

Netease (NTES US)

Solid mobile games and margin improvement support strong 1Q23 results

NetEase reported 1Q23 results on 25 May. Total revenue increased by 6% YoY to RMB25.0bn in 1Q23, in line with our/consensus estimate. Non-GAAP net income grew by 48% YoY to RMB7.6bn in 1Q23, beating our/consensus estimate by 36/33%, mainly attributable to the solid gross margin improvement (+5pct YoY) and effective control in marketing expenses. We raise FY23-25E non-GAAP net income forecast by 8-10% mainly on more positive games GPM outlook and operating leverage. We now forecast NetEase to deliver total revenue/operating income CAGR of 7/15% over FY22-25E despite macro uncertainty and competition. Our SOTP-derived TP is lifted to US\$123.0 (previous: US\$116.0). Maintain BUY.

- Positive game business outlook on a solid pipeline.** Online games revenue increased by 8% YoY to RMB20.1bn in 1Q23 (4Q22/3Q22: +2/9% YoY). Mobile game revenue was up by 16% YoY to RMB13.4bn in 1Q23, mainly driven by the strong performance of Eggy Party, which topped China's iOS games download chart in 1Q23. PC games revenue was down by 10% YoY to RMB5.1bn, mainly due to the termination of certain licensed Blizzard games. Looking ahead, several highly-anticipated games are scheduled for launch in 2Q23, including *Justice Mobile* (30 Jun), *Racing Master* (20 Jun) and *Badlanders* (8 Jun). NetEase continued to invest in the overseas game development capability and established two overseas studios named Anchor Point and Bad Brain in 1Q23. NetEase now already has 10 proprietary overseas game studios.
- Driving quality growth of non-game business.** Cloud Music revenue declined by 5% YoY to RMB2.0bn in 1Q23 (8% of total revenue), as Cloud Music enhanced risk control and reduced revenue sharing ratio, which led to decrease in social entertainment revenue. However, Cloud Music gross profit grew by 75% YoY thanks to its quality growth strategy, with gross margin reaching 22.4% in 1Q23 (1Q22: 12.2%). Youdao revenue declined by 3% YoY to RMB1.2bn (5% of total revenue) in 1Q23, primarily due to decreased revenue from adult and vocational courses. Innovative businesses revenue was up by 13% YoY to RMB1.9bn in 1Q23 (7% of total revenue), mainly driven by strong sales growth in Yanxuan.
- Strong GPM expansion and operating leverage.** Overall GPM improved by 5pct YoY to 59.5% in 1Q23, thanks to the enhanced games/music GPM (+4.5/10.2pct YoY). Enhanced games GPM was mainly due to favourable revenue mix shift to self-developed games and optimization of channel costs. S&M expenses was flat YoY, while R&D grew by 10% YoY as NetEase invested in overseas studios. Non-GAAP NPM expanded by 8.5pct YoY to 30.2% in 1Q23 on improved GPM and operating leverage. We are upbeat on NetEase's margin expansion in FY23, supported by solid growth of gaming business and margin improvement of non-game businesses.

Earnings Summary

(YE 31 Dec)	FY21A	FY22A	FY23E	FY24E	FY25E
Revenue (RMB mn)	87,606	96,496	104,992	112,612	118,105
Gross margin (%)	53.6	54.7	57.8	58.3	58.6
Adjusted net profit (RMB mn)	19,761.9	22,808.4	25,025.4	27,460.4	29,556.2
EPS (Adjusted) (RMB)	29.71	34.95	38.42	42.16	45.38
Consensus EPS (RMB)	29.71	34.95	33.83	37.39	41.93
P/S (x)	4.4	4.0	3.7	3.4	3.3
P/E (x)	26.6	19.2	17.6	16.0	14.7

Source: Company data, Bloomberg, CMBIGM estimates

BUY (Maintain)

Target Price US\$123.00

(Previous TP) US\$116.00

Up/Downside 46.8%

Current Price US\$83.77

China Internet

Saiyi HE, CFA

(852) 3916 1739

hesaiyi@cmbi.com.hk

Wentao LU, CFA

luwentao@cmbi.com.hk

Ye TAO

franktao@cmbi.com.hk

Stock Data

Mkt Cap (US\$ mn)	54,559.6
Avg 3 mths t/o (US\$ mn)	100.5
52w High/Low (US\$)	106.84/55.41
Total Issued Shares (mn)	651.3

Source: FactSet

Shareholding Structure

William Lei Ding	44.2%
Invesco	2.2%

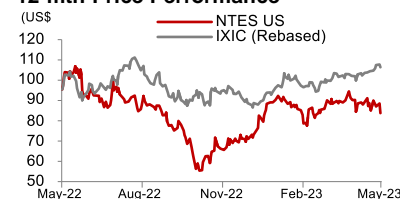
Source: Company data

Share Performance

	Absolute	Relative
1-mth	-7.2%	-11.1%
3-mth	6.5%	-3.4%
6-mth	25.7%	13.0%

Source: FactSet

12-mth Price Performance



Source: FactSet

Figure 1: NetEase: earnings revision

RMB bn	Current			Previous			Change (%)		
	FY23E	FY24E	FY25E	FY23E	FY24E	FY25E	FY23E	FY24E	FY25E
Revenue	105.0	112.6	118.1	104.5	112.0	117.9	0.5%	0.5%	0.2%
Gross profit	60.7	65.6	69.2	57.2	61.8	65.6	6.1%	6.3%	5.6%
Operating profit	24.9	27.4	29.8	21.7	24.4	26.7	14.4%	12.3%	11.7%
Adjusted net profit	25.0	27.5	29.6	22.8	25.2	27.2	9.8%	8.9%	8.5%
Adjusted EPS (RMB)	38.4	42.2	45.4	35.0	38.7	41.8	9.8%	8.9%	8.5%
Gross margin	57.8%	58.3%	58.6%	54.7%	55.1%	55.6%	3.1 ppt	3.1 ppt	3.0 ppt
Operating margin	23.7%	24.3%	25.2%	20.8%	21.7%	22.6%	2.9 ppt	2.5 ppt	2.6 ppt
Adjusted net margin	23.8%	24.4%	25.0%	21.7%	22.5%	23.1%	2.1 ppt	1.9 ppt	1.9 ppt

Source: CMBIGM estimates

Figure 2: CMBIGM estimates vs consensus

RMB bn	CMBIGM			Consensus			Diff (%)		
	FY23E	FY24E	FY25E	FY23E	FY24E	FY25E	FY23E	FY24E	FY25E
Revenue	105.0	112.6	118.1	105.2	116.3	127.6	-0.2%	-3.1%	-7.5%
Gross profit	60.7	65.6	69.2	58.5	64.9	71.6	3.8%	1.2%	-3.3%
Operating profit	24.9	27.4	29.8	22.6	25.8	28.6	9.8%	5.8%	4.2%
Adjusted net profit	25.0	27.5	29.6	23.5	26.3	29.3	6.5%	4.4%	0.9%
Adjusted EPS (RMB)	38.4	42.2	45.4	33.8	37.4	41.9	13.6%	12.8%	8.2%
Gross margin	57.8%	58.3%	58.6%	55.6%	55.8%	56.1%	2.2 ppt	2.5 ppt	2.5 ppt
Operating margin	23.7%	24.3%	25.2%	21.5%	22.2%	22.4%	2.2 ppt	2.1 ppt	2.8 ppt
Adjusted net margin	23.8%	24.4%	25.0%	22.3%	22.6%	23.0%	1.5 ppt	1.8 ppt	2.1 ppt

Source: Bloomberg, CMBIGM estimates

Figure 3: NetEase: key financial data forecasts

(RMB mn)	1Q22	2Q22	3Q22	4Q22	1Q23	Cons.	Diff%	CMBI	Diff%
Online games revenue	18,642	18,140	18,699	19,086	20,066	19,255	4.2%	19,222	4.4%
YoY%	15.7%	15.0%	9.1%	1.6%	7.6%	3.3%		3.1%	
As % of total revenue	79.1%	78.3%	76.6%	75.3%	80.1%				
Youdao revenue	1,201	956	1,402	1,454	1,163	1,294	-10.1%	1,479	-21.3%
YoY%	-10.4%	-26.1%	1.1%	9.0%	-3.1%	7.8%		23.2%	
As % of total revenue	5.1%	4.1%	5.7%	5.7%	4.6%				
Cloud Music revenue	2,067	2,192	2,357	2,376	1,960	2,430	-19.4%	2,428	-19.3%
YoY%	38.6%	29.5%	22.5%	25.8%	-5.2%	17.6%		17.4%	
As % of total revenue	8.8%	9.5%	9.7%	9.4%	7.8%				
Innovative businesses	1,646	1,872	1,968	2,438	1,858	1,811	2.6%	1,743	6.6%
YoY%	4.2%	6.1%	13.6%	3.4%	12.8%	10.0%		5.9%	
As % of total revenue	7.0%	8.1%	8.1%	9.6%	7.4%				
Total revenue	23,556	23,159	24,427	25,354	25,046	24,806	1.0%	24,872	0.7%
YoY%	14.8%	12.8%	10.1%	4.0%	6.3%	5.3%		5.6%	
Gross profit margin (%)	54.5%	55.9%	56.3%	52.2%	59.5%	55.4%	4.0 ppt	55.2%	4.3 ppt
S&M expenses ratio (%)	12.4%	14.3%	15.4%	13.5%	11.6%				
R&D expenses ratio (%)	14.4%	15.5%	16.2%	16.1%	15.0%				
Non-GAAP NPM (%)	21.7%	23.4%	30.6%	19.0%	30.2%				
Non-GAAP net profit	5,118	5,410	7,470	4,811	7,566	5,697	32.8%	5,563	36.0%
YoY%	0.7%	28.0%	93.6%	-27.1%	47.8%	11.3%		2.8%	

Source: Company data, CMBIGM estimates

We use sum-of-the-parts (SOTP) valuation methodology to value NetEase's four main business segments. Our SOTP derived target price is US\$123.0, comprising:

- 1) US\$116.6 for the online game business (94.8% of total valuation), based on 16x 2023E EV/EBIT which is on par with the industry average.
- 2) US\$0.4 for Youdao (0.3% of total valuation), based on 0.7x 2023E EV/revenue, on par with the industry average;
- 3) US\$2.4 (1.9% of total valuation) for the Cloud Music business, based on 2.0x 2023E EV/revenue, on par with the industry average;
- 4) US\$1.9 (1.5% of total valuation) for the innovative businesses and others, based on 1.0x 2023E EV/revenue, on a par with the industry average;
- 5) US\$1.7 for net cash.

Figure 4: NetEase: SOTP Valuation

(RMBmn)	Valuation basis	Multiple (x)	2023E sales	2023E EBIT	Valuation	Shareholding (%)	Valuation to NetEase	Valuation per ADS (US\$)
Online games	EV/EBIT	16.0	82,053	33,231	531,702	100.0%	531,702	116.6
Youdao	EV/revenue	0.7	5,164		3,615	52.9%	1,912	0.4
Cloud Music	EV/revenue	2.0	9,297		18,593	57.7%	10,728	2.4
Innovative businesses	EV/revenue	1.0	8,479		8,479	100.0%	8,479	1.9
Enterprise value							552,821	
Net cash							7,875	1.7
Equity value							560,696	
RMB/US\$							7.00	
Target valuation (US\$mn)							80,099	
No. of ADSs (mn)							651	
Value per ADS (US\$)							123.0	

Source: Company data, CMBIGM estimates

Figure 5: Peer comparison: online games

Companies	Ticker	Price (Local)	EBIT growth (YoY %)			EV/EBIT (x)		
			FY23E	FY24E	FY25E	FY23E	FY24E	FY25E
Tencent	700 HK	332.4	11	15	5	16	14	13
Activision Blizzard	ATVI US	77.8	18	10	7	15	14	13
Electronic Arts	EA US	125.4	(16)	10	8	16	15	13
Nexon	3659 JP	2,962.0	19	18	10	15	13	12
Nintendo	7974 JP	5,884.0	(20)	(9)	(7)	11	12	13
Bandai Namco	7832 JP	3,313.0	5	7	11	15	14	13
Perfect World	002624 CH	17.8	3	20	10	20	17	15
37 Interactive	002555 CH	29.3	12	14	11	15	13	12
Average EV/EBIT						16	14	13

Source: Bloomberg consensus estimates, CMBIGM

Note: data as of market close on 24 May

Figure 6: Peer comparison: education, online music, and e-commerce

Companies	Ticker	Price (Local)	Revenue growth (YoY %)			EV/revenue (x)		
			FY23E	FY24E	FY25E	FY23E	FY24E	FY25E
Education								
New Oriental	EDU US	37.4	(7)	23	17	0.9	0.8	0.6
TAL Education	TAL US	5.8	(77)	25	19	0.7	0.6	0.5
Gaotu	GOTU US	2.7	22	23	15	0.4	0.3	0.3
Average PS						0.7	0.6	0.5
Music community								
TME	TME US	7.5	3	7	7	2.3	2.1	2.0
Spotify	SPOT US	147.0	13	15	12	1.9	1.6	1.4
Bilibili	BILI US	17.3	11	18	15	2.0	1.7	1.5
Kuaishou	1024 HK	55.6	18	15	13	1.8	1.6	1.4
Average PS						2.0	1.8	1.6
E-commerce								
Alibaba	BABA US	81.2	9	9	8	1.0	1.0	0.9
JD	JD US	33.9	3	10	10	0.3	0.3	0.2
Pinduoduo	PDD US	60.9	27	20	17	2.4	2.0	1.7
Vipshop	VIPS US	14.9	5	5	4	0.4	0.4	0.3
Average PS						1.0	0.9	0.8

Source: Bloomberg consensus estimates, CMBIGM

Note: data as of market close on 24 May

Financial Summary

INCOME STATEMENT	2020A	2021A	2022A	2023E	2024E	2025E
YE 31 Dec (RMB mn)						
Revenue	73,667	87,606	96,496	104,992	112,612	118,105
Cost of goods sold	(34,684)	(40,635)	(43,730)	(44,318)	(46,971)	(48,882)
Gross profit	38,983	46,971	52,766	60,673	65,642	69,223
Operating expenses	(24,445)	(30,554)	(33,138)	(35,802)	(38,288)	(39,447)
Selling expense	(10,704)	(12,214)	(13,403)	(14,174)	(15,203)	(15,354)
Admin expense	(3,372)	(4,264)	(4,696)	(4,830)	(5,068)	(5,197)
R&D expense	(10,369)	(14,076)	(15,039)	(16,799)	(18,018)	(18,897)
Operating profit	14,538	16,417	19,629	24,871	27,353	29,776
Investment gain/loss	1,610	2,948	54	0	0	0
Other gains/(losses)	737	710	847	0	0	0
Interest income	1,599	1,520	2,150	2,202	2,451	2,740
Foreign exchange gain/loss	(3,112)	(490)	1,571	0	0	0
Pre-tax profit	15,372	21,104	24,250	27,074	29,804	32,516
Income tax	(3,042)	(4,128)	(5,032)	(5,415)	(5,961)	(6,503)
After tax profit	12,330	16,976	19,218	21,659	23,844	26,013
Minority interest	(267)	(119)	494	217	238	260
Net profit	12,063	16,857	19,713	21,876	24,082	26,273
Adjusted net profit	14,706	19,762	22,808	25,025	27,460	29,556
BALANCE SHEET	2020A	2021A	2022A	2023E	2024E	2025E
YE 31 Dec (RMB mn)						
Current assets	107,831	113,120	131,603	145,388	161,203	178,740
Cash & equivalents	9,117	14,498	24,889	28,957	34,256	40,576
Restricted cash	3,051	2,877	2,699	2,834	2,976	3,124
Account receivables	4,576	5,508	5,003	5,334	5,607	5,763
Inventories	621	965	994	1,007	1,067	1,111
Prepayment	6,112	6,236	5,448	5,809	6,106	6,276
ST bank deposits	71,079	70,755	84,948	93,442	102,787	113,065
Other current assets	13,273	12,282	7,623	8,004	8,404	8,824
Non-current assets	34,044	40,524	41,158	45,619	49,436	53,636
PP&E	4,555	5,434	6,342	7,403	8,640	10,085
Other non-current assets	29,488	35,090	34,815	38,216	40,796	43,551
Total assets	141,875	153,644	172,761	191,007	210,639	232,376
Current liabilities	46,743	50,501	56,829	59,660	62,135	65,326
Short-term borrowings	19,505	19,352	23,876	25,119	25,315	26,863
Account payables	1,134	985	1,507	1,527	1,619	1,685
Tax payable	4,283	4,537	2,813	3,061	3,283	3,443
Other current liabilities	14,484	16,266	17,252	18,418	19,693	20,613
Accrued expenses	7,338	9,361	11,381	11,534	12,225	12,722
Non-current liabilities	1,337	3,719	7,059	7,312	7,779	8,116
Other non-current liabilities	1,337	3,719	7,059	7,312	7,779	8,116
Total liabilities	48,081	54,220	63,888	66,972	69,914	73,442
Total shareholders equity	82,127	95,328	104,731	120,109	137,038	155,507
Minority interest	11,667	4,096	4,142	3,926	3,687	3,427
Total equity and liabilities	141,875	153,644	172,761	191,007	210,639	232,376

CASH FLOW	2020A	2021A	2022A	2023E	2024E	2025E
YE 31 Dec (RMB mn)						
Operating						
Profit before taxation	15,372	21,104	24,250	27,074	29,804	32,516
Depreciation & amortization	3,458	3,276	2,858	3,171	3,701	4,320
Tax paid	(3,042)	(4,128)	(5,032)	(5,415)	(5,961)	(6,503)
Change in working capital	4,771	3,188	3,497	881	1,650	1,274
Others	4,329	1,487	2,135	0	0	0
Net cash from operations	24,888	24,927	27,709	25,711	29,195	31,607
Investing						
Capital expenditure	(3,273)	(3,038)	(2,602)	(4,245)	(4,953)	(5,779)
Net cash from investing	(29,192)	(7,078)	(7,370)	(16,255)	(16,796)	(18,882)
Financing						
Dividend paid	(4,280)	(4,240)	(6,724)	(6,498)	(7,153)	(7,804)
Net borrowings	4,041	3,992	5,119	1,244	196	1,548
Proceeds from share issues	21,912	(2,297)	(274)	0	0	0
Others	(11,759)	(10,040)	(8,359)	0	0	0
Net cash from financing	9,913	(12,586)	(10,238)	(5,254)	(6,958)	(6,256)
Net change in cash						
Cash at the beginning of the year	6,398	12,169	17,376	27,588	31,791	37,232
Exchange difference	162	(55)	110	0	0	0
Others	0	0	0	0	0	0
Cash at the end of the year	12,169	17,376	27,588	31,791	37,232	43,700
GROWTH	2020A	2021A	2022A	2023E	2024E	2025E
YE 31 Dec						
Revenue	24.4%	18.9%	10.1%	8.8%	7.3%	4.9%
Gross profit	23.5%	20.5%	12.3%	15.0%	8.2%	5.5%
Operating profit	5.4%	12.9%	19.6%	26.7%	10.0%	8.9%
Net profit	(43.3%)	39.7%	16.9%	11.0%	10.1%	9.1%
Adj. net profit	(6.1%)	34.4%	15.4%	9.7%	9.7%	7.6%
PROFITABILITY	2020A	2021A	2022A	2023E	2024E	2025E
YE 31 Dec						
Gross profit margin	52.9%	53.6%	54.7%	57.8%	58.3%	58.6%
Operating margin	19.7%	18.7%	20.3%	23.7%	24.3%	25.2%
Adj. net profit margin	20.0%	22.6%	23.6%	23.8%	24.4%	25.0%
Return on equity (ROE)	16.8%	19.0%	19.7%	19.5%	18.7%	18.0%
GEARING/LIQUIDITY/ACTIVITIES	2020A	2021A	2022A	2023E	2024E	2025E
YE 31 Dec						
Net debt to equity (x)	(0.7)	(0.7)	(0.8)	(0.8)	(0.8)	(0.8)
Current ratio (x)	2.3	2.2	2.3	2.4	2.6	2.7
Receivable turnover days	22.7	22.9	18.9	18.5	18.2	17.8
Payable turnover days	11.9	8.8	12.6	12.6	12.6	12.6
VALUATION	2020A	2021A	2022A	2023E	2024E	2025E
YE 31 Dec						
P/E	30.6	26.6	19.2	17.6	16.0	14.7
P/E (diluted)	31.0	27.0	19.4	17.6	16.0	14.6
P/B	4.5	4.7	3.6	3.2	2.8	2.5

Source: Company data, CMBIGM estimates. Note: The calculation of net cash includes financial assets.

Disclosures & Disclaimers

Analyst Certification

The research analyst who is primary responsible for the content of this research report, in whole or in part, certifies that with respect to the securities or issuer that the analyst covered in this report: (1) all of the views expressed accurately reflect his or her personal views about the subject securities or issuer; and (2) no part of his or her compensation was, is, or will be, directly or indirectly, related to the specific views expressed by that analyst in this report.

Besides, the analyst confirms that neither the analyst nor his/her associates (as defined in the code of conduct issued by The Hong Kong Securities and Futures Commission) (1) have dealt in or traded in the stock(s) covered in this research report within 30 calendar days prior to the date of issue of this report; (2) will deal in or trade in the stock(s) covered in this research report 3 business days after the date of issue of this report; (3) serve as an officer of any of the Hong Kong listed companies covered in this report; and (4) have any financial interests in the Hong Kong listed companies covered in this report.

CMBIGM Ratings

BUY : Stock with potential return of over 15% over next 12 months
HOLD : Stock with potential return of +15% to -10% over next 12 months
SELL : Stock with potential loss of over 10% over next 12 months
NOT RATED : Stock is not rated by CMBIGM

OUTPERFORM : Industry expected to outperform the relevant broad market benchmark over next 12 months
MARKET-PERFORM : Industry expected to perform in-line with the relevant broad market benchmark over next 12 months
UNDERPERFORM : Industry expected to underperform the relevant broad market benchmark over next 12 months

CMB International Global Markets Limited

Address: 45/F, Champion Tower, 3 Garden Road, Hong Kong, Tel: (852) 3900 0888 Fax: (852) 3900 0800

CMB International Global Markets Limited ("CMBIGM") is a wholly owned subsidiary of CMB International Capital Corporation Limited (a wholly owned subsidiary of China Merchants Bank)

Important Disclosures

There are risks involved in transacting in any securities. The information contained in this report may not be suitable for the purposes of all investors. CMBIGM does not provide individually tailored investment advice. This report has been prepared without regard to the individual investment objectives, financial position or special requirements. Past performance has no indication of future performance, and actual events may differ materially from that which is contained in the report. The value of, and returns from, any investments are uncertain and are not guaranteed and may fluctuate as a result of their dependence on the performance of underlying assets or other variable market factors. CMBIGM recommends that investors should independently evaluate particular investments and strategies, and encourages investors to consult with a professional financial advisor in order to make their own investment decisions.

This report or any information contained herein, have been prepared by the CMBIGM, solely for the purpose of supplying information to the clients of CMBIGM or its affiliate(s) to whom it is distributed. This report is not and should not be construed as an offer or solicitation to buy or sell any security or any interest in securities or enter into any transaction. Neither CMBIGM nor any of its affiliates, shareholders, agents, consultants, directors, officers or employees shall be liable for any loss, damage or expense whatsoever, whether direct or consequential, incurred in relying on the information contained in this report. Anyone making use of the information contained in this report does so entirely at their own risk.

The information and contents contained in this report are based on the analyses and interpretations of information believed to be publicly available and reliable. CMBIGM has exerted every effort in its capacity to ensure, but not to guarantee, their accuracy, completeness, timeliness or correctness. CMBIGM provides the information, advices and forecasts on an "AS IS" basis. The information and contents are subject to change without notice. CMBIGM may issue other publications having information and/ or conclusions different from this report. These publications reflect different assumption, point-of-view and analytical methods when compiling. CMBIGM may make investment decisions or take proprietary positions that are inconsistent with the recommendations or views in this report.

CMBIGM may have a position, make markets or act as principal or engage in transactions in securities of companies referred to in this report for itself and/or on behalf of its clients from time to time. Investors should assume that CMBIGM does or seeks to have investment banking or other business relationships with the companies in this report. As a result, recipients should be aware that CMBIGM may have a conflict of interest that could affect the objectivity of this report and CMBIS will not assume any responsibility in respect thereof. This report is for the use of intended recipients only and this publication, may not be reproduced, reprinted, sold, redistributed or published in whole or in part for any purpose without prior written consent of CMBIGM.

Additional information on recommended securities is available upon request.

For recipients of this document in the United Kingdom

This report has been provided only to persons (I) falling within Article 19(5) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005 (as amended from time to time) ("The Order") or (II) are persons falling within Article 49(2) (a) to (d) ("High Net Worth Companies, Unincorporated Associations, etc.") of the Order, and may not be provided to any other person without the prior written consent of CMBIGM.

For recipients of this document in the United States

CMBIGM is not a registered broker-dealer in the United States. As a result, CMBIGM is not subject to U.S. rules regarding the preparation of research reports and the independence of research analysts. The research analyst who is primary responsible for the content of this research report is not registered or qualified as a research analyst with the Financial Industry Regulatory Authority ("FINRA"). The analyst is not subject to applicable restrictions under FINRA Rules intended to ensure that the analyst is not affected by potential conflicts of interest that could bear upon the reliability of the research report. This report is intended for distribution in the United States solely to "major US institutional investors", as defined in Rule 15a-6 under the US, Securities Exchange Act of 1934, as amended, and may not be furnished to any other person in the United States. Each major US institutional investor that receives a copy of this report by its acceptance hereof represents and agrees that it shall not distribute or provide this report to any other person. Any U.S. recipient of this report wishing to effect any transaction to buy or sell securities based on the information provided in this report should do so only through a U.S.-registered broker-dealer.

For recipients of this document in Singapore

This report is distributed in Singapore by CMBI (Singapore) Pte. Limited (CMBISG) (Company Regn. No. 201731928D), an Exempt Financial Adviser as defined in the Financial Advisers Act (Cap. 110) of Singapore and regulated by the Monetary Authority of Singapore. CMBISG may distribute reports produced by its respective foreign entities, affiliates or other foreign research houses pursuant to an arrangement under Regulation 32C of the Financial Advisers Regulations. Where the report is distributed in Singapore to a person who is not an Accredited Investor, Expert Investor or an Institutional Investor, as defined in the Securities and Futures Act (Cap. 289) of Singapore, CMBISG accepts legal responsibility for the contents of the report to such persons only to the extent required by law. Singapore recipients should contact CMBISG at +65 6350 4400 for matters arising from, or in connection with the report.