

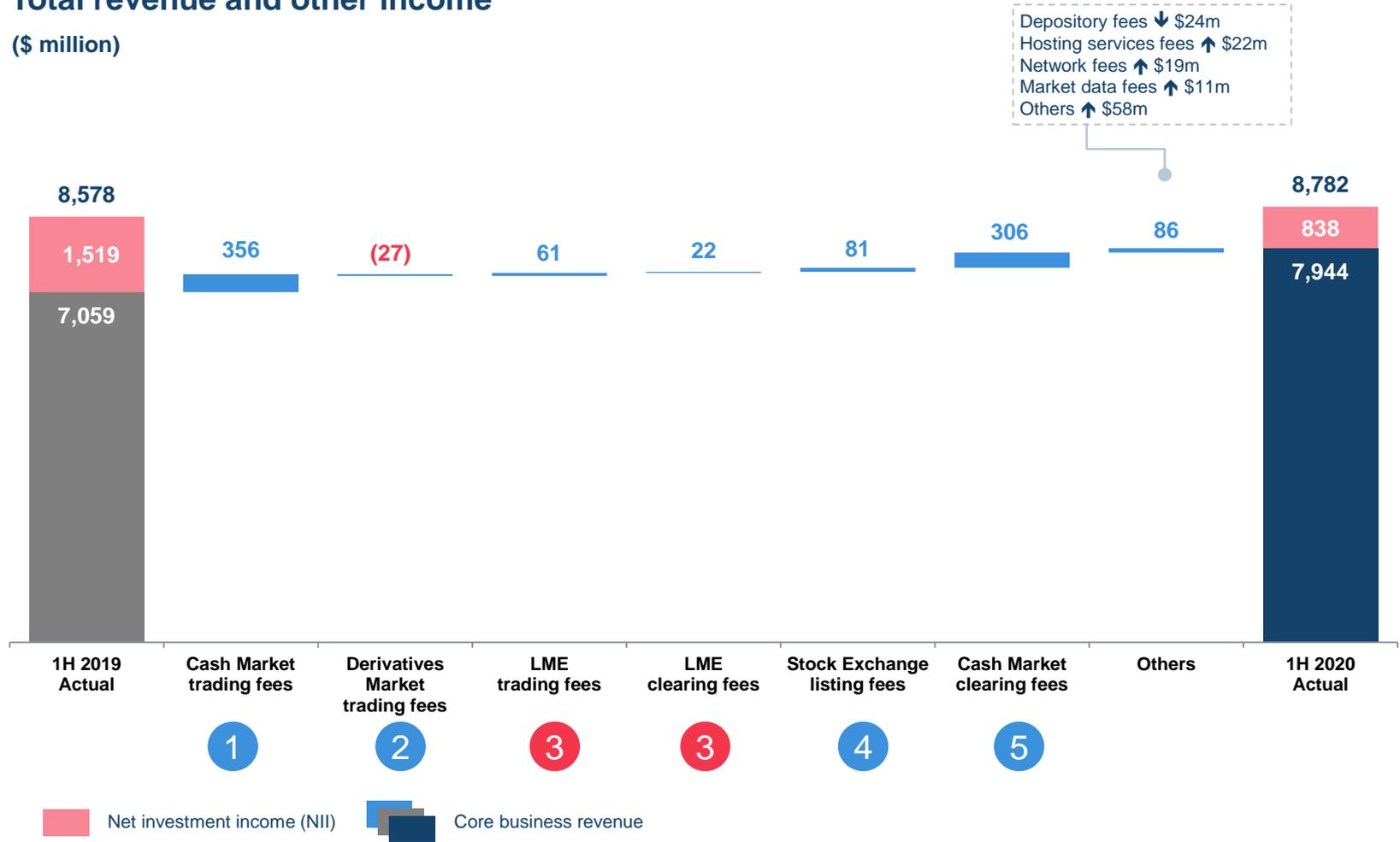
# 1H 2020 KEY REVENUE ANALYSIS



# Revenue movements 1H 2020 vs 1H 2019

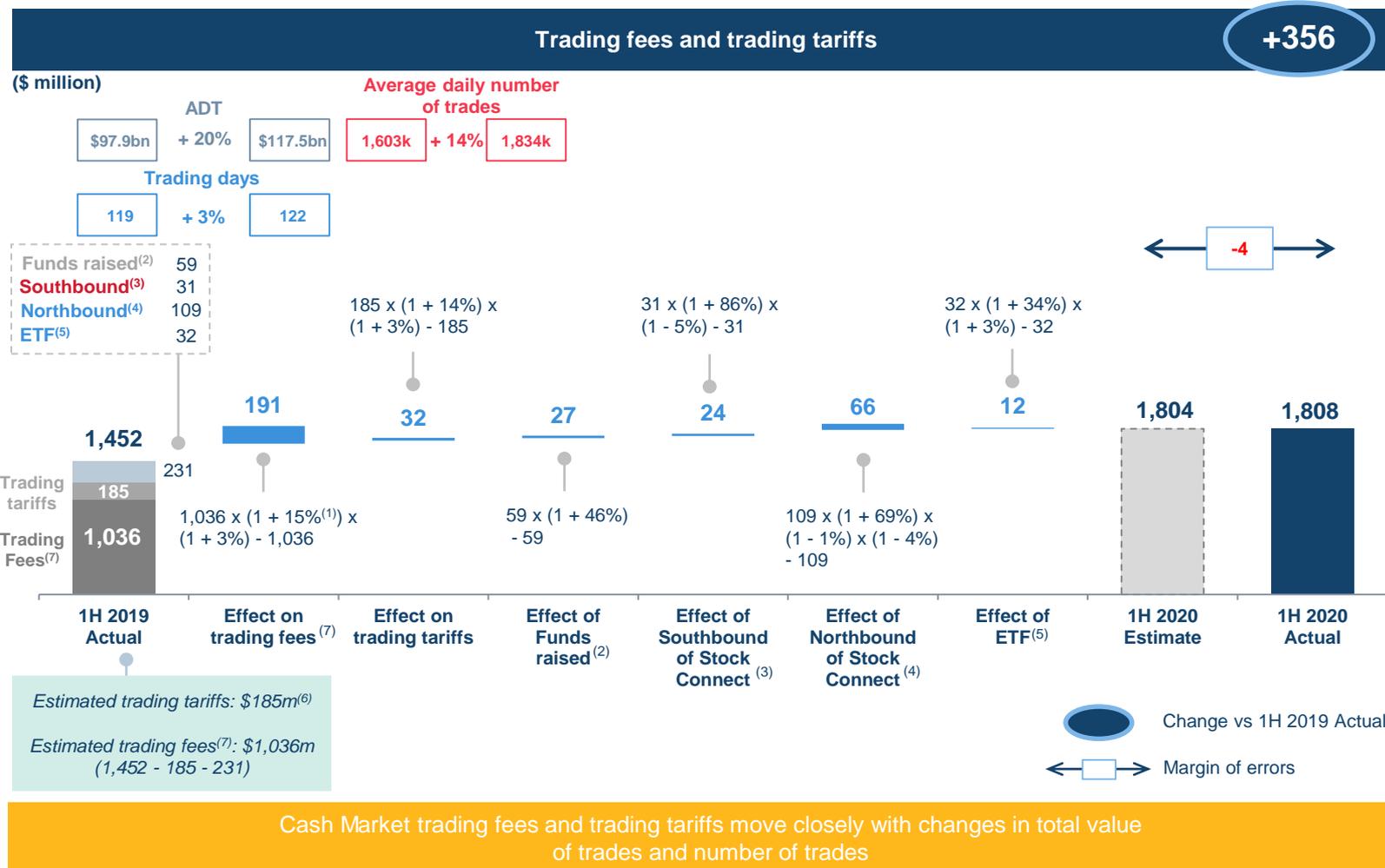
## Total revenue and other income

(\$ 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 2020: \$100.1bn; 1H 2019: \$87.1bn; ↑ 15% (Headline ADT – 1H 2020: \$117.5bn; 1H 2019: \$97.9bn SB ADT – 1H 2020: \$20.7bn; 1H 2019: \$11.1bn; ETF (including L&I Product) ADT – 1H 2020: \$7.1bn; 1H 2019: \$5.3bn)

2. Funds raised x 0.005% x 2 sides (Funds raised - 1H 2020: \$865.2bn; 1H 2019: \$593.3bn; ↑ 46%)

3. Southbound (SB) trading fees: ADT of SB x no. of trading days x 0.005% x 50% (SB ADT: 1H 2020: \$20.7bn; 1H 2019: \$11.1bn; ↑ 86%; No. of trading days: 1H 2020: 106 days; 1H 2019: 111 days; ↓ 5%)

4. Northbound (NB) trading fees: ADT of NB x no. of trading days x 0.00487% x 40% (NB ADT: 1H 2020: RMB74.3bn; 1H 2019: RMB43.9bn; ↑ 69%; No. of trading days: 1H 2020: 111 days; 1H 2019: 112 days; ↓ 1%; Exchange rate: 1H 2020: 1.09; 1H 2019: 1.14; ↓ 4%).

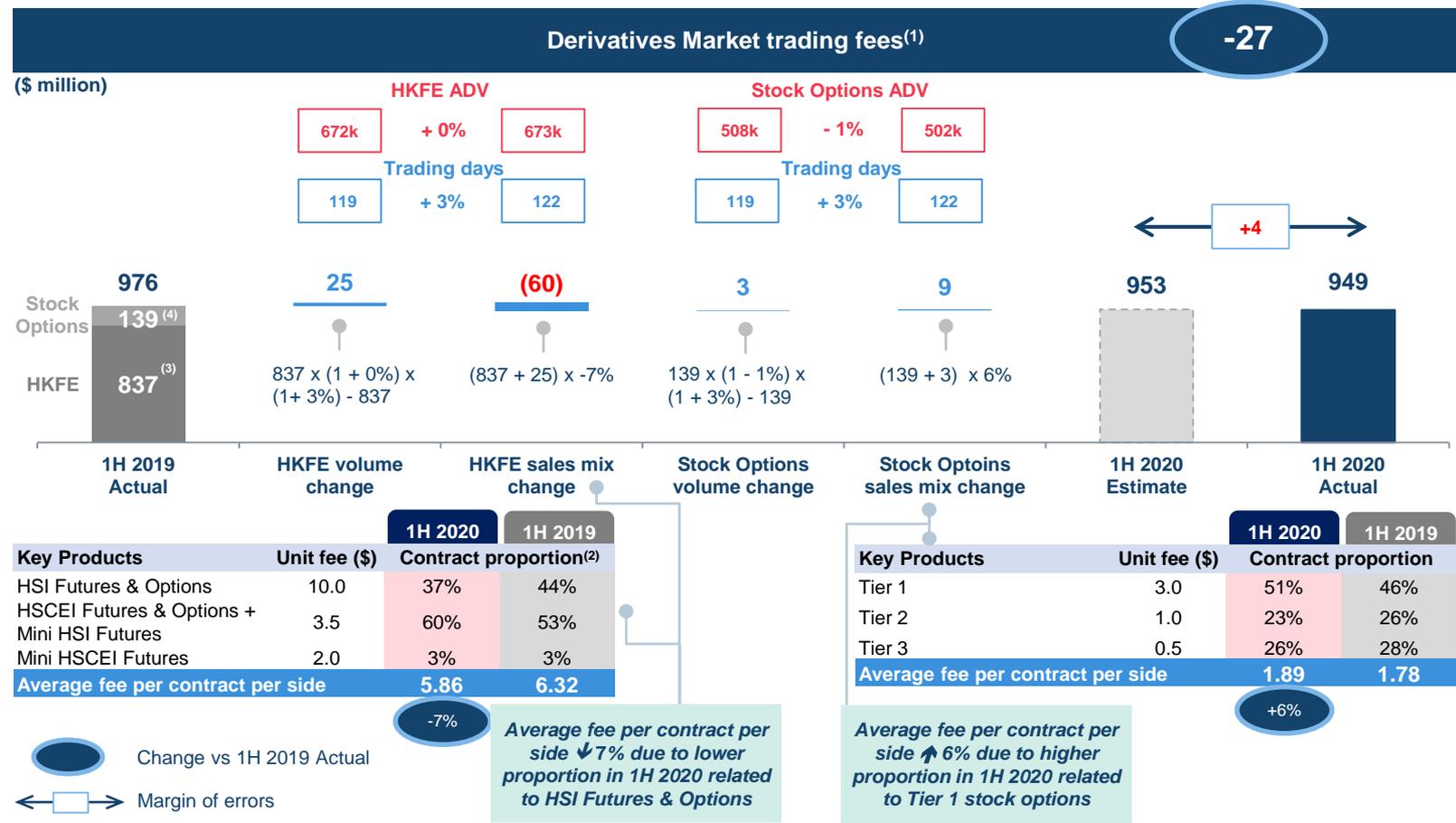
5. ETF (including L&I Product) trading fees = ADT x 0.005% x 2 sides x no. of trading days x (1 – exemption %) (ADT – 1H 2020: \$7.1bn; 1H 2019: \$5.3bn; ↑ 34%). Exemption % – 50%.

6. Trading tariffs of equity products traded on the Stock Exchange (included under the Cash segment) of \$142m is disclosed in the 2019 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 (358k) x no. of trading days (119) x \$0.5 x 2 sides = \$43m.

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

# Derivatives Market trading fees 2

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 Post Trade 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 (\$676m, disclosed in 2019 Interim Report) + Fees allocated to Post Trade segment (estimated by ADV (672k) x no. of trading days (119) x fee per contract (\$2 per note 5 below) = \$160m), and round up to \$837m.

4. Trading tariffs of stock options = Fees included under Equity and Financial Derivatives segment (\$99m, disclosed in the 2019 Interim Report) + Fees allocated to Post Trade segment (estimated by ADV (508k) x no. of trading days (119) x tariff per contract (\$0.66 per note 5 below) = \$40m).  
 5. Fee/tariff per contract is calculated based on information disclosed in 2019 Annual Report: Trading fees of HKFE products allocated to the Post Trade segment (\$308m) / (ADV (626k) x no. of trading days (246)) = \$2 per contract.  
 Trading tariffs of stock options allocated to the Post Trade segment (\$72m) / (ADV (442k) x no. of trading days (246)) = \$0.66 per contract.

# LME trading and clearing fees

3

Estimate based on volume change and fee increment

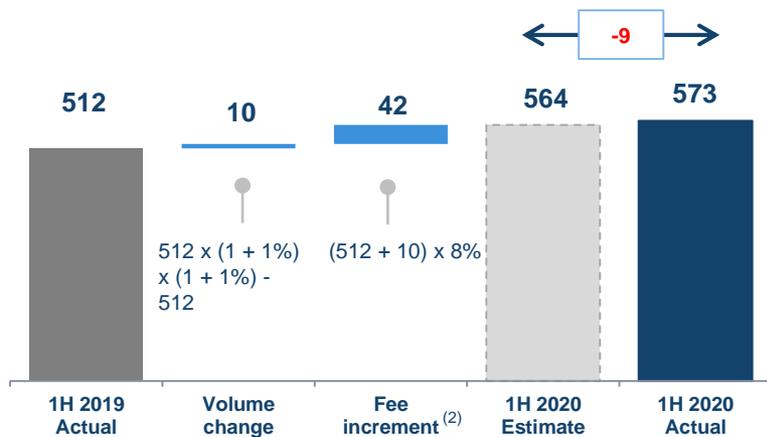
## LME trading fees +61

(\$ million)

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



Trading days

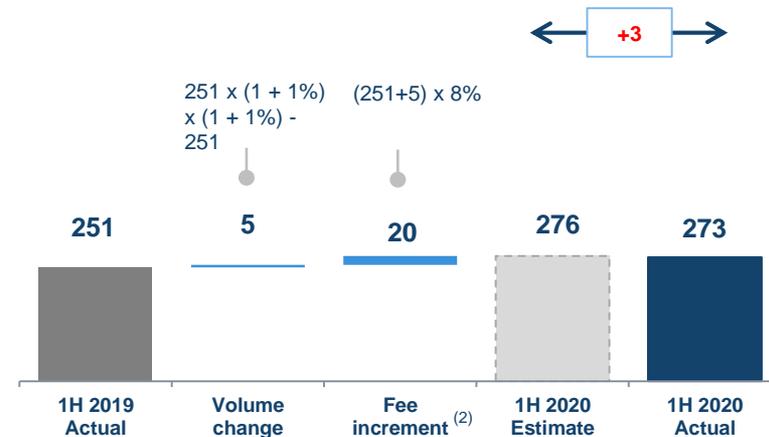


## LME clearing fees +22

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



Trading days



Change vs prior period



Margin of errors

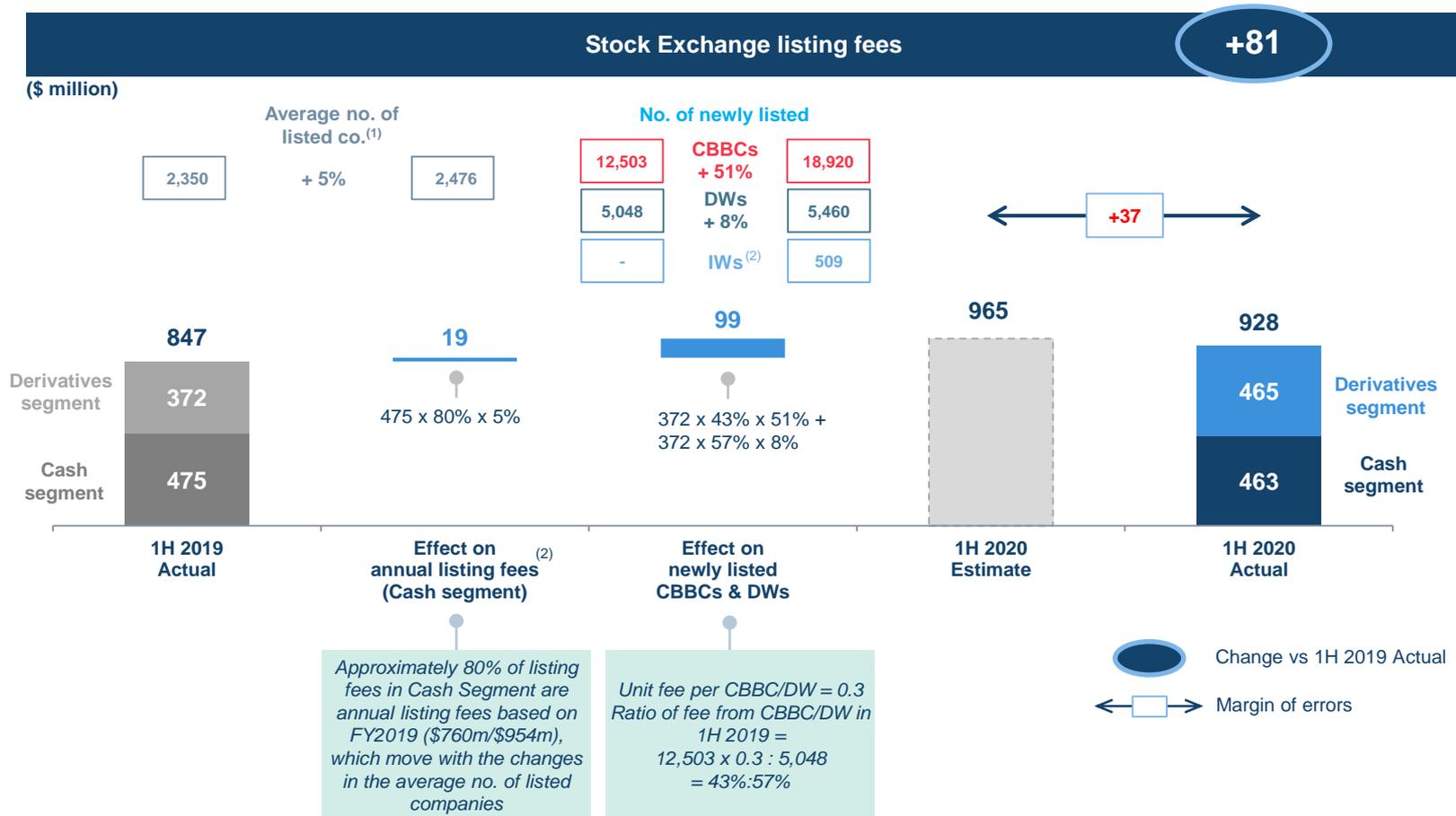
LME and LMEC fees generally move with total number of contracts traded and average fee per contract

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 a lower clearing fee rate of US\$0.02 per contract) and other non-chargeable trades.  
 2. An average of 8% fee increment effective from 1 Jan 2020



# Stock Exchange listing fees 4

Estimate 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, but are also impacted by number of forfeitures and withdrawn IPO applications during the periods.

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

2. Inline Warrants were launched in July 2019. Issuers are entitled to full listing fee rebate on a maximum of 30 Inline Warrants until 30 June 2021.

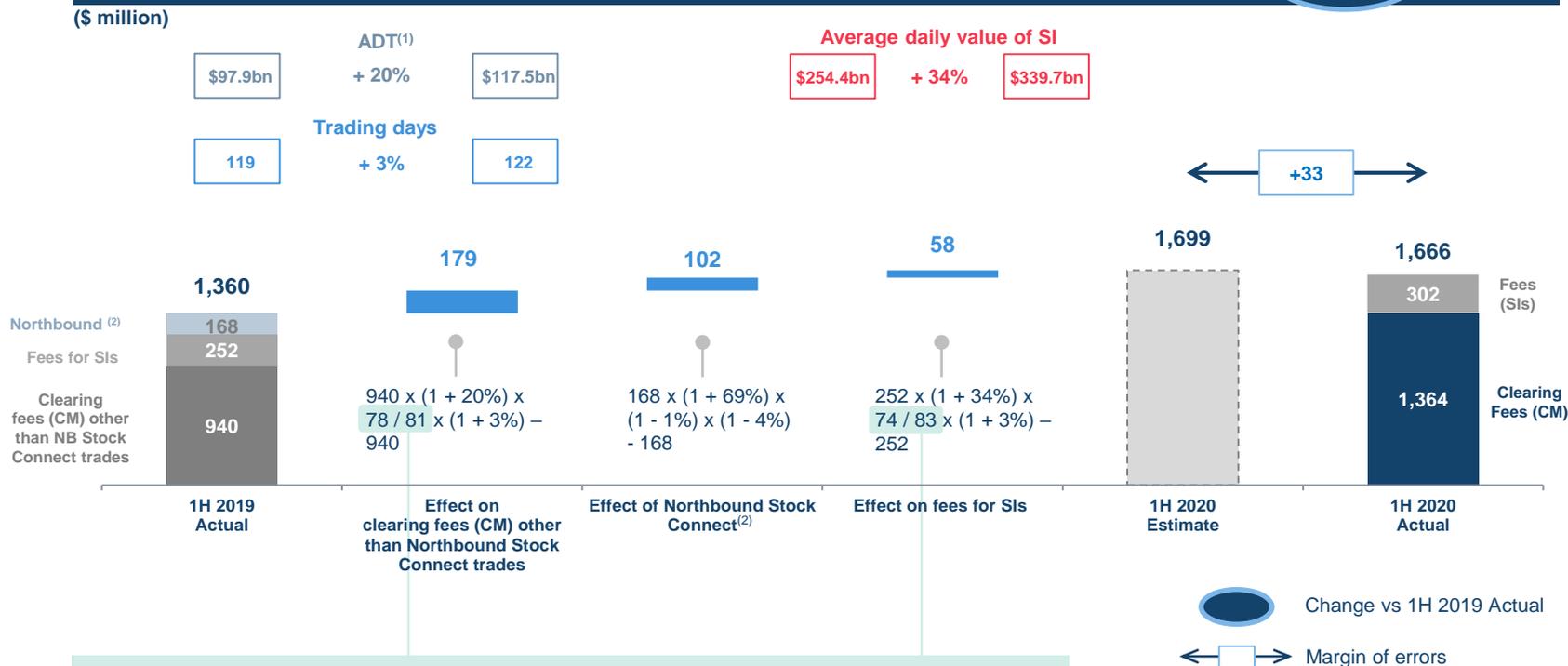


# Cash Market clearing fees 5

Estimate based on volume change

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

**+306**



Clearing fees and SI fees are impacted by transaction sizes. See next slide for analysis

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.

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 2020: RMB74.3bn; 1H 2019: RMB43.9bn; ↑ 69%; No. of trading days: 1H 2020: 111 days; 1H 2019: 112 days; ↓ 1%; Exchange rate: 1H 2020: 1.10; 1H 2019: 1.14; ↓ 4%).  
 3. The impact of Southbound fees is immaterial and therefore not included in the analysis.

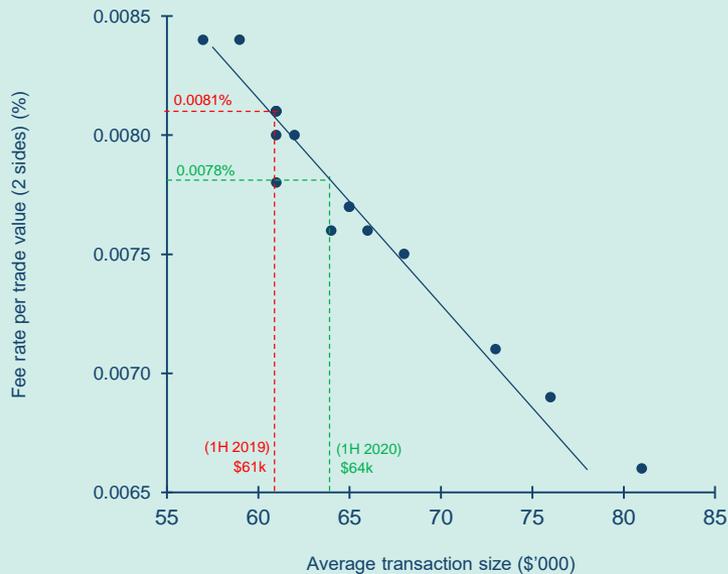


# Cash Market clearing fees 5

## Impact of transaction sizes of the trades / SIs

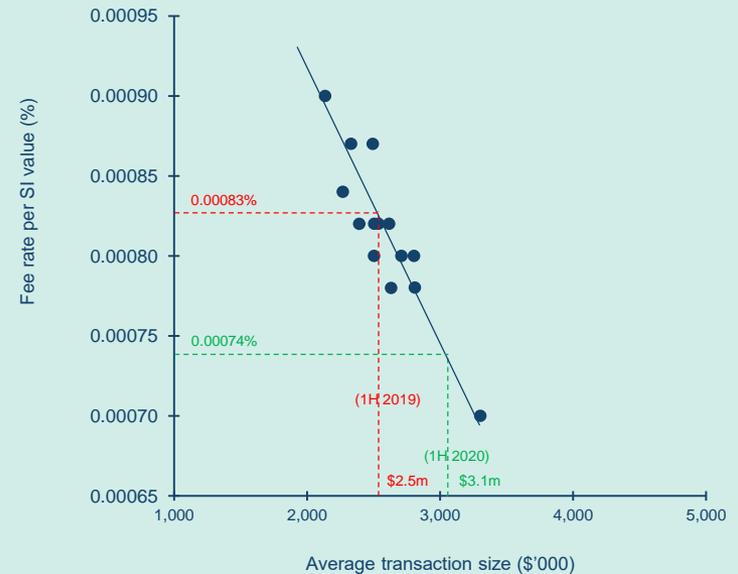
### Clearing fees for Cash Market (CM)

Clearing fees are subject to maximum and minimum fees per trade. The increase in average transaction size (1H 2020: \$64k; 1H 2019: \$61k) resulted in a lower proportion of Cash Market trades being subject to the minimum fee of \$2. The fee rate per trade value of various average transaction sizes based on actual fee rates calculated from historical quarterly results from Q1 2017 to Q1 2020 are set out as follows:



### Fees for SIs

Fees for SIs are subject to maximum and minimum fees per trade. The increase in average transaction size (1H 2020: \$3.1m; 1H 2019: \$2.5m) resulted in a higher proportion of SI transactions being subject to the maximum fee of \$100. The fee rate per SI value of various average transaction sizes based on actual fee rates calculated from historical quarterly results from Q1 2017 to Q1 2020 are set out as follows:

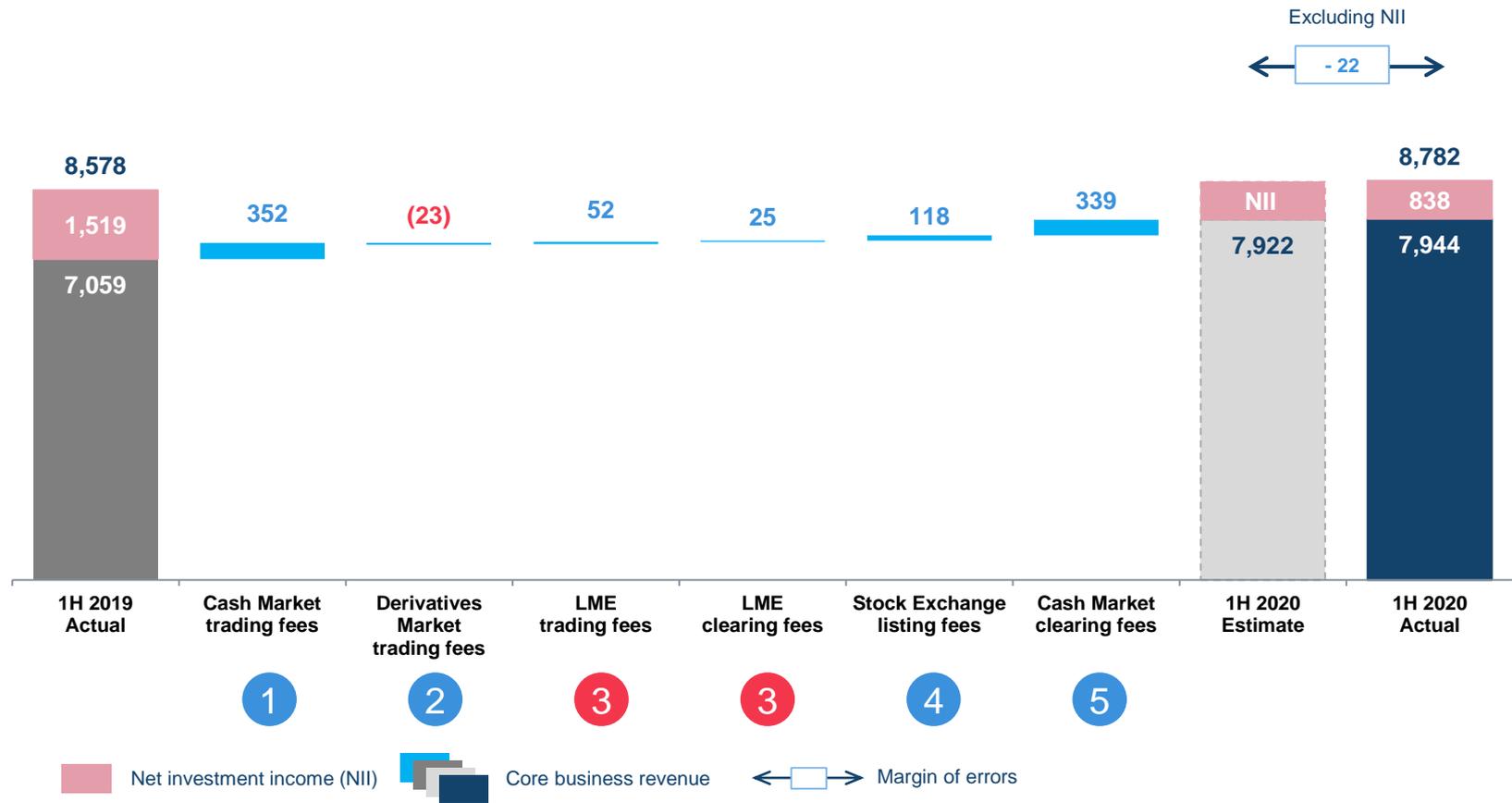


In general, if the average transaction size increases, it will have a negative impact on the clearing fees and vice versa



# Estimate of 1H 2020 revenue

Total revenue and other income  
(\$ million)



Margin of errors for revenue estimates (excluding NII) was approximately \$22m or 0.3%

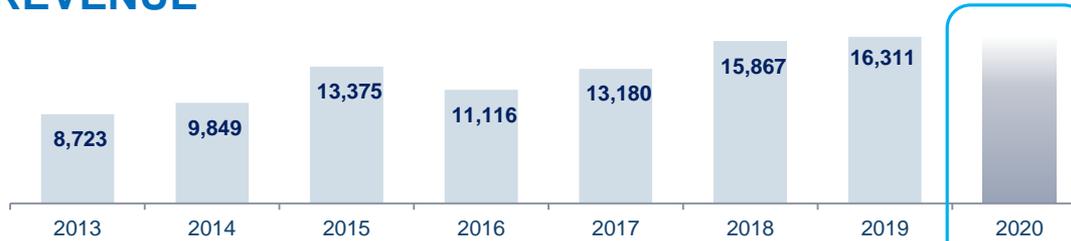


# EBITDA margin

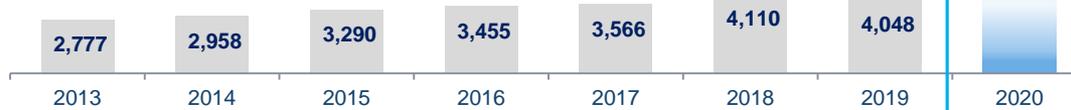
EBITDA margin generally moves in the same direction with revenue

(\$ million)

## REVENUE



## OPEX



## EBITDA



○ EBITDA margin

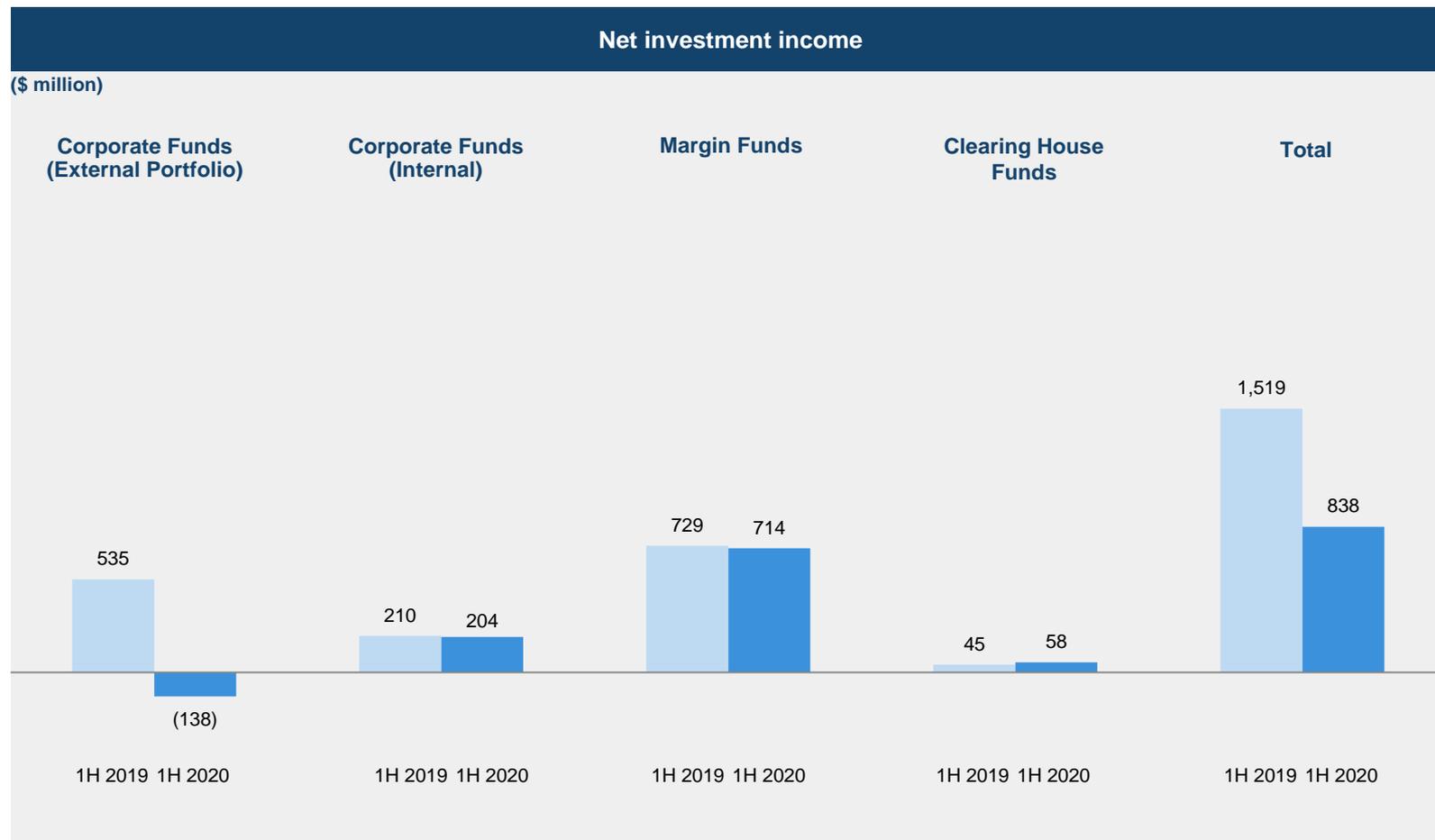
A significant proportion of opex is fixed in nature

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 2020: 76%)



# Net Investment Income

External portfolio affected by broader market  
Income from internal funds move with fund size and interest rate



# Net investment income

Funds	Fund size at 30 June 2020 (HK\$bn)	Key facts	Comments										
Externally-managed Corporate Funds (External Portfolio)	6.7	<ul style="list-style-type: none"> <li>Designed to enhance returns</li> <li>Highly diversified across asset classes, with over 20 different fund managers, helping to mitigate portfolio volatility and asset class concentration risk</li> <li>The allocation of the Group's External Portfolio by asset class as of June 2020 is as follows:               <table border="0" style="margin-left: 20px;"> <tr> <td>Public Equities</td> <td style="text-align: right;">23%</td> </tr> <tr> <td>Absolute Return</td> <td style="text-align: right;">22%</td> </tr> <tr> <td>Multi-Sector Fixed Income</td> <td style="text-align: right;">29%</td> </tr> <tr> <td>US Government Bonds and MBS</td> <td style="text-align: right;"><u>26%</u></td> </tr> <tr> <td></td> <td style="text-align: right;"><u>100%</u></td> </tr> </table> </li> </ul>	Public Equities	23%	Absolute Return	22%	Multi-Sector Fixed Income	29%	US Government Bonds and MBS	<u>26%</u>		<u>100%</u>	<p>The performance of each asset class can be estimated by making reference to some public benchmarks such as MSCI World Index, Bloomberg Barclays Global Aggregate Index and Bloomberg Barclays U.S. Treasury Bond Index.</p> <p>5.1% annualised return up to 30 June 2020 since inception (cumulative gain of HK\$1.2bn), despite recent market volatility</p>
Public Equities	23%												
Absolute Return	22%												
Multi-Sector Fixed Income	29%												
US Government Bonds and MBS	<u>26%</u>												
	<u>100%</u>												
Internally-managed Corporate Funds	24.1	<ul style="list-style-type: none"> <li>Certain funds are set aside to comply with regulatory capital requirements of regulated entities of the Group and further funding has to be set aside for liquidity requirements of the Group and HK clearing houses to cover daily stress scenarios and operational funding of the Group's subsidiaries in the UK and PRC</li> <li>Mainly invested in medium-term and short-term deposits</li> </ul>	Generally moves in line with the prevailing deposit rates.										



# Net investment income

Funds	Fund size at 30 June 2020 (HK\$bn)	Key facts	Comments
Margin Funds - HK	94.1 (77.3 for HKCC & SEOCH)	<ul style="list-style-type: none"> <li>Income affected by the Margin Fund size (which is driven by open interest and margin requirements per contract) and also interest rates</li> <li>Mainly invested in overnight, short-term and medium-term deposits, generally below 12 months.</li> <li>Effective from September 2019, interest rebates payable for HKD margin for HKCC and SEOCH are calculated based on 0.5 x 1 month HIBOR minus 25 bps.</li> <li>For negative interest currencies such as JPY and EUR, accommodation income is collected from participants based on actual cost plus 25 bps.</li> </ul>	Income generally moves in line with the prevailing deposit rates.
Clearing House Funds - HK	9.3	<ul style="list-style-type: none"> <li>Income affected by fund size and interest rates.</li> <li>Mainly invested in very short-term deposits.</li> <li>A portion of income has to be paid to Participants.</li> </ul>	Income generally moves in line with the prevailing short-term deposit rates.
Margin Fund – LMEC	57.9	<ul style="list-style-type: none"> <li>Income affected by fund sizes.</li> <li>LMEC keeps a fixed spread on the funds.</li> <li>Accommodation income is collected from members on cash collateral where the investment return on the collateral is below the benchmarked interest rates stipulated in the clearing rules</li> </ul>	Around 17bps is kept by LMEC as most of the collateral are denominated in USD.
Default Fund – LMEC	7.6		

