.6%. The improvement is consistent with a fixed-cost exchange business that saw a sharp Q1 2026 volume and fee-rate lift: Q1 Commodities revenue rose 39%, but EBITDA more than doubled [data_package.md lines 165-170].

The segment is smaller than Cash and Equity and Financial Derivatives but has become more consequential for the group growth mix. The data package's key downstream finding states that Commodities is smaller but accelerating, with Q1 2026 revenue up 39%, EBITDA more than doubled, LME chargeable ADV up 26%, and fee-tariff increases helping the result [data_package.md lines 270-274]. This is the right framing: the forward case should not assume that Q1's 105% EBITDA growth repeats, but it should give the segment credit for a higher starting volume base and tariff support.

The product economics are only partly disclosed. Official product/sub-segment dollar disclosures show FY2025 LME trading fees of 1,562 versus 1,412 in FY2024, LME Clear clearing fees of 709 versus 632, and commodity market data fees of 334 versus 263 [data_package.md lines 133-144]. Those three disclosed lines sum to 2,605 in FY2025, leaving 566 of segment revenue and other income in other items, including the segment's net investment income, donation/sundry income, QME, HKFE commodity contracts and ancillary fees as applicable. The FY2025 segment table also shows segment revenue and other income of 3,171 and EBITDA of 1,822 [data_package.md lines 89-93]. I do not allocate the residual into invented QME, warehouse or HKFE commodity-dollar lines because the data package explicitly says no product revenue has been back-solved and downstream appendices should use disclosed fee-pool totals rather than invented product dollars [data_package.md line 159].

The operating KPI driver is LME chargeable ADV. Annual LME chargeable ADV was 506k lots in FY2022, 562k in FY2023, 664k in FY2024 and 717k in FY2025, with Q1 2026 at 877k [data_package.md lines 33-42]. That implies a clean FY2022-FY2025 CAGR of about 12.3% and a Q1 2026 level 22% above the FY2025 annual average. The important point is not just volume, but the mix of volume, tariffs and market data. Trading fees, clearing fees and data fees all rose in FY2025, and Q1 volume then accelerated. In a high-fixed-cost market infrastructure business, that combination moves EBITDA faster than revenue.

3. Unit economics

The segment monetizes three economic layers. The first is trading activity: members and clients pay to access LME execution and trade metals contracts. The second is clearing: LME Clear earns fees for central counterparty clearing and risk-management services. The third is information and benchmark monetization: market data fees turn prices, curves, reference prices and trade information into recurring or semi-recurring revenue. The residual bucket includes ancillary items, investment income on segment resources, QME and any HKEX-platform commodity contracts that are not separately dollar-disclosed.

The cost structure is mostly platform, personnel, technology, market supervision, clearing risk management, and regulatory / remediation cost. Once the venue, rulebook, clearing house, surveillance, member network and warehouse infrastructure exist, incremental lots have high contribution margins. That explains why Q1 2026 Commodities EBITDA rose 105% on a 39% revenue increase [data_package.md lines 165-170]. It also explains why the model does not assume margin collapses in a normal volume slowdown: fixed costs create downside operating leverage, but the platform is not a variable-cost commodity producer.

The margin is still lower than HKEX's Cash or Data and Connectivity segments. FY2025 Commodities EBITDA margin was 57%, versus 91% for Cash and 81% for Data and Connectivity [data_package.md lines 51-56]. The reason is partly business mix. LME is a global physical-market benchmark with clearing, warehousing, regulatory and operational complexity. It must invest in controls and market resilience after the nickel event, and it must keep physical-market users confident that the contract remains tied to actual deliverable metals markets. The segment therefore earns excellent but not pure-software margins.

The unit economics can improve through four mechanisms. First, higher LME chargeable ADV spreads a relatively fixed exchange and clearing cost base over more lots. Second, tariff increases lift revenue per lot when the franchise can carry

price. Third, market data revenue scales with benchmark usage and data distribution. Fourth, new tools such as LME Insight or auto-expiry can create incremental product utility, but the data package does not provide enough dollar history to capitalize those projects separately [data_package.md lines 249-251]. The model treats them as support for market-data and trading/clearing durability rather than a separate forecast line.

The unit economics can break in four ways. First, if metals activity normalizes from a high-volatility period, chargeable ADV can fall quickly. Second, fee increases can meet resistance if members believe LME execution quality or governance has weakened. Third, clearing economics can be hit by risk investment and margin-model conservatism after market stress. Fourth, regulatory failures can force remediation cost, controls investment and reputational discount. The FCA's 2025 Final Notice on the 2022 nickel episode is the clearest external reminder: it found the disorder undermined market confidence and led to a suspension of nickel trading from 8 March to 16 March 2022, with Asian-hours reopening only in March 2023 ([FCA Final Notice](https://www.fca.org.uk/publication/final-notices/london-metal-exchange-2025.pdf)).

4. Competitive dynamics

LME competes with other commodity venues and with over-the-counter markets, but competition is not symmetrical. For base metals, LME has a long-established global benchmark role and a physical delivery ecosystem. CME has meaningful metals products, especially in the United States. CME describes its copper futures as an important risk-management tool and a predominant benchmark in the US market ([CME copper overview](https://www.cmegroup.com/markets/metals/base/copper.html)). CME also promotes base-metals futures and options with clearing, block trading, circuit breakers, position limits and a unified clearinghouse ([CME base metals](https://www.cmegroup.com/markets/metals/base.html)). SHFE is the key China onshore venue; LME's own education material describes LME-SHFE copper arbitrage as a real cross-market relationship, with LME and SHFE copper prices strongly correlated but affected by tax, freight, exchange rates, regional fundamentals and liquidity ([LME-SHFE arbitrage](https://www.lme.com/education/online-resources/lme-digest/lme-shfe-cross-market-arbitrage)).

The competitive question is therefore not whether another exchange can list copper, aluminium or nickel contracts. They can. The question is whether another venue can replace LME as the global physical-market reference point for users who need accepted brands, warehouse warrants, forward curves, global member relationships, central clearing and benchmark data. That is harder. Liquidity in benchmarks is reflexive: producers, consumers, traders and banks route hedging to the venue where other hedgers, lenders, brokers and physical-market users already meet. Market-data value then follows liquidity and benchmark acceptance.

The SHFE relationship is both competitive and complementary. China is central to industrial metals demand, and China-local contracts matter for domestic risk management. LME's own material describes LME-SHFE arbitrage as connected to physical flows, bonded warehouse stock, tax rates, opening hours and rule differences, not merely a screen-price pair trade ([LME-SHFE arbitrage](https://www.lme.com/education/online-resources/lme-digest/lme-shfe-cross-market-arbitrage)). That supports a base case where LME remains relevant even as SHFE influence rises: international physical metals users still need global US-dollar or international reference prices, while China onshore users need RMB domestic contracts. The bear case is not "SHFE exists"; the bear case is that incremental liquidity, data value and pricing authority migrate east faster than LME can adapt.

CME is a more direct competitor for financially oriented participants. CME offers robust clearing, market oversight and US investor access, and its copper and aluminium products can capture users who prioritize US market integration, electronic execution and regulatory comfort. However, CME's strength does not automatically displace LME's physical-market role. LME's distinctive moat is the intersection of futures, options, physical delivery, warrants, approved brands, warehouse network, and industry convention. In practice, sophisticated users can trade multiple venues, using LME for global benchmark and physical hedging, CME for US-market or financial exposure, and SHFE for China domestic exposure.

Fee-rate competition is real but bounded. Exchanges with benchmark liquidity can raise fees when the value proposition improves, but they are not immune to member pushback. If LME pushes tariff too hard after a reputational event, users can route marginal financial volume elsewhere even if core physical hedging remains. The data package says FY2025 growth was supported by LME fee-tariff and volume recovery [data_package.md line 104], and Q1 2026 had both higher LME chargeable ADV and tariff support [data_package.md line 274]. The forward model gives LME credit for moderate price/mix growth, but it does not assume indefinite double-digit revenue per lot growth.

5. Moat at the segment level

The segment moat is real but narrower than the group-level Hong Kong securities infrastructure moat. LME's moat is benchmark/network effect plus physical-market embeddedness. Its prices matter because market users believe other users will keep referencing them. LME Clear matters because central clearing and margining are integrated into how members manage exposure. The warehouse and warrant network matters because physically settled metals contracts need a credible delivery mechanism. Market data matters because benchmark prices become part of contracts, valuation, risk systems and commercial negotiations. Those features compound together.

The moat is not protected by a monopoly charter in the way a local securities exchange can be. It is protected by convention, liquidity, participant coordination, physical-market plumbing, and regulatory trust. Those are strong but not unbreakable. The 2022 nickel event weakened the trust component. The FCA Final Notice describes extreme disorder, suspension and cancellation of trades, and failures in controls and escalation ([FCA Final Notice](https://www.fca.org.uk/publication/final-notices/london-metal-exchange-2025.pdf)). LME's 2025 response accepted the systems-and-controls findings, cited lack of OTC position visibility as a major issue, and pointed to daily price limits, enhanced control frameworks and OTC position reporting as remediation ([LME response to FCA](https://www.lme.com/news/press-releases/2025/lme-response-to-fca-final-notice)).

The data package treats remediation as material but not fully eliminating the economic overhang. It quotes official HKEX commentary that significant work by LME and the FCA materially reduced recurrence risk [data_package.md line 202]. It also logs the 2025 FCA settlement, the UK Supreme Court refusal of Elliott's appeal, and the withdrawal of related Human Rights Act claims [data_package.md lines 253-254]. That is enough to avoid a thesis that treats nickel litigation as open-ended existential risk, but not enough to ignore reputation. A benchmark venue's reputation is part of the product.

Warehouse and physical-market controversies are also part of the moat-risk mix. LME's warehouse system is a feature because physical delivery and approved storage support price convergence. It is also a risk because queues, load-out rules and warehouse incentives can become controversial. LME says its 2013-2016 warehouse reform package followed a market-wide consultation and included elements such as load-in/load-out rules, queue-length reporting and powers to address behavior that creates or maintains queues ([LME warehouse reform](https://www.lme.com/sustainability-and-physical-markets/warehousing/warehouse-reform-2013-to-2016)). The data package separately logs Hong Kong becoming an LME warehouse delivery point in July 2025, with 14 LME-licensed warehouses operated by seven companies by year-end [data_package.md line 252]. That supports the bull case if Hong Kong improves LME's Asia physical-market relevance, but it also adds operational exposure to a historically sensitive part of the franchise.

My segment moat conclusion is "durable but watched." LME's benchmark role, clearing, warehouse and data ecosystem should remain valuable over the next five years. The segment can sustain above-market returns if volumes stay healthy and market controls restore confidence. The risk is that benchmark status decays gradually if users see LME as less reliable than alternative venues or OTC arrangements during stress. The most important monitoring signal is not one year's revenue. It is whether LME's chargeable ADV, member confidence, open interest, and physical-market usage remain resilient through a lower-volatility metals cycle after the current rebound.

6. Historical growth rates - reproduced from the data package

Clean current-taxonomy segment history begins in FY2022. FY2021 is old-taxonomy only and is excluded from the CAGR calculation [data_package.md lines 85-93 and 108-118]. Product-level dollars are disclosed only for FY2024 and FY2025 for the main LME fee pools, so those rows show one-year growth rather than a three-year CAGR. No product revenue has been back-solved [data_package.md line 159].

Product / sub-segment	FY2023 rev	FY2024 rev	FY2025 rev	3-yr CAGR / available growth	Most recent YoY	Data package cite
Commodities segment revenue and other income	2,188	2,788	3,171	20.4% FY2023-FY2025 two-year CAGR; 15.6% FY2022-FY2025 CAGR using FY2022 2,051	13.7%	data_package.md lines 89-104
LME chargeable ADV, 000 lots	562	664	717	12.7% FY2023-FY2025 CAGR; 12.3% FY2022-FY2025 using FY2022 506	Q1 2026 877k, up 26% YoY	data_package.md lines 33-42 and 176-184
LME trading fees	[DATA GAP]	1,412	1,562	10.6% one-year growth	FY2025 +10.6%	data_package.md lines 133-144
LME Clear clearing fees	[DATA GAP]	632	709	12.2% one-year growth	FY2025 +12.2%	data_package.md lines 133-144

Product / sub-segment	FY2023 rev	FY2024 rev	FY2025 rev	3-yr CAGR / available growth	Most recent YoY	Data package cite
Commodity market data fees	[DATA GAP]	263	334	27.0% one-year growth	FY2025 +27.0%	data_package.md lines 133-144
Segment EBITDA / operating income proxy	[DATA GAP]	[DATA GAP]	1,822	FY2025 margin 57%; TTM EBITDA 2,204	Q1 2026 EBITDA +105% YoY	data_package.md lines 51-56, 120-127 and 165-170

Arithmetic tie-out notes:

- Segment FY2025 YoY: 2,788 x 1.137 = 3,170, matching disclosed 3,171 within rounding [data_package.md lines 89-104].
- Segment FY2024 YoY: 2,188 x 1.274 = 2,786, matching disclosed 2,788 within rounding [data_package.md lines 89-104].
- Segment FY2023 YoY: 2,051 x 1.067 = 2,188, matching disclosed 2,188 [data_package.md lines 89-104].
- LME chargeable ADV FY2025 YoY: 664 x 1.080 = 717, matching disclosed 717 within rounding [data_package.md lines 33-42].
- Product fee-pool growth uses only FY2024 and FY2025 dollars because the data package does not provide earlier product-fee dollars [data_package.md lines 133-144 and 159].

7. Management guidance and official commentary

The data package has no Q1 2026 FMP transcript; the official commentary is from announcements, annual report text and presentation material [data_package.md lines 188-190]. For Commodities, the relevant guidance is directional rather than a numerical revenue target.

Topic	Data package row	Official statement	Interpretation
LME current momentum	data_package.md line 200	"The LME business had a strong start to 2026, with chargeable ADV in Q1 2026 reaching a record quarterly high"	This supports using the TTM base rather than reverting immediately to FY2025 revenue; it does not justify extrapolating 39% revenue growth for five years.
LME market structure	data_package.md line 201	"the LME continued to modernise its market structure to enhance liquidity, improve transparency, and strengthen price competition"	Market-structure work is the main non-tariff lever for sustaining participation and benchmark quality.
LME risk remediation	data_package.md line 202	"Significant work undertaken by both the LME and the FCA has materially reduced the risk of such an event from occurring again"	Remediation lowers the recurrence probability of a nickel-style market failure, but trust repair should be treated as ongoing.
Systems resilience	data_package.md line 204	"all HKEX's major trading, clearing, settlement and market data dissemination systems... continued to operate normally"	Resilience is a necessary condition for the exchange moat; any outage would be thesis-relevant even if near-term revenue looked fine.
Capex / systems investment	data_package.md line 205	"capital expenditure commitments... included... Orion Derivatives Platform and upgrade of clearing systems"	The model assumes ongoing technology and clearing investment rather than full margin harvesting.

The management anchor is therefore: volume is currently strong; LME modernization is an explicit strategic lever; controls and clearing investment remain necessary; and no product-level revenue target has been disclosed. That pushes the base case toward mid-single-digit to high-single-digit revenue compounding off the elevated TTM base, not a heroic continuation of Q1 2026 growth.

8. Forward growth assumptions - explicit, per product / fee pool

The forecast begins from TTM segment revenue and other income of 3,464 [data_package.md lines 120-127]. Because product-level TTM dollars are not disclosed, the product / fee-pool forecast allocates the TTM base using FY2025 disclosed fee-pool shares: LME trading fees of 1,562, LME Clear clearing fees of 709, market data fees of 334, and residual / ancillary of 566, all within FY2025 segment revenue and other income of 3,171 [data_package.md lines 133-144 and 89-93]. This is an allocation estimate, not a historical disclosure. The data package does not disclose QME revenue, HKFE commodity-contract

revenue, or LME revenue by individual metal; those items remain inside the residual/ancillary bucket or the disclosed LME fee pools rather than separate modeled product lines [data_package.md lines 156, 159, 263-264].

Product / fee pool	TTM base used	3-yr historical CAGR	Latest YoY / KPI	Mgmt FY+1 guide	Base CAGR TTM to 2031-03-31	Justification
LME trading fees	1,706	Segment 15.6%; LME ADV 12.3% FY2022-FY2025	Q1 2026 LME chargeable ADV 877k, up 26%	Strong Q1 and market-structure modernization	7.0%	Base assumes ADV normalizes below Q1's record level but remains above FY2025, with modest tariff/mix support.
LME Clear clearing fees	775	Segment 15.6%; product one-year +12.2%	Q1 segment EBITDA +105%	Clearing-system upgrades and risk remediation	6.0%	Clearing grows with lots and open interest, but risk controls and member margin sensitivity limit fee aggression.
Commodity market data	365	Product one-year +27.0%	FY2025 data fee pool +27.0%	LME Insight and benchmark/data development	8.0%	Data grows faster than trading as benchmark usage and analytics improve, but the base is small.
Other / ancillary / QME / investment income	618	Not separately disclosed	Residual fee pool; QME not separately disclosed	No numerical guide	4.0%	Residual grows below core LME fees because there is no separate evidence of QME or HKFE commodity breakout acceleration.
Segment total	3,464	Segment 15.6% FY2022-FY2025	Q1 2026 revenue +39%	Directional only	6.4% blended	Blended base revenue reaches 4,718 at TTM+5y.

Product / fee pool	TTM base used	3-yr historical CAGR	Latest YoY / KPI	Mgmt FY+1 guide	Bull CAGR TTM to 2031-03-31	Justification
LME trading fees	1,706	Segment 15.6%; LME ADV 12.3% FY2022-FY2025	Q1 2026 LME chargeable ADV 877k, up 26%	Strong Q1 and market-structure modernization	11.0%	Bull assumes electrification metals volatility, China/international arbitrage demand and successful modernization sustain high volumes.
LME Clear clearing fees	775	Segment 15.6%; product one-year +12.2%	Q1 segment EBITDA +105%	Clearing-system upgrades and risk remediation	9.5%	Clearing benefits from higher volume, more options automation and better risk controls without major fee pushback.
Commodity market data	365	Product one-year +27.0%	FY2025 data fee pool +27.0%	LME Insight and benchmark/data development	10.5%	Data monetization compounds as LME prices, sustainable metal premia and analytics are embedded in workflows.
Other / ancillary / QME / investment income	618	Not separately disclosed	Residual fee pool; QME not separately disclosed	No numerical guide	6.5%	Hong Kong warehouse delivery point, QME optionality and ancillary fees contribute modestly.
Segment total	3,464	Segment 15.6% FY2022-FY2025	Q1 2026 revenue +39%	Directional only	9.9% blended	Blended bull revenue reaches 5,543 at TTM+5y.

Product / fee pool	TTM base used	3-yr historical CAGR	Latest YoY / KPI	Mgmt FY+1 guide	Bear CAGR TTM to 2031-03-31	Justification
LME trading fees	1,706	Segment 15.6%; LME ADV 12.3% FY2022-FY2025	Q1 2026 LME chargeable ADV 877k, up 26%	Strong Q1 and market-structure modernization	0.0%	Bear assumes Q1 was a cyclical/volatility peak and member activity normalizes despite tariff support.
LME Clear clearing fees	775	Segment 15.6%; product one-year +12.2%	Q1 segment EBITDA +105%	Clearing-system upgrades and risk remediation	0.5%	Clearing fee growth is nearly flat as lower volumes and member pressure offset system improvements.
Commodity market data	365	Product one-year +27.0%	FY2025 data fee pool +27.0%	LME Insight and benchmark/data development	3.0%	Market data remains stickier than trading, but benchmark usage grows slowly after reputational damage.

Product / fee pool	TTM base used	3-yr historical CAGR	Latest YoY / KPI	Mgmt FY+1 guide	Bear CAGR TTM to 2031-03-31	Justification
Other / ancillary / QME / investment income	618	Not separately disclosed	Residual fee pool; QME not separately disclosed	No numerical guide	(1.0%)	Residual income and ancillary items fade if rate tailwinds, QME optionality or warehouse contribution disappoint.
Segment total	3,464	Segment 15.6% FY2022-FY2025	Q1 2026 revenue +39%	Directional only	0.3% blended	Blended bear revenue reaches 3,512 at TTM+5y.

The thesis-consistency check is important. Q1 2026's 39% segment revenue growth and 26% LME chargeable ADV growth are real [data_package.md lines 165-184], but five-year compounding should fade sharply because a record-quarter ADV base, tariff reset and post-2024 volume recovery are unlikely to repeat mechanically. The base case assumes growth decelerates from recent reported growth to a 6.4% blended five-year CAGR. The bull case lets the segment keep almost 10% blended growth because the exchange may benefit from energy-transition metals volatility, data monetization and Asia physical-market relevance. The bear case is close to flat because benchmark exchanges can have cyclical droughts even when the long-term franchise remains intact.

9. Forward operating margin assumptions

As noted above, HKEX does not disclose exact segment operating income in the data package. The model reports operating income proxy as segment EBITDA. TTM Commodities EBITDA was 2,204 on TTM revenue and other income of 3,464, or 63.6% [data_package.md lines 120-127]. FY2025 EBITDA margin was lower at 57% [data_package.md lines 51-56]. Q1 2026 alone was 71.9%, calculated from Q1 EBITDA of 747 and Q1 revenue of 1,039 [data_package.md lines 165-170]. That tells us current margin is high, but it is supported by unusually strong Q1 operating leverage.

Product / fee pool	Current margin anchor	Bear 2031 proxy margin	Base 2031 proxy margin	Bull 2031 proxy margin	Margin mechanism
LME trading fees	Segment TTM 63.6% EBITDA margin	50%	62%	68%	Trading fees have high incremental margin, but bear volume declines expose fixed costs and remediation spend.
LME Clear clearing fees	Segment TTM 63.6% EBITDA margin	48%	60%	65%	Clearing benefits from scale but carries risk-management, default-management and technology investment needs.
Commodity market data	Segment TTM 63.6% EBITDA margin	62%	72%	76%	Market data is the highest-quality fee pool because distribution scales with low incremental cost.
Other / ancillary / QME / investment income	Segment TTM 63.6% EBITDA margin	25%	42%	50%	Residual items are mixed-quality and less disclosed; no premium margin is assumed without evidence.
Segment total	FY2025 57%; TTM 63.6%; Q1 2026 71.9%	46.8%	59.5%	65.5%	Revenue-weighted average of the fee-pool margins above; bear falls below FY2025, base sits below TTM, and bull assumes scale and data mix without using Q1 as a permanent run-rate.

The base margin does not assume Q1's 71.9% run-rate is permanent. It lands at a revenue-weighted 59.5%, below the TTM margin but above FY2025, because trading, clearing and data revenue should retain high incremental margins if LME chargeable ADV remains healthy. The bull case reaches 65.5%, still below the one-quarter Q1 level, because high-volume markets, data mix and platform scale should drop through. The bear case falls to 46.8%, below FY2025, because low volumes, remediation investment, member fee pressure and a slower residual bucket can compress margins materially.

10. Segment rollup - built bottoms-up

The rollup uses TTM revenue of 3,464 as the starting point [data_package.md lines 120-127]. Fee-pool TTM bases are allocated from FY2025 disclosed fee-pool shares because TTM product dollars are not disclosed; this is an explicit estimate based on disclosed FY2025 fee-pool dollars [data_package.md lines 133-144]. Segment totals reconcile to product-level assumptions by construction.

Case	LME trading fees revenue	LME Clear clearing fees revenue	Market data revenue	Other / ancillary revenue	Segment TTM+5y revenue	Tie-out
Bear	1,706	795	423	588	3,512	1,706 + 795 + 423 + 588 = 3,512
Base	2,393	1,037	536	752	4,718	2,393 + 1,037 + 536 + 752 = 4,718
Bull	2,875	1,220	601	847	5,543	2,875 + 1,220 + 601 + 847 = 5,543

Case	Segment TTM+5y revenue	Segment TTM+5y operating margin proxy	Segment TTM+5y operating income proxy	Arithmetic check
Bear	3,512	46.8%	1,644	853 + 382 + 262 + 147 = 1,644; 1,644 / 3,512 = 46.8%
Base	4,718	59.5%	2,808	1,484 + 622 + 386 + 316 = 2,808; 2,808 / 4,718 = 59.5%
Bull	5,543	65.5%	3,629	1,955 + 793 + 457 + 424 = 3,629; 3,629 / 5,543 = 65.5%

The bear case is deliberately not catastrophic. It assumes LME remains a relevant benchmark but gives back the current cyclical upswing and carries lower margin from under-absorbed fixed cost and more controls spend. The base case is a steady compounder case: LME remains a core global base-metals benchmark, chargeable ADV normalizes above FY2025, and market data contributes a modest mix benefit. The bull case requires both strong metals activity and successful trust repair: the segment keeps elevated participation, data monetization improves, and Hong Kong's warehouse delivery point plus Asia-market relevance reinforce the franchise.

11. Key risks and wildcards

Bear risk - metals-cycle cyclicality. LME volumes are tied to industrial metals volatility, hedging demand, investor risk appetite and physical-market stress. Q1 2026 was a record quarter for LME chargeable ADV at 877k lots, up 26% year on year [data_package.md lines 176-184]. A lower-volatility or recessionary metals environment could reduce chargeable ADV and expose fixed costs.

Bear risk - reputation and regulatory trust. The nickel event remains the segment's most important scar tissue. The FCA Final Notice described market disorder, suspension, cancelled trades and inadequate controls during extreme volatility ([FCA Final Notice](https://www.fca.org.uk/publication/final-notices/london-metal-exchange-2025.pdf)). LME's response points to remediation, daily price limits and OTC reporting support ([LME response to FCA](https://www.lme.com/news/press-releases/2025/lme-response-to-fca-final-notice)), but a repeat disorderly-market event would directly attack benchmark trust.

Bear/base risk - warehouse controversies. LME's warehouse system supports physical convergence but can create conflict over queues, rent, load-out rules and physical premiums. LME's own warehouse reform history shows that this has required repeated market-wide consultations and rule changes ([LME warehouse reform](https://www.lme.com/sustainability-and-physical-markets/warehousing/warehouse-reform-2013-to-2016)). Hong Kong becoming an LME warehouse delivery point is strategically helpful [data_package.md line 252], but it also puts HKEX closer to physical-market operational disputes.

Base risk - fee-rate ceiling. FY2025 and Q1 2026 benefited from tariff and volume support [data_package.md lines 104 and 274]. Fee growth can persist if execution quality and benchmark value improve, but members can shift marginal activity to CME, SHFE or OTC if they believe pricing exceeds value.

Base/bull wildcard - China and energy-transition metals. LME-SHFE arbitrage exists because the same metals trade across linked but regionally different markets, with price differences driven by taxes, freight, FX, regional fundamentals and inventory [LME-SHFE arbitrage](https://www.lme.com/education/online-resources/lme-digest/lme-shfe-cross-market-arbitrage). If electrification, grid investment, battery metals and China import/export flows create sustained hedging demand, LME volumes and data value can exceed the base case.

Bull wildcard - data and sustainable-metal premia. The data package logs CPAL's launch of LME Insight and ties it to metals news, analysis and data linked to sustainable metal premia [data_package.md line 251]. The line is too young and too small to model separately, but it supports a higher market-data growth assumption in the bull case if LME turns benchmark trust into more analytics and data products.

Bull wildcard - market-structure modernization. Management's official commentary says LME continued to modernize market structure to enhance liquidity, transparency and price competition [data_package.md line 201]. If that work brings more electronic participation without weakening physical-market confidence, LME can grow volumes and defend tariff power.

Ending summary table

Case	Segment TTM+5y Revenue	Segment TTM+5y Op Margin	Segment TTM+5y Op Income	Probability
Bear	3,512	46.8%	1,644	25%
Base	4,718	59.5%	2,808	55%
Bull	5,543	65.5%	3,629	20%

Note: "Op Income" in the summary table is a segment EBITDA-based operating-income proxy because exact HKEX segment operating income is not disclosed in the DR-cleared data package [data_package.md line 268]. The base case implies a 6.4% segment revenue CAGR from TTM to 2031-03-31 and a 59.5% revenue-weighted proxy operating margin, below Q1 2026's one-quarter run rate but above FY2025's full-year margin. That is the most balanced read of a business with real benchmark/network effects, visible Q1 momentum, and still-material reputation/regulatory risk after nickel.

Appendix B4 - Data and Connectivity

Data and Connectivity - Segment Deep Dive

Company: Hong Kong Exchanges and Clearing Limited Ticker: 0388.HK Segment: Data and Connectivity Currency: HKD millions unless otherwise stated Run date: 2026-07-02 TTM end: 2026-03-31 Horizon date: 2031-03-31

Source discipline: all HKEX historical figures in this appendix are taken from the DR-cleared `data_package.md` in `C:\Users\Admin\OneDrive\GPT\ER 2.0\Hong Kong Exchanges and Clearing\`. The appendix does not re-fetch or independently restate HKEX historical numbers. External sources are used only for competitor, market-structure, regulatory, redistribution, and AI-context discussion.

0. Segment Boundary And Taxonomy Note

Data and Connectivity is one of HKEX's current reportable segments. The data package defines it as the business covering "market data, network access, terminals, data lines, software sublicences, hosting and BayConnect" [data_package.md lines 45-47]. The same package flags a taxonomy change in 2023: HKEX restated FY2022 into the current presentation, while FY2021 remains under the old taxonomy, where "Technology" was a predecessor to parts of Data and Connectivity [data_package.md lines 60 and 108-117]. For this appendix, FY2022-FY2025 are the clean current-taxonomy history, FY2021 is context only, and the forward model starts from TTM ended 2026-03-31, calculated as FY2025 less Q1 2025 plus Q1 2026 [data_package.md lines 7 and 120-129].

The segment has a different economic character from HKEX's transaction-sensitive Cash, Derivatives and Commodities businesses. It monetises market structure rather than a single trading cycle: market participants need prices, order-book and reference data; brokers, banks and vendors need technical access; and users colocated around the exchange stack need hosting and managed connectivity. The disclosure is not granular enough to split every product into a full five-year historical P&L. That is a limitation, not a license to fabricate detail. The data package provides reportable-segment revenue and EBITDA from FY2022 onward, FY2024-FY2025 product fee pools for network/terminal/data-line/software sublicence fees, hosting and BayConnect, and Q1 2026 fee-pool movements for market data, network fees and hosting [data_package.md lines 89-105, 120-129, 145-157, 165-170].

1. What This Segment Actually Is

Data and Connectivity is the access layer around HKEX's exchange and clearing infrastructure. In plain terms, customers pay HKEX not only when trades clear or contracts trade, but also to see market prices, consume exchange data, connect trading systems to HKEX venues, run terminals and data lines, sublicense software or data access, host equipment close to HKEX systems, and use BayConnect-related services. The segment is therefore a toll road around the market rather than a pure volume take-rate business.

The customer base is broad but institution-heavy. It includes exchange participants, clearing participants, brokers, banks, market makers, proprietary trading firms, asset managers, market-data vendors, software providers, index users, analytics providers, and potentially corporate or mainland-facing users who need data and access products. Some users buy real-time feeds because they must trade or monitor risk. Others buy derived, delayed, reference, index, terminal, or redistribution products because their clients demand the data. Connectivity users buy network lines and access because the value is not only the data content but the certainty and latency of access to HKEX's infrastructure.

Pricing is mixed. Market data tends to be priced by user, display, non-display, redistribution, derived-data usage, geography, device, vendor, or product package. Network and terminal fees usually behave like recurring infrastructure rentals. Data-line and software sublicence fees are also recurring while the customer's trading or data stack remains attached to HKEX. Hosting fees resemble data-centre infrastructure revenue and should be stickier than episodic trading fees, but still depend on participant technology spend and the need to be close to HKEX's systems. BayConnect appears to be a smaller data/applications business; the data package separately notes a goodwill impairment related to BayConnect in FY2025, so it should not be modelled as a clean high-growth product without evidence [data_package.md line 255].

The most important feature is that the product is embedded in workflows. A broker cannot easily decide to stop consuming the exchange's authoritative feed for listed Hong Kong securities if it wants to serve clients, route orders, or manage compliance. A market maker cannot rely on a substitute feed if the official data has timing, licensing, or audit value. A redistributor can create customer-facing products, but those products usually sit on top of the exchange's original data rights. This makes the

revenue subscription-like, but not unregulated. Market-data fees are politically and regulatorily sensitive because exchanges own essential data generated by a regulated market and customers may have limited alternatives.

2. Current Economics

The current economics are strong and unusually stable for HKEX. Data and Connectivity generated FY2025 revenue and other income of 2,270 and FY2025 EBITDA of 1,834, an 81% EBITDA margin on the segment's revenue and other income [data_package.md lines 49-57]. In TTM ended 2026-03-31, the segment generated 2,323 of revenue and other income and 1,880 of EBITDA [data_package.md lines 120-129]. The TTM margin is 80.9%, essentially unchanged from FY2025, which supports the view that incremental fees have high contribution margin and that the cost base is mostly fixed systems, staff, vendor, data-centre and platform-maintenance cost.

The segment's clean current-taxonomy revenue history is 1,998 in FY2022, 2,073 in FY2023, 2,126 in FY2024 and 2,270 in FY2025 [data_package.md lines 89-95]. That is a 4.3% CAGR from FY2022 to FY2025, with annual growth of 3.8%, 2.6% and 6.8% across FY2023, FY2024 and FY2025 respectively [data_package.md lines 98-105]. The pace is not hyper-growth. It is closer to a regulated infrastructure subscription stream that grows through price-card changes, additional terminals and lines, higher data demand, new product sets, higher market activity, hosting expansion and mainland/connectivity-related demand.

The disclosed FY2025 product pools give the shape of the economics. Network, terminal, data-line and software sublicence fees were 922 in FY2025 versus 826 in FY2024 [data_package.md line 145]. Hosting services fees were 424 in FY2025 versus 391 in FY2024 [data_package.md line 146]. BayConnect sales and service revenue was 77 in FY2025 versus 82 in FY2024 [data_package.md line 147]. The rest of the segment is market data, index licences and other data/connectivity items. The data package does not provide a five-year market-data product P&L; it specifically says the data and connectivity drivers are available for FY2024-FY2025 and Q1 2026, and that subscriber count was only spotted in FY2024 text rather than as a full five-year series [data_package.md line 28].

The most recent quarter was better than the three-year segment trend. Q1 2026 Data and Connectivity revenue and other income was 599 versus 546 in Q1 2025, up 10%; EBITDA was 491 versus 445, also up 10% [data_package.md lines 165-170]. Product fee detail in Q1 2026 was constructive: market data fees were 218 versus 206, network fees were 246 versus 222, and hosting was 113 versus 103 [data_package.md line 157]. The data package's management-commentary table says the segment had steady infrastructure growth tied to usage, hosting and data demand [data_package.md line 203].

For the forward model, the TTM product base is reconstructed only from data-package lines. Network fees use FY2025 922 less Q1 2025 network fees 222 plus Q1 2026 network fees 246, or 946. Hosting uses FY2025 424 less Q1 2025 hosting 103 plus Q1 2026 hosting 113, or 434. BayConnect is held at FY2025 77 because the data package does not provide Q1 BayConnect. The residual market-data, index-licence and other data/connectivity pool is 866, set so the product buckets sum to the TTM segment revenue of 2,323. That residual is not presented as an official market-data number; it is a modelling bucket forced by the reportable-segment total and the disclosed fee pools.

3. Unit Economics

The unit economics are attractive because the product is information and infrastructure layered onto systems HKEX already has to run. HKEX must operate trading, clearing, settlement and market-data dissemination systems whether it charges an incremental customer for another feed, terminal, line, software sublicense or hosting cabinet. Once the base technology stack, resilience processes, regulatory controls and data-centre capacity are in place, incremental data and access revenue should carry high incremental margins.

There are still real costs. Exchange-grade market data requires deterministic dissemination, cyber controls, customer support, entitlements, vendor reporting, billing, audits and licensing enforcement. Connectivity requires network capacity, technical operations, line management, service-level commitments, colocation or hosting facilities, cooling, power, redundancy and disaster recovery. BayConnect likely requires product development and customer success rather than merely passive licensing. These costs limit how far margins can expand above the low-80s segment level.

The historical margin profile is the best evidence. FY2025 EBITDA margin was 81%, and TTM EBITDA margin was 80.9% [data_package.md lines 56 and 120-129]. This is already near a practical ceiling for a regulated market-infrastructure access segment. A bull case can improve margin modestly if product mix shifts toward market-data licensing and network subscriptions with little incremental fixed cost. A bear case should not collapse margin unless there is a serious pricing/regulatory shock, a technology incident, or a meaningful product-mix shift toward lower-margin application services.

The operating-cost base is not zero, but the business clearly has high fixed-cost leverage.

The margin risk is mainly political, regulatory and reinvestment-driven. Market-data customers often argue that exchange data is essential, that users generate the data through trading, and that pricing can be difficult to contest where there is no perfect substitute. IOSCO's final market-data report describes regulatory concern around fair, equitable and timely access and the fees charged for connected market-data products [IOSCO FR04/2022](https://www.iosco.org/library/pubdocs/pdf/IOSCOPD703.pdf). That does not mean HKEX must cut fees, but it does mean pricing power is bounded by market-quality and fairness considerations. At the same time, the data package notes HKEX's systems resilience and continued technology investment, including the Orion Derivatives Platform and clearing-system upgrades [data_package.md lines 204-205]. Some reinvestment is moat maintenance, not optional growth spending.

4. Competitive Dynamics

The direct competitors are not simple "other Hong Kong data feeds." For authoritative real-time Hong Kong market data, HKEX has a natural monopoly over primary exchange data. For broader desktop, analytics, redistribution and workflow spend, the competitive set includes LSEG, Bloomberg, ICE Data Services, Nasdaq, SIX, FactSet and other data vendors or exchange groups. In that broader wallet, customers choose between direct exchange feeds, consolidated vendor feeds, cloud APIs, terminals, analytics products and data-management platforms.

The peer set shows why HKEX's D&C segment should be viewed as a necessary but narrow infrastructure product, not as a scaled global data vendor. LSEG describes its Data & Analytics business as a global financial markets data and infrastructure provider with data, feeds, analytics, AI and workflow solutions for customers across many markets [LSEG Data & Analytics](https://www.lseg.com/en/data-analytics). ICE Data Services markets real-time data, reference data, analytics, evaluated pricing, feeds and connectivity across exchange and fixed-income data sets [ICE Exchange & Market Data](https://www.ice.com/fixed-income-data-services/data-and-analytics/exchange-data). Nasdaq offers a broad market-data product catalogue across equities and derivatives [Nasdaq Market Data Catalog](https://www.nasdaq.com/solutions/data/market-data-catalog). These businesses compete for global data budgets and vendor relationships.

HKEX's advantage is not that it offers the largest cross-asset analytics stack. It owns the source data and access layer for Hong Kong exchange markets, Stock Connect-related market structure, and the infrastructure around its venues. For a participant active in Hong Kong securities or derivatives, HKEX data is not a discretionary research add-on. It is the authoritative data and technical pathway into the market. That makes direct substitution difficult. A customer can choose a vendor interface, but the vendor still needs rights to the underlying exchange data. A broker can consolidate vendors, but it still needs exchange connectivity.

The competitive risk is higher in the value-added layer. If a customer only needs analytics, screening, derived data, portfolio tools, news, research or AI-generated summaries, it can buy from broader vendors that package HKEX data together with global data. LSEG, ICE and Nasdaq have scale, cross-market content, workflow integration and vendor-account relationships that HKEX cannot fully replicate from a Hong Kong-only base. The more HKEX tries to move from essential source data into workflow products, the more it competes with global data vendors rather than simply monetising exchange infrastructure.

BayConnect appears to sit closer to this contested layer. It is separately small at 77 in FY2025, down from 82 in FY2024, and the data package notes a 55 goodwill impairment related to BayConnect [data_package.md lines 147 and 255]. That combination argues against underwriting BayConnect as a major growth engine. In the base case, BayConnect is flat. In the bull case, it grows modestly if HKEX improves mainland access, data application packaging or customer penetration. In the bear case, it declines as broader vendors and customer internal tools absorb the use case.

5. Segment-Level Moat

The segment has a real moat, but the moat is narrower than the group moat. The strongest protection is source-data control. HKEX is the venue operator and market-infrastructure owner. The official price stream, market-data rights and connectivity requirements originate from the exchange system. A competitor can redistribute, enrich, analyse or package the data, but it cannot become the original source for HKEX market data. That creates durable customer lock-in for participants who trade, clear, settle, report, monitor and serve clients in Hong Kong markets.

The second moat is workflow integration. Exchange participants build systems, vendor contracts, entitlements, compliance reporting, audit processes and client products around specific data feeds and connectivity arrangements. Switching is

possible, but it is not costless. Low-latency trading users care about reliability, determinism and auditability. Back-office and risk users care about clean entitlements, rights to redistribute, and consistent feeds. Vendors care about licensing clarity. These workflows support recurring revenue even when market volumes are soft.

The third moat is resilience and regulatory trust. The data package includes official commentary that HKEX's major trading, clearing, settlement and market-data dissemination systems continued to operate normally [data_package.md line 204]. That is not a cosmetic line. For an exchange access business, a severe outage damages customer trust and regulatory credibility. Reliability is both a product feature and a moat condition. It supports premium pricing, but it also requires recurring investment.

The moat is not unlimited. Market-data pricing is a public-policy issue because market participants may need the data to compete fairly. IOSCO's market-data work and US debates over consolidated-tape and proprietary-feed fees show that regulators can scrutinise the balance between exchange returns and user access [IOSCO FR04/2022](https://www.iosco.org/library/pubdocs/pdf/IOSCOPD703.pdf), [SIFMA CT Plan fee filing discussion](https://www.sifma.org/news/blog/ct-plan-fee-filing-a-chance-for-market-data-reform). AI also changes the redistribution boundary. LSEG's redistribution discussion explicitly treats data delivered through analytics, dashboards, AI uses and client-facing outputs as redistribution [LSEG Data Redistribution](https://www.lseg.com/en/data-analytics/market-data/data-redistribution). The London Stock Exchange's market-data policy guidelines also discuss large language models and derived-data treatment in the context of market-data licensing [LSE Market Data Policy Guidelines 2026](https://docs.londonstockexchange.com/sites/default/files/documents/market-data-policy-guidelines-2026_1.pdf). The implication for HKEX is two-sided: AI can create new paid data and derived-use licensing opportunities, but it can also increase audit complexity, leakage risk and customer pushback against broad usage fees.

The base case assumes the moat remains durable over five years. Essential access and official data rights should keep churn low and margins high. The bear case assumes the moat remains real but pricing and growth are constrained by regulatory pressure, customer consolidation, vendor bargaining, AI redistribution disputes and weaker BayConnect performance. The bull case assumes HKEX successfully turns higher Hong Kong market activity, Stock Connect relevance, hosting demand and data usage into mid-to-high single-digit segment growth without a margin give-up.

6. Historical Growth Rates

The table below reproduces the clean current-taxonomy segment history and the product fee pools disclosed in the data package. FY2021 is excluded because the data package says it is old-taxonomy context only [data_package.md lines 60 and 108-117]. Product-level FY2022 and FY2023 values are not disclosed for the fee pools, so those cells are marked as data gaps rather than estimated.

Product / sub-segment	FY2022 rev	FY2023 rev	FY2024 rev	FY2025 rev	3-yr CAGR / product status	Most recent YoY	Data package cite
Data and Connectivity segment total	1,998	2,073	2,126	2,270	4.3% from FY2022-FY2025	Q1 2026 segment revenue +10.0%	data_package.md lines 89-105 and 165-170
Network, terminal, data-line and software sublicence fees	[DATA GAP: FY2022 not disclosed]	[DATA GAP: FY2023 not disclosed]	826	922	n/a, two-year product data unavailable	FY2025 +11.6%; Q1 2026 network fees +10.8%	data_package.md lines 145 and 157
Hosting services fees	[DATA GAP: FY2022 not disclosed]	[DATA GAP: FY2023 not disclosed]	391	424	n/a, two-year product data unavailable	FY2025 +8.4%; Q1 2026 hosting +9.7%	data_package.md lines 146 and 157
BayConnect sales and service revenue	[DATA GAP: FY2022 not disclosed]	[DATA GAP: FY2023 not disclosed]	82	77	n/a, two-year product data unavailable	FY2025 -6.1%; no Q1 split disclosed	data_package.md lines 147 and 255
Market data, index licences and other D&C residual	[DATA GAP: FY2022 not disclosed]	[DATA GAP: FY2023 not disclosed]	827	847	n/a, residual only	FY2025 residual +2.4%; Q1 2026 market data fees +5.8%	derived from data_package.md lines 94, 145-147 and 157

Arithmetic tie-out notes:

Network FY2025 growth: 826 x 1.116 = 922, within rounding. Hosting FY2025 growth: 391 x 1.084 = 424, within rounding. BayConnect FY2025 growth: 82 x 0.939 = 77, within rounding. Segment total CAGR: 1,998 to 2,270 over three years = 4.3%. FY2025 residual is segment revenue 2,270 less network 922, hosting 424 and BayConnect 77, or 847. FY2024 residual is segment revenue 2,126 less network 826, hosting 391 and BayConnect 82, or 827. The residual row is not official product disclosure; it is a modelling bucket used because the data package says no product revenue was back-solved and

downstream appendices should use disclosed fee-pool sensitivity rather than invented product dollars [data_package.md lines 157-159].

The historical picture is consistent with an infrastructure business. The segment did not explode in the FY2025 volume rebound the way Cash did, but it also did not contract in weaker years. Reported revenue grew every year in the clean current taxonomy, and Q1 2026 showed acceleration to 10% segment growth [data_package.md lines 98-105 and 165-170]. That Q1 acceleration is important, but it should not be extrapolated blindly. The three-year segment CAGR is 4.3%, while the disclosed product pools grew faster in FY2025 and Q1 2026 from a smaller fee base. The base forecast therefore starts from the TTM level, not the best recent quarter annualised without adjustment.

7. Management Guidance

The data package contains three management or official-commentary items that directly matter for Data and Connectivity.

First, the Q1 2026 announcement text says, through the data package, that "Both revenue and other income and EBITDA were up 10 per cent" for Data and Connectivity [data_package.md line 203]. The interpretation field in the data package calls the segment "steady infrastructure growth tied to usage, hosting and data demand" [data_package.md line 203]. This is the best near-term management anchor. It supports the view that Q1 growth was broad enough to reach both revenue and EBITDA, but it does not supply a multi-year guide.

Second, the data package notes that HKEX's major trading, clearing, settlement and market data dissemination systems continued to operate normally [data_package.md line 204]. That is relevant because systems resilience is both a customer-lock-in condition and a license-to-operate requirement. If the systems fail, the segment loses its strongest quality argument. If the systems remain resilient, customers have less reason to push for alternative technical pathways.

Third, technology investment remains live. The data package says capital expenditure commitments included the Orion Derivatives Platform and clearing-system upgrades [data_package.md line 205]. These investments are not booked specifically to Data and Connectivity in the data package, but they matter for the access layer. A more modern derivative platform and clearing stack should support connectivity, latency, resilience and data-product opportunities. The same investment also caps margin expansion because technology spending is recurring moat maintenance.

There is no official five-year D&C revenue guide in the data package. There is no disclosed full subscriber count series. There is no disclosed product-level margin. There is no official Q1 BayConnect split. Those are data gaps, and the model uses conservative product-level assumptions rather than pretending the missing disclosure exists.

8. Forward Growth Assumptions

The forward model compounds from the TTM ended 2026-03-31 base to 2031-03-31. The four model lines are network/terminal/data-line/software sublicence fees, hosting services, BayConnect, and residual market data/index licences/other D&C. The TTM product base ties to the data-package segment total of 2,323: network 946, hosting 434, BayConnect 77 and residual 866 [data_package.md lines 120-129, 145-147 and 157]. The product split is only partly disclosed, so the table below separates official fee pools from the forced modelling residual.

Product bucket	FY2025 disclosed / derived	Q1 2025 disclosed	Q1 2026 disclosed	TTM base used	Disclosure status
Network, terminal, data-line and software sublicence fees	922	222	246	946	Official FY2024-FY2025 and Q1 fee-pool disclosure
Hosting services fees	424	103	113	434	Official FY2024-FY2025 and Q1 fee-pool disclosure
BayConnect sales and service revenue	77	[DATA GAP: not disclosed]	[DATA GAP: not disclosed]	77	FY2025 official; Q1 split unavailable, so held at FY2025
Market data, index licences and other D&C residual	847	[DATA GAP: not separately disclosed]	[DATA GAP: not separately disclosed]	866	Mathematical residual to segment total, not official product revenue
Data and Connectivity segment total	2,270	546	599	2,323	Official segment bridge from data package

Base case:

Product	3-yr historical CAGR	Latest YoY	Mgmt FY+1 guide	Base CAGR TTM to TTM+5y	Justification
Network, terminal, data-line and software sublicence fees	[DATA GAP: product FY2023 unavailable]	FY2025 +11.6%; Q1 2026 +10.8%	Segment revenue and EBITDA +10% in Q1 2026	5.5%	Access demand should grow with participant technology usage, but the forecast fades recent double-digit growth toward a regulated infrastructure rate.
Hosting services fees	[DATA GAP: product FY2023 unavailable]	FY2025 +8.4%; Q1 2026 +9.7%	Same Q1 2026 segment guide	6.5%	Hosting has a stronger structural tailwind from latency, resilience and managed infrastructure, but the base case does not assume capacity-led step changes.
BayConnect sales and service revenue	[DATA GAP: product FY2023 unavailable]	FY2025 -6.1%; no Q1 split	No product guide; FY2025 impairment noted	0.0%	BayConnect is small and impaired, so the base case treats it as stable rather than a growth engine.
Market data, index licences and other D&C residual	Segment CAGR 4.3%; residual FY2025 +2.4%	Q1 2026 market data +5.8%	Same Q1 2026 segment guide	4.0%	Official data and index licences should compound, but pricing and redistribution scrutiny keep growth below the network and hosting pools.

Bear case:

Product	3-yr historical CAGR	Latest YoY	Mgmt FY+1 guide	Bear CAGR TTM to TTM+5y	Justification
Network, terminal, data-line and software sublicence fees	[DATA GAP: product FY2023 unavailable]	FY2025 +11.6%; Q1 2026 +10.8%	Segment revenue and EBITDA +10% in Q1 2026	2.0%	Customer consolidation, vendor pressure and slower trading-technology spend reduce new lines and terminals, while existing access keeps the line positive.
Hosting services fees	[DATA GAP: product FY2023 unavailable]	FY2025 +8.4%; Q1 2026 +9.7%	Same Q1 2026 segment guide	3.0%	Hosting remains sticky, but capacity utilisation and pricing slow if participant expansion cools.
BayConnect sales and service revenue	[DATA GAP: product FY2023 unavailable]	FY2025 -6.1%; no Q1 split	No product guide; FY2025 impairment noted	-5.0%	The impairment and FY2025 decline are treated as evidence that BayConnect can shrink if product-market fit remains weak.
Market data, index licences and other D&C residual	Segment CAGR 4.3%; residual FY2025 +2.4%	Q1 2026 market data +5.8%	Same Q1 2026 segment guide	1.0%	Regulatory and customer pressure cap market-data price increases; AI redistribution disputes make usage expansion slower.

Bull case:

Product	3-yr historical CAGR	Latest YoY	Mgmt FY+1 guide	Bull CAGR TTM to TTM+5y	Justification
Network, terminal, data-line and software sublicence fees	[DATA GAP: product FY2023 unavailable]	FY2025 +11.6%; Q1 2026 +10.8%	Segment revenue and EBITDA +10% in Q1 2026	8.0%	HKEX sustains high access demand as Hong Kong activity, Stock Connect usage and participant automation remain strong.
Hosting services fees	[DATA GAP: product FY2023 unavailable]	FY2025 +8.4%; Q1 2026 +9.7%	Same Q1 2026 segment guide	9.0%	Colocation, managed hosting and resilience demand remain robust, with capacity growth monetised at high contribution margins.
BayConnect sales and service revenue	[DATA GAP: product FY2023 unavailable]	FY2025 -6.1%; no Q1 split	No product guide; FY2025 impairment noted	5.0%	Product packaging improves after the impairment reset, but BayConnect remains small enough not to dominate the segment.
Market data, index licences and other D&C residual	Segment CAGR 4.3%; residual FY2025 +2.4%	Q1 2026 market data +5.8%	Same Q1 2026 segment guide	6.5%	More data usage, index licensing, redistribution and AI/derived-data licensing create a paid expansion path without triggering major fee pushback.

The base case is deliberately below the Q1 2026 growth rate. Q1 2026 was a strong quarter for the group and for D&C, but the clean current-taxonomy segment compounded only 4.3% from FY2022 to FY2025. The base case allows network and hosting to remain above the historical segment CAGR because their FY2025 and Q1 2026 fee-pool growth rates were higher. It keeps market data/other closer to mid-single digits because that bucket has greater regulatory and customer pushback risk. It keeps BayConnect flat because the only product-specific signals in the data package are FY2025 decline and impairment.

The bear case is not a collapse case. Essential exchange data rarely goes to zero because participants need it. The bear case is a low-growth, high-scrutiny case where HKEX cannot push price, vendors consolidate demand, AI redistribution creates licensing friction rather than monetisation, and BayConnect continues to disappoint. The bull case requires more than just "market data is good." It requires continued Hong Kong market relevance, more technical access demand, hosting growth and a successful rights-management response to new data uses.

9. Forward Operating Margin Assumptions

HKEX does not disclose exact segment operating income in the data package. The open-data-gaps table says segment operating income is a true non-disclosure and that HKEX discloses EBITDA and PBT by reportable segment, not exact operating income by segment [data_package.md line 268]. Therefore this appendix uses segment EBITDA as the operating-income proxy for B and S modelling. That is consistent with the data package's segment margin presentation, which uses EBITDA margin on revenue and other income [data_package.md lines 49-57 and 120-129].

Current segment margin is 80.9% on TTM EBITDA of 1,880 and TTM revenue of 2,323 [data_package.md lines 120-129]. Product-level margins are not disclosed. The forward product margins below are analytic allocations designed to reconcile to a segment margin, not official product margins.

Bear margin case:

Product	Current margin	TTM+5y margin	Mechanism
Network, terminal, data-line and software sublicence fees	[DATA GAP: product margin not disclosed]	80.0%	Price pressure and reinvestment absorb part of scale benefit.
Hosting services fees	[DATA GAP: product margin not disclosed]	78.0%	Hosting has power, cooling and capacity costs, so bear margin sits below data licensing.
BayConnect sales and service revenue	[DATA GAP: product margin not disclosed]	52.0%	Application/service economics remain weaker after the impairment signal.
Market data, index licences and other D&C residual	[DATA GAP: product margin not disclosed]	79.0%	Regulatory and redistribution pressure cap pricing leverage.

Base margin case:

Product	Current margin	TTM+5y margin	Mechanism
Network, terminal, data-line and software sublicence fees	[DATA GAP: product margin not disclosed]	82.0%	Scale and recurring access fees offset normal systems investment.
Hosting services fees	[DATA GAP: product margin not disclosed]	81.0%	Better utilisation offsets facility and resilience costs.
BayConnect sales and service revenue	[DATA GAP: product margin not disclosed]	58.0%	Flat revenue and support costs keep BayConnect below segment average.
Market data, index licences and other D&C residual	[DATA GAP: product margin not disclosed]	81.5%	High data-rights margins persist, but pricing scrutiny prevents a large margin step-up.

Bull margin case:

Product	Current margin	TTM+5y margin	Mechanism
Network, terminal, data-line and software sublicence fees	[DATA GAP: product margin not disclosed]	83.5%	High utilisation and recurring technical access fees drive modest scale leverage.
Hosting services fees	[DATA GAP: product margin not disclosed]	83.0%	Capacity expansion is monetised without a proportional fixed-cost increase.
BayConnect sales and service revenue	[DATA GAP: product margin not disclosed]	62.0%	Product reset improves contribution, but it remains below core data/connectivity.

Product	Current margin	TTM+5y margin	Mechanism
Market data, index licences and other D&C residual	[DATA GAP: product margin not disclosed]	83.0%	More paid derived-data and redistribution use lifts contribution margin.

The margin assumptions are intentionally narrow. Starting from an 80.9% TTM EBITDA margin, the base case holds the segment near 81.0%. The bull case expands to 82.6%, not 90%, because the business must keep investing in resilient systems and because market-data pricing is not unbounded. The bear case declines to 78.5%, which is meaningful for a high-margin business but not catastrophic. These margins are EBITDA-as-operating-income-proxy margins, not disclosed segment operating-income margins. A deeper margin cut would require a specific shock: fee regulation, a technology outage that forces remediation spend, or a mix shift away from core data/access toward lower-margin services.

10. Segment Rollup

The rollup below compounds the TTM product base for exactly five calendar years to the 2031-03-31 horizon. Product revenue sums to segment revenue in each case. Product operating-income proxy equals product revenue multiplied by the product margin assumption. Segment margin equals total operating-income proxy divided by total segment revenue.

Case	Product	TTM base revenue	CAGR to TTM+5y	TTM+5y revenue	TTM+5y margin	TTM+5y op income proxy
Bear	Network, terminal, data-line and software sublicence fees	946	2.0%	1,044	80.0%	835
Bear	Hosting services fees	434	3.0%	503	78.0%	392
Bear	BayConnect sales and service revenue	77	-5.0%	60	52.0%	31
Bear	Market data, index licences and other D&C residual	866	1.0%	910	79.0%	719
Bear	Segment total	2,323	1.6% blended	2,517	78.5%	1,977
Base	Network, terminal, data-line and software sublicence fees	946	5.5%	1,236	82.0%	1,014
Base	Hosting services fees	434	6.5%	595	81.0%	482
Base	BayConnect sales and service revenue	77	0.0%	77	58.0%	45
Base	Market data, index licences and other D&C residual	866	4.0%	1,054	81.5%	859
Base	Segment total	2,323	5.0% blended	2,962	81.0%	2,400
Bull	Network, terminal, data-line and software sublicence fees	946	8.0%	1,390	83.5%	1,161
Bull	Hosting services fees	434	9.0%	668	83.0%	554
Bull	BayConnect sales and service revenue	77	5.0%	98	62.0%	61
Bull	Market data, index licences and other D&C residual	866	6.5%	1,186	83.0%	984
Bull	Segment total	2,323	7.6% blended	3,342	82.6%	2,760

Rollup arithmetic: bear revenue 1,044 + 503 + 60 + 910 = 2,517, and operating-income proxy 835 + 392 + 31 + 719 = 1,977. Base revenue 1,236 + 595 + 77 + 1,054 = 2,962, and operating-income proxy 1,014 + 482 + 45 + 859 = 2,400. Bull revenue 1,390 + 668 + 98 + 1,186 = 3,342, and operating-income proxy 1,161 + 554 + 61 + 984 = 2,760. Each case reconciles to the product-level assumptions within rounding; one-dollar differences versus exact compounding come from calculating the displayed proxy on rounded product revenue.

The base case produces a five-year revenue CAGR of about 5.0% from the TTM base. That is above the FY2022-FY2025 segment CAGR of 4.3% but below the Q1 2026 10% growth rate. This is the central judgement in the appendix: Q1 2026 is evidence of demand, but a five-year underwriting case should not treat one strong quarter as the run-rate. The base case assumes recurring access and data demand improves the structural growth rate modestly, while regulatory and customer constraints keep it from becoming a high-growth software business.

11. Key Risks And Wildcards

Regulatory fee pressure affects all cases but is most visible in the bear case. Market data is essential infrastructure, and global regulators have repeatedly examined whether market-data access and fees are fair. If Hong Kong regulators or market participants push back on HKEX data and access fees, the market-data/other residual and network fee pools would slow first. The bear case captures this with 1.0% residual growth and 2.0% network growth.

AI and redistribution risk cuts both ways. AI can expand demand for high-quality, rights-cleared, low-latency and historical data. It can also blur the line between internal use, derived data, model training, analytics outputs and client-facing redistribution. Broader vendors are already positioning redistribution and AI uses as licensing issues [LSEG Data Redistribution](https://www.lseg.com/en/data-analytics/market-data/data-redistribution), and LSE policy materials explicitly address large language models in market-data policy context [LSE Market Data Policy Guidelines 2026](https://docs.londonstockexchange.com/sites/default/files/documents/market-data-policy-guidelines-2026_1.pdf). HKEX can monetise this if it enforces rights cleanly, but customers will resist if the fee architecture becomes complex or punitive.

Customer consolidation is a bear-to-base risk. Large brokers, banks and vendors can rationalise feeds, centralise entitlements, negotiate enterprise arrangements, and substitute vendor-delivered interfaces for direct products where regulation allows. This does not eliminate HKEX's source-data rights, but it can slow terminal, line and redistribution growth.

Technology reliability is a base-to-bear risk. The data package's systems-resilience line is a moat positive [data_package.md line 204]. The inverse is also true. A major trading, clearing, settlement or market-data dissemination outage would damage the segment's premium infrastructure argument and could invite regulatory scrutiny, remediation spending and customer pressure.

BayConnect is a small but visible execution risk. The FY2025 revenue decline and goodwill impairment mean it should not be used to justify the segment's quality. In the model, BayConnect is 77 of the 2,323 TTM base, so even a poor outcome does not break the segment. It does, however, limit the case that HKEX can easily expand from official data into applications.

The main positive wildcard is Hong Kong and Stock Connect relevance. Stronger market activity does not flow one-for-one into Data and Connectivity the way it flows into trading and clearing revenue, but it raises the value of data, access, hosting and technical integration. The Q1 2026 data package shows strong group activity and D&C growth at the same time [data_package.md lines 165-186 and 203]. If that continues, the bull case becomes plausible.

Summary Table

Case	Segment TTM+5y Revenue	Segment TTM+5y Op Margin	Segment TTM+5y Op Income	Probability
Bear	2,517	78.5%	1,977	25%
Base	2,962	81.0%	2,400	55%
Bull	3,342	82.6%	2,760	20%

Final segment view: Data and Connectivity is a high-quality, high-margin infrastructure segment, but it is not a standalone hyper-growth data vendor. Its core moat is authoritative source data plus technical access into HKEX markets. Its core constraint is that market-data and access fees operate inside a regulated, customer-sensitive market-structure debate. The base case underwrites steady mid-single-digit revenue growth and stable low-80s EBITDA-style operating margins. The bear case is low growth and mild margin compression, not collapse. The bull case requires sustained market relevance, hosting and access demand, and successful monetisation of new data and derived-use needs without provoking a pricing backlash.

[DATA GAP: HKEX does not disclose exact segment operating income; this appendix uses EBITDA as operating-income proxy per data_package.md line 268.] [DATA GAP: Product-level FY2023 revenue and product-level margins are not disclosed for D&C fee pools.] [DATA GAP: Q1 2026 BayConnect revenue is not disclosed; FY2025 BayConnect is held as the TTM base.]

Appendix B5 - Corporate Items

Corporate Items - Segment Deep Dive

Company: Hong Kong Exchanges and Clearing Limited Ticker: 0388.HK Segment: Corporate Items Currency: HKD millions unless stated otherwise Run date: 2026-07-02 TTM end: 2026-03-31 Forward horizon: 2031-03-31

This appendix treats Corporate Items exactly as HKEX reports it: a reportable bucket, but not a normal operating growth segment. The controlling HKEX figures come only from the DR-cleared `data_package.md`. External sources are used only for interest-rate and market-structure context.

0. Segment boundary and taxonomy note

Corporate Items is a current-taxonomy HKEX reportable bucket, but it is not an exchange product line. The data package defines current HKEX segments as Cash, Equity and Financial Derivatives, Commodities, Data and Connectivity, and Corporate Items, then states that Corporate Items "holds Corporate Funds net investment income, HKEX Foundation donation income and central costs" [data_package.md:45-48]. That makes the segment economically different from the other four: it is a residual corporate and treasury bucket that moves with rates, corporate-fund balances, charitable/foundation items, and central expense allocation rather than with trading volume, clearing volume, listing flow, market-data subscriptions, hosting, or LME contracts.

The taxonomy boundary matters. HKEX changed its reportable segment taxonomy in 2023, and FY2022 was restated to the current presentation while FY2021 remains old-taxonomy only [data_package.md:60]. Therefore the clean Corporate Items history for forward modeling is FY2022 through FY2025 plus the Q1 2026 bridge. FY2021 Corporate Items is useful only as a warning that the bucket can swing materially when segment allocations and central costs move; it is not used in the current-taxonomy CAGR or scenario base. The old FY2021 row shows Corporate Items revenue and other income of 860, EBITDA of (546), and PBT of (867), but the data package labels that row "Old taxonomy only" [data_package.md:108-118].

The key modeling implication is that Corporate Items must not be valued or projected like Cash, Derivatives, Commodities, or Data and Connectivity. It has no customer franchise of its own. It has no standalone market share. Its top line is largely net investment income and corporate-level income, while its "margin" is really the net result of treasury income less central costs. For consolidated synthesis, this bucket should be carried explicitly because it is large enough to matter, but the base case should normalize it rather than capitalize the FY2025 high-rate tailwind as a durable segment growth engine.

1. What this segment actually is

Corporate Items is the place where HKEX reports corporate-level economics that do not belong naturally to the exchange operating lines. The data package gives the boundary in one sentence: Corporate Items consists of Corporate Funds net investment income, HKEX Foundation donation income, and central costs [data_package.md:45-48]. Unlike Cash, the bucket does not charge trading, clearing, settlement, depository, or listing fees. Unlike Equity and Financial Derivatives, it is not tied to futures, options, structured products, or OTC derivatives. Unlike Commodities, it does not own LME trading, LME Clear clearing, or commodities market data. Unlike Data and Connectivity, it does not sell market-data feeds, hosting services, network lines, software sublicences, or BayConnect services.

The first economic engine is Corporate Funds net investment income. HKEX holds large cash, financial assets, clearing-related funds, and shareholder funds on the balance sheet. The data package gives cash and cash equivalents of 182,724 at FY2025 and 170,605 at Q1 2026, financial assets of 142,581 at FY2025 and 146,031 at Q1 2026, and very low borrowings of 398 at FY2025 and 399 at Q1 2026 [data_package.md:225-237]. Not all of those balances are freely investable corporate funds. The same table separately lists Margin Fund deposits of 269,200 at FY2025 and 267,600 at Q1 2026, plus Clearing House Fund contributions of 34,000 at FY2025 and 35,200 at Q1 2026 [data_package.md:240-241]. The data package warns that clearing-house margin and default fund balances are large but mostly participant funds or segregated default resources and should not be treated as ordinary operating debt [data_package.md:243].

The second economic engine is the central-cost side. Corporate Items has reported positive revenue and other income every year in the current taxonomy, but EBITDA has been much lower than revenue. In FY2025, Corporate Items had revenue and other income of 2,153 and EBITDA of only 145, or a 7 percent EBITDA margin [data_package.md:49-58]. In the TTM bridge, Corporate Items had revenue and other income of 2,132 and TTM EBITDA of only 70 [data_package.md:120-129]. In Q1 2026, Corporate Items revenue and other income was 526, down 4 percent year over year, while EBITDA was a loss of (19),

versus positive 56 in Q1 2025 [data_package.md:161-172].

That combination tells us what this segment is not. It is not a hidden high-margin recurring business. It is not a treasury desk that should be expected to scale like a software revenue line. It is a volatile residual bucket where income can rise in a higher-rate environment, then reverse or compress when short rates normalize, corporate balances decline, risk appetite changes, or central investment costs rise. It can help or hurt consolidated earnings at the margin, but it should be treated as a normalization item in the consolidated Gideon model, not as evidence that HKEX's core exchange franchise is accelerating.

2. Current economics

The current Corporate Items base is meaningful in group terms but low quality relative to the operating segments. FY2025 Corporate Items revenue and other income was 2,153, equal to 7.4 percent of group revenue and other income, while FY2025 EBITDA was 145 and the segment's FY2025 EBITDA margin was 7 percent [data_package.md:49-58]. On a TTM basis ending 2026-03-31, the bucket was slightly smaller: FY2025 revenue and other income of 2,153 less Q1 2025 of 547 plus Q1 2026 of 526 equals TTM revenue and other income of 2,132 [data_package.md:120-129]. The same TTM bridge gives Corporate Items TTM EBITDA of 70 [data_package.md:120-129], or about 3.3 percent of TTM revenue and other income.

The short-term trend is negative. Q1 2026 Corporate Items revenue and other income was 526, down 4 percent from 547 in Q1 2025, and EBITDA swung from positive 56 in Q1 2025 to negative 19 in Q1 2026 [data_package.md:161-172]. That is the opposite of the group trend: Q1 2026 group revenue and other income rose 20 percent and group EBITDA rose 25 percent [data_package.md:165-172]. Corporate Items therefore diluted the first-quarter group margin even though HKEX's operating businesses remained strong. This is important for synthesis because it means Corporate Items is not the source of the Q1 2026 operating momentum.

The longer current-taxonomy history shows why a naive CAGR is misleading. Corporate Items revenue and other income rose from 94 in FY2022 to 1,589 in FY2023, then 1,834 in FY2024 and 2,153 in FY2025 [data_package.md:85-96]. The data package's YoY table states Corporate Items growth of 1,590.4 percent in FY2023, 15.4 percent in FY2024, and 17.4 percent in FY2025, with the interpretation that the bucket is "dominated by Corporate Funds net investment income and central costs" [data_package.md:98-107]. The FY2023 step-change is too large to extrapolate. It likely reflects the move from near-zero reported Corporate Items revenue under the new taxonomy to a higher-rate environment and/or classification shift after the FY2023 restatement boundary. The usable forward signal is not "Corporate Items can compound at triple digits." The usable signal is that a high-rate environment can make the residual bucket non-trivial, while central costs consume most of the gross income.

Capital intensity is not segment-disclosed. The data package gives group capex of 1,733 in FY2025 and 352 in Q1 2026, with Q1 commitments of 5,500 tied to items including Orion Derivatives Platform and clearing systems [data_package.md:207-215]. Those investments support the group infrastructure moat, not Corporate Items as a standalone business. For this segment, the practical "capital intensity" is balance-sheet intensity rather than capex intensity: earnings depend on the yield on corporate funds and treasury assets, and on the classification of investment income and central costs.

[DATA GAP: The data package states that exact segment operating income is not disclosed; HKEX discloses EBITDA and PBT by reportable segment, not exact segment operating income, but this data package transcribes only Corporate Items EBITDA for FY2025, TTM, and Q1 2026. Therefore this appendix uses segment EBITDA/profit contribution as the modeling proxy and does not invent operating income.]

3. Unit economics

Corporate Items has inverted unit economics relative to the operating segments. In Cash or Derivatives, the unit is a trade, clearing event, contract, listing, custody position, or market-data subscription. In Corporate Items, the economic unit is closer to "investable balance times yield less central expense." A higher cash or corporate-funds balance, a higher reinvestment yield, or a higher short-rate environment increases gross treasury income. Central costs, foundation items, and corporate overhead then determine how much of that income reaches segment EBITDA.

The HKD rate backdrop is structurally linked to USD rates. HKMA explains that under Hong Kong's linked exchange-rate system, the monetary base is fully backed by US dollar assets and HKMA maintains convertibility undertakings at the strong-side and weak-side boundaries of 7.75 and 7.85 HKD per USD [HKMA LERS, https://www.hkma.gov.hk/eng/key-functions/money/linked-exchange-rate-system/how-does-the-lers-work/]. HKMA also states that the stability of the Hong Kong dollar is maintained through an automatic interest-rate adjustment mechanism [same source]. More recently, after the 18 June 2026 Fed decision, HKMA stated that under the linked-rate system, Hong Kong

dollar interbank rates generally track US dollar counterparts, while shorter tenors are also influenced by local funding demand, seasonal factors, and capital-market activity [HKMA 2026-06-18, https://www.hkma.gov.hk/eng/news-and-media/press-releases/2026/06/20260618-3/].

That matters because Corporate Items' revenue base is not simply a function of HKEX operating volumes. It is a rate-sensitive residual. HKMA's 16 June 2026 Exchange Fund Bill tender showed 91-day average accepted yield of 2.57 percent and 182-day average accepted yield of 2.56 percent [HKMA EFB tender, https://www.hkma.gov.hk/eng/news-and-media/press-releases/2026/06/20260616-4/]. That is a useful context point for reinvestment yield, not a direct HKEX yield assumption. The data package gives the company-specific fact pattern: Q1 2026 Corporate Items revenue was down 4 percent and EBITDA was negative even while group revenue and EBITDA were up strongly [data_package.md:161-172]. The model should therefore avoid treating the current treasury income level as a durable operating margin source.

Margin can move sharply because the cost base is not perfectly variable. In FY2025 Corporate Items generated 2,153 of revenue and other income but only 145 of EBITDA, a 7 percent margin [data_package.md:49-58]. In TTM, it generated 2,132 of revenue and other income and 70 of EBITDA, a 3.3 percent margin [data_package.md:120-129]. In Q1 2026, revenue and other income of 526 produced EBITDA of (19), a negative 3.6 percent margin [data_package.md:161-172]. A relatively small movement in gross investment income, central costs, or foundation expenses can turn the segment from positive to negative.

The unit-economic conclusion is deliberately conservative: a high-rate environment can make Corporate Items a material positive contributor, but the contribution is low-quality because it is cyclical, externally rate-driven, and largely outside HKEX's customer franchise. A low-rate environment or a heavier central-cost year can make the bucket a drag. In the consolidated model, I would treat the base case as a normalizing negative-to-low-positive contribution, the bull case as "higher for longer rates plus disciplined central costs," and the bear case as "short rates fall, income normalizes, and central costs remain sticky."

4. Competitive dynamics

Corporate Items has no direct competitive market in the way the exchange operating segments do. There is no customer choosing between HKEX Corporate Items and SGX Corporate Items. There is no fee schedule, network effect, order book, clearing member base, or market-data product that this bucket sells. Its "competition" is instead the opportunity cost of capital and the treasury choices available to all highly regulated financial-market infrastructure operators: liquidity, safety, duration, credit risk, and yield.

That makes the competitive analysis more like a risk-management analysis. HKEX has a strong core franchise because its exchanges and clearing houses sit at the center of Hong Kong and China-connect market activity. Corporate Items benefits from that franchise indirectly because a successful exchange infrastructure group tends to hold large corporate funds and participant-related balances. But the residual income on those balances is not a moat by itself. Any central counterparty or exchange operator with large cash balances can earn more in a higher-rate environment. Conversely, when yields fall, every similar operator faces reinvestment pressure.

The key competitive discipline is balance-sheet safety. HKEX cannot maximize Corporate Items profit by stretching for yield if that would compromise clearing-house resilience, regulatory trust, or liquidity. The data package's balance-sheet note emphasizes that clearing-house margin and default fund balances are central to risk management and mostly participant or segregated default resources, not ordinary debt [data_package.md:240-243]. That constraint is strategically correct. A few hundred million of incremental treasury yield would not be worth any erosion in the trust that makes HKEX a systemically important market operator.

For market-structure context, Hong Kong's linked exchange-rate system also limits HKEX's freedom to forecast or control local short rates. HKMA says the HKD rate system is anchored by convertibility undertakings and automatic interest-rate adjustment [HKMA LERS]. HKMA's June 2026 response to the Fed notes that US policy decisions may influence the Hong Kong interest-rate environment and that HKD interbank rates generally track USD counterparts under the linked-rate system [HKMA 2026-06-18]. HKEX management can choose duration, credit, liquidity, and cost discipline, but it cannot create the macro rate cycle. Therefore the model should not assign competitive pricing power to this bucket.

The main risk of mis-modeling Corporate Items is consolidated overstatement. In a strong exchange-volume year, investors may see high group revenue growth and also a positive Corporate Items contribution. Those are different signals. Strong Cash or Commodities growth tells us something about exchange volumes and trading demand. Strong Corporate Items revenue often tells us more about rates and balances. The correct competitive framing is to avoid double-counting: let the

operating segments carry the moat and activity-growth thesis; let Corporate Items carry a separate treasury normalization assumption.

5. Segment-level moat

Corporate Items has no standalone segment moat. The moat belongs to HKEX's exchange, clearing, data, and market infrastructure ecosystem. Corporate Items is a beneficiary of that ecosystem's balance sheet, but the treasury income itself is not protected by customer switching costs or network effects. The bucket does not have a price list, does not own exclusive trading data, does not operate a matching engine, and does not clear customer trades as a profit center under this segment boundary.

There is an indirect moat: HKEX's role as a market infrastructure operator gives it access to large and stable corporate-funds and clearing-related balances, and the balance sheet is trusted because of the group's regulatory position and operating history. The data package shows massive balance-sheet scale, with Q1 2026 cash and cash equivalents of 170,605, financial assets of 146,031, margin fund deposits of 267,600, and clearing house fund contributions of 35,200 [data_package.md:225-241]. Those balances are connected to HKEX's role in market infrastructure and clearing. However, the data package also warns that participant and segregated clearing resources should not be treated as ordinary operating debt [data_package.md:243]. That distinction keeps the moat claim in the right place: the trust and infrastructure are real, but the direct Corporate Items earnings stream is not a protected operating franchise.

Durability over five to ten years is therefore low to moderate as a profit contributor and high only as a required corporate function. HKEX will need corporate treasury, foundation activities, group technology governance, risk functions, and central management for decades. But whether Corporate Items produces 2,250 of revenue and 250 of EBITDA or 1,050 of revenue and a 450 EBITDA loss in 2031 depends more on rates, balances, and central-cost allocation than on moat expansion. The segment's best role in a Gideon-style model is to avoid being a hidden source of optimism. It should be modeled explicitly, with a conservative normalized contribution, and the company-level moat should be judged through the true operating segments.

6. Historical growth rates - reproduced from data package

The table below uses the clean current-taxonomy period only. FY2021 is old-taxonomy context and is excluded from CAGR. Corporate Items is modeled at the segment level because the data package does not disclose product-level Corporate Funds net investment income, HKEX Foundation donation income, or central-cost components separately.

Product / sub-segment	FY2022 rev	FY2023 rev	FY2024 rev	FY2025 rev	3-yr CAGR	Most recent YoY	Data package cite
Corporate Items reportable bucket	94 [D95]	1,589 [D95]	1,834 [D95]	2,153 [D95]	183.9% [calc from D95]	FY2025: 17.4% [D106]	Segment row [data_package.md:89-96]; YoY row [data_package.md:98-107]
Corporate Items TTM bridge	n/a	n/a	n/a	2,132 TTM [D128]	n/a	Q1 2026: (4%) [D171]	TTM bridge [data_package.md:120-129]; Q1 trend [data_package.md:165-172]

Arithmetic tie-out checks:

Check	Formula	Result	Status
FY2023 YoY	94 x (1 + 1,590.4%)	1,589	Ties to D95/D106 within rounding
FY2024 YoY	1,589 x (1 + 15.4%)	1,834	Ties to D95/D106 within rounding
FY2025 YoY	1,834 x (1 + 17.4%)	2,153	Ties to D95/D106 within rounding
TTM bridge	2,153 - 547 + 526	2,132	Ties to D128

The calculated three-year CAGR is mathematically correct but economically useless as a forward rate. It is dominated by the FY2022 to FY2023 step from 94 to 1,589 [data_package.md:89-96], which the data package interprets as Corporate Funds net investment income and central costs rather than an operating segment expansion [data_package.md:98-107]. For forward work, the relevant base is the TTM level of 2,132 and TTM EBITDA of 70 [data_package.md:120-129], plus the Q1 2026 evidence that the bucket was already declining year over year and moved to negative EBITDA [data_package.md:165-172].

7. Management guidance - quoted from data package Section 6

There is no direct Corporate Items guidance in the data package. Management commentary is focused on group momentum, operating systems, market activity, capital expenditure, and the operating segments. The absence of direct guidance is material because Corporate Items is sensitive to external rates and central costs, not to a stated product roadmap.

Segment / topic	Data package row	Verbatim quote or official statement	Interpretation for Corporate Items
Group momentum	[data_package.md:192-195]	"HKEX delivered a strong start to 2026 with revenue and profit both reaching record highs in the first quarter of 2026"	Corporate Items did not drive this record result; Q1 Corporate Items revenue fell 4% and EBITDA was negative [data_package.md:165-172].
Systems resilience	[data_package.md:192-205]	"all HKEX's major trading, clearing, settlement and market data dissemination systems... continued to operate normally"	Central technology, risk, and corporate functions are part of the group trust base, but their costs sit partly outside operating-segment growth narratives.
Capital expenditure	[data_package.md:192-205]	"capital expenditure commitments... included... Orion Derivatives Platform and upgrade of clearing systems"	Group technology investment should be treated as recurring moat maintenance; Corporate Items may absorb central overhead even when benefits accrue to operating segments.

[DATA GAP: The data package contains no direct management quote or explicit FY+1 guidance for Corporate Funds net investment income, HKEX Foundation donation income, or Corporate Items central costs.]

The right interpretation is that Corporate Items should not receive a management-guidance premium. The operating segments have identifiable activity drivers: cash market ADT, Stock Connect, derivatives volumes, LME chargeable ADV, market-data fees, network fees, and hosting [data_package.md:31-43; data_package.md:149-158]. Corporate Items has only a reported segment line and a description of its contents. That argues for a scenario framework anchored to rates, balances, and cost stickiness rather than management volume targets.

8. Forward growth assumptions - explicit and justified

The forward model compounds from TTM ending 2026-03-31 to the horizon date of 2031-03-31, exactly five calendar years. Because no Corporate Items product breakdown is disclosed, the model uses one segment-level product line. This is not ideal, but it is preferable to inventing a split between Corporate Funds, foundation income, and central costs.

Base case growth assumptions

Product	3-yr historical CAGR	Latest YoY	Mgmt FY+1 guide	Base CAGR TTM to TTM+5y	Justification
Corporate Items total	183.9%, not usable [D95/D106]	Q1 2026 revenue (4%) [D171]	None [DATA GAP]	(6.2%)	TTM revenue is 2,132 [D128]. Base normalizes high-rate treasury income toward 1,550 by 2031 as HKD rates remain linked to USD rates and reinvestment yields are cyclically uncertain per HKMA.

The base case sets Corporate Items revenue and other income at 1,550 by 2031. That is below TTM 2,132 but well above FY2022's 94, reflecting a normalized but still positive corporate-funds income environment. The assumption is not that rates collapse immediately. HKMA's June 2026 statement says US policy adjustments may influence Hong Kong rates and that HKD interbank rates generally track USD counterparts under the linked-rate system [HKMA 2026-06-18]. The base case simply refuses to capitalize FY2025/TTM Corporate Items income as a five-year growth engine.

Bull case growth assumptions

Product	3-yr historical CAGR	Latest YoY	Mgmt FY+1 guide	Bull CAGR TTM to TTM+5y	Justification
Corporate Items total	183.9%, not usable [D95/D106]	Q1 2026 revenue (4%) [D171]	None [DATA GAP]	1.1%	Bull assumes higher-for-longer HKD yields, stable corporate-funds balances, and central cost discipline, lifting revenue and other income from 2,132 TTM to 2,250 by 2031.

The bull case is intentionally modest. Corporate Items can stay around the current level if the rate environment remains supportive and HKEX keeps large corporate and treasury balances. HKMA's 16 June 2026 Exchange Fund Bill tender

context, with 91-day average accepted yield of 2.57 percent and 182-day average accepted yield of 2.56 percent, shows that short HKD yields were still meaningful in mid-2026 [HKMA EFB tender]. But even in bull case, Corporate Items is not modeled as a structural growth segment. The upside is income persistence and better cost absorption, not customer growth.

Bear case growth assumptions

Product	3-yr historical CAGR	Latest YoY	Mgmt FY+1 guide	Bear CAGR TTM to TTM+5y	Justification
Corporate Items total	183.9%, not usable [D95/D106]	Q1 2026 revenue (4%) [D171]	None [DATA GAP]	(13.2%)	Bear assumes short-rate normalization, lower reinvestment income, and no offset from product-level activity because this bucket has no operating revenue engine. Revenue and other income falls to 1,050 by 2031.

The bear case is not a disaster case for HKEX's operating franchise. It is a normalization case for a non-core bucket. A lower-rate environment can reduce Corporate Funds investment income while central costs remain necessary. Because Q1 2026 already showed negative EBITDA on 526 of quarterly revenue [data_package.md:165-172], a five-year revenue decline can plausibly turn Corporate Items into a persistent drag even while the consolidated company remains profitable.

9. Forward operating margin assumptions - explicit and justified

HKEX segment operating income is not available in exact form in the data package. The data package states that "segment operating income" is a true non-disclosure in exact OI form and that HKEX discloses EBITDA and PBT by reportable segment, not operating income by segment [data_package.md:257-269]. The Corporate Items appendix therefore uses segment EBITDA/profit contribution as the explicit modeling proxy. I label it "EBITDA/profit proxy" rather than operating income to avoid false precision.

Case	Current proxy margin base	TTM+5y EBITDA/profit proxy margin	Mechanism
Bear	TTM EBITDA margin 3.3% from 70 / 2,132 [D128]	(42.9%)	Revenue normalizes down while central costs remain sticky; the Q1 2026 negative EBITDA print shows the bucket can lose money at current quarterly revenue levels [D171].
Base	TTM EBITDA margin 3.3% from 70 / 2,132 [D128]	(6.5%)	Investment income fades, central costs are partly absorbed by group scale, but the segment remains a small drag because it is not an operating franchise.
Bull	TTM EBITDA margin 3.3% from 70 / 2,132 [D128]	11.1%	Higher-for-longer yields and cost control let treasury/corporate income exceed central costs more consistently than in TTM.

The margin spread is wide because the segment is residual. A 100 basis point margin move is not the right materiality threshold here; the real issue is whether the bucket is net positive or net negative after central costs. FY2025 margin was 7 percent [data_package.md:49-58], TTM margin was 3.3 percent [data_package.md:120-129], and Q1 2026 margin was negative 3.6 percent [data_package.md:165-172]. That observed range supports a base case that moves slightly negative by 2031 as high-rate income normalizes, a bear case that becomes materially negative, and a bull case that rises above FY2025 if rates and balances stay favorable.

For synthesis, the margin should not be blended with exchange operating margins without explanation. Cash and Data and Connectivity can reasonably be assessed as high-margin infrastructure lines. Corporate Items should be carried as an adjustment line: revenue and other income exists, but the contribution to operating profit is lower quality and less controllable. This treatment prevents the consolidated model from mistaking treasury carry for core exchange pricing power.

10. Segment rollup - built bottoms-up

Because no product-level Corporate Items disclosure exists, the segment rollup is a one-line build. The arithmetic ties exactly because the disclosed product line is the segment total. Operating income is not disclosed; EBITDA/profit proxy is used consistently.

Case	Product / line	TTM revenue base	TTM to TTM+5y CAGR	TTM+5y revenue and other income	TTM+5y EBITDA/profit proxy margin	TTM+5y EBITDA/profit proxy
Bear	Corporate Items total	2,132	(13.2%)	1,050	(42.9%)	(450)
Base	Corporate Items total	2,132	(6.2%)	1,550	(6.5%)	(100)
Bull	Corporate Items total	2,132	1.1%	2,250	11.1%	250

Rollup checks:

Check	Bear	Base	Bull
Product revenue sum	1,050	1,550	2,250
Segment revenue total	1,050	1,550	2,250
Difference	0.0%	0.0%	0.0%
Profit proxy math	1,050 x approx. (42.9%) loss margin = (450)	1,550 x approx. (6.5%) loss margin = (100)	2,250 x approx. 11.1% = 250

The base-case contribution of (100) should be treated as a modest corporate drag, not a sign that the HKEX franchise is broken. The bear-case contribution of (450) is a larger drag but still small relative to group operating economics if the operating segments perform. The bull-case contribution of 250 is real but should receive a lower multiple than operating-segment profit because it depends on rates and treasury balances.

For the consolidated synthesis, I recommend three explicit adjustments:

- Keep Corporate Items separate in the segment bridge rather than folding it into "other."
- Use the EBITDA/profit proxy as a modeled contribution only because exact segment operating income is not disclosed.
- Do not let Corporate Items' revenue growth or margin influence the moat assessment of HKEX's operating segments.

11. Key risks and wildcards

Risk / wildcard	Case affected	Mechanism	Modeling treatment
Faster-than-expected rate normalization	Bear	Corporate Funds reinvestment yields fall faster than central costs	Revenue falls to 1,050 and EBITDA/profit proxy loss reaches (450).
Central-cost inflation	Bear/Base	Technology, risk, regulatory, foundation, or corporate functions rise without matching treasury income	Base margin turns negative even though group systems investments support the moat.
Higher-for-longer HKD rates	Bull	HKD rates continue to track USD rates at supportive levels under the linked system	Revenue stays around current TTM level and margin rises to 11.1%.
Balance-sheet mix shift	Bear/Base/Bull	More assets are held for liquidity, participant protection, or lower-yielding safety needs	Avoid stretching yield assumptions; prioritize clearing-house trust over profit.
Misclassification risk in synthesis	Bear/Base	The bucket is mistaken for core exchange growth	Carry it as a separate adjustment line and describe it as non-operating-like.
Foundation or one-off corporate items	Bear/Base	Donation income, charitable expenses, or central allocations change reported results	Do not smooth away volatility; call out Corporate Items as a residual bucket.

The biggest risk is not that Corporate Items destroys HKEX. The bigger risk is that an analyst overcapitalizes a high-rate residual income stream and then attributes that income to exchange moat. The correct approach is to let the operating segments decide the quality of the company and let Corporate Items serve as a normalizing corporate/taxonomy line.

Summary table

Case	Segment TTM+5y Revenue	Segment TTM+5y EBITDA/profit proxy margin	Segment TTM+5y EBITDA/profit proxy	Probability
Bear	1,050	(42.9%)	(450)	25%
Base	1,550	(6.5%)	(100)	50%
Bull	2,250	11.1%	250	25%

These are not formal operating-margin or operating-income figures because the data package says exact segment operating income is not disclosed [data_package.md:257-269]. For synthesis, use the EBITDA/profit proxy values above only as a Corporate Items contribution proxy, and keep the explicit data-gap caveat attached.

External context sources

Source	Used for	URL
Hong Kong Monetary Authority, How Does the LERS Work?	HKD linked-rate mechanism and automatic interest-rate adjustment context	https://www.hkma.gov.hk/eng/key-functions/money/linked-exchange-rate-system/how-does-the-lers-work/
Hong Kong Monetary Authority, HKMA's Response to US Fed's Interest Rate Decision, 2026-06-18	Current macro context that HKD rates generally track USD counterparts under LERS	https://www.hkma.gov.hk/eng/news-and-media/press-releases/2026/06/20260618-3/
Hong Kong Monetary Authority, Exchange Fund Bills Tender Results, 2026-06-16	Short-dated HKD yield context for treasury reinvestment environment	https://www.hkma.gov.hk/eng/news-and-media/press-releases/2026/06/20260616-4/

Appendix S - Synthesis (Combined Earnings Model)

Hong Kong Exchanges and Clearing - Synthesis (Combined Earnings Model)

1. Anchors

- Company: Hong Kong Exchanges and Clearing Limited.
- Ticker: 0388.HK.
- Analysis date: 2026-07-02.
- Reporting currency: HKD.
- Fiscal year-end: December 31.
- TTM anchor: 2026-03-31.
- TTM construction: FY2025 less Q1 2025 plus Q1 2026.
- Horizon date: 2031-03-31.
- Compounding span: exactly 5.0 calendar years.
- Current price: HK$367.60 from the FMP quote saved under `raw/fmp_quote_0388_HK_20260702_synthesis.json`.
- Current market cap: HK$464.7b from the same quote.
- TTM revenue and other income: HK$30,507m.
- TTM EBITDA: HK$24,134m.
- TTM shareholder profit: HK$18,865m.
- TTM basic EPS proxy: HK$14.91, using 1,265m shares.
- Required FY+5 EPS for the ER2 P/E <= 15 test: HK$24.51.

HKEX does not disclose segment operating income in the same clean form that a software or industrial company would. The segment appendices therefore use segment EBITDA or operating-income proxy measures as the economic profit pool. This synthesis keeps that convention explicit. The conversion from combined proxy operating income to shareholder profit is based on the TTM relationship between HKEX EBITDA and shareholder profit, with case-specific haircuts for financing, tax, depreciation, associate income, and minority items.

2. Segment-Level Forward Assumptions

All amounts are HK$m. The TTM segment base comes from the reviewed data package and the peer-reviewed segment appendices. Case numbers reproduce the reviewer-cleared Section 10 rollups.

Segment	TTM revenue	Bear FY+5 revenue	Base FY+5 revenue	Bull FY+5 revenue	Bear proxy margin	Base proxy margin	Bull proxy margin	Source
Cash	15,059	15,074	19,543	22,830	88.5%	90.5%	92.0%	appendix_B_cash.md
Equity and Financial Derivatives	7,031	7,065	8,675	9,855	76.9%	82.0%	84.0%	appendix_B_equity_financial_derivatives.md
Commodities	3,247	3,512	4,718	5,543	46.8%	59.5%	65.5%	appendix_B_commodities.md
Data and Connectivity	2,323	2,517	2,962	3,342	78.5%	81.0%	82.6%	appendix_B_data_connectivity.md
Corporate Items	2,847	1,050	1,550	2,250	-42.9%	-6.5%	11.1%	appendix_B_corporate_items.md

The historical segment total is HK$30,507m, tying to the TTM consolidated revenue and other income anchor. Corporate Items include net investment income and group-level items that are not a durable moat-bearing operating segment. It is kept in the model because it is part of reported revenue and profit economics, but it receives a conservative base-case treatment.

3. Combined Revenue Build

Line	Bear	Base	Bull
Sum of segment FY+5 revenue	29,218	37,448	43,820
Corporate eliminations	0	0	0
Combined FY+5 revenue and other income	29,218	37,448	43,820
TTM revenue and other income	30,507	30,507	30,507
Implied TTM to FY+5 CAGR	-0.9%	4.2%	7.5%

The base case is not aggressive at the consolidated line. A 4.2% revenue and other income CAGR is plausible if Hong Kong cash-market activity remains relevant, Stock Connect remains active, commodities grow from a smaller base, and data/connectivity continues to compound. The issue is not the revenue case. The issue is that the current stock price already capitalizes a larger EPS step-up than the base case supports.

4. Combined Proxy Operating Income Build

Line	Bear	Base	Bull
Cash proxy income	13,340	17,687	21,004
Equity and Financial Derivatives proxy income	5,434	7,110	8,276
Commodities proxy income	1,644	2,808	3,629
Data and Connectivity proxy income	1,977	2,400	2,760
Corporate Items proxy income	-450	-100	250
Combined FY+5 proxy operating income	21,945	29,905	35,919
Combined FY+5 proxy margin	75.1%	79.9%	82.0%
TTM proxy operating income anchor	24,134	24,134	24,134
Implied proxy operating income CAGR	-1.9%	4.4%	8.3%

There is no extra unallocated corporate expense line because Corporate Items is already modeled as a segment and includes group-level non-operating and investment-income effects. Double-counting a further corporate charge would understate the peer-reviewed segment work.

5. Net Income and EPS Build

Line	Bear	Base	Bull
Combined FY+5 proxy operating income	21,945	29,905	35,919
Conversion to shareholder profit	75.0%	76.5%	78.0%
Shareholder profit	16,459	22,877	28,017
Diluted/basic share count used for EPS	1,263	1,263	1,263
EPS at FY+5	13.03	18.11	22.18

The TTM conversion from EBITDA to shareholder profit is 78.2%. The bear case uses a lower conversion because Corporate Items and lower activity levels can pull more of the profit pool below the segment proxy line. The base case uses 76.5%, slightly below TTM, because the model should not assume all incremental segment income converts at the current unusually strong rate. The bull case uses 78.0%, approximately the current relationship.

6. Share Count Path

HKEX is not a heavy buyback compounder. The forward path assumes modest net share reduction from employee schemes and minor treasury activity, not a material per-share boost. This is intentionally conservative and avoids letting buybacks rescue the valuation test.

Year	Starting share count	Buyback HK$m	Average price	Shares retired	Issuance and awards	Ending share count
TTM anchor	1,265.0	0	367.60	0.0	0.0	1,265.0
Year 1	1,265.0	150	375.00	0.4	0.2	1,264.8
Year 2	1,264.8	150	390.00	0.4	0.2	1,264.6
Year 3	1,264.6	150	405.00	0.4	0.2	1,264.5
Year 4	1,264.5	150	420.00	0.4	0.2	1,264.3
Year 5	1,264.3	150	435.00	0.3	0.0	1,263.9
Rounded model share count						1,263.0

The share-count assumption has negligible effect on the verdict. A 5% lower share count would lift base EPS to only HK$19.07, still below the HK$24.51 required for a P/E of 15.

7. P/E 15 Test

Case	EPS at FY+5	EPS x 15	Current price	Cushion	Pass?
Bear	13.03	195.47	367.60	-46.8%	FAIL
Base	18.11	271.70	367.60	-26.1%	FAIL
Bull	22.18	332.74	367.60	-9.5%	FAIL
Probability-weighted	17.66	264.85	367.60	-28.0%	FAIL

The ER2 valuation gate fails cleanly. The confident case that matters is the base case, not the bull case. At HK$367.60, HKEX needs FY+5 EPS of HK$24.51 to trade at 15x. The base model reaches HK$18.11, and even the bull model reaches only HK$22.18. A BUY verdict is therefore not available under ER2 Production Mode.

8. Reflexivity Check

Check	Result	Comment
TTM segment revenue to consolidated revenue and other income	Pass	Segment TTM total of HK$30,507m ties to consolidated TTM revenue and other income of HK$30,507m.
TTM proxy operating income to consolidated EBITDA	Pass	Segment proxy income uses EBITDA-style economics and ties to the HK$24,134m TTM EBITDA anchor.
FY2025 segment revenue to reported FY2025 revenue and other income	Pass	Data package and DR confirmed FY2025 segment revenue and other income, including corrected Stock Connect revenue of HK$4,317m.
FMP to official source consistency	Pass with override	FMP labels FY2025 revenue as revenue and other income. Official HKEX disclosures control.

The forward build inherits a clean anchor. The principal uncertainty is not a broken starting point; it is whether the exchange franchise can deliver enough incremental EPS to justify today's price under a 15x FY+5 standard.

9. In-Progress FY Reconciliation

Stage 0 did not treat FY2026 as effectively complete. The run uses a TTM anchor ending 2026-03-31, so there is no in-progress full-year estimate embedded in the base. The latest quarter is incorporated directly through the FY2025 less Q1 2025 plus Q1 2026 construction.

10. Sensitivity

Sensitivity is shown against the base case of HK$18.11 EPS. Amounts are HK$ per share unless noted.

Variable	Downside case	EPS impact	Upside case	EPS impact	Verdict effect
Cash segment revenue CAGR +/- 200 bps	Base Cash revenue falls by about 9.3% at horizon	-1.09	Base Cash revenue rises by about 9.7% at horizon	+1.14	Important, but not enough alone

Variable	Downside case	EPS impact	Upside case	EPS impact	Verdict effect
Equity and Financial Derivatives margin +/- 200 bps	Margin 80.0%	-0.10	Margin 84.0%	+0.11	Small
Share count +/- 5%	Share count 1,326m	-0.86	Share count 1,200m	+0.95	Not enough
Conversion ratio +/- 300 bps	Conversion 73.5%	-0.71	Conversion 79.5%	+0.71	Not enough

The single most important variable is the Cash segment revenue and income pool, because it is the largest profit contributor and the clearest expression of Hong Kong's long-term capital-market relevance. The second most important variable is not a spreadsheet input; it is the durability of Stock Connect, IPO activity, and Chinese offshore market relevance. Those determine whether the base case is too high or too low.

10A. Cash Segment Sensitivity

The Cash segment is large enough that small changes in the revenue path matter more than margin refinement in smaller segments. The base case assumes Cash revenue and other income of HK$19,543m at the FY+5 horizon. This is not an heroic forecast, but it does require a healthy market-activity backdrop. If market turnover, Stock Connect, and IPO-related economics normalize only partially, the Cash segment can miss the base case while still looking like a very profitable business.

Cash FY+5 revenue case	Cash revenue	Cash proxy margin	Cash proxy income	Base EPS impact
Lower recovery	17,750	89.5%	15,886	-1.09
Base	19,543	90.5%	17,687	0.00
Strong recovery	21,450	91.5%	19,627	+1.14

The table shows why the final verdict is robust. A strong Cash outcome is helpful, but a Cash upside case by itself still leaves HKEX short of the HK$24.51 EPS required for the ER2 15x test. The company needs either broad segment upside, higher conversion, a better share-count path, or a lower entry price.

10B. Corporate Items and Investment Income

Corporate Items is the easiest line to abuse in a model because it includes items that may not be repeatable at the same rate. The segment appendices therefore treat it conservatively. The base case uses HK$1,550m of revenue and other income and a negative HK$100m proxy income contribution. This keeps the forward model from assuming that market-related investment income becomes a durable moat-bearing profit stream.

Corporate Items case	Revenue	Proxy income	Reason
Bear	1,050	-450	Lower investment income and group-level cost drag
Base	1,550	-100	Partial normalization without treating the line as a growth engine
Bull	2,250	250	Supportive rate/market backdrop, still smaller than core exchange profit pools

This treatment is deliberately cautious. A more aggressive Corporate Items assumption could raise EPS, but it would not be high-quality EPS in the same sense as recurring exchange, clearing, and data income. ER2 should not award a BUY for a price that depends on a favorable non-core line.

10C. EPS Bridge From TTM To FY+5

The base EPS bridge is simple and exposes the problem:

Bridge item	EPS effect	Comment
TTM EPS proxy	14.91	HK$18,865m shareholder profit divided by 1,265m shares
Segment revenue and margin expansion	+3.91	Base FY+5 proxy income rises to HK$29,905m
Conversion ratio haircut	-0.57	Base conversion of 76.5% is below TTM 78.2%
Share-count effect	-0.12	Share count is nearly flat

Bridge item	EPS effect	Comment
Base FY+5 EPS	18.11	Still HK$6.39 below required EPS
Required EPS for 15x	24.51	Current price divided by 15

The bridge rules out a hidden per-share compounding story. Share count does not rescue the result. Conversion does not rescue the result. The operating model would need a materially larger revenue/profit pool than the reviewed base case.

10D. What EPS Would Need To Be True

At HK$367.60, the required FY+5 shareholder profit can be expressed directly:

Required item	Calculation	Result
Required EPS	HK$367.60 / 15	HK$24.51
Required shareholder profit	HK$24.51 x 1,263m shares	HK$30,951m
Base shareholder profit	From synthesis base case	HK$22,877m
Shortfall	Required less base	HK$8,074m
Shortfall as percent of base profit	HK$8,074m / HK$22,877m	35.3%

This is the cleanest expression of the valuation problem. The stock is not asking for a minor beat. It is asking for roughly one-third more FY+5 shareholder profit than the reviewed base case produces. That gap is too large for ER2 to bridge with qualitative admiration.

11. Combined Earnings Summary

Case	Revenue	Proxy OI	Proxy OI margin	NI	EPS	Probability	EPS x 15	vs. HK$367.60
Bear	29,218	21,945	75.1%	16,459	13.03	25%	195.47	-46.8%
Base	37,448	29,905	79.9%	22,877	18.11	55%	271.70	-26.1%
Bull	43,820	35,919	82.0%	28,017	22.18	20%	332.74	-9.5%
Probability-weighted	36,046	28,822	80.0%	22,299	17.66	100%	264.85	-28.0%

The probability weights reflect a good but policy-exposed business: the base case is most likely because the franchise is durable, the bear case is not remote because the Hong Kong/China capital-market relevance risk is real, and the bull case is possible but not the case an ER2 BUY can underwrite at today's price.

11A. Segment Contribution At Horizon

Segment	Base FY+5 revenue	Percent of base revenue	Base proxy income	Percent of base proxy income
Cash	19,543	52.2%	17,687	59.1%
Equity and Financial Derivatives	8,675	23.2%	7,110	23.8%
Commodities	4,718	12.6%	2,808	9.4%
Data and Connectivity	2,962	7.9%	2,400	8.0%
Corporate Items	1,550	4.1%	-100	-0.3%
Total	37,448	100.0%	29,905	100.0%

The contribution table reinforces the investment issue. HKEX is not a diversified conglomerate where a small emerging product can change the whole verdict. Cash remains the engine. Equity and Financial Derivatives matters. Commodities and Data and Connectivity help, but they do not offset a weak Cash or Stock Connect outcome at the group level.

11B. Why The Base Case Is Not A Hidden Bear Case

The base case should not be dismissed as punitive. Consolidated revenue and other income grows at 4.2% annually for five years. Proxy operating income grows at 4.4% annually. Base shareholder profit grows from HK$18.865b to HK$22.877b. That is a reasonable positive compounding case for a mature market-infrastructure company.

The base case is therefore not saying HKEX is broken. It is saying the current price is too demanding. A mature exchange can be excellent and still be a poor purchase if the entry multiple prices in a stronger path than the evidence supports.

11C. What Would Move The Model

Three evidence changes would matter most in a future refresh:

- A sustained, official-data recovery in Cash segment revenue and Stock Connect revenue and other income, not just one active quarter.
- A cleaner profit bridge showing that incremental Data and Connectivity and derivatives revenue can compound at high margins without a matching cost step-up.
- A lower share price that allows the base FY+5 EPS case to clear, or nearly clear, the 15x test.

Absent those changes, the synthesis remains a PASS support document.

11D. Source Confidence and Model Risk

The source confidence is highest for consolidated historical revenue and other income, EBITDA, shareholder profit, EPS, segment revenue and other income, and the latest official quarterly bridge. These are anchored in HKEX official reporting and were checked by the QF, QFR, data package, and DR stages. The corrected Stock Connect figure of HK$4,317m is also treated as a controlled number after DR review.

The source confidence is lower for product-level economics inside the segments. HKEX discloses enough to model the main segment pools, but it does not provide a full product-by-product revenue and margin table for every activity line. The segment appendices therefore use disclosed activity, management commentary, and residual logic rather than pretending full precision. This matters most for Commodities and Data and Connectivity, where product initiatives are important to the growth narrative but disclosed economics are less complete than the headline segment numbers.

The model risk is asymmetric in a way that hurts the BUY case. If the base model is too conservative by a moderate amount, the stock still may not clear the 15x test because the shortfall to required EPS is large. If the base model is too optimistic by a moderate amount, the downside to the valuation case is meaningful because the stock is already priced at a premium to TTM EPS. That asymmetry is why the final verdict should not lean on qualitative quality to override the arithmetic.

11E. Margin Interpretation

The reported economics of HKEX can look unusually clean because exchange and clearing infrastructure businesses have high incremental margins once systems, regulatory permissions, and liquidity are in place. This is real, but it can tempt a model to push group margins upward indefinitely. The synthesis does not do that. The base FY+5 proxy margin of 79.9% is only modestly above the TTM proxy margin implied by HK$24.134b of EBITDA on HK$30.507b of revenue and other income. In other words, the base case assumes growth with disciplined operating leverage, not a step-change in economics.

The bull case reaches an 82.0% proxy margin. That is possible in a strong activity environment, but it should not be the default. A market-infrastructure company can have very high margins and still face episodic cost demands from technology resilience, regulatory requirements, cyber defense, clearing risk management, and market-quality investments. Those costs are not optional if HKEX wants to preserve trust.

11F. Why WATCH Is Also Not The Right ER2 Verdict Today

WATCH is reserved for cases where the business quality and long-duration evidence are strong enough that price or one clear evidence gap is the main remaining obstacle. HKEX is close, but not there. The valuation obstacle is large, and both the Management and Moat/2046 gates are Yellow. A watchlist label in ordinary language is appropriate; an ER2 WATCH verdict is not. Under this framework, the stricter verdict is PASS until the stock either becomes cheaper or the evidence base improves enough to turn the Yellow gates and base EPS bridge.

Tie-Out Checks

- Reported-financial tie-out: passed. TTM revenue and other income ties to HK$30,507m; TTM proxy operating income ties to HK$24,134m EBITDA.

- NI / shares = EPS: passed. Bear HK$16,459m / 1,263m = HK$13.03; base HK$22,877m / 1,263m = HK$18.11; bull HK$28,017m / 1,263m = HK$22.18.
- Segment sum tie-out at horizon: passed. Consolidated FY+5 revenue equals the sum of segment FY+5 revenue in all cases.
- Product-to-segment rollup: passed based on peer-reviewed segment appendices. Where HKEX does not disclose product-level revenue, the appendices flag the residual rather than fabricating precision.
- Weighted margin check: passed based on peer-reviewed segment appendices and reviewer corrections.
- Share count path: passed. The ending 1,263m share count is derived from an explicit five-year path; the verdict is insensitive to modest share-count variation.
- Growth plausibility: passed with caution. Base consolidated growth of 4.2% is plausible, but Cash and Stock Connect durability are the main underwriting risks.
- Historical arithmetic: passed based on reviewed segment appendices. Reviewer corrections were incorporated for Cash, EFD, Commodities, Data and Connectivity, and Corporate Items.
- Recency anchor: passed. The model starts from TTM through Q1 2026 and does not skip over a weak or strong current period.
- Valuation arithmetic: passed. Required EPS equals HK$367.60 / 15 = HK$24.51; base EPS is HK$18.11 and bull EPS is HK$22.18.
- Verdict linkage: passed. The synthesis supports PASS because the base case fails the P/E <= 15 test and the qualitative gates are Yellow rather than Pass.

Markdown tables verified: sections 2, 3, 4, 5, 6, 7, 10, and 11.

Appendix CS - Compounder Score

Hong Kong Exchanges and Clearing - Compounder Score

1. Executive Verdict

HKEX is a very good market-infrastructure business, but it is not an investable-now compounder under the 20% return diagnostic. The evidence supports high structural profitability, strong cash conversion, and real network effects in listing, trading, clearing, Stock Connect, data, and the LME franchise. The evidence does not support a 20% shareholder return from today's HK$367.60 price without either a much higher FY+5 EPS outcome than the base ER2 model or a terminal multiple that remains well above the ER2 15x discipline.

Score-implied classification: Buy only at lower price.

Compounder Score: 72 / 100.

Business Quality Score: 63 / 80.

20% Return Underwriting Score: 9 / 20.

Confidence: Medium-high. The primary operating and segment disclosures are strong enough for a defensible view, but product-level revenue granularity is incomplete and market-cycle sensitivity remains high.

2. Data Source Map

Item	Source used	Confidence
Price and market cap	FMP quote saved 2026-07-02, HK$367.60 and HK$464.7b market cap	Medium
Consolidated historicals	quant_foundation.md and official HKEX FY2025/Q1 2026 disclosures	High
Segment data	data_package.md and peer-reviewed Appendix B files	High
Management quality	appendix_management.md	Medium-high
Moat and durability	appendix_moat.md	Medium-high
Forward EPS	appendix_synthesis.md	Medium-high
FMP data	Raw FMP files saved in the raw folder and warehouse; official HKEX data controls where mismatched	Medium

3. Key Financial and Quality Metrics

Metric	Result	Interpretation
TTM revenue and other income	HK$30,507m	Large, scaled exchange revenue base
TTM EBITDA	HK$24,134m	Very high margin infrastructure economics
TTM shareholder profit	HK$18,865m	Strong cash earnings base
TTM EPS proxy	HK$14.91	Starting EPS anchor
Current price	HK$367.60	Valuation anchor
Current P/E on TTM EPS	24.6x	High for a 15x FY+5 discipline
Base FY+5 EPS	HK$18.11	3.96% five-year EPS CAGR
Bull FY+5 EPS	HK$22.18	Still below required HK$24.51 EPS
Required FY+5 EPS at 15x	HK$24.51	Main valuation hurdle

Standard ROIC is less meaningful for HKEX than for an industrial company because the business is an exchange, clearing, depository, data, and market-infrastructure platform with unusually low tangible reinvestment needs. The right interpretation is that the core franchise produces extremely high economic returns on incremental operating capital, but the runway is partly controlled by market activity, policy, and Hong Kong's role in China-related capital formation.

4. Rubric Scorecard

Category	Score	Max	Rationale
Incremental returns on capital	21	25	High-margin, cash-generative platform economics; score capped because ROIIC is not cleanly measurable from segment disclosures.
Reinvestment runway	14	20	Stock Connect, derivatives, LME, data, and connectivity offer runway, but growth is not fully controllable by management.
Durability of moat	12	15	Real exchange and clearing network effects, but 2046 durability is Yellow because Hong Kong/China relevance and trust are policy-exposed.
Accounting and financial quality	8	10	Official disclosures are strong; FMP label mismatches require source discipline.
Capital allocation discipline	8	10	Execution is credible, but minority-controller/government influence caps the score.
Price and 20% underwriting	9	20	Good dividend/cash-return business, but base-case return does not clear a 20% hurdle.
Total	72	100	Strong business, not a compelling price.

5. ROIIC and Reinvestment Analysis

The evidence supports high returns on incremental capital but not a precise ROIIC score with the same confidence one would have for an industrial, software, or retail company. HKEX's incremental economics are partly a function of market activity and network density rather than large discrete capital projects. Capex and technology investment matter, but the dominant value drivers are listing/trading velocity, clearing volumes, Stock Connect activity, derivatives usage, commodities franchise health, and market-data/connectivity demand.

Test	Score implication
High normalized ROIC	Full credit directionally, because the business converts revenue to EBITDA and shareholder profit at exceptional rates.
ROIIC calculation quality	Partial credit, because the exchange model makes conventional invested-capital math less decision-useful.
Cash conversion	Strong, supported by the QF and data package.
Reinvestment requirement	Low to moderate; technology and regulatory resilience investments are necessary but not heavy relative to earnings.
External financing dependence	No concern in the current evidence base.

The score is capped because the high-return claim is conceptually true but not cleanly quantified as a ten-year ROIIC series in the available ER2 files.

6. Runway Analysis

The growth runway is real but not fully company-controlled. Cash remains the largest profit pool and depends on Hong Kong trading velocity, IPO activity, Southbound/Northbound flows, and China-related capital-market relevance. Equity and Financial Derivatives can grow with product breadth and risk-management demand. Commodities has LME modernization and product initiatives. Data and Connectivity should compound if market usage grows and customers keep valuing low-latency, high-reliability access.

The main limitation is that the largest profit pool is cyclical and policy-exposed. HKEX can execute well and still see muted earnings if offshore China equity activity, IPO formation, or global investor trust remains weak.

7. Moat Analysis

HKEX has a genuine moat: regulated exchange status, clearing infrastructure, listing ecosystem, benchmark and liquidity concentration, Stock Connect positioning, market-data entitlements, and LME network value. The moat appendix rates both the moat gate and 2046 test as Yellow, not Pass. That is the right outcome. The business is durable, but the durability is not solely a function of company execution. It relies on Hong Kong's place in the global capital-market map and the credibility of China-related financial integration.

8. Accounting and Capital Allocation

The accounting and disclosure base is strong enough to support the ER2 model. The largest accounting caution is not HKEX's official reporting; it is the need to override FMP where FMP labels revenue and other income as revenue. Capital allocation looks disciplined, but governance cannot receive full credit because HKSAR Government influence and Financial Secretary-appointed directors create a structural minority-shareholder consideration.

9. 20% Return Underwriting

Case	FY+5 EPS	EPS x 15	Current price	Diagnostic return read
Bear	13.03	195.47	367.60	Poor
Base	18.11	271.70	367.60	Does not clear
Bull	22.18	332.74	367.60	Still below 15x value

The 20% case requires either a much faster earnings outcome than the ER2 base case or a terminal multiple above the ER2 discipline. The diagnostic score therefore gives only partial valuation credit for business quality and cash returns.

10. Hard Veto Checklist

Veto	Result	Comment
ROIIC below cost of capital	Pass	No evidence of low-return reinvestment.
High ROIC only an artifact	Watch	Exchange model makes standard ROIC less useful, but economics are real.
Growth requires external financing	Pass	No.
Share count rises materially	Pass	No material dilution issue.
Acquisition discipline concern	Watch	LME history still matters, but current evidence does not show reckless current allocation.
FCF structurally lags earnings	Pass	Cash conversion appears strong.
Regulation or cyclicality can impair equity	Watch	This is the key risk.
20% case requires terminal expansion	Fail	A 20% outcome is not supported without valuation help.
Needs flawless execution	Watch	Today's price leaves limited room for disappointment.
Moat cannot be explained	Pass	Moat is clear.
Governance/accounting trust issue	Watch	Government influence caps the score.
Balance sheet could wipe out equity	Pass	Not indicated.

11. Final Decision

Compounder Score note: 72/100; HKEX is a high-quality exchange franchise, but the score is capped by policy exposure, incomplete product-level economics, and valuation.

Business Quality Score note: 63/80; profitability and cash conversion are excellent, but the 2046 durability and management gates are Yellow rather than clean Pass.

20% Return UW Score note: 9/20; the base case does not support a 20% return or the ER2 15x FY+5 price test at HK$367.60.

The evidence supports a high-quality watchlist business. It does not support buying the stock at the current price under the ER2 or 20% compounder framework.

12. Machine-Readable JSON

See `compounder_score.json`.

Appendix CSA - Scoring Audit

Hong Kong Exchanges and Clearing - Scoring Audit

1. Original vs Audited Scores

Item	Original	Audited	Notes
Business Quality Score / 80	63	61	Reduced modestly for unquantified ROIIC and government-influence cap.
Valuation / 20% Return UW Score / 20	9	7	Reduced because no explicit 20% IRR model clears and the 15x FY+5 test fails in all cases.
Total Score / 100	72	68	Still a high-quality business, but below investable-now thresholds.
Classification	Buy only at lower price	Watchlist / buy only at lower price	The stock is not a BUY at HK$367.60.

2. Score Reductions and Reasons

The CompounderScorer correctly identified HKEX as a high-quality exchange franchise and correctly rejected the stock as an investable-now 20% compounder. The audit reduces the score because the original scoring gave too much credit to qualitative high-return economics without a clean ROIIC calculation and gave too much partial credit to valuation despite the base, probability-weighted, and bull ER2 P/E 15 tests all failing.

Category	Original	Audited	Audit view
Incremental returns on capital	21	19	High economics, but ROIIC is not quantified.
Reinvestment runway	14	14	Fair. Runway exists but is partly outside management control.
Durability of moat	12	12	Fair. Moat is real but Yellow.
Accounting and financial quality	8	8	Fair. Official reporting is strong; FMP mismatch is handled.
Capital allocation	8	8	Fair. Governance cap is already visible.
Price and 20% underwriting	9	7	Too generous originally; valuation gate fails.

3. Unsupported Claims

The original score did not fabricate data, but three claims require tighter language:

- ROIIC should be described as directionally high, not precisely proven.
- The 20% return score should not imply a plausible 20% base case.
- The business-quality score should remain below the clean-pass threshold because management and moat/2046 both returned Yellow.

4. Calculation Errors

No major arithmetic errors were found in the source scoring file. The key valuation arithmetic is:

Item	Value
Current price	HK$367.60
Required FY+5 EPS at 15x	HK$24.51
Base FY+5 EPS	HK$18.11
Bull FY+5 EPS	HK$22.18
Base EPS x 15	HK$271.70

Item	Value
Bull EPS x 15	HK$332.74

The calculation breaks for a BUY at the price, not in the mechanics. Even the bull case does not reach the required EPS threshold.

5. Missing Data

Missing or limited item	Impact
Clean 3-year and 5-year ROIIC series	Caps incremental-return scoring.
Full product-level segment revenue	Caps confidence in product-level growth assumptions.
FMP segment endpoints	FMP cannot substitute for official segment disclosure.
Clean 20% IRR bridge	Caps valuation underwriting score.

6. Hard-Veto and Threshold Test Audit

Threshold	Audited result
Total score >= 80	Fail
Business quality >= 65 / 80	Fail
Valuation score >= 15 / 20	Fail
ROIIC plus runway >= 35 / 45	Fail after audit, 33 / 45
Base-case IRR >= 20%	Fail
Bear-case IRR acceptable	Fail
No hard vetoes	Fail because the 20% case is not supported
Does not require multiple expansion	Fail

7. Final 20% Hurdle Pass/Fail

Final 20% hurdle result: Fail.

The evidence does not support a 20% annualized return from HK$367.60 without assuming a higher terminal valuation or a materially stronger EPS path than the reviewed synthesis. That is enough to reject an investable-now classification even though the business quality is high.

8. Dream Business / Dream Investment Classification

HKEX is closer to a dream business than a dream investment, but even the business label needs a qualifier. The franchise is exceptional in profitability and market position, yet the largest profit pool is exposed to market cycles, policy, and Hong Kong's long-term role in China-related finance. At the current price, it is not a dream investment under the rubric.

9. Stage 7 Scorecard Notes

Compounder Score note: audited to 68/100; HKEX is high quality but the score is capped by unquantified ROIIC, Yellow qualitative gates, and valuation.

Business Quality Score note: audited to 61/80; excellent exchange economics, but not enough evidence for a clean compounder pass.

20% Return UW Score note: audited to 7/20; base and bull cases fail the 15x FY+5 EPS test, so a 20% return case is not underwritten.

10. Auditor JSON

See `compounder_score_audit.json`.

Appendix RT - Red Team

Hong Kong Exchanges and Clearing - Red Team

1. The Most Fragile Assumption

The most fragile assumption is the Cash segment base-case recovery to HK$19,543m of FY+5 revenue with a 90.5% proxy margin. This is the largest single driver of the whole model. The segment is a powerful franchise, but it is also the most exposed to whether Hong Kong remains the preferred offshore China capital-market venue for global investors, Chinese issuers, and Mainland flows.

The synthesis shows that a roughly 200 bps lower Cash revenue CAGR would reduce FY+5 EPS by about HK$1.09. That is a material move, but the deeper risk is not a 200 bps sensitivity. The deeper risk is a regime where IPO activity, foreign participation, and Stock Connect enthusiasm do not mean-revert. In that scenario the Cash base case becomes structurally too high rather than cyclically optimistic.

2. The Most-Likely-To-Be-Optimistic Stage 5 Number

The most-likely-to-be-optimistic number is base FY+5 Cash revenue of HK$19,543m. The number is not obviously reckless, but it assumes that the recent rebound and long-run strategic relevance of Hong Kong are enough to offset the structural questions around China exposure, foreign capital participation, geopolitics, and alternative listing venues.

The red-team critique is simple: HKEX's moat is strongest when market participants agree that Hong Kong is the liquid, trusted, efficient gateway to China. If that belief weakens, the exchange still exists and remains profitable, but the incremental revenue pool is smaller than the base model expects.

3. The Strongest Bear Case

The strongest bear case is that HKEX is a wonderful toll road on a route whose traffic growth is no longer assured. Cash trading, IPO fees, Stock Connect activity, and market-data demand all depend on Hong Kong retaining a central role in China-related capital formation. If global investor appetite for China exposure remains structurally lower, and if leading Chinese issuers have more viable onshore or international alternatives, HKEX can remain dominant locally while earning less than investors expect.

The mechanism would show up first in Cash segment revenue, IPO pipeline quality, average daily turnover, Stock Connect revenue and other income, and data/connectivity demand. It would probably not look like a sudden collapse. It would look like repeated quarters where management highlights product launches and connectivity initiatives while the core activity pool does not compound.

4. Cross-Examination of Management Commentary

Management's strategic narrative around connectivity, product expansion, market modernization, and China access is credible. The skeptical question is whether those initiatives create enough incremental earnings to offset the macro and policy sensitivity of the core franchise.

Stock Connect is strategically important, but Stock Connect is also a policy-enabled mechanism. A shareholder cannot underwrite it as a fully private network effect. The same applies to IPO recovery. HKEX can improve systems, market structure, and issuer services, but it cannot force global investor risk appetite or issuer demand.

LME modernization is another credible but not risk-free claim. LME remains a valuable global metals venue, but the nickel episode left a trust scar. A modernization program can improve resilience, but it does not erase benchmark confidence risk. If volumes or client trust disappoint, the Commodities bull case is too high.

The more subtle problem is that most of these initiatives are strategically attractive but not necessarily large enough to change the consolidated valuation answer. Data products, hosting, connectivity, new derivatives contracts, and commodities technology upgrades can all be worthwhile and still fail to add the HK$8.1b of FY+5 shareholder profit that the current price needs relative to the base model. A red-team review should separate "good strategic direction" from "enough incremental value at today's price."

Management also benefits from a narrative that is naturally difficult to falsify in a single year. If Hong Kong activity is weak, the explanation can be cyclical sentiment, rates, geopolitics, issuer timing, or Mainland policy. Some of that may be true. The danger for investors is accepting a rolling normalization story without forcing hard evidence. The right evidence is not a product-launch list; it is sustained segment revenue, activity, and profit conversion.

4A. Where The Bull Case Could Be Seductive

The bull case has a coherent story. Hong Kong IPOs recover, Mainland and international investors keep using Stock Connect, derivatives adoption rises, LME trust rebuilds, and market data/connectivity keeps compounding. If that happens simultaneously, HKEX looks like a rare scaled financial infrastructure asset with growth.

The red-team objection is probability and price. The bull case still reaches only HK$22.18 of FY+5 EPS. At 15x, that is HK$332.74, below the current HK$367.60 quote. So even if the bull story is broadly right, the ER2 valuation discipline still does not give a BUY. To buy today, an investor has to underwrite something beyond the reviewed bull case or accept a higher terminal multiple. That may work as a market trade, but it is not ER2.

4B. The Policy-Enabled Moat Problem

HKEX's moat is partly private and partly policy-enabled. The private elements include liquidity, clearing infrastructure, technology, customer workflows, market-data entitlements, and institutional habit. The policy-enabled elements include Hong Kong's market role, Stock Connect architecture, regulatory permissions, and the broader integration path between Mainland and offshore markets.

Policy-enabled moats can be very valuable, but they deserve a different underwriting treatment from purely private network effects. The shareholder does not control the rules, the pace, or the political context. A favorable policy environment can deepen the moat; an unfavorable one can reduce the growth runway without destroying the company. That is exactly why the moat appendix's Yellow rating should matter in the final verdict.

5. Stage 5 Tie-Out Reverification

The Stage 5 synthesis is internally consistent. It starts from a proper TTM anchor, uses the reviewed segment rollups, and does not hide a share-count assumption. The valuation conclusion is also robust: the model does not need an adversarial adjustment to reach PASS. It already fails in base and bull.

The share-count path is not a problem. It is conservative and immaterial. The more important issue is that the model's base case requires a healthy revenue and profit expansion while the current price already implies a larger EPS outcome than HKEX reaches under a 15x discipline.

The conversion ratio is also not the place to manufacture upside. The synthesis uses 76.5% shareholder-profit conversion in the base case versus a TTM EBITDA-to-shareholder-profit relationship of about 78.2%. That is already fair. Pushing conversion higher might add some EPS, but it would not close a HK$6.39 per share shortfall to the required HK$24.51. The shortfall is too large to solve below the line.

The red team also checked the segment mix. Cash contributes roughly 59% of base FY+5 proxy income. Equity and Financial Derivatives contributes about 24%. Commodities and Data and Connectivity together help but are not large enough to carry the group if Cash disappoints. Therefore the red-team focus should stay on the main engine, not on smaller product narratives.

5A. Alternative Bear Math

A reasonable bear variant does not need heroic pessimism. Assume Cash revenue remains near HK$15.0b, Equity and Financial Derivatives reaches only HK$7.5b, Commodities reaches HK$4.0b, Data and Connectivity reaches HK$2.6b, and Corporate Items contributes HK$1.2b of revenue with a small loss. That still leaves HKEX as a profitable company, but group revenue and other income would be roughly HK$30.3b, barely above the TTM anchor. With a proxy margin in the mid-70s and normal conversion, EPS would likely sit in the low-to-mid teens. At that point the stock would need to be valued as a mature high-quality financial infrastructure asset, not a growth compounder.

This is the red team's strongest point: the bear case is not a disaster case. It is a stagnation case. Stagnation is enough to make the current price unattractive.

6. Score-Derived 20% Return Claim Most Likely To Be Wrong

The audited score already says the 20% return case does not clear. The red team agrees. The claim most likely to be wrong would be any assertion that HKEX can produce a 20% annualized return from today's price through quality alone. The business is high quality, but quality does not cancel starting valuation.

For a 20% return claim to work, one of three things would need to happen: the EPS path would need to move far above HK$24.51 by FY+5, the stock would need to retain a premium terminal multiple well above 15x, or the entry price would need to fall. The first two are not conservative underwriting.

The audited score's reduction to 68/100 is appropriate. If anything, the red team would resist any attempt to move it back above 70 without a cleaner ROIIC bridge and a lower entry price. HKEX deserves quality credit, but quality credit should not bleed into valuation credit.

7. The Signal That Forces an Exit

Exit signal: if Cash segment revenue and Stock Connect revenue and other income both fail to grow year over year over the next four reported quarters while management continues to frame market connectivity as the growth engine, the thesis should be rewritten around structural stagnation rather than cyclical recovery.

Quantitative threshold: trailing-four-quarter Cash segment revenue below HK$15.0b and FY2026 Stock Connect revenue and other income below the FY2025 corrected figure of HK$4.317b would invalidate the base-case recovery assumption. This would not mean HKEX is broken. It would mean the stock should not be owned for a growth recovery thesis at a premium multiple.

Secondary signal: if Data and Connectivity revenue growth falls below 3% for a rolling twelve-month period while group technology and platform investment continues to rise, the market-data/connectivity growth story should be downgraded. This segment is not large enough to determine the whole stock, but it is supposed to be one of the cleaner recurring growth lines. Weakness there would remove one of the higher-quality offsets to Cash cyclicality.

Third signal: if LME volumes or fee capture fail to improve through the next two reporting periods despite modernization efforts, the Commodities bull case should be removed. The bull case needs LME recovery and trust repair. Without it, Commodities remains useful diversification but not a major earnings accelerator.

8. Conviction At The End Of Red Team

The thesis does not survive as a BUY. It survives as a high-quality watchlist name that may become attractive at a lower price or after evidence that Cash, Stock Connect, IPO, derivatives, and data growth can compound faster than the current base case. The red team does not find a hidden accounting break or a fatal business flaw. It finds a simpler problem: the business is good, the moat is real, and the current price still asks for more than the reviewed earnings model can support.

The red-team conclusion is therefore aligned with the synthesis: PASS, not because HKEX is low quality, but because the stock price is not leaving enough room for the specific risks that matter. The proper follow-up is not to forget the name. The proper follow-up is to monitor the Cash and Stock Connect evidence and wait for either a better price or a better base-case earnings bridge.

Appendix D - Data Package (Raw Historicals)

Hong Kong Exchanges and Clearing Limited (0388.HK) - Data Package

Run date: 2026-07-02 Asia/Singapore Currency/unit convention: HKD millions unless otherwise stated. Market activity KPIs use HK$bn, RMBbn, or contracts/lots as labelled. Latest official period: Q1 2026 ended 2026-03-31, published 2026-04-29. FY end: 2025-12-31. TTM anchor: FY2025 less Q1 2025 plus Q1 2026. Horizon: 2031-03-31. Quant foundation source of truth: `C:\Users\Admin\OneDrive\GPT\ER 2.0\Hong Kong Exchanges and Clearing\quant_foundation.md`, QFR-cleared with `RECONCILIATION: 8/8 checks PASSED` and `QUANT FOUNDATION VERIFIED - CLEARED FOR WAVE 1`.

0a. Industry classification and disclosure inventory

HKEX is an exchange, central clearing, market-data, connectivity and commodities infrastructure operator. It reports under Hong Kong/IFRS-style listed-company disclosures rather than US 10-K/10-Q filings. The controlling source set for this data package is the official HKEX annual reports, quarterly results announcements, results presentations and market-statistics tables fetched into the run folder. FMP was pulled live for comparison, but its product/geographic segment endpoints returned empty arrays and its statement labels are not reliable enough for controlling figures. QF documents that FY2025 FMP `revenue` equals official revenue and other income of 29,161, not pure revenue of 23,745; FMP operating income and cash-flow lines also differ from official HKEX presentation. Official HKEX tables therefore control every historical number below.

Source inventory checked in this run: FY2021-FY2025 HKEX annual reports; FY2025 results announcement; Q1 2025 and Q1 2026 results announcements; Q1 2026 results presentation; FMP live annual/quarter income, balance sheet, cash flow, key metrics, quote, product segmentation, geographic segmentation and transcript endpoints. The Q1 2026 FMP transcript endpoint returned `[]`, so no earnings-call transcript quotes are used. Official statements and presentation text are used for management commentary, and each entry is labelled by source type.

Search inventory: `operating segments`, `Revenue and other income`, `EBITDA`, `Average daily turnover`, `ADT`, `Stock Connect`, `Northbound`, `Southbound`, `derivatives contracts`, `stock options`, `LME`, `chargeable ADV`, `IPO`, `funds raised`, `market data fees`, `network fees`, `hosting services`, `clearing and settlement fees`, `Margin Funds`, `Clearing House Funds`, `capital expenditure`, `borrowings`, `dividend policy`, `minimum spreads`, `LMEselect`, `auto-expiry`, `Front Month Lending`, and `LME Insight`.

Completeness matrix:

Dataset / table family	Official source searched	Search terms or table names	Years available	Included in data package?	If excluded, why	Downstream relevance
Segment economics	FY2021-FY2025 annual reports; Q1 2025 and Q1 2026 announcements	Operating Segments; Revenue and other income; EBITDA; PBT	FY2021 old taxonomy, FY2022 restated, FY2023-FY2025 current, Q1 2026	Yes	None	Segment appendices and synthesis
HK securities market ADT	Annual key market statistics; Q1 results	ADT of equity products; Headline ADT	FY2021-FY2025, Q1 2026	Yes	None	Cash segment volume sensitivity
Stock Connect ADT and revenue	Annual reports, Q1 announcement, Q1 presentation	Northbound ADT; Southbound ADT; Stock Connect revenue	FY2021-FY2025, Q1 2026 revenue where disclosed	Yes	Full annual Stock Connect revenue disclosed for FY2024-FY2025 and Q1 2026; earlier revenue is not rebuilt	Cash segment China-flow sensitivity
Derivatives activity	Annual key market statistics; Q1 announcement	Futures Exchange ADV; stock options ADV; DWs/CBBCs/warrants ADT	FY2021-FY2025, Q1 2026	Yes	Contract/product revenue not disclosed by product	Equity and Financial Derivatives segment
LME activity and fee drivers	Annual reports; Q1 announcement	LME chargeable ADV; LME trading fees; LME Clear clearing fees; market data fees	FY2021-FY2025, Q1 2026	Yes	Product-by-metal revenue dollars not disclosed	Commodities segment
IPO and fundraising	Cash segment tables; Q1 announcement	Total equity funds raised; IPOs; post-IPO	FY2021-FY2025, Q1 2026	Yes	None	Listing/depository fee sensitivity
Data and connectivity drivers	Annual report Note 5; Q1 announcement	Market data fees; network fees; hosting; BayConnect	FY2024-FY2025 and Q1 2026	Yes	Subscriber count only spotted in FY2024 text, not a full 5-year series	Data and Connectivity segment

Dataset / table family	Official source searched	Search terms or table names	Years available	Included in data package?	If excluded, why	Downstream relevance
Balance sheet and capital	Annual and Q1 balance sheets; capital management note	Borrowings; gross gearing; net gearing; Margin Funds; Clearing House Funds	FY2024-FY2025, Q1 2026 for balance sheet	Yes	Older annual balance sheet not repeated because synthesis uses FY2025/Q1 2026 base	Balance sheet, ROIC and risk

Material KPI history:

KPI family	Granularity	FY2021	FY2022	FY2023	FY2024	FY2025	Latest interim / TTM	Source path
Equity products ADT, HK$bn	Annual / Q1	146.6	109.0	93.2	120.0	231.5	Q1 2026: 255.3	Annual reports key stats; Q1 2026 announcement lines 186-189
Headline ADT, HK$bn	Annual / Q1	166.7	124.9	105.0	131.8	249.8	Q1 2026: 276.7	Annual reports key stats; Q1 2026 announcement lines 194-197
Northbound Stock Connect ADT, RMBbn	Annual / Q1	120.1	100.4	108.3	150.1	212.4	Q1 2026: 324.1	Annual reports key stats; Q1 2026 announcement lines 198-201
Southbound Stock Connect ADT, HK$bn	Annual / Q1	41.7	31.7	31.1	48.2	121.1	Q1 2026: 122.5	Annual reports key stats; Q1 2026 announcement lines 202-205
Futures Exchange derivatives ADV, 000 contracts	Annual / Q1	538	715	742	830	783	Q1 2026: 885	Annual reports key stats; Q1 2026 announcement lines 206-210
Stock options ADV, 000 contracts	Annual / Q1	637	588	612	720	880	Q1 2026: 944	Annual reports key stats; Q1 2026 announcement lines 211-215
LME chargeable ADV, 000 lots	Annual / Q1	547	506	562	664	717	Q1 2026: 877	Annual reports key stats; Q1 2026 announcement lines 216-219
IPO funds raised, HK$bn	Annual / Q1	331.4	104.6	46.3	88.0	286.9	Q1 2026: 110.4	Annual Cash segment tables; Q1 2026 announcement lines 699-704
Northbound Bond Connect ADT, RMBbn	Annual / Q1	26.6	32.2	40.0	41.6	39.0	Q1 2026: 50.4	Annual reports key stats; Q1 2026 announcement lines 220-223

1. Reporting structure and taxonomy

Current reportable segments are Cash, Equity and Financial Derivatives, Commodities, Data and Connectivity, and Corporate Items. Cash covers equity products traded on HKEX cash market platforms and Stock Connect, plus related clearing, settlement, custodian and nominee activities. Equity and Financial Derivatives covers HKFE derivatives, stock options, DWs, CBBCs, warrants, OTC derivatives and related clearing platforms. Commodities covers LME, LME Clear, QME and commodities contracts traded on HKEX platforms. Data and Connectivity covers market data, network access, terminals, data lines, software sublicences, hosting and BayConnect. Corporate Items is not a business segment; it holds Corporate Funds net investment income, HKEX Foundation donation income and central costs.

FY2025 segment mix:

Segment	FY2025 revenue and other income	% of group	FY2025 EBITDA	EBITDA margin on rev less transaction expenses	Source
Cash	14,704	50.4%	13,398	91%	QF P1/P2; 2025 annual report operating segments
Equity and Financial Derivatives	6,863	23.5%	5,597	85%	QF P1/P2; 2025 annual report operating segments
Commodities	3,171	10.9%	1,822	57%	QF P1/P2; 2025 annual report operating segments
Data and Connectivity	2,270	7.8%	1,834	81%	QF P1/P2; 2025 annual report operating segments

Segment	FY2025 revenue and other income	% of group	FY2025 EBITDA	EBITDA margin on rev less transaction expenses	Source
Corporate Items	2,153	7.4%	145	7%	QF P1/P2; 2025 annual report operating segments
Group	29,161	100.0%	22,796	79%	QF P1/P2; 2025 annual report operating segments

Taxonomy flag: HKEX changed its reportable segment taxonomy in 2023. The 2023 annual report restated FY2022 to the current presentation; FY2021 in QF is available only under old taxonomy, with Cash, Equity and Financial Derivatives, Commodities, Post Trade, Technology and Corporate Items. Post Trade economics were reallocated by asset class and non-cyclical technology/data activities moved into Data and Connectivity. Downstream segment appendices should use FY2022-FY2025 as the clean current-taxonomy history and treat FY2021 as old-taxonomy context only.

Geography is not a useful primary segmentation for HKEX. The operating business is centred on Hong Kong market infrastructure plus UK LME/LME Clear commodities operations and Mainland China connectivity; official economic disclosure is by business/asset-class segment, not region.

2. Consolidated historicals

The table below uses official HKEX revenue and other income as the controlling top line. FMP annual income is a comparison source but not controlling because FY2025 FMP `revenue` maps to official revenue and other income while FY2024 maps differently, and FMP cash-flow presentation does not tie to official operating cash flow.

Metric	FY2021	FY2022	FY2023	FY2024	FY2025	Source
Revenue and other income	20,950	18,456	20,516	22,374	29,161	QF P2; annual segment totals
Operating profit	14,915	11,726	13,385	14,879	21,228	FMP comparison and official annual income statement; FY2025 official controls
Operating margin on revenue and other income	71.2%	63.5%	65.2%	66.5%	72.8%	Calculation
EBITDA	16,269	13,185	14,828	16,281	22,796	QF P2; annual reports
Profit attributable to shareholders	12,535	10,078	11,862	13,050	17,754	Official annual highlights; FMP comparison
Basic EPS, HKD	9.91	7.96	9.37	10.32	14.05	Official annual EPS notes; FMP comparison
Diluted EPS, HKD	9.89	7.95	9.36	10.29	14.01	Official annual EPS notes; FMP comparison
Diluted share count, m	1,268	1,268	1,268	1,268	1,268	Official EPS notes/FMP comparison
Purchases of fixed assets and intangibles	n/a in D table	n/a in D table	n/a in D table	1,604	1,733	FY2025 cash-flow statement gives FY2024/FY2025; older annual reports searched but not transcribed here
Net cash inflow from operating activities	n/a in D table	n/a in D table	n/a in D table	12,774	25,627	FY2025 cash-flow statement; QF P6
FCF, operating cash flow less capex	n/a	n/a	n/a	11,170	23,894	Calculation from official cash flow
ROIC proxy	n/a	n/a	n/a	n/a	High but not comparable	See note below

ROIC note: HKEX is a capital-light exchange and CCP operator with massive participant margin/collateral balances on balance sheet. A simple NOPAT divided by total assets or accounting invested capital is misleading because clearing participant funds inflate assets and liabilities. For FY2025, operating profit was 21,228; applying a 15.7% effective tax rate from tax expense 3,321 divided by PBT 21,158 gives NOPAT of about 17,895. Against equity attributable to shareholders of 58,147, the after-tax operating-profit/equity proxy is roughly 31%. This is not a formal industrial ROIC and should be treated as an exchange-infrastructure return-on-equity proxy.

3. Segment historicals

Clean current-taxonomy history begins in FY2022. FY2021 is kept as old-taxonomy context below this table.

Segment	FY2022 revenue and other income	FY2023 revenue and other income	FY2024 revenue and other income	FY2025 revenue and other income	FY2025 EBITDA	FY2025 EBITDA margin	Source
Cash	9,034	8,164	9,422	14,704	13,398	91%	QF P2
Equity and Financial Derivatives	5,279	6,502	6,204	6,863	5,597	85%	QF P2
Commodities	2,051	2,188	2,788	3,171	1,822	57%	QF P2
Data and Connectivity	1,998	2,073	2,126	2,270	1,834	81%	QF P2
Corporate Items	94	1,589	1,834	2,153	145	7%	QF P2
Group	18,456	20,516	22,374	29,161	22,796	79%	QF P2

YoY growth in current taxonomy:

Segment	FY2023 YoY	FY2024 YoY	FY2025 YoY	Interpretation
Cash	(9.6%)	15.4%	56.1%	Strong FY2025 rebound driven by cash market ADT, Stock Connect and IPO/depository fees
Equity and Financial Derivatives	23.2%	(4.6%)	10.6%	More resilient than cash; mix includes structured products, futures/options and margin fund income
Commodities	6.7%	27.4%	13.7%	LME fee-tariff and volume recovery support; lower margin than HK cash/data
Data and Connectivity	3.8%	2.6%	6.8%	Stable recurring-like infrastructure/data growth
Corporate Items	1,590.4%	15.4%	17.4%	Dominated by Corporate Funds net investment income and central costs

FY2021 old taxonomy:

FY2021 segment	Revenue and other income	EBITDA	PBT	Treatment
Cash	6,131	5,517	5,416	Old taxonomy only
Equity and Financial Derivatives	3,436	2,645	2,491	Old taxonomy only
Commodities	1,478	783	429	Old taxonomy only
Post Trade	7,995	7,125	6,701	Reallocated by asset class from FY2022 restated taxonomy
Technology	1,050	745	671	Predecessor to parts of Data and Connectivity
Corporate Items	860	(546)	(867)	Old taxonomy only
Group	20,950	16,269	14,841	Comparable only at group level

Latest TTM segment bridge from QF:

Segment	FY2025 revenue and other income	Less Q1 2025	Plus Q1 2026	TTM revenue and other income	TTM EBITDA
Cash	14,704	(3,300)	4,162	15,566	14,238
Equity and Financial Derivatives	6,863	(1,718)	1,877	7,022	5,742
Commodities	3,171	(746)	1,039	3,464	2,204
Data and Connectivity	2,270	(546)	599	2,323	1,880
Corporate Items	2,153	(547)	526	2,132	70
Group	29,161	(6,857)	8,203	30,507	24,134

4. Product and sub-segment historicals

Official product/sub-segment dollars disclosed:

Segment	Product / driver	What it is	Dollar disclosure?	Last disclosed dollars and source
Cash	Stock Exchange equity trading fees	Trading fees for equity products, including Southbound Stock Connect within Cash	Yes	FY2025 6,174 vs FY2024 3,423; annual report lines 3065-3068
Cash	Cash clearing and settlement fees	HKSCC clearing/settlement for Stock Exchange and Northbound trades	Yes	FY2025 5,712 vs FY2024 3,621; annual report lines 3069-3072
Cash	Stock Exchange listing fees allocated to Cash	Listing fees for equity products allocated to Cash	Yes	FY2025 964 vs FY2024 888; annual report lines 3073-3076
Cash	Depository/custody/nominee fees	Scrip, portfolio and nominee services, including Stock Connect portfolio values	Yes	FY2025 1,405 vs FY2024 1,056; annual report lines 3077-3080
Equity and Financial Derivatives	DWs/CBBCs/warrants trading	Structured product trading	Yes	Segment table gives trading/trading tariff total 2,597 and clearing 621 in FY2025; product split is partial
Commodities	LME trading fees	Trading fees for metals contracts	Yes	FY2025 1,562 vs FY2024 1,412; annual report lines 4517-4520
Commodities	LME Clear clearing fees	Clearing fees for LME Clear	Yes	FY2025 709 vs FY2024 632; annual report lines 4521-4524
Commodities	Market data fees	Commodity market data	Yes	FY2025 334 vs FY2024 263; annual report lines 4525-4528
Data and Connectivity	Network, terminal, data line and software sublicence fees	Access/connectivity products	Yes	FY2025 922 vs FY2024 826; annual report Note 5 lines 13923-13925
Data and Connectivity	Hosting services fees	Data-centre/hosting services	Yes	FY2025 424 vs FY2024 391; annual report Note 5 lines 13926-13928
Data and Connectivity	BayConnect sales and service revenue	BayConnect data/applications business	Yes	FY2025 77 vs FY2024 82; annual report Note 5 lines 13944-13946

Major products where only volume, fee totals or growth rates are disclosed:

Segment	Product / driver	Disclosure method	Last 4 quarters / latest YoY growth	Source
Cash	Stock Connect	ADT, trading/clearing fees, portfolio values and revenue; no complete historical product P&L	Q1 2026 Stock Connect revenue 1,355, up 44%; FY2025 revenue and other income 4,317, up 57%, including 3,529 from trading and clearing activities	Q1 announcement lines 290-293; FY2025 results announcement lines 896-900
Cash	ETPs	ADT and listing counts, not separate revenue	Q1 2026 ETP ADT 45.1bn, up 14% YoY	Q1 announcement lines 762-764
Equity and Financial Derivatives	Futures/options by contract	ADV and broad fee pools; no dollar revenue by individual contract family	Q1 2026 Futures Exchange derivatives ADV 885k, down 2%; stock options ADV 944k, down 2%	Q1 announcement key stats
Commodities	LME metals by metal	ADV by metal, not revenue by metal	Q1 2026 LME chargeable ADV 877k, up 26%; aluminium 349k, copper 214k, nickel 110k	Q1 announcement lines 1276-1308
Data and Connectivity	Index licences and market data products	Fee categories and strategic launches; no product-by-index revenue	Q1 2026 market data fees 218 vs 206; network fees 246 vs 222; hosting 113 vs 103	Q1 announcement lines 1346-1409

No product revenue has been back-solved in this package. Where a product is volume-disclosed but not revenue-disclosed, downstream appendices should model at segment level or use disclosed fee-pool sensitivity rather than invented product dollars.

5. Most recent quarterly trend

Company FY ends 31 December. Most recently completed fiscal quarter at time of writing: FY2026 Q1, covering 2026-01-01 to 2026-03-31, reported on 2026-04-29 via HKEX Q1 2026 results announcement.

Segment	Q1 2026 revenue and other income	Q1 2025 revenue and other income	YoY	Q1 2026 EBITDA	Q1 2025 EBITDA	YoY	Source
Cash	4,162	3,300	26%	3,825	2,985	28%	QF P1; Q1 announcement
Equity and Financial Derivatives	1,877	1,718	9%	1,548	1,403	10%	QF P1; Q1 announcement
Commodities	1,039	746	39%	747	365	105%	QF P1; Q1 announcement
Data and Connectivity	599	546	10%	491	445	10%	QF P1; Q1 announcement
Corporate Items	526	547	(4%)	(19)	56	n/m	QF P1; Q1 announcement
Group	8,203	6,857	20%	6,592	5,254	25%	QF P4; Q1 announcement

Recent operating KPIs:

KPI	Q1 2026	Q1 2025	YoY	Recency note
Equity products ADT, HK$bn	255.3	225.4	13%	Strong vs Q1 2025 but below FY2025 full-year run-rate peak
Headline ADT, HK$bn	276.7	242.7	14%	Second-highest quarterly level after Q3 2025
Northbound ADT, RMBbn	324.1	191.1	70%	Record quarterly high
Southbound ADT, HK$bn	122.5	109.9	11%	22% of Headline ADT
Futures Exchange derivatives ADV, 000 contracts	885	901	(2%)	Still high absolute level
Stock options ADV, 000 contracts	944	965	(2%)	Weekly stock options gaining, but aggregate down YoY
LME chargeable ADV, 000 lots	877	698	26%	Record quarterly high
IPO funds raised, HK$bn	110.4	18.7	490%	Strongest Q1 since 2021
Stock Connect revenue	1,355	942	44%	17% of group revenue and other income in Q1 2026

6. Management commentary on forward growth

No FMP transcript is available for Q1 2026; the endpoint returned [ ]. The commentary below is therefore from official results announcements, annual report business updates and the Q1 presentation, not an earnings-call transcript.

Segment / topic	Source	Speaker / source type	Verbatim quote or official statement	Interpretation
Group momentum	Q1 2026 announcement, CEO section	Bonnie Y Chan, CEO	"HKEX delivered a strong start to 2026 with revenue and profit both reaching record highs in the first quarter of 2026"	Management frames Q1 as a record-quarter continuation of FY2025 momentum, not a one-off quarter.
IPO / Cash	Q1 2026 announcement lines 748-756	Official results text	"Hong Kong continued to rank as the world's top IPO venue in Q1 2026"	Listing and depository fees have a live primary-market tailwind entering 2026.
Cash market quality	Q1 2026 announcement lines 601-609	Official results text	"Following the implementation of Phase 1 of the reduction of minimum spreads in 2025, market liquidity has improved"	Minimum-spread reform is a structural liquidity initiative, not just a volume comment.
Stock Connect	Q1 2026 announcement lines 582-597	Official results text	"Stock Connect trading continued its growth momentum in Q1 2026"	Northbound/Southbound flow remains central to the Cash segment growth case.
ETPs	Q1 2026 announcement lines 762-775	Official results text	"ADT of Exchange Traded Products reached a record quarterly high"	ETP Connect broadens the cash-market revenue base beyond single-name equity turnover.

Segment / topic	Source	Speaker / source type	Verbatim quote or official statement	Interpretation
Derivatives	Q1 2026 announcement lines 958-959 and 1101-1102	Official results text	"Sustained strong investor interest in Chinese Mainland technology stocks continued to drive the growth momentum"	Derivative mix depends on China tech/index risk appetite and product innovation.
Commodities / LME	Q1 2026 announcement lines 1210-1213	Official results text	"The LME business had a strong start to 2026, with chargeable ADV in Q1 2026 reaching a record quarterly high"	LME has entered FY2026 with higher volume and tariff support.
LME market structure	FY2025 annual report lines 4670-4681	Official annual report	"the LME continued to modernise its market structure to enhance liquidity, improve transparency, and strengthen price competition"	LME modernization is the forward lever for participation and fee durability.
LME risk remediation	FY2025 annual report lines 4777-4787	Official annual report	"Significant work undertaken by both the LME and the FCA has materially reduced the risk of such an event from occurring again"	Nickel-event litigation/regulatory overhang is not gone economically, but official remediation is material.
Data and Connectivity	Q1 2026 announcement lines 1346-1364	Official results text	"Both revenue and other income and EBITDA were up 10 per cent"	This segment is steady infrastructure growth tied to usage, hosting and data demand.
Systems resilience	Q1 2026 announcement lines 1436-1443	Official results text	"all HKEX's major trading, clearing, settlement and market data dissemination systems... continued to operate normally"	Resilience is a key non-financial KPI for exchange moat and regulatory trust.
Capital expenditure	Q1 2026 announcement lines 1861-1869	Official results text	"capital expenditure commitments... included... Orion Derivatives Platform and upgrade of clearing systems"	Technology investment should be treated as recurring moat maintenance, not discretionary growth capex only.

7. Capital allocation history

HKEX runs a high-payout model. The normal target payout ratio is 90% of profit attributable to shareholders excluding HKEX Foundation, with dividends declared semi-annually. Share repurchases are not a major capital-return channel; the main capital allocation is dividends plus systems/capability investment.

Year	Capex / fixed assets and intangibles	Capex / revenue and other income	Buybacks / share awards	Dividends paid to shareholders	M&A / investments	Source
FY2024	1,604	7.2%	481 share-award purchases	10,416	n/a	FY2025 cash-flow comparative
FY2025	1,733	5.9%	512 share-award purchases	13,722	455 acquisition of associate interest	FY2025 cash-flow statement lines 12845-12927
Q1 2026	352	4.3% of Q1 revenue and other income	n/a	no Q1 dividend	Capex commitments 5,500	Q1 2026 announcement lines 1859-1869

Dividend detail:

Period	DPS, HKD	Payout context	Source
FY2025 first interim	6.00	Paid September 2025	QF P6; annual report dividend note
FY2025 second interim	6.52	Full-year DPS 12.52; payout ratio 90% excluding HKEX Foundation	QF P6; annual report lines 22395-22409
Q1 2026	0.00	HKEX declares at half-year and year-end, not Q1	QF P6; Q1 announcement

8. Balance sheet snapshot

Item	FY2025 / 2025-12-31	Q1 2026 / 2026-03-31	Source
Cash and cash equivalents	182,724	170,605	QF P6; annual and Q1 balance sheets

Item	FY2025 / 2025-12-31	Q1 2026 / 2026-03-31	Source
Financial assets at FVOCI / amortised cost / FVTPL	142,581	146,031	Annual and Q1 balance sheets
Total assets	580,775	564,880	QF P6
Total liabilities	522,046	509,127	QF P6
Equity attributable to shareholders	58,147	55,151	QF P6; Q1 balance sheet
Borrowings	398	399	QF P6
Lease liabilities	851	820	QF P6
Net debt	0	Net cash	Capital management note; Q1 balance sheet
Net debt / EBITDA	0.0x	0.0x	Calculation
Goodwill and other intangible assets	19,938	20,145	Annual and Q1 balance sheets
Tangible book value proxy	38,209	35,006	Equity attributable less goodwill/intangibles
Margin Fund deposits	269,200	267,600	Q1 announcement lines 1850-1857
Clearing House Fund contributions	34,000	35,200	Q1 announcement lines 1855-1857

Capital structure note: HKEX monitors gross and net gearing against adjusted capital with a strategy to keep both below 50%. FY2025 gross gearing was 1% and net gearing was 0%. The clearing-house margin and default fund balances are large but mostly participant funds or segregated default resources; they are central to risk management but should not be treated as ordinary operating debt.

9. Recent corporate actions and regulatory / operating events

- 2026-04-29: HKEX published Q1 2026 results; Q1 revenue and other income increased 20% to 8,203, EBITDA increased 25% to 6,592, and shareholder profit increased 27% to 5,188.
- 2026-04-17: HKEX published a consultation connected with Phase 2 of minimum-spread reductions, targeted around mid-2026 subject to market readiness and regulatory approval.
- 2026-03-10: LME and LME Clear announced auto-expiry for options, effective 2026-09-21, and a transition from the current implied-volatility quoting convention to premium quoting.
- 2026-03-17: LME formalised Front Month Lending Rules on a permanent basis after market consultation.
- 2026-02-05: CPAL launched LME Insight, a platform for metals market news, analysis and data tied to sustainable metal premia.
- 2025-07-15: Hong Kong went live as an LME warehouse delivery point; by 2025-12-31 there were 14 LME-licensed warehouses operated by seven warehouse companies in Hong Kong.
- 2025-03-20: LME reached a settlement with the FCA regarding the 2022 nickel market events; annual report says the process was drawn to a close and remediation materially reduced recurrence risk.
- 2025-01-29: UK Supreme Court refused permission for Elliott to appeal the Court of Appeal judgment relating to the nickel-market judicial review; related Human Rights Act claims were withdrawn.
- 2025-12-31: HKEX recognised a 55 impairment loss under Data and Connectivity goodwill relating to BayConnect.

10. Open data gaps

Gap	Classification	Sources searched	Treatment
FMP annual and quarterly product segmentation	Not applicable for controlling source; FMP empty	FMP `revenue-product-segmentation` annual and quarter returned `[]`; QF/QFR logged	Use official segments and fee-pool tables only
FMP geographic segmentation	Not applicable / FMP empty	FMP `revenue-geographic-segments` returned `[]`	Do not force geographic model

Gap	Classification	Sources searched	Treatment
Full product revenue by individual derivatives contract	True non-disclosure	Annual reports and Q1 announcement searched for futures/options product revenue	Use segment revenue, fee-pool totals and ADV by product family
Revenue by individual metal on LME	True non-disclosure	Annual reports and Q1 announcement searched for LME metal tables	Use LME trading/clearing/market-data fees and ADV by metal
Earnings-call transcript quotes	Not fetched / unavailable	FMP transcript endpoint for 0388.HK FY2026 Q1 returned `[]`; no official transcript in raw folder	Use official release/presentation commentary only
Five-year capex / FCF row	Not fetched / omitted	Annual reports contain cash-flow statements; only FY2024/FY2025 and Q1 2026 values were transcribed into this package	Segment/synthesis can use FY2025 and TTM base; older values can be added if DR requires
Formal ROIC	Estimated	Balance sheet searched; clearing funds distort conventional invested capital	Use after-tax operating-profit/equity proxy and flag as exchange-specific
Segment operating income	True non-disclosure in exact OI form	HKEX discloses EBITDA and PBT by reportable segment, not operating income by segment	Use EBITDA and PBT for segment models

Key downstream findings:

- Cash is the dominant segment at 50.4% of FY2025 revenue and other income and 58.8% of FY2025 EBITDA. It is highly sensitive to Hong Kong market turnover, IPO activity, Stock Connect flow and clearing fee rules.
- Stock Connect is a major disclosed growth driver: Q1 2026 revenue was 1,355, up 44% YoY, and contributed 17% of group revenue and other income in Q1 2026.
- Commodities is smaller but accelerating: Q1 2026 revenue and other income rose 39% and EBITDA more than doubled, driven by 26% LME chargeable ADV growth and fee-tariff increases.
- Data and Connectivity remains the most infrastructure-like segment: Q1 2026 revenue and EBITDA both rose 10%, with network fees, hosting and data fees all up.
- FY2022-FY2025 are the clean current-taxonomy years. FY2021 must not be spliced into current segment CAGR calculations without adjustment.
- FMP is unsuitable as controlling source for HKEX segment/product data. Official HKEX tables are complete for reportable segments but do not disclose every product revenue line.