

Singapore Exchange Limited

Treasury income surge to record high

SINGAPORE | FINANCE | 2H23 RESULTS

- FY23 revenue of S\$1,194mn met our estimates, at 101% of FY23e, while adjusted PATMI of S\$503mn was above our estimates, at 105% of FY23e. Variance came from higher-than-expected treasury income offset by lower listing revenue. FY23 DPS increased to 32.5 cents (FY22: 32 cents).
- Treasury income surged 177% YoY to S\$137mn for FY23 and reached a record high, mainly due to higher yield on margin balances from the higher interest rate environment.
- FICC grew 32% YoY, led by continued growth in commodity and currency derivatives volumes, higher OTC FX revenue and higher treasury income. Equities revenue was flat as higher treasury income was offset by lower trading and clearing, and listing revenue.
- We maintain BUY with an unchanged target price of \$\$11.71. Our target price is pegged to +1SD of its 5-year mean or 20x P/E. Catalysts include continued growth from derivatives volumes and fees and continued growth in treasury income as the higher interest rates start to kick in.

Results at a glance

(SGD mn)	2H23	2H22	YoY	Comments
Fixed Income, Currencies & Commodities (FICC)	183.9	138.8	32%	Growth mainly due to continued growth in commodity and currency derivatives volumes, higher OTC FX revenue, and higher treasury income offset by lower listing and corporate actions revenue.
Equities - Cash & Derivatives	364.5	364.4	0%	Equities - Derivatives trading and clearing revenue flat while treasury income surged which offset lower Equities - Cash trading and clearing revenue and lower listing revenue.
Data, Connectivity & Indices (DCI)	74.6	74.3	0%	Growth was flat as higher connectivity revenue due to upselling of connectivity services and introduction of new GIFT Connect services was offset by lower market data and indicies revenue from lower index business.
Total Revenue	623.0	577.5	8%	
OPEX	(269.2)	(249.3)	8%	Increase mainly from mainly from higher staff costs, technology expenses and royalties. Additional six months of expenses from MaxxTrader contributed 2.2% points to full year FY23 OPEX growth.
Operating profit	305.5	277.9	10%	
Net profit	285.9	232.9	23%	
Normalised net profit	266.4	234.6	14%	
Source: Company, PSR				

The Positives

+ Treasury income surges to record levels. Treasury and other income surged 141% YoY to S\$111mn in 2H23 mainly due to higher interest earned from customer collateral balances. 2H23 treasury income on collateral balances held in trust was reported at S\$90mn, which surged 221% YoY from 2H22's treasury income of S\$28mn. Notably, full-year FY23's treasury income of S\$137mn contributed 20% to PBT and reached a record level, surpassing the previous high of FY20's treasury income of S\$135mn.



StocksBnB.com

21 August 2023

BUY (Maintained)	
AST DONE PRICE	SGD 9.55
FORECAST DIV	SGD 0.34
TARGET PRICE	SGD 11.71
TOTAL RETURN	26.2%

COMPANY DATA

BLOOM BERG TICKER	SGX SP
O/S SHARES (MN) :	1,068
MARKET CAP (USD mn / SGD mn) :	7517/10199
52 - WK HI/LO (SGD) :	10.03 / 8.16
3M Average Daily T/O (mn) :	1.74

MAJOR SHAREHOLDERS (%)

SEL Holdings Pte Ltd	23.4%

PRICE PERFORMANCE (%)

	1MTH	3MTH	1YR
COMPANY	1.1	3.7	(0.2)
STTF RETURN	0.1	2.5	2.7

PRICE VS. STTF



Source: Bloomberg, PSR

KEY FINANCIALS

Y/E June	FY22	FY23	FY24e	FY25e
Revenue (SGD mn)	1,099	1,194	1,319	1,343
EBITDA (SGD mn)	634	688	756	770
NPAT (SGD mn)	452	571	597	622
EPS (Cents)	42.2	53.4	57.2	61.1
PER, (X)	22.6	17.9	16.7	15.6
P/BV, (X)	7.4	6.6	6.0	5.3
DPS (Cents)	32.0	32.5	34.0	34.0
Div Yield	3.4%	3.4%	3.6%	3.6%
ROE	30.7%	35.1%	33.8%	31.4%

Source: Bloomberg, Company, PSR

Valuation Method P/E Multiple @20x

Glenn Thum (+65 6212 1851) Senior Research Analyst

glennthumjc@phillip.com.sg



+ Higher fees from FTSE China A50 and Nifty 50 contracts. Despite equity derivatives volumes dipping 17% YoY in 2H23, Equities - Derivatives trading and clearing revenue only fell 10% YoY, as the lower volumes were offset by higher average fees from SGX Nifty 50 Index futures and SGX FTSE China A50 Index futures contracts. Average fee per contract for Equity, Currency and Commodity derivatives was higher at \$1.61 in FY23 (FY22: \$1.51) from an increase in higher fee-paying customers for SGX FTSE China A50 Index futures and Nifty 50 Index futures, coupled with strong volume growth in Iron Ore.

+ FICC – Currency and commodities continue growth. FICC - Currency and commodities trading and clearing revenue - rose 19% YoY to S\$118mn in 2H23, as volumes increased in commodity and currency derivatives, primarily from iron ore futures (up 37% YoY in 2H23) and USD/CNH FX futures; as well as higher contribution from OTC FX. SGX's OTC FX business (BidFX, MaxxTrader and Electronic Communication Network (ECN)) average daily volume grew 7.3% YoY to US\$75.8bn with a target of US\$100bn by FY25, and contributed S\$39.2mn, or 6%, to 2H23 revenue. SGX said that it is on track to reach its ADV target of US\$100bn as clients settle into the new platform.

The Negatives

- Listing revenue continues to dip. FICC - Fixed Income revenue - fell 28% YoY in 2H23 dragged down by lower listing revenue. There were 469 bond listings raising S\$139bn in 2H23 (2H22: 687 bond listings raised S\$220bn). On Cash equities, revenue was 12% lower YoY in 2H23 mainly due to listing revenue declining 9% YoY and trading and clearing revenue falling 21% YoY as daily average traded value, total traded value and overall average clearing fees fell. Overall, equities revenue accounted for 59% (2H22: 63%) of revenue and was flat YoY at \$\$365mn in 2H23, as the growth in Equities – Derivatives revenue pulled up the decline in the Equities – Cash business.

- Data, Connectivity and Indices (DCI) business growth flat. DCI revenue accounted for 12% (2H22: 13%) of total revenue and was flat YoY at S\$75mn in 2H23. Market data and indices revenue dipped 4% YoY, mainly due to lower revenue from the index business. Nonetheless, this was offset by an increase of 5% YoY in connectivity revenue mainly due to the upselling of connectivity services to existing clients and the introduction of new GIFT Connect-related co-location and network services.

Outlook

Continued development of multi-assets to anchor long-term growth. SGX remains committed to expanding its suite of products through strategic partnerships and new product development for newly acquired businesses.

Investing for the medium term. SGX has guided for a FY24 expenses growth of mid-single digit from FY23 as they expect FY24 expenses to grow at a slower pace as compared to FY22 and FY23. The higher expenses are mainly from the buildout of their OTC FX business and higher staff costs from salary increments. With that, SGX expects medium-term expense guidance to remain at mid-single digit growth. CAPEX is expected to be higher in FY24 (\$\$75-80mn) as \$\$8mn of CAPEX planned in FY23 was deferred to FY24; the planned CAPEX is to support the growth of their OTC FX business, enhance system architecture and consolidate office spaces.

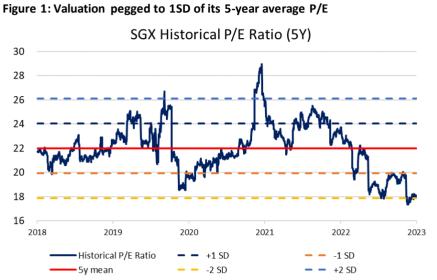
Rising interest rates. Apart from the banks, SGX is another beneficiary of higher interest rates, and treasury income is expected to continue growing with rising interest rates. As at FY23, SGX reported an average S\$12.6bn float from collateral and S\$137mn of interest income, which represents 20% of FY23 profit before tax. In comparison with the previous record high treasury income in FY20, SGX reported interest income of S\$135mn and earned a yield of 101bps (FY23: 109bps) on collateral balances when the Fed fund rate peaked at 2.50%. We believe there is a huge upside in their treasury income with the potential to further increase with the current high interest rate environment.

SINGAPORE EXCHANGE LIMITED RESULTS



Investment Actions

Maintain a BUY with an unchanged target price of \$\$11.71. Our target price is pegged to +1SD of its 5-year mean or 20x P/E (Figure 1). Catalysts include continued growth from derivatives volumes and fees, and higher treasury income as the higher interest rates start to kick in.



Source: Bloomberg, PSR



Financials

Income Statement

Y/E Jun, SGD mn	FY21	FY22	FY23	FY24e	FY25e
Operating revenue	1,056	1,099	1,194	1,319	1,343
Operating expenses	(431)	(465)	(507)	(562)	(573)
EBITDA	625	634	688	756	770
Depreciation & amortisation	(95)	(97)	(98)	(111)	(111)
Operating profit	531	537	590	645	659
Other gains/(losses)	10	18	100	76	96
Associates & JVs	(4)	(11)	(16)	(13)	(16)
Profit before tax	536	545	674	708	738
Тах	(91)	(93)	(103)	(111)	(116)
Net profit after tax	446	452	571	597	622
Profit attributable to shareholders	446	451	571	611	636

Y/E Jun, SGD mn	FY21	FY22	FY23	FY24e	FY25
ASSETS					
PPE	50	34	41	41	4
Software	166	166	152	184	22
Intangible assets	122	118	92	92	9
Goodwill	541	708	703	703	70
Others	293	669	614	614	61
Total non-current assets	1,173	1,695	1,602	1,635	1,67
Accounts receivables	749	1,061	1,111	1,016	1,03
Cash	1,000	938	993	1,090	1,34
Securities clearing funds	60	60	40	40	4
Others	41	94	35	35	3
Total current assets	1,850	2,153	2,179	2,181	2,44
Total Assets	3,023	3,848	3,781	3,815	4,12
LIABILITIES					
Accounts payables	868	1,262	1,137	1,092	1,00
Short term loans	0	0	0	0	
Others	138	180	502	502	50
Total current liabilities	1,006	1,442	1,638	1,594	1,50
Lease liabilities	51	31	15	15	1
Long term loans	-	-	-	-	-
Others	576	826	425	425	42
Total non-current liabilities	627	857	439	439	43
Total Liabilities	1,633	2,299	2,078	2,033	1,94
<u>EQUITY</u>					
Non-controlling interests	5	5	3	3	3
Shareholder Equity	1,390	1,549	1,704	1,908	2,137
Valuation Ratios					
Valuation Ratios					
Y/E Jun	FY21	FY22	FY23	FY24e	FY25
-	FY21	FY22	FY23	FY24e	
P/E (X), adj.	22.9	22.6	17.9	16.7	FY25 15.6
Р/Е (X), adj. Р/В (X)	22.9 8.2	22.6 7.4	17.9 6.6	16.7 6.0	15.6 5.3
P/E (X), adj. P/B (X) EV/EBITDA (X), adj.	22.9	22.6	17.9	16.7 6.0 11.6	15.6 5.3 11.3
P/E (X), adj. P/B (X) EV/EBITDA (X), adj. Dividend Yield	22.9 8.2 16.3	22.6 7.4 13.8	17.9 6.6 12.7	16.7 6.0	15.6 5.3 11.3
P/E (X), adj. P/B (X) EV/EBITDA (X), adj. Dividend Yield Growth & Margins	22.9 8.2 16.3	22.6 7.4 13.8	17.9 6.6 12.7	16.7 6.0 11.6	15.6 5.3 11.3
P/E (X), adj. P/B (X) EV/EBITDA (X), adj. Dividend Yield Growth & Margins Growth	22.9 8.2 16.3	22.6 7.4 13.8	17.9 6.6 12.7	16.7 6.0 11.6	15.6 5.3 11.3 3.69
P/E (X), adj. P/B (X) EV/EBITDA (X), adj. Dividend Yield Growth & Margins Growth Revenue	22.9 8.2 16.3 3.4%	22.6 7.4 13.8 3.4%	17.9 6.6 12.7 3.4%	16.7 6.0 11.6 3.6%	15.6 5.3 11.3 3.69
P/E (X), adj. P/B (X) EV/EBITDA (X), adj. Dividend Yield Growth & Margins Growth Revenue EBITDA	22.9 8.2 16.3 3.4%	22.6 7.4 13.8 3.4%	17.9 6.6 12.7 3.4% 8.7%	16.7 6.0 11.6 3.6%	15.6 5.3 11.3 3.69 1.89
Y/E Jun P/E (X), adj. P/B (X) EV/EBITDA (X), adj. Dividend Yield Growth & Margins Growth Revenue EBITDA EBIT Net profit, adj.	22.9 8.2 16.3 3.4% 0.3% -4.6%	22.6 7.4 13.8 3.4% 4.1% 1.4%	17.9 6.6 12.7 3.4% 8.7% 8.5%	16.7 6.0 11.6 3.6% 10.4% 10.0%	15.6
P/E (X), adj. P/E (X) EV/EBITDA (X), adj. Dividend Yield Growth & Margins Growth Revenue EBITDA EBIT Net profit, adj.	22.9 8.2 16.3 3.4% 0.3% -4.6% -6.2%	22.6 7.4 13.8 3.4% 4.1% 1.4% 1.3%	17.9 6.6 12.7 3.4% 8.7% 8.5% 9.7%	16.7 6.0 11.6 3.6% 10.4% 10.0% 9.4%	15.6 5.3 11.3 3.69 1.89 1.89 2.19
P/E (X), adj. P/B (X) EV/EBITDA (X), adj. Dividend Yield Growth & Margins Growth Revenue EBITDA EBIT Net profit, adj. Margins	22.9 8.2 16.3 3.4% 0.3% -4.6% -6.2%	22.6 7.4 13.8 3.4% 4.1% 1.4% 1.3%	17.9 6.6 12.7 3.4% 8.7% 8.5% 9.7%	16.7 6.0 11.6 3.6% 10.4% 10.0% 9.4%	15.6 5.3 11.3 3.69 1.89 1.89 2.19
P/E (X), adj. P/B (X) EV/EBITDA (X), adj. Dividend Yield Growth & Margins Growth Revenue EBITDA EBIT	22.9 8.2 16.3 3.4% 0.3% -4.6% -6.2% -5.6%	22.6 7.4 13.8 3.4% 4.1% 1.4% 1.3%	17.9 6.6 12.7 3.4% 8.7% 8.5% 9.7% 26.5%	16.7 6.0 11.6 3.6% 10.4% 10.0% 9.4% 7.0%	15.6 5.3 11.3 3.69 1.89 2.19 4.19
P/E (X), adj. P/E (X) EV/EBITDA (X), adj. Dividend Yield Growth & Margins Growth Revenue EBITDA EBIT Net profit, adj. Margins EBITDA margin	22.9 8.2 16.3 3.4% 0.3% -4.6% -6.2% -5.6% 62.3%	22.6 7.4 13.8 3.4% 4.1% 1.4% 1.3% 1.3% 59.2%	17.9 6.6 12.7 3.4% 8.7% 8.5% 9.7% 26.5% 57.7%	16.7 6.0 11.6 3.6% 10.4% 10.0% 9.4% 7.0% 57.6%	15.6 5.3 11.3 3.69 1.89 2.19 4.19 57.49 49.19
P/E (X), adj. P/E (X) EV/EBITDA (X), adj. Dividend Yield Growth & Margins Growth Revenue EBITDA EBIT Net profit, adj. Margins EBITDA margin EBIT margin	22.9 8.2 16.3 3.4% 0.3% -4.6% -6.2% -5.6% 62.3% 50.3%	22.6 7.4 13.8 3.4% 4.1% 1.4% 1.3% 1.3% 59.2% 48.9%	17.9 6.6 12.7 3.4% 8.7% 8.5% 9.7% 26.5% 57.7% 49.4%	16.7 6.0 11.6 3.6% 10.4% 10.0% 9.4% 7.0% 57.6% 48.9%	15.6 5.3 11.3 3.69 1.89 1.89 2.19 4.19 57.49
P/E (X), adj. P/E (X) EV/EBITDA (X), adj. Dividend Yield Growth & Margins Growth Revenue EBITDA EBIT Net profit, adj. Margins EBITDA margin EBIT margin Net profit margin	22.9 8.2 16.3 3.4% 0.3% -4.6% -6.2% -5.6% 62.3% 50.3%	22.6 7.4 13.8 3.4% 4.1% 1.4% 1.3% 1.3% 59.2% 48.9%	17.9 6.6 12.7 3.4% 8.7% 8.5% 9.7% 26.5% 57.7% 49.4%	16.7 6.0 11.6 3.6% 10.4% 10.0% 9.4% 7.0% 57.6% 48.9%	15.6 5.3 11.3 3.69 1.89 2.19 4.19 57.49 49.19

Net Cash Net Cash Net Cash Net Cash Net Cash

Net Gearing (X)

Per share data (SGD Cents)					
Y/E Jun	FY21	FY22	FY23	FY24e	FY25e
EPS, reported	42	42	53	57	61
DPS	32	32	33	34	34
BVPS	117	130	145	159	179
Payout ratio	77%	76%	61%	59%	56%

Cash Flow

Y/E Jun, SGD mn	FY21	FY22	FY23	FY24e	FY25e
<u>CFO</u>					
Profit before tax and Assoc.&JV	541	555	689	735	768
Depreciation & Amortisation	95	97	98	111	111
WC changes	35	60	(138)	39	(107)
Others	17	20	8	17	17
Cash generated from ops	687	732	657	901	789
Tax paid	(109)	(99)	(99)	(112)	(117)
Cashflow from ops	577	633	559	789	672
<u>CFI</u>					
CAPEX, net	(45)	(44)	(54)	(74)	(80)
Others	(46)	(17)	(8)	0	0
Cashflow from investments	(91)	(61)	(62)	(74)	(80)
CFF					
Loans, net of repayments	184	0	0	0	0
Dividends	(342)	(342)	(344)	(363)	(363)
Others	(438)	(101)	(89)	0	0
Cashflow from financing	(596)	(443)	(433)	(363)	(363)
Net change in cash	(110)	128	63	352	229
CCE, end	833	752	777	874	1076

Source: Company, Phillip Securities Research (Singapore) Estimates

SINGAPORE EXCHANGE LIMITED RESULTS





return bands. We consider qualitative factors like (but not limited to) a stock's risk reward profile, market sentiment, recent rate of share price appreciation, presence or absence of stock price catalysts, and speculative undertones surrounding the stock, before making our final recommendation

SINGAPORE EXCHANGE LIMITED RESULTS

PhillipCapital

Head of Research

Paul Chew – paulchewkl@phillip.com.sg

Technical Analyst Zane Aw – <u>zaneawyx@phillip.com.sg</u>

Credit Analyst Shawn Sng - <u>shawnsngkh@phillip.com.sg</u>

US Technology Analyst (Hardware & Marketplaces) Maximilian Koeswoyo – maximilian@phillip.com.sg

SINGAPORE Phillip Securities Pte Ltd

Raffles City Tower 250, North Bridge Road #06-00 Singapore 179101 Tel +65 6533 6001 Fax +65 6535 6631 Website: www.poems.com.sg

JAPAN

Phillip Securities Japan, Ltd. 4-2 Nihonbashi Kabuto-cho Chuo-ku, Tokyo 103-0026 Tel +81-3 3666 2101 Fax +81-3 3666 6090 Website: www.phillip.co.jp

THAILAND

Phillip Securities (Thailand) Public Co. Ltd 15th Floor, Vorawat Building, 849 Silom Road, Silom, Bangrak, Bangkok 10500 Thailand Tel +66-2 6351700 / 22680999 Fax +66-2 22680921 Website www.phillip.co.th

UNITED STATES

Phillip Capital Inc 141 W Jackson Blvd Ste 3050 The Chicago Board of Trade Building Chicago, IL 60604 USA Tel +1-312 356 9000 Fax +1-312 356 9005 Website: www.phillipusa.com

INDIA

PhillipCapital (India) Private Limited No.1, 18th Floor, Urmi Estate 95, Ganpatrao Kadam Marg Lower Parel West, Mumbai 400-013 Maharashtra, India Tel: +91-22-2300 2999 / Fax: +91-22-2300 2969 Website: www.phillipcapital.in Property | REITs Darren Chan – <u>darrenchanrx@phillip.com.sg</u>

Contact Information (Research Team)

Property | REITs Liu Miaomiao – liumm@phillip.com.sg

US Technology Analyst (Digital Media & Entertainment) Jonathan Woo – jonathanwookj@phillip.com.sg

Contact Information (Regional Member Companies) MALAYSIA Phillip Capital Management Sdn Bhd

B-3-6 Block B Level 3 Megan Avenue II, No. 12, Jalan Yap Kwan Seng, 50450 Kuala Lumpur Tel +603 2162 8841 Fax +603 2166 5099 Website: <u>www.poems.com.my</u>

> INDONESIA PT Phillip Securities Indonesia ANZ Tower Level 23B, Jl Jend Sudirman Kav 33A Jakarta 10220 – Indonesia Tel +62-21 5790 0800 Fax +62-21 5790 0809 Website: www.phillip.co.id

FRANCE King & Shaxson Capital Limited 3rd Floor, 35 Rue de la Bienfaisance 75008 Paris France

Tel +33-1 45633100 Fax +33-1 45636017 Website: <u>www.kingandshaxson.com</u>

AUSTRALIA

Phillip Capital Limited Level 10, 330 Collins Street Melbourne, Victoria 3000, Australia Tel +61-03 8633 9803 Fax +61-03 8633 9899 Website: www.phillipcapital.com.au

TURKEY PhillipCapital Menkul Degerler Dr. Cemil Bengü Cad. Hak Is Merkezi No. 2 Kat. 6A Caglayan 34403 Istanbul, Turkey Tel: 0212 296 84 84 Fax: 0212 233 69 29 Website: www.phillipcapital.com.tr

Research Admin Qystina Azli - <u>gystina@phillip.com.sg</u>

Banking & Finance Glenn Thum – <u>glennthumjc@phillip.com.sg</u>

Conglomerate | Transport Peggy Mak – peggymak@phillip.com.sg

US Technology Analyst (Software/Services) Ambrish Shah – <u>amshah@phillipcapital.in</u>

HONG KONG

Phillip Securities (HK) Ltd 11/F United Centre 95 Queensway Hong Kong Tel +852 2277 6600 Fax +852 2868 5307 Websites: www.phillip.com.hk

CHINA

Phillip Financial Advisory (Shanghai) Co Ltd No 550 Yan An East Road, Ocean Tower Unit 2318, Postal code 200001 Tel +86-21 5169 9200 Fax +86-21 6351 2940 Website: www.phillip.com.cn

UNITED KINGDOM

King & Shaxson Capital Limited 6th Floor, Candlewick House, 120 Cannon Street, London, EC4N 6AS Tel +44-20 7426 5950 Fax +44-20 7626 1757 Website: www.kingandshaxson.com

CAMBODIA Phillip Bank Plc

Ground Floor of B-Office Centre,#61-64, Norodom Blvd Corner Street 306,Sangkat Boeung Keng Kang 1, Khan Chamkamorn, Phnom Penh, Cambodia Tel: 855 (0) 7796 6151/855 (0) 1620 0769 Website: www.phillipbank.com.kh

DUBAI

Phillip Futures DMCC Member of the Dubai Gold and Commodities Exchange (DGCX) Unit No 601, Plot No 58, White Crown Bldg, Sheikh Zayed Road, P.O.Box 212291 Dubai-UAE Tel: +971-4-3325052 / Fax: + 971-4-3328895



Important Information

This report is prepared and/or distributed by Phillip Securities Research Pte Ltd ("Phillip Securities Research"), which is a holder of a financial adviser's license under the Financial Advisers Act, Chapter 110 in Singapore.

By receiving or reading this report, you agree to be bound by the terms and limitations set out below. Any failure to comply with these terms and limitations may constitute a violation of law. This report has been provided to you for personal use only and shall not be reproduced, distributed or published by you in whole or in part, for any purpose. If you have received this report by mistake, please delete or destroy it, and notify the sender immediately.

The information and any analysis, forecasts, projections, expectations and opinions (collectively, the "Research") contained in this report has been obtained from public sources which Phillip Securities Research believes to be reliable. However, Phillip Securities Research does not make any representation or warranty, express or implied that such information or Research is accurate, complete or appropriate or should be relied upon as such. Any such information or Research contained in this report is subject to change, and Phillip Securities Research shall not have any responsibility to maintain or update the information or Research made available or to supply any corrections, updates or releases in connection therewith.

Any opinions, forecasts, assumptions, estimates, valuations and prices contained in this report are as of the date indicated and are subject to change at any time without prior notice. Past performance of any product referred to in this report is not indicative of future results.

This report does not constitute, and should not be used as a substitute for, tax, legal or investment advice. This report should not be relied upon exclusively or as authoritative, without further being subject to the recipient's own independent verification and exercise of judgment. The fact that this report has been made available constitutes neither a recommendation to enter into a particular transaction, nor a representation that any product described in this report is suitable or appropriate for the recipient. Recipients should be aware that many of the products, which may be described in this report involve significant risks and may not be suitable for all investors, and that any decision to enter into transactions involving such products should not be made, unless all such risks are understood and an independent determination has been made that such transactions would be appropriate. Any discussion of the risks contained herein with respect to any product should not be considered to be a disclosure of all risks or a complete discussion of such risks.

Nothing in this report shall be construed to be an offer or solicitation for the purchase or sale of any product. Any decision to purchase any product mentioned in this report should take into account existing public information, including any registered prospectus in respect of such product.

Phillip Securities Research, or persons associated with or connected to Phillip Securities Research, including but not limited to its officers, directors, employees or persons involved in the issuance of this report, may provide an array of financial services to a large number of corporations in Singapore and worldwide, including but not limited to commercial / investment banking activities (including sponsorship, financial advisory or underwriting activities), brokerage or securities trading activities. Phillip Securities Research, or persons associated with or connected to Phillip Securities Research, including but not limited to its officers, directors, employees or persons involved in the issuance of this report, may have participated in or invested in transactions with the issuer(s) of the securities mentioned in this report, and may have performed services for or solicited business from such issuers. Additionally, Phillip Securities Research, or persons associated with or connected to Phillip Securities Research, or persons associated with or connected to Phillip Securities Research, or persons associated with or connected to Phillip Securities Research, or persons associated with or connected to Phillip Securities Research, or persons associated with or connected to Phillip Securities Research, including but not limited to its officers, directors, employees or persons involved in the issuance of this report, may have provided advice or investment services to such companies and investments or related investments, as may be mentioned in this report.

Phillip Securities Research or persons associated with or connected to Phillip Securities Research, including but not limited to its officers, directors, employees or persons involved in the issuance of this report may, from time to time maintain a long or short position in securities referred to herein, or in related futures or options, purchase or sell, make a market in, or engage in any other transaction involving such securities, and earn brokerage or other compensation in respect of the foregoing. Investments will be denominated in various currencies including US dollars and Euro and thus will be subject to any fluctuation in exchange rates between US dollars and Euro or foreign currencies and the currency of your own jurisdiction. Such fluctuations may have an adverse effect on the value, price or income return of the investment.

To the extent permitted by law, Phillip Securities Research, or persons associated with or connected to Phillip Securities Research, including but not limited to its officers, directors, employees or persons involved in the issuance of this report, may at any time engage in any of the above activities as set out above or otherwise hold an interest, whether material or not, in respect of companies and investments or related investments, which may be mentioned in this report. Accordingly, information may be available to Phillip Securities Research, or persons associated with or connected to Phillip Securities Research, including but not limited to its officers, directors, employees or persons involved in the issuance of this report, which is not reflected in this report, and Phillip Securities Research, or persons associated with or connected to Phillip Securities Research, including but not limited to its officers, directors, employees or persons involved in the issuance of this report, which is not reflected in this report, and Phillip Securities Research, or persons associated with or connected to Phillip Securities Research, including but not limited to its officers, directors, employees or persons involved in the issuance of this report, may, to the extent permitted by law, have acted upon or used the information prior to or immediately following its publication. Phillip Securities Research, or persons associated with or connected to Phillip Securities Research, including but not limited its officers, directors, employees or persons involved in the issuance of this report, may have issued other material that is inconsistent with, or reach different conclusions from, the contents of this report.

The information, tools and material presented herein are not directed, intended for distribution to or use by, any person or entity in any jurisdiction or country where such distribution, publication, availability or use would be contrary to the applicable law or regulation or which would subject Phillip Securities Research to any registration or licensing or other requirement, or penalty for contravention of such requirements within such jurisdiction.

This report is intended for general circulation only and does not take into account the specific investment objectives, financial situation or particular needs of any particular person. The products mentioned in this report may not be suitable for all investors and a person receiving or reading this report should seek advice from a professional and financial adviser regarding the legal, business, financial, tax and other aspects including the suitability of such products, taking into account the specific investment objectives, financial situation or particular needs of that person, before making a commitment to invest in any of such products.

This report is not intended for distribution, publication to or use by any person in any jurisdiction outside of Singapore or any other jurisdiction as Phillip Securities Research may determine in its absolute discretion.

IMPORTANT DISCLOSURES FOR INCLUDED RESEARCH ANALYSES OR REPORTS OF FOREIGN RESEARCH HOUSES

Where the report contains research analyses or reports from a foreign research house, please note:

- recipients of the analyses or reports are to contact Phillip Securities Research (and not the relevant foreign research house) in Singapore at 250 North Bridge Road, #06-00 Raffles City Tower, Singapore 179101, telephone number +65 6533 6001, in respect of any matters arising from, or in connection with, the analyses or reports; and
- (ii) to the extent that the analyses or reports are delivered to and intended to be received by any person in Singapore who is not an accredited investor, expert investor or institutional investor, Phillip Securities Research accepts legal responsibility for the contents of the analyses or reports.