

All data utilised is  
publicly available

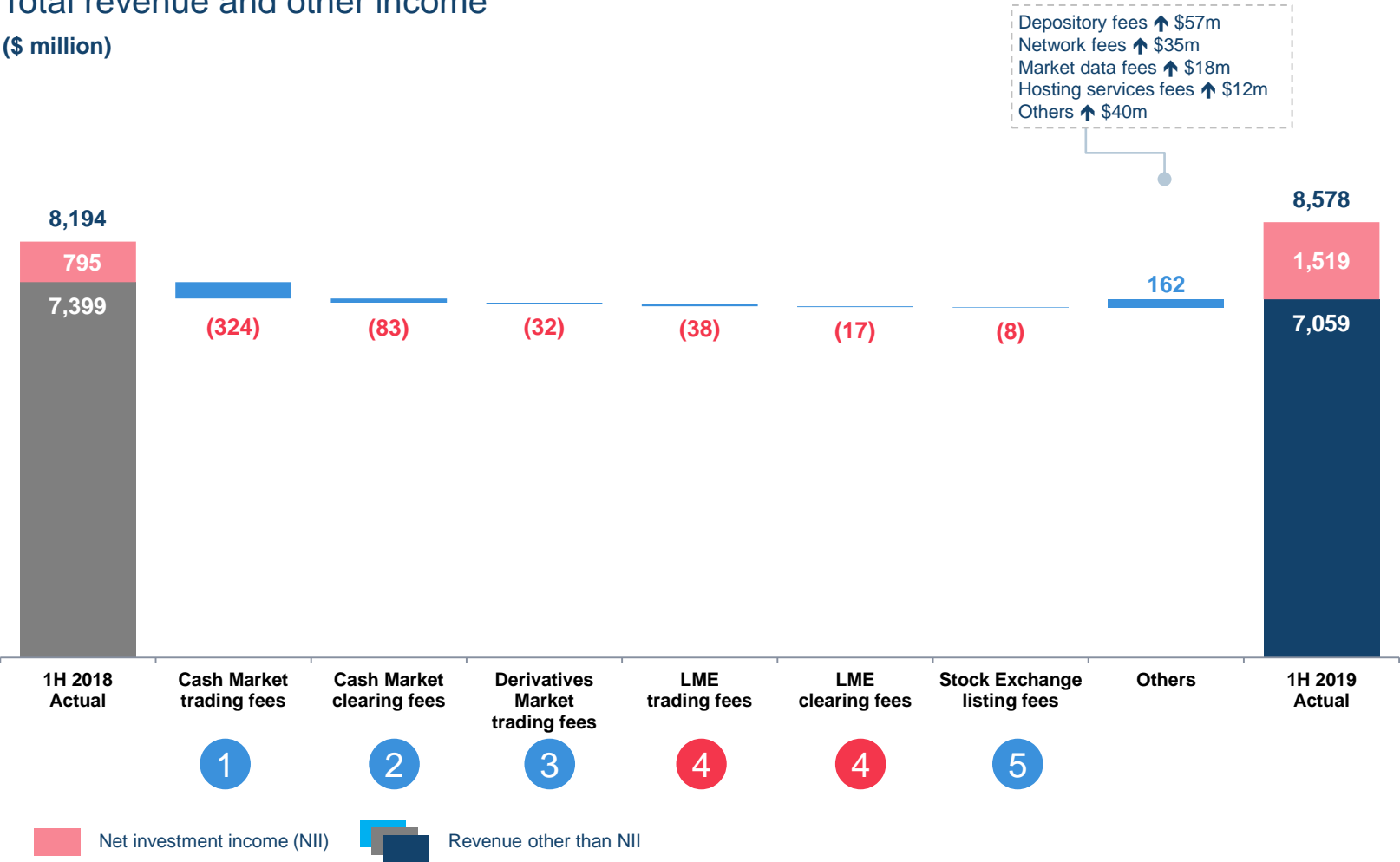
# 1H 2019 KEY REVENUE ANALYSIS

**HKEX**  
香港交易所

# Revenue movements 1H 2019 vs 1H 2018

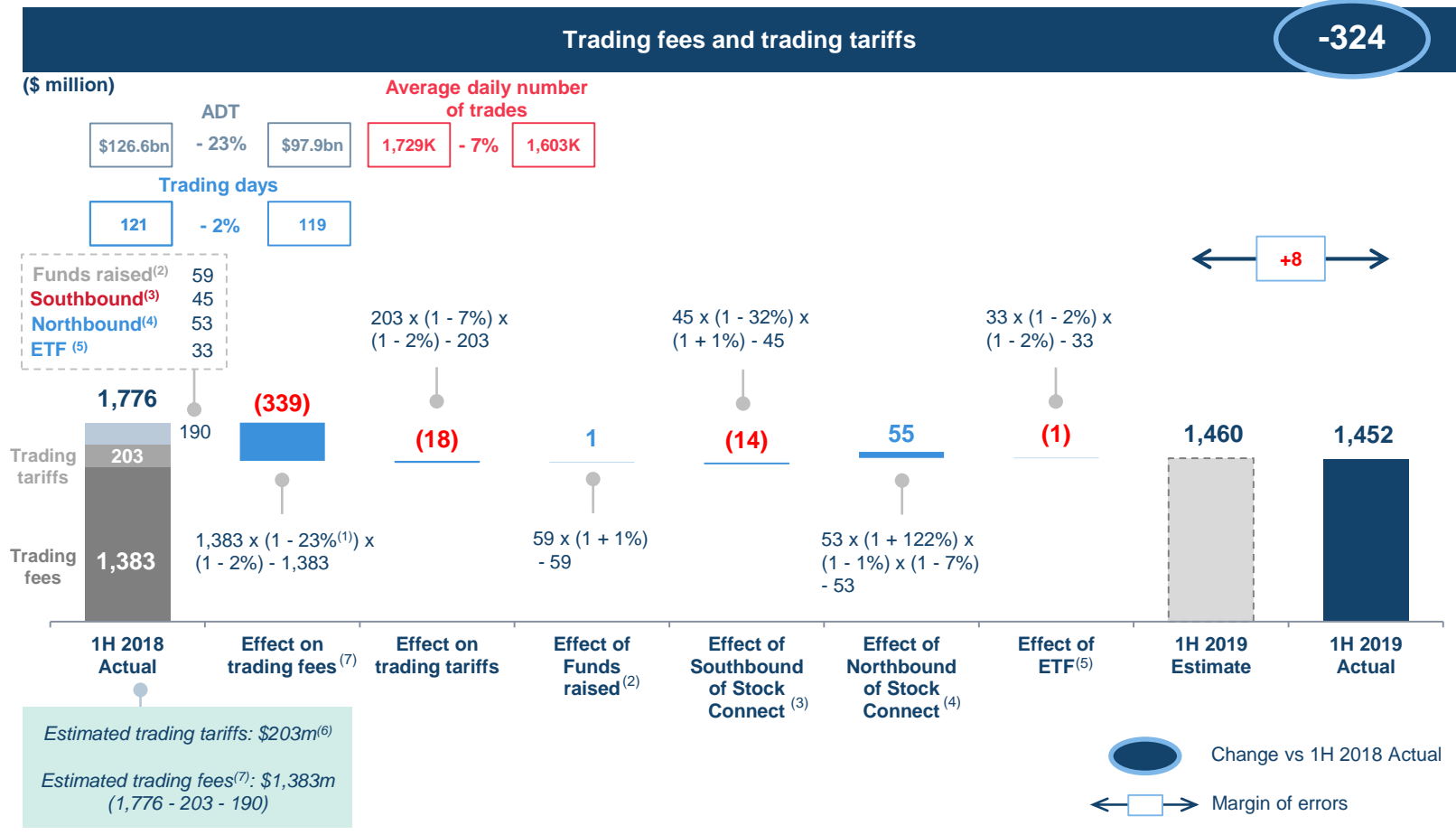
## Total revenue and other income

(\$ million)



# Cash Market trading fees 1

Estimate based on volume change



Cash Market trading fees and trading tariffs move closely with changes in total value of trades and number of trades

(1) Refers to % change in Headline ADT (ie, Stock Exchange trades (including DWs, CBBCs and warrants)) less SB ADT/2 less ETF ADT (including L&I Product): 1H 2019: \$87.1bn; 1H 2018: \$113.1bn; ↓ 23% (Headline ADT – 1H 2019: \$97.9bn; 1H 2018: \$126.6bn)

(2) Funds raised x 0.005% x 2 sides (Funds raised - 1H 2019: \$593.3bn; 1H 2018: \$585.0bn; ↑ 1%)

(3) Southbound (SB) trading fees: ADT of SB x no. of trading days x 0.005% x 50% (SB ADT: 1H 2019: \$11.1bn; 1H 2018: \$16.3bn; ↓ 32%; No. of trading days: 1H 2019: 111 days; 1H 2018: 110 days; ↑ 1%)

(4) Northbound (NB) trading fees: ADT of NB x no. of trading days x 0.00487% x 40% (NB ADT: 1H 2019: RMB43.9bn; 1H 2018: RMB19.8bn; ↑ 122%; No. of trading days: 1H 2019: 112 days; 1H 2018: 113 days; ↓ 1%; Exchange rate: 1H 2019: 1.14; 1H 2018: 1.22; ↓ 7%).

(5) ETF (including L&I Product) trading fee = ADT x 0.005% x 2 sides x no. of trading days x (1 - exemption %) (ADT – 1H 2019: \$5.3bn; 1H 2018: \$5.4bn; ↓ 2%). Exemption % is approximately 50%.

(6) Trading tariffs of equity products traded on the Stock Exchange (included under the Cash segment) of \$156m is disclosed in the 2018 Interim Report. Trading tariffs of DWs, CBBCs and warrants (included under the Equity and Financial Derivatives Segment) is estimated by average daily no. of trades (390K) x no. of trading days (121) x \$0.5 x 2 sides = \$47m.

(7) Excluding trading fees arising from funds raised, Stock Connect and ETFs (including L&I Products)



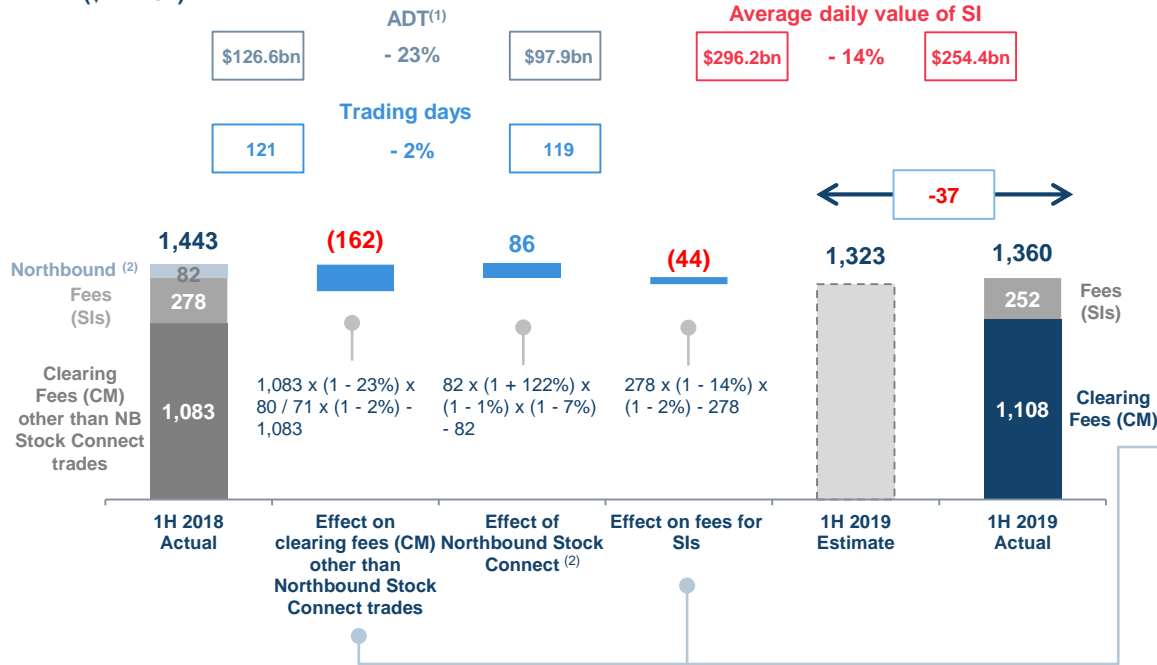
# Cash Market clearing fees 2

Estimate based on volume change

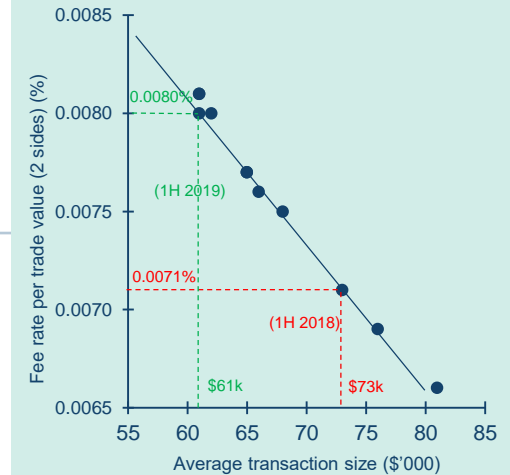
## Clearing fees for Cash Market (CM) and fees for SIs

-83

(\$ million)



Clearing fees are subject to maximum and minimum fees per trade. The decrease in average transaction size (1H 2019: \$61k; 1H 2018: \$73k) resulted in a higher proportion of Cash Market trades being subject to the minimum fee. The fee rate per trade value of various average transaction sizes based on actual fee rates calculated from historical quarterly results from Q1 2016 to Q1 2019 are set out as follows:



Actual decrease in SIs of \$26m or 9% was lower than estimate due to fewer SI transactions being subject to the maximum fee due to lower average transaction size (1H 2019: \$2.5m; 1H 2018: \$2.7m)

-83 Change vs 1H 2018 Actual  
 ← -37 → Margin of errors

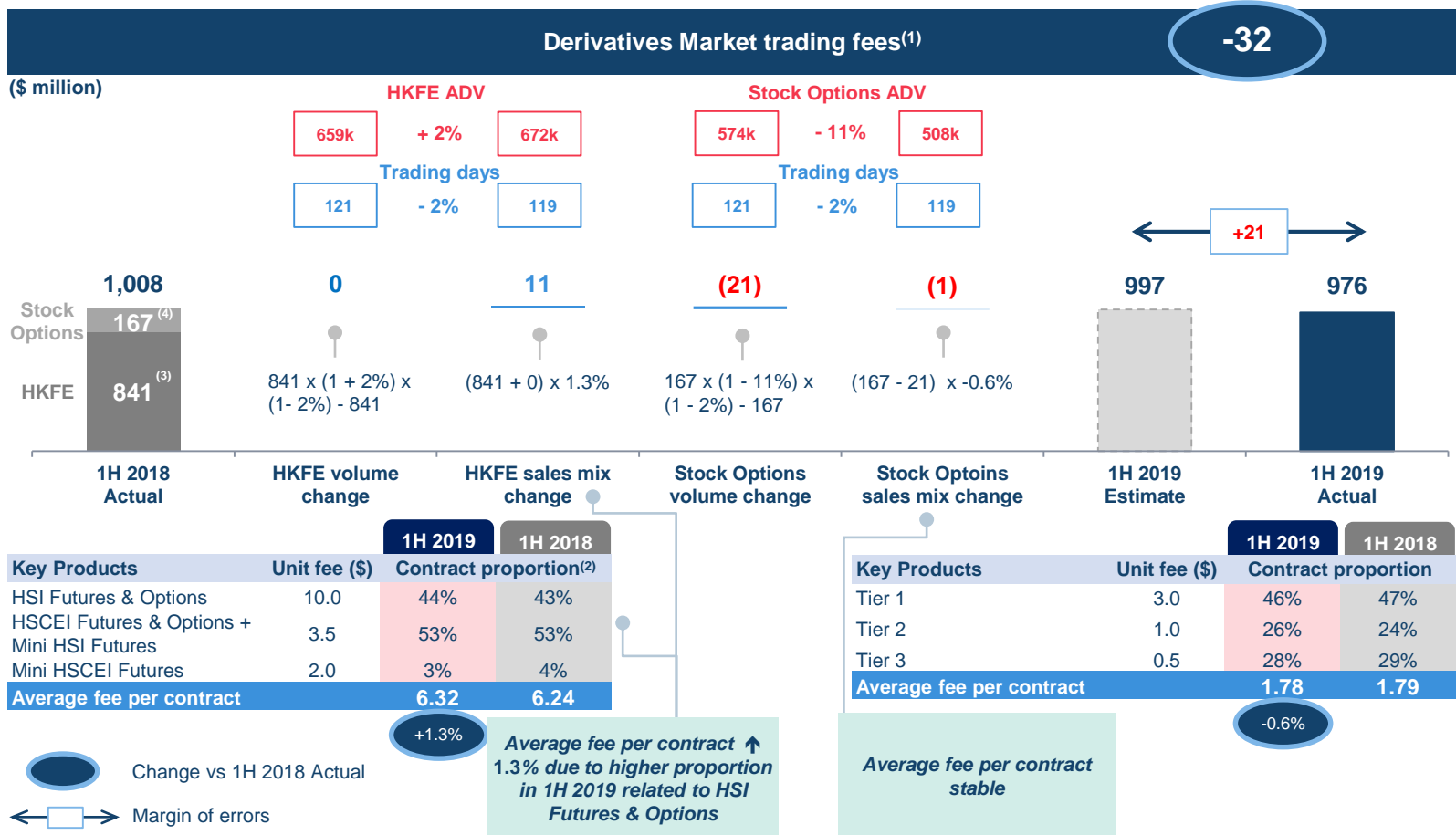
**Clearing fees and SI fees move with total value of trades and total value of SIs but are also impacted by transaction sizes of the trades/SIs. In general, if the average transaction size increases, it will have a negative impact on the clearing fees and vice versa**



(1) For Stock Exchange trades (including DWs, CBBCs and warrants), excluding stock options  
 (2) Northbound (NB) clearing fees: ADT of NB x no. of trading days x 0.002% x 50% + ADT of NB x no. of trading days x 0.002% (NB ADT: 1H 2019: RMB43.9bn; 1H 2018: RMB19.8bn; ↑122%; No. of trading days: 1H 2019: 112 days; 1H 2018: 113 days; ↓1%; Exchange rate: 1H 2019: 1.14; 1H 2018: 1.22; ↓7%).  
 (3) The impact of Southbound fees is immaterial and therefore not included in the analysis.

# Derivatives Market trading fees 3

Estimate based on volume and sales mix change



**Derivatives Market trading fees generally move with the total number of contracts traded and average fee per contract**



(1) Includes trading fees allocated to the Clearing segment

(2) Calculated based on % of total contracts of key products (ie, HSI Futures & Options, HSCEI Futures & Options and Mini HSI & HSCEI Futures)

(3) Trading fees of HKFE products = Fees included under Equity and Financial Derivatives segment (\$682m, disclosed in 2018 Interim Report) + Fees allocated to Post Trade segment (estimated by ADV (659K) x no. of trading days (121) x fee per contract (\$2 per note 5 below) = \$159m).

(4) Trading tariffs of stock options = Fees included under Equity and Financial Derivatives segment (\$121m, disclosed in the 2018 Interim Report) + Fees allocated to Post Trade segment (estimated by ADV (574K) x no. of trading days (121) x tariff per contract (\$0.66 per note 5 below) = \$46m).

(5) Fee/tariff per contract is calculated based on information disclosed in 2018 Annual Report: Trading fees of HKFE products allocated to the Post Trade segment (\$338m) / (ADV (687K) x no. of trading days (246)) = \$2 per contract. Trading tariffs of stock options allocated to the Post Trade segment (\$84m) / (ADV (517K) x no. of trading days (246)) = \$0.66 per contract.

# LME trading and clearing fees 4

Estimate based on volume change

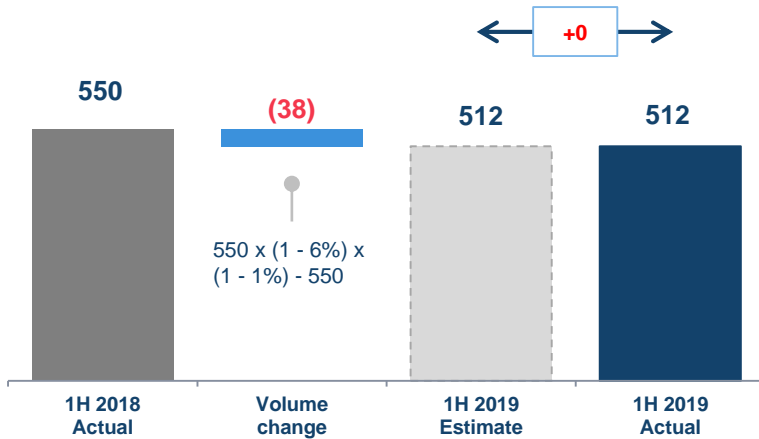
## LME trading fees -38

(\$ million)

Chargeable ADV<sup>(1)</sup>



Trading days

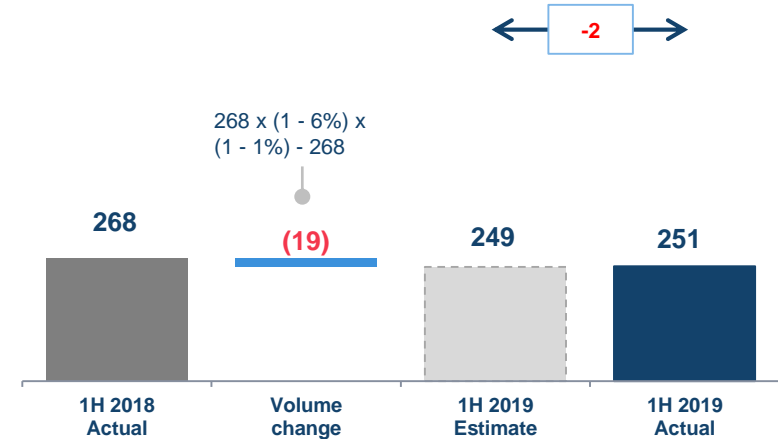


## LME clearing fees -17

Chargeable ADV<sup>(1)</sup>



Trading days



Change vs prior period



Margin of errors

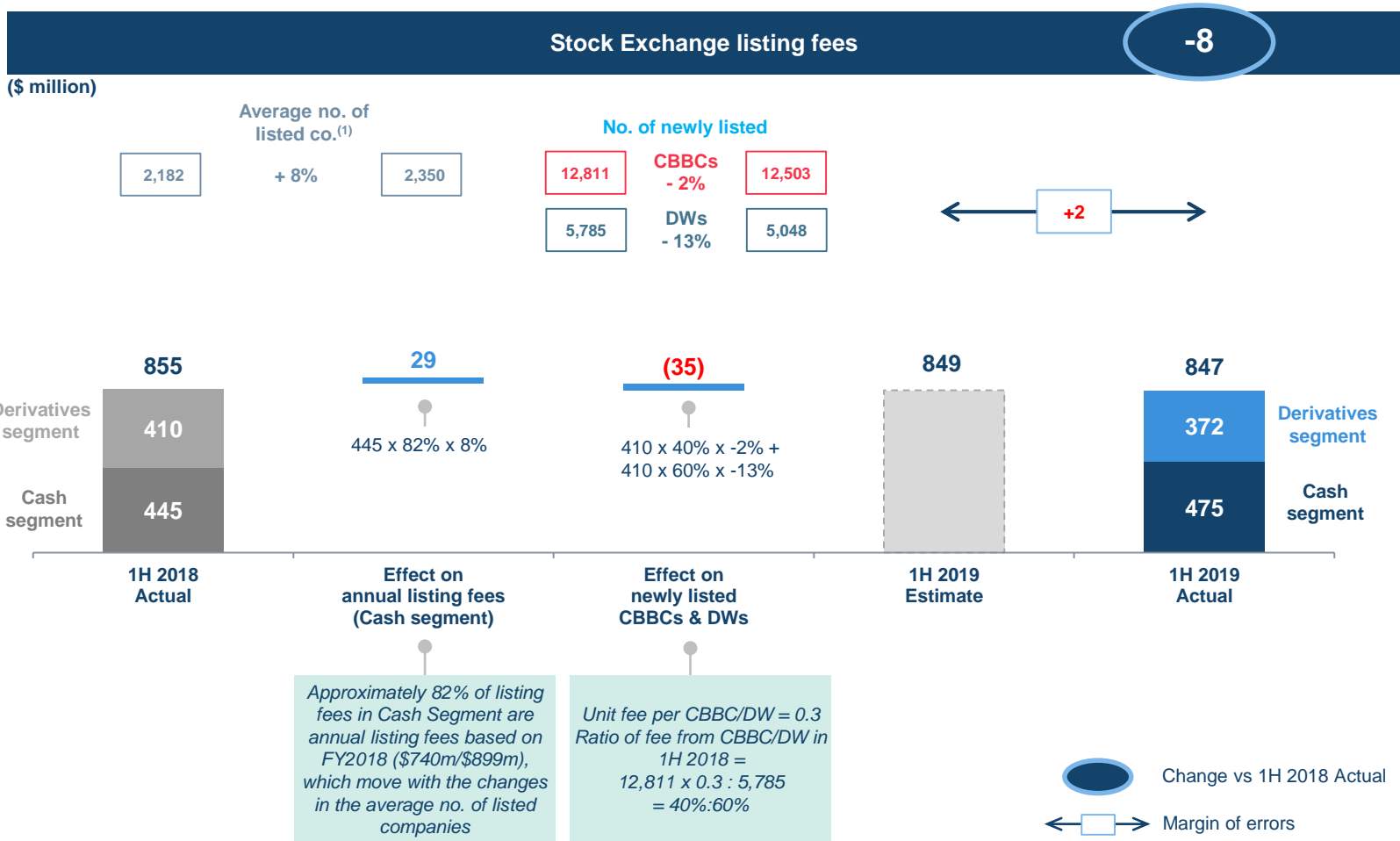
**LME and LMEC fees move with total number of contracts traded**



(1) Chargeable ADV excludes Admin Trades (which became chargeable from May 2019 at a lower trading fee rate of US\$0.04 per contract and clearing fee rate of US\$0.02 per contract) and other non-chargeable trades.

# Stock Exchange listing fees 5

Estimates based on no. of listed companies and newly listed DWs/CBBCs



**Stock Exchange listing fees move closely with changes in no. of listed companies and newly listed DWs/CBBCs.**

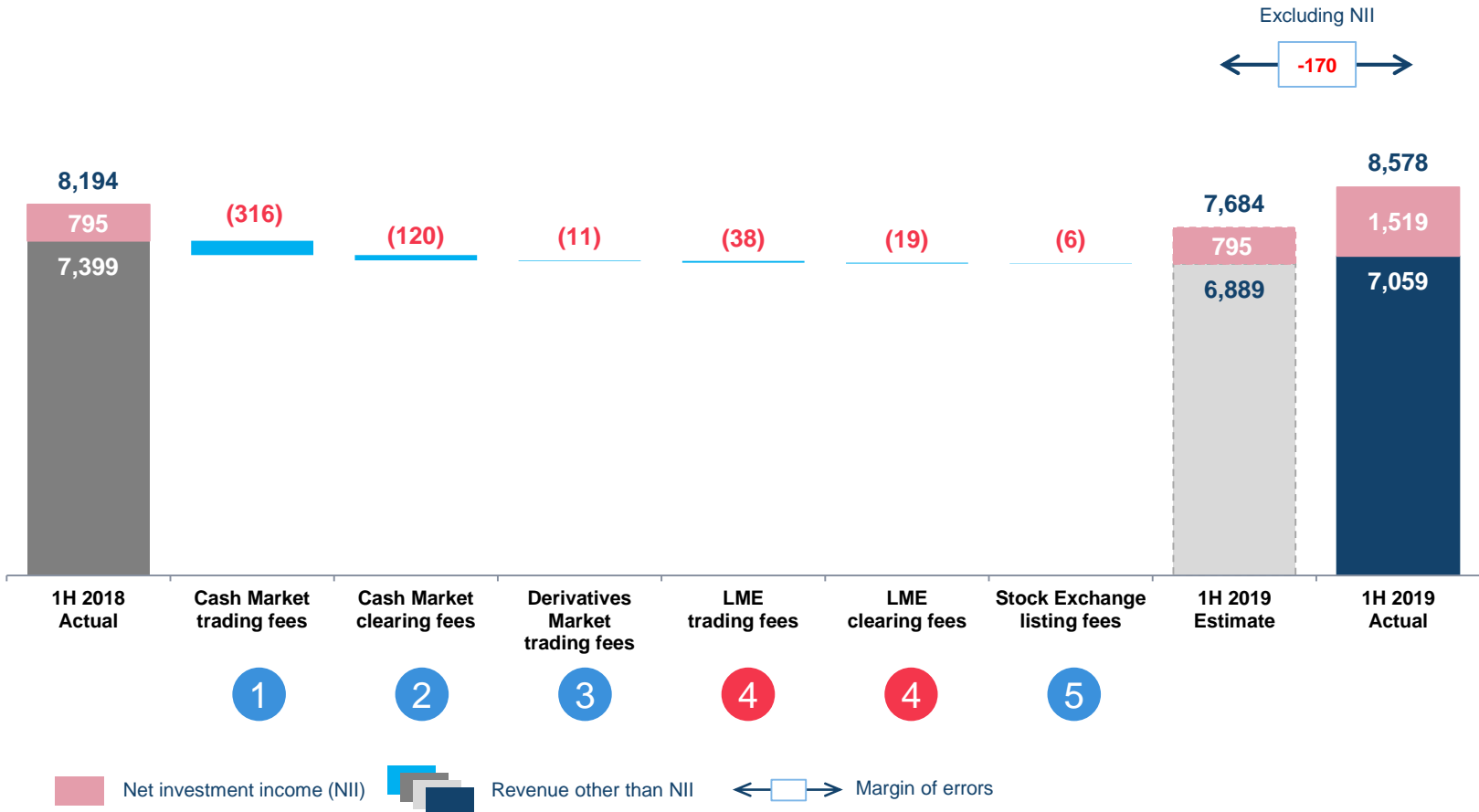
(1) Average number of listed companies represents the average number of listed companies at month end



# Estimate of 1H 2019 revenue

## Total revenue and other income

(\$ million)



Margin of errors for revenue estimates (excluding NII) approximately \$170m or 2%



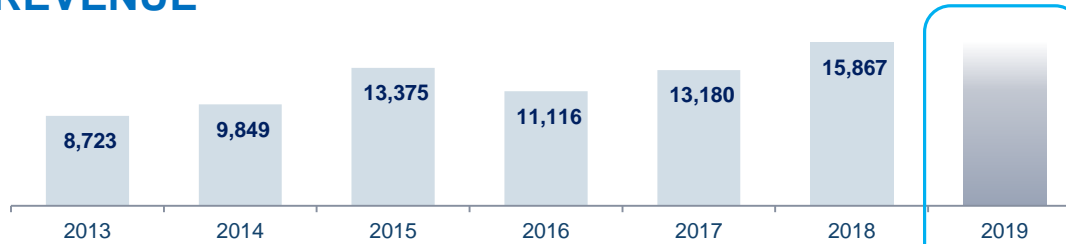


# EBITDA margin

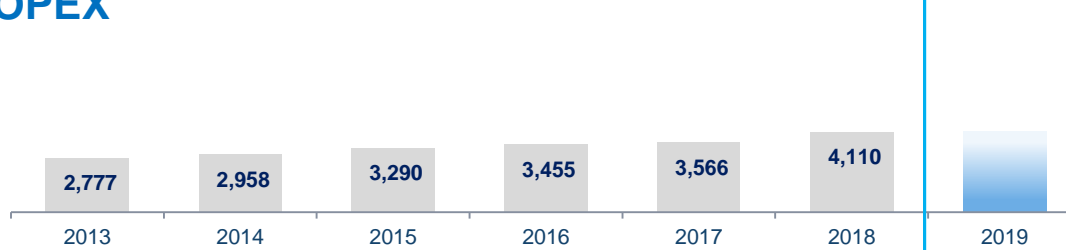
EBITDA margin generally moves in the same direction with revenue

(\$ million)

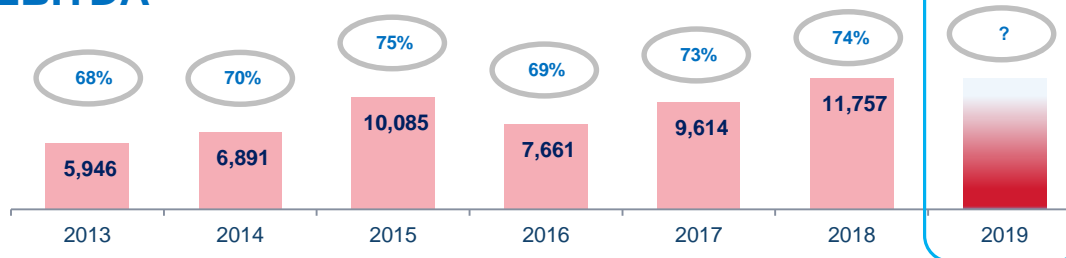
## REVENUE



## OPEX



## EBITDA



○ EBITDA margin

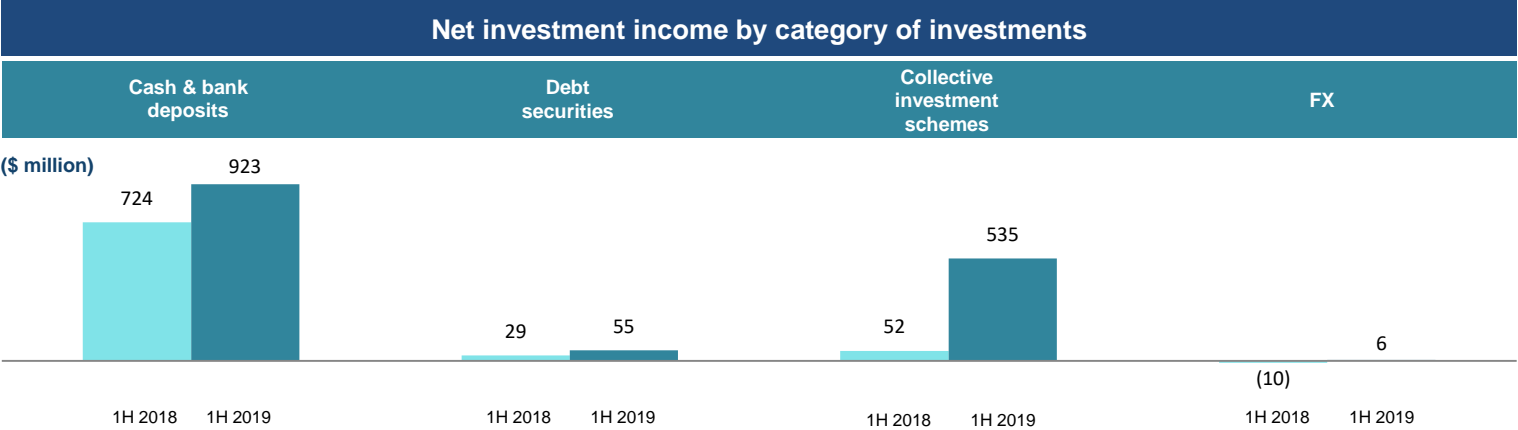
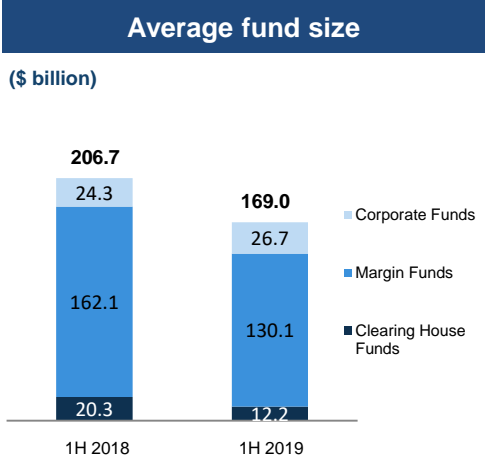
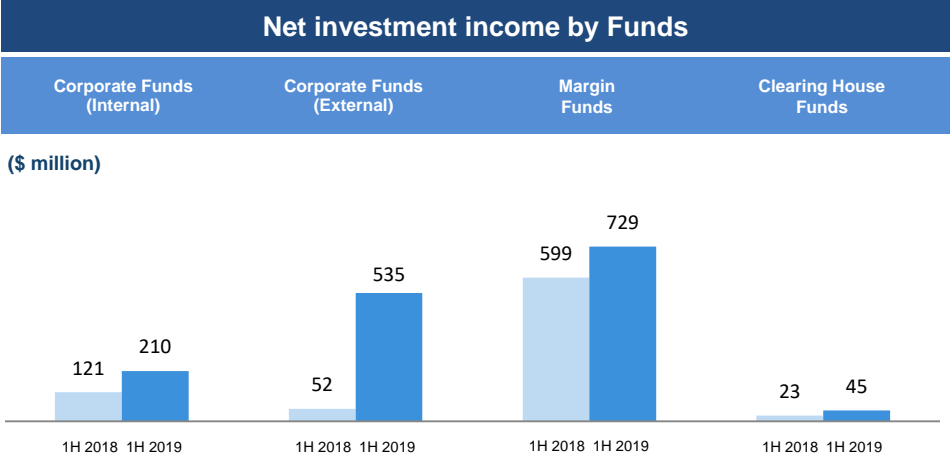
A significant proportion of opex is fixed in nature

If revenue comes under pressure, non-critical projects may be deferred and costs control measures will be implemented to try to maintain an overall EBITDA margin in the region of 65% - 70% (1H 2019: 77%)



# Net investment income – higher returns across external and internal portfolios

1H 2019: \$1,519m (1H 2018: \$795m)



## Net investment income

Funds	Fund size at 30 June 2019 (HK\$bn)	Key facts	Comments on investment income										
Externally-managed Corporate Funds (External Portfolio)	9.2	<ul style="list-style-type: none"> <li>Designed to enhance returns and mitigate portfolio volatility and asset class concentration risk.</li> <li>The allocation of the Group's External Portfolio by strategy employed as of June 2019 is as follows:                             <table border="0" style="margin-left: 20px;"> <tr> <td>Public Equities</td> <td style="text-align: right;">29%</td> </tr> <tr> <td>Absolute Return</td> <td style="text-align: right;">17%</td> </tr> <tr> <td>Multi-Sector Fixed Income</td> <td style="text-align: right;">27%</td> </tr> <tr> <td>US Government Bonds and MBS</td> <td style="text-align: right;"><u>27%</u></td> </tr> <tr> <td></td> <td style="text-align: right;"><u>100%</u></td> </tr> </table> </li> </ul>	Public Equities	29%	Absolute Return	17%	Multi-Sector Fixed Income	27%	US Government Bonds and MBS	<u>27%</u>		<u>100%</u>	Can make reference to some public benchmarks such as MSCI World Index, Bloomberg Barclays Global Aggregate Index and Bloomberg Barclays U.S. Treasury Bond Index.
Public Equities	29%												
Absolute Return	17%												
Multi-Sector Fixed Income	27%												
US Government Bonds and MBS	<u>27%</u>												
	<u>100%</u>												
Internally-managed Corporate Funds	18.7	<ul style="list-style-type: none"> <li>Mainly invested in medium-term and short-term deposits for meeting regulatory capital requirements.</li> </ul>	Generally moves in line with the deposit rates.										
Margin Funds - HK	78.3 (67.7 for HKCC & SEOCH)	<ul style="list-style-type: none"> <li>Income affected by the Margin Fund size and also interest rates.</li> <li>Mainly invested in medium-term, short-term and overnight deposits, generally below 12 months.</li> <li>Interest rebates payable to participants was based on savings rates. Effective from 2 September 2019, interest rebates payable for HKD margin for HKCC and SEOCH shall be calculated based on 0.5 x 1 month HIBOR – 25 bps.</li> </ul>	Income generally moves in line with the deposit rates, but note the impact on change in margin rebates arrangement.										
Margin Fund – LMEC	50.6	<ul style="list-style-type: none"> <li>Income affected by Margin Fund size.</li> <li>LMEC generally keeps a fixed spread on the fund.</li> </ul>	Around 20bps is kept by LMEC as most of the margin deposits are denominated in USD.										

