

**Client Advisory - Company Note**

<b>Name</b>	<b>Hong Kong Exchanges &amp; Clearing Ltd</b>
<b>Price</b>	HKD 458 (23 <sup>rd</sup> June 2021)

**PRM Zone: 7**

<b>Business</b>	HKEX operates the sole stock market and futures market in Hong Kong along with its clearing houses. The company also owns the London Metal Exchange which it acquired in December 2012. It also operates stock connect in tie-ups with Shanghai and Shenzhen stock exchanges which provides mutual stock market access to the mainland and international investors to invest in designated securities.
<b>Key Business Drivers</b>	<ul style="list-style-type: none"> <li>- Increase in number of listed securities and introduction of newer products.</li> <li>- Average trading volume trends.</li> <li>- Growth from the stock and bond connects, and volume migration from other exchanges.</li> </ul>
<b>Multi-Act's view</b>	Stock is currently trading above our EBV high end and despite the growth in revenue and profitability due to higher market activity, presents an unfavorable risk-reward opportunity. Price at and below our EBV mid-band presents valuation comfort.

**A) Is this a good company?**

	MULTI-ACT CRITERIA	MULTI-ACT RANGE	ANALYTICS	COMMENT
1	Grade	A is best, C is worst	B+	
2	Category (Rank)	1 is best, 3 is worst	1	
3	F-Score (Latest)	0 is lowest, 9 is highest	5	Dec 2020
4	F-Score (Average)	0 is lowest, 9 is highest	5.2	Historical avg. of 20 years
5	M-Score	Frequency Distribution	(2.01)	5 years in risky area out of 21
6	Altman's Z Score	< 2.7 is risk; < 1.8 is distress	0.75	Dec 2020
7	Debt/Equity	Lower the better	0.07	Dec 2020
8	Average OP Margin	Higher the better	62.7%	Since 2013*
9	Average Return on Equity	Higher the better	22.0%	Since 2013*
10	Average RoCE	Higher the better	15.4%	Adjusted RoCE# since 2013*
11	FCF/EPS	Higher the better	99%	Since 1999
12	Cash Conversion Cycle	Lower the better	nmf	Not meaningful
13	Intrinsic Business Growth	Higher the better	10.9%	NGV Growth since 2005
14	Business Classification	Moat/ Limited Moat/Regulated Utility/Non Moat/ Advantage	Moat	Moat indicates sustainable competitive advantage

	MULTI-ACT CRITERIA	MULTI-ACT ANALYTICS/COMMENT
15	Market Share	Sole bourse in HK. LME commands ~75%+ of the global metal futures market.
16	Market Share Movement	Stable
17	Other Comments (if any)	<p>As a sole bourse in Hong Kong, all market participants willing to trade in the securities market must by default do so with the company, creating a strong network effect. Even if another company is granted a license to operate as an exchange in future, the company's existing network will continue to drive its advantage. The same network effect also extends to the acquired London Metal Exchange. LME commands a high market share of metal futures globally. Higher volume attracts more participants and more participants lead to higher volumes.</p> <p>*Full consolidation of LME was from 2013. Hence, we have considered ratios since 2013. #RoCE has been adjusted for margin money liabilities.</p>

**B) Is this a good price?**

	MULTI-ACT CRITERIA	MULTI-ACT RANGE	ANALYTICS	COMMENT
1	Business Valuation	Low end – High end	190 – 380	2021
2	Reward to Risk Ratio	Higher is better	-	RR of 3 is generally good.
3	Confidence	0 is lowest, 3 is highest	1	Conviction in valuation
4	History	Longer the better	22 years	Financials analyzed
5	Risk Based Metric	<b>P/NGV</b> (7 Yr. MA) distribution between -1 SD and +1 SD levels.	200 – 320	Stock is trading above the high end of the P/NGV band.



C) Is this a good time?

	MULTI-ACT CRITERIA	MULTI-ACT ANALYTICS/COMMENT
1	Set-up	No actionable set-up
2	Sector View	Bullish
3	Behavioral/Other	Stock has usually traded between our mid-band and high end since 2012. However, during higher market activity and bull markets (2015, 2017 and 2021), stock had moved above the high end. This could be attributed to the higher optimism in market sentiments and higher expected growth in revenues and profitability – profitability growth is usually higher led by operating leverage.

APPENDIX:

I. Technical Chart:

	MULTI-ACT CRITERIA	MULTI-ACT ANALYTICS/COMMENT
1	Technical Chart	Chart is Strong. 11 week MA has started rising again after the recent correction in stock price. The 40 week MA is still trending upwards, albeit at a slower pace.



Chart Source: Factset

II. Earnings Momentum:

	MULTI-ACT CRITERIA	MULTI-ACT ANALYTICS/COMMENT
1	Earnings Estimates Trend	Neutral
2	Earnings Surprises in last 2 quarters	Mar 21 – In-Line, Dec 20 – In-Line
3	Overall Earnings Momentum	Positive

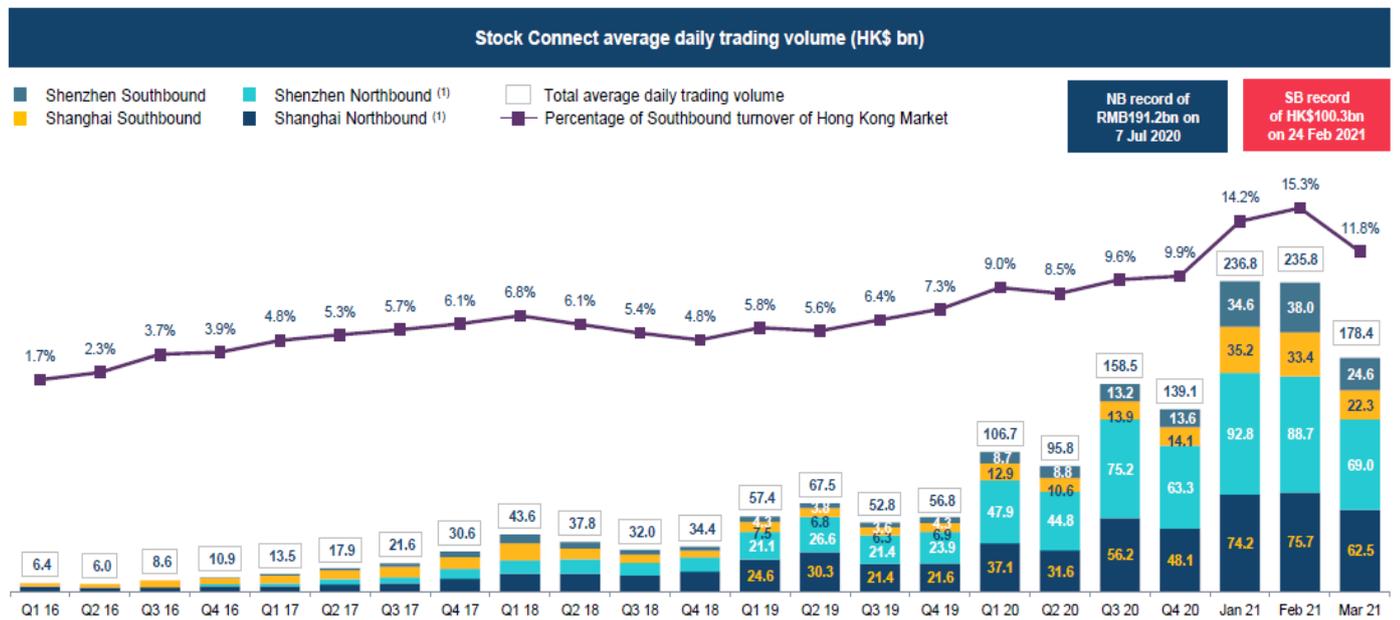
### III. Business Analysis:

#### Tailwinds

- **Higher Market Activity** – Given the higher market activity and optimism in recent quarters, the ADT/ADV for cash market, derivatives and stock connect (northbound trading) has grown rapidly in the recent quarters. This has to higher revenue growth and better margins led by operating leverage.

Key Operating Data	Jun-19	Sep-19	Dec-19	Mar-20	Jun-20	Sep-20	Dec-20	Mar-21
ADT of Equity Products (USD Bn)	75	71	69	103	100	107	111	198
YoY Change	-25.2%	-22.4%	-17.8%	39.2%	33.2%	50.8%	60.3%	91.5%
ADT of Northbound Trading (RMB Bn)	44	42	21	78	74	90	91	127
YoY Change	121.7%	114.3%	4.4%	102.6%	69.2%	114.3%	328.6%	62.6%
Average Daily Number of Trades (Nos in '000)	1,245	1,193	1,157	1,553	1,518	1,587	1,618	2,458
YoY Change	-7.1%	-6.3%	-5.5%	23.8%	21.9%	33.0%	39.8%	58.3%
Revenue YoY Change	0.7%	-6.1%	-4.2%	19.1%	6.5%	38.3%	34.7%	35.4%
Operating Margin	66.3%	63.5%	55.0%	68.0%	66.0%	69.4%	59.9%	73.2%

- **Stock/Bond Connect** – Stock Connect trades have grown rapidly in recent quarters and now accounts for ~12% of the company's total revenues.



Source: Investor Presentation Q1 2021

Company has now expanded its stock connect by including the Shanghai STAR Market (similar to NASDAQ) A-shares and their corresponding H-shares. It has also introduced more China related products in the stock and bond basket.

#### Headwinds

- **Market Volatility** – Historically, the reduction in volumes after the market optimism phase has led to decline in revenues and a higher decline in profits led by negative operating leverage. Given the current phase of market and growth, revenue and profits may be affected in the medium term.
- **Subdued volume in LME**– The commodity volumes in LME, financial users took a 'risk-off' approach given the uncertainty due to Covid. This has resulted in lower volumes post Q1 2020. However, increase in yields (led by fee increment and shift to electronic trades due to temporary closure of ring) have somewhat offset the decline in volumes.

	6M 2019	9M 2019	2019	3M 2020	6M 2020	9M 2020	2020	3M 2021
LME Chargeable ADV (lots in '000)	648	663	663	733	671	632	608	562
YoY Change	-1.6%	3.0%	5.3%	20.0%	3.5%	-4.7%	-8.3%	-23.3%

## Annexure:

- **Mix of Revenues:** Cash market and derivatives market account for ~26% and ~18% of the revenues respectively. The clearing business contributes ~37% of the revenue while LME contributes ~8-10% of the revenues.

Particulars	2013	2014	2015	2016	2017	2018	2019	2020	Average
Cash Market	28.1%	28.0%	25.7%	24.1%	25.5%	24.3%	22.4%	26.0%	25.5%
Derivatives Market	19.1%	16.9%	16.3%	18.3%	16.7%	22.1%	18.3%	16.9%	18.1%
Clearing Business	32.7%	35.6%	37.4%	37.2%	36.6%	38.9%	38.2%	39.8%	37.0%
Information Services/Platform and Infrastructure	4.0%	4.7%	3.7%	4.9%	4.2%	4.3%	4.9%	4.7%	4.4%
Commodity (LME)	13.9%	12.9%	13.0%	14.0%	10.9%	8.9%	8.6%	7.6%	11.2%
Corporate	2.2%	1.8%	3.9%	1.4%	6.1%	1.6%	7.7%	5.0%	3.7%
<b>Total</b>	<b>100.0%</b>								

- **Volatile Growth (Cyclicality):** Revenue growth is dependent mainly on market activity and thus, experiences cyclicality.

Growth - YoY	2013	2014	2015	2016	2017	2018	2019	2020
Cash Market	11.4%	12.5%	24.4%	-21.9%	25.3%	14.6%	-5.4%	36.9%
Derivatives Market	3.9%	0.2%	30.8%	-6.7%	7.9%	59.6%	-14.7%	8.5%
Clearing Business	7.1%	22.7%	42.8%	-17.3%	16.6%	27.8%	0.9%	22.7%
Information Services/Platform and Infrastructure	-2.0%	34.0%	7.3%	8.2%	3.7%	21.1%	17.4%	14.3%
Commodity (LME)	n/m	5.3%	36.2%	-10.1%	-7.9%	-1.5%	-1.1%	3.9%
Corporate	-38.1%	-6.7%	191.7%	-69.3%	397.5%	-69.0%	406.5%	-23.8%
<b>Total</b>	<b>21.0%</b>	<b>12.9%</b>	<b>35.8%</b>	<b>-16.9%</b>	<b>18.6%</b>	<b>20.4%</b>	<b>2.8%</b>	<b>17.7%</b>

By the nature of revenue, trading fees and clearing & settlement fees (together account for ~2/3<sup>rd</sup> of the revenues) are highly dependent on market activity. The remaining 1/3<sup>rd</sup> is contributed mainly from listing fees, market data fees and depository charges and these have more consistency than the trading and settlement fees.

Segmental Sales as a percentage of the total	2013	2014	2015	2016	2017	2018	2019	2020
Trading Fees & Trading Tariff	43.2%	41.2%	44.7%	42.6%	42.0%	44.5%	41.2%	41.3%
Stock Exchange Listing Fees	12.5%	12.1%	9.1%	10.5%	11.5%	12.1%	12.0%	11.3%
Clearing & Settlement Fees	20.1%	21.9%	25.5%	22.7%	23.3%	23.0%	23.3%	25.9%
Depository, Custody & Nominee Services Fees	7.7%	7.9%	7.1%	8.2%	7.7%	6.9%	7.8%	7.5%
Market Data Fees	9.1%	8.4%	6.6%	7.8%	7.4%	6.3%	6.8%	5.7%
Other Revenue	7.5%	8.5%	7.0%	8.1%	8.2%	7.2%	8.9%	8.3%
<b>Total</b>	<b>100.0%</b>							

- **Margins:** LME has lower margins at ~50% compared to ~80% and more for the other key segments.

Reported EBITDA margin	2013	2014	2015	2016	2017	2018	2019	2020
Cash Market	82.0%	83.0%	85.0%	80.0%	83.0%	85.0%	83.0%	88.0%
Derivatives Market	75.0%	76.0%	80.0%	78.0%	78.0%	84.0%	82.0%	81.0%
Clearing Business	85.0%	83.0%	86.0%	83.0%	84.0%	87.0%	87.0%	89.0%
Information Services/Platform and Infrastructure	61.0%	67.0%	70.0%	72.0%	73.0%	75.0%	69.0%	67.0%
Commodity (LME)	58.0%	55.0%	69.0%	62.0%	54.0%	49.0%	52.0%	52.0%
<b>Total</b>	<b>68.0%</b>	<b>70.0%</b>	<b>75.0%</b>	<b>69.0%</b>	<b>73.0%</b>	<b>74.0%</b>	<b>75.0%</b>	<b>77.0%</b>

## Analysis of the Business Segments:

- **Cash Market:** Revenue for this segment is highly correlated to the trend in Average Daily Turnover (ADT) of cash market as shown below:

	2013	2014	2015	2016	2017	2018	2019	2020
Average Daily Turnover (Bn)	62.5	69.5	105.6	66.9	88.2	107.4	87.2	129.5
% Increase	16%	11%	52%	-37%	32%	22%	-19%	49%
YoY Growth in Cash Segment	11%	12%	24%	-22%	25%	15%	-5%	37%

- Derivatives Market:** Revenue for this segment is dependent on the average daily contracts of futures and options traded. There is correlation between the growth in the volumes and revenue growth but it is not very high. This might be due to a number of factors including, mix of contracts, yield on contract, and contribution from relatively stable nature of revenues like market data fees, listing fees, etc.

	2013	2014	2015	2016	2017	2018	2019	2020
Average daily number of derivatives contracts traded on the Futures Exchange	283,610	274,879	394,174	463,841	441,320	686,602	624,000	606,000
% Increase	9%	-3%	43%	18%	-5%	56%	-9%	-3%
Average daily number of stock options contracts traded on the Stock Exchange	249,295	301,797	374,346	297,903	428,499	517,395	442,000	526,000
% Increase	9%	21%	24%	-20%	44%	21%	-15%	19%
YoY Growth in Derivatives Segment	4%	0%	31%	-7%	8%	60%	-15%	8%

- LME (Commodity):** Revenue is dependent on the ADV trend however, due to change in pricing (higher growth in 2015 led by increase in pricing), mix, etc. the correlation is not very high between the ADV and revenue growth.

ADV of LME Metal Contracts (Lots)	2013	2014	2015	2016	2017	2018	2019	2020
Aluminium	na	272,015	247,198	221,671	217,412	272,016	236,000	237,000
Copper	na	161,403	162,247	153,121	141,602	159,386	131,000	128,000
Zinc	na	51,756	118,723	111,161	123,037	135,743	109,000	90,000
Nickel	na	76,533	81,817	81,779	87,279	97,332	89,000	67,000
Lead	na	125,846	51,271	43,227	44,136	53,949	42,000	42,000
Ferrous	na			228	1,476	2,131	n.a	n.a
Others	na	12,651	8,933	7,440	9,538	9,941	10,000	7,000
Total	676,283	700,204	670,189	618,627	624,480	730,498	617,000	571,000
Add: Chargeable Admin Trades	-	-	-	-	-	-	46,000	37,000
Less: Admin Trades	-	-	-	-	(23,413)	(100,942)	na	na
<b>Chargeable ADV</b>	<b>676,283</b>	<b>700,204</b>	<b>670,189</b>	<b>618,627</b>	<b>601,067</b>	<b>629,556</b>	<b>663,000</b>	<b>608,000</b>
YoY Change	na	3.5%	-4.3%	-7.7%	-2.8%	4.7%	5.3%	-8.3%
YoY Growth in LME Segment	na	5.3%	36.2%	-10.1%	-7.9%	-1.5%	-1.1%	3.9%

Note: (1) Admin Trades were introduced in 2017 to meet requirements resulting from MiFID II. These trades were not chargeable prior to 1 May 2019, but some of became chargeable at US\$0.04 per contract thereafter. (2) Till 2018, admin trades were included in the category wise trades (aluminum, copper, etc.), but post 2019, the chargeable admin trades have been added at once in below.

- Clearing Segment:** It refers to the operations of the clearing houses, which are responsible for clearing, settlement and custodian activities of the exchanges of the Group and Northbound trades under Stock Connect, and clearing and settlement of over-the-counter derivatives contracts. Revenue growth for this segment is thus dependent on the trade trends of the other segments – Cash, Derivatives and LME.
- Stock and Bond Connect:** Company initially set up a cross border trade link with Shanghai Stock Exchange as the Shanghai-Hong Kong Stock Connect in November, 2014. This was set up as a mechanism to provide mutual stock market access to the mainland and international investors to invest in designated securities. This only encompassed secondary market trading, primary market activities, such as IPOs were not supported.

On the same lines, another trade link was set up between the Shenzhen Stock Exchange (SZSE) and HKSE in Dec 2016 as the Shenzhen - Hong Kong Stock Connect and a Bond Connect was launched in July 2017 allowing international investors the access to the China Interbank Bond Market (CIBM) via Hong Kong.

Given that there are a number of restrictions imposed on international investors who intend to invest in the mainland markets & vice versa. Accessing the market through these Stock/Bond Connects relaxes these restrictions while also enabling them to invest in mainland securities without being exposed to fluctuations in RMB since these stocks are denominated in HKD. These benefits make the Hong Kong route a default for international investors wanting to invest in mainland China. This advantage which now primarily arises out of regulatory & other reasons could over time lead to creation of a strong network effect for those operations.



## Glossary of Technical Analysis:

	MULTI-ACT CRITERIA	MULTI-ACT ANALYTICS/COMMENT
1	Set-up 1	Technical Chart is favorable and stock is near valuation low end. It represents as Buy indicator.
2	Set-up 2	Technical Chart is unfavorable and stock is near valuation high end. It represents as Sell indicator.
3	Set-up 3	Looks oversold on technical chart. It represents a short term, but weak buy indicator. Generally works well with good quality companies.
4	Set-up 4	Looks overbought / stretched on technical chart. It represents a short term, but weak sell indicator.
5	Strong stock	40 WMA is moving up and no contrary signal by 11 WMA.
6	Weak stock	40 WMA is moving down and no contrary signal by 11 WMA.
7	WMA	Weekly Moving Average
8	PRM Zone	Prospective Return Zone: Indicative direction of the stock return. PRM 1 is most favorable. PRM 10 is least favorable.
9	NGV	No Growth Value.

## Statutory Details: -

### Multi-Act Trade and Investments Private Limited

(SEBI Registered Investment Advisor - Registration No. INA000008589)

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##### General risk factors

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