

BUY (Unchanged)**TP: Bt 4.80**

(From: Bt 5.00)

Change in Numbers

Upside : 33.3%

7 DECEMBER 2022

Chularat Hospital Pcl (CHG TB)

Not as bad as it seems

CHG's very weak 3Q22 results were due mainly to extra items and we only trim our earnings estimates by 4-5% p.a. in 2022-24F to reflect higher costs. We maintain our BUY call on CHG as another laggard play in the sector at an already de-rated 2023F PE of 27.8x.

**SIRIPORN ARUNOTHAI**

662 – 779 9113

siriporn.aru@thanachartsec.co.th

3Q22 not as weak as it looks

CHG reported surprisingly weak 3Q22 earnings of Bt258m, down 83% y-y and 71% q-q. However, most of the disappointments were from extra items of 1) Bt80m in extra bonuses, 2) Bt25m in extra corporate income tax for Moderna vaccines that will be reversed into income in 4Q22, and 3) a Bt59m loss on the fair value adjustments of financial assets. Excluding those items, its core earnings were Bt395m, down 75% y-y and 55% q-q. The earnings drop wasn't much of a surprise as it was known that CHG's COVID income windfall would decline. The only core operational surprise to us were higher-than-expected costs and we lower our earnings by 4/5/5% in 2022-24F. We also lower our 2023F DCF-based 12-month TP to Bt4.8/share (from Bt5.0).

Decline in windfall, growing normal business

CHG was the No.2 COVID beneficiary in the sector with its earnings jumping by 380% in 2021. Though 9M22 profit grew just 4% y-y on falling COVID income, it was still 337% higher than the pre-COVID level. Its non-COVID earnings in 3Q22 surpassed the pre-COVID level by 25%. Excluding COVID income, we estimate CHG's profit to grow by 6/19/8% in 2022-24F. Key drivers are growing non-COVID cash patients, a rising number of registered persons under the Social Security Scheme (SSS), more tertiary-care services to grow high-margin referral managed-care revenue, and rising cash-patient revenue complexity.

Strong non-COVID patients

CHG's non-COVID cash-patient revenue grew 22% y-y in 9M22, driven by Thai and foreign patients. While Thai patient flows continued to rise as CHG offered more specialized medical services, foreign patients also returned quickly to surpass the pre-COVID level in 3Q22. We estimate non-COVID cash patient revenue growth of 22/19/12% in 2022-24F and foreign patients to return to its pre-COVID level next year from the current c.90% of the 2019 level. CHG's average SSS registered persons also grew strongly by 10% y-y in 9M22. We estimate its average SSS registered persons to grow by 10/5/3% in 2022-24F.

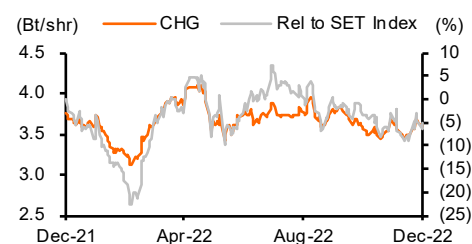
Maintaining BUY

We maintain our BUY on CHG as a laggard play in the sector with what we see as an already de-rated PE of 27.8x in 2023 vs. its five-year pre-COVID average of 43.4x. We believe CHG's lower PE than in the past is due to the falling trend of its bottom-line earnings next year due to COVID windfall income ending and only 8% EPS growth in 2024F on lower hospital management fee income due to the expiry of a management contract and losses from two new hospitals. However, we see the de-rating of its PE as being overdone given CHG's strong growth in non-COVID earnings to Bt1.4bn in 2023F, which is double 2019's level.

COMPANY VALUATION

Y/E Dec (Bt m)	2021A	2022F	2023F	2024F
Sales	11,742	10,291	7,988	8,793
Net profit	4,204	2,926	1,423	1,541
Consensus NP	—	2,883	1,397	1,452
Diff frm cons (%)	—	1.5	1.9	6.1
Norm profit	4,204	2,926	1,423	1,541
Prev. Norm profit	—	3,046	1,494	1,625
Chg frm prev (%)	—	(4.0)	(4.7)	(5.2)
Norm EPS (Bt)	0.4	0.3	0.1	0.1
Norm EPS grw (%)	379.6	(30.4)	(51.3)	8.2
Norm PE (x)	9.4	13.5	27.8	25.7
EV/EBITDA (x)	6.9	9.9	18.7	16.5
P/BV (x)	5.2	4.8	5.0	4.9
Div yield (%)	5.6	5.9	3.1	3.5
ROE (%)	72.5	37.0	17.7	19.3
Net D/E (%)	(29.9)	(16.3)	(28.5)	(35.1)

PRICE PERFORMANCE



COMPANY INFORMATION

Price as of 7-Dec-22 (Bt)	3.60
Market Cap (US\$ m)	1,129.0
Listed Shares (m shares)	11,000.0
Free Float (%)	42.5
Avg Daily Turnover (US\$ m)	4.6
12M Price H/L (Bt)	4.10/3.12
Sector	Health Care
Major Shareholder	Plussind Family 23.79%

Sources: Bloomberg, Company data, Thanachart estimates

ESG Summary Report P8



Trimming our earnings

Disappointing 3Q22 earnings mainly resulted from three extra items

Chularat Hospital Pcl (CHG) reported surprisingly weak 3Q22 earnings of Bt258m, down 83% y-y and 71% q-q. The results were well below our expectations and the market's. However, most of the disappointment came from extra items of 1) Bt80m in one-time extra bonuses to employees, 2) a Bt25m one-time extra corporate income tax payment for Moderna vaccines that will be reversed into income in 4Q22, and 3) a Bt59m loss on the fair value adjustments of financial assets (on its foreign currency loan for Chularat Mae Sot International Hospital).

We cut our earnings by only 4-5% on higher-than-expected costs

Excluding those items, its core earnings stood at Bt395m, down 75% y-y and 55% q-q. The only core operational surprise to us were higher-than-expected costs because of CHG spending more on digital healthcare. We therefore trim our earnings estimates by 4/5/5% in 2022-24F. Details of our earnings cuts are shown in Exhibit 1. We also lower our 2023F DCF-based 12-month TP slightly to Bt4.8/share from Bt5.0.

Ex 1: Changes In Our Key Assumptions And Earnings Revisions

	2019	2020	2021	2022F	2023F	2024F
Gross profit (%)						
- New	29.7	32.2	49.9	41.9	28.9	29.2
- Old				44.8	31.2	31.9
- Change (pp)				(2.9)	(2.3)	(2.6)
SG&A to sales (%)						
- New	13.0	12.4	7.0	8.2	9.3	9.1
- Old				8.4	10.4	10.2
- Change (pp)				(0.2)	(1.1)	(1.1)
Norm profit (Bt m)						
- New	705	877	4,204	2,926	1,423	1,541
- Old				3,046	1,494	1,625
- Change (%)				(4.0)	(4.7)	(5.2)

Sources: Company data, Thanachart estimates

Growing normal business

Key earnings drivers ...

Excluding COVID income, we estimate CHG's profits to grow 6/19/8% in 2022-24F. Key drivers are growing non-COVID cash patients, a rising number of registered persons under the Social Security Scheme (SSS), increasing tertiary-care services to grow high-margin referral managed-care revenue, and rising cash-patient revenue complexity.

#1: Non-COVID cash patients

1st driver: CHG's non-COVID cash-patient revenue grew by 22% y-y in 9M22, driven by both Thai and foreign patients. We expect Thai and international patient flows to continue to grow because of CHG offering more specialized medical services. Besides heart centers, CHG is focusing more on stroke, cancer, gastric sleeve surgery, and minimally invasive surgery centers.

Given strong patient flows for stroke treatment, CHG has announced a plan to acquire a 77.5% stake in Century Care Stroke Rehabilitation Center and Residence (Century). Century has five buildings with a total of 128 beds. The acquisition is scheduled to be completed in 4Q22. Meanwhile, a new one-floor building for stroke treatment and a new five-floor building for cancer treatment at Chularat 3 Hospital are scheduled to open in late 1Q23. All of these new additional capacity should help CHG to unlock its capacity to provide more services for stroke and cancer patients.

Ex 2: A New Cancer Center



Source: Company data

Ex 3: Century Care Rehabilitation Center And Residence



Source: Company data

For foreign patients, CHG has seen rising patient flows from the Middle East although in 3Q22 they had not yet returned to its pre-COVID level. Meantime, CHG has opened up to more new markets, i.e., Cambodia and Myanmar. With additional foreign patient flows from these two new markets, CHG’s foreign patients in 3Q22 has already surpassed its pre-COVID level.

We estimate non-COVID cash patient revenue growth of 22/19/12% in 2022-24F and foreign patients to return to its pre-COVID level next year from the current c.90%.

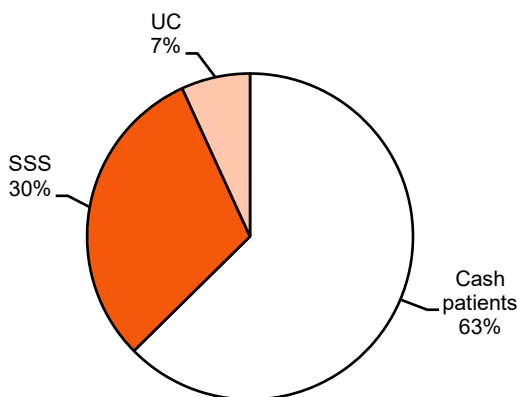
#2 SSS-registered persons

2nd driver: Given CHG’s rising SSS quota from 526,000 to 562,000 people in 2021 and its strong reputation in the SSS service, the number of SSS-registered persons rose strongly in 9M22 by 10% y-y. We estimate growth of 10/5/3% in 2022-24F.

#3 Rising revenue intensity and margin

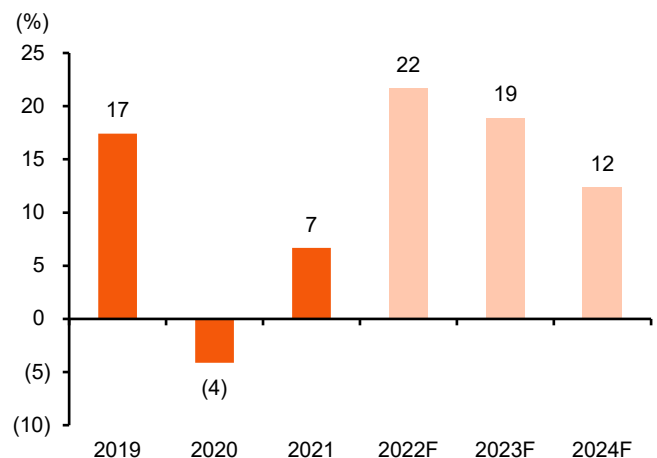
3rd driver: We mentioned in the first driver that CHG has increased its tertiary-care services. The strategy not only boosts patient volume but also grows the company’s margin due to a rising revenue mix from high-margin referral managed-care schemes and high-margin cash patients. We estimate CHG’s EBIT margin to grow to 19.6% in 2023F and 20.2% in 2024F from 16.7% in 2019.

Ex 4: Revenue Breakdown (2019)



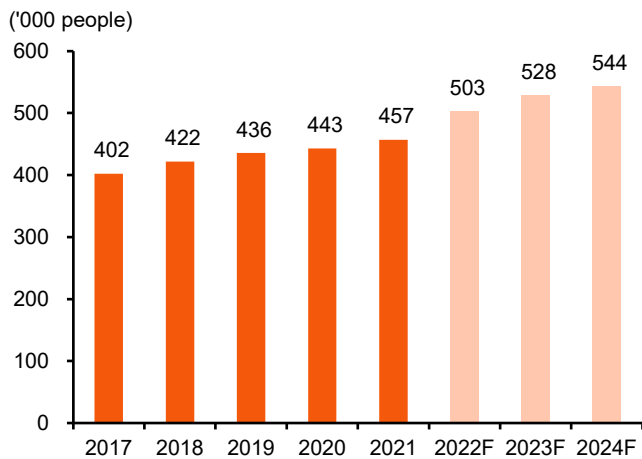
Source: Company data

Ex 5: Non-COVID Cash Patient Revenue Growth



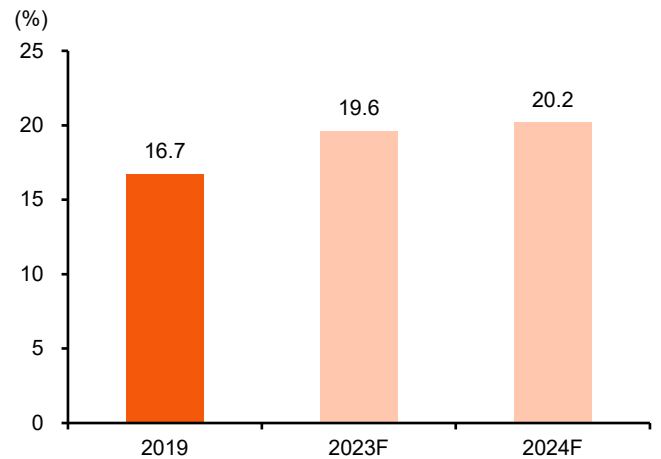
Sources: Company data, Thanachart estimates

Ex 6: # Of Registered-SSS Patients



Sources: Company data, Thanachart estimates

Ex 7: EBIT Margin Expansion



Sources: Company data, Thanachart estimates

Maintaining BUY

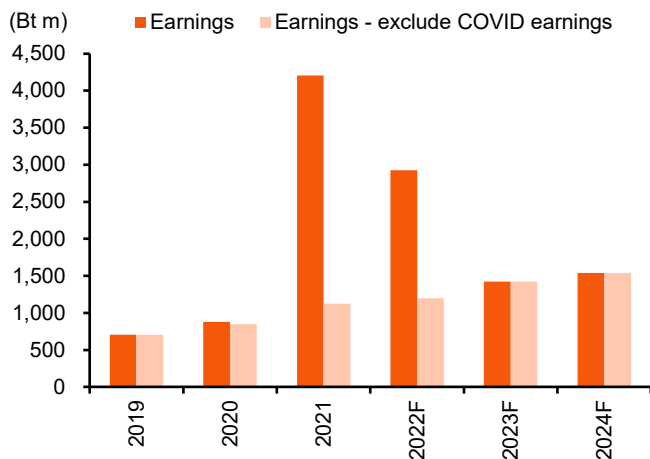
We see CHG as a laggard play

We maintain our BUY call on CHG as a laggard play in the sector with what we see as an already de-rated PE of 27.8x in 2023 vs. its five-year pre-COVID average of 43.4x. We believe CHG’s lower PE than in the past is a result of the falling trend of its bottom-line next year due to COVID windfall income ending and only 8% EPS growth in 2024F because of lower hospital management fee income due to the expiry of a hospital management contract and losses from two new hospitals. Its two new greenfield projects 1) the 50-bed Shewarat Cancer Center @ Chularat 3 Hospital, 2) and the 100-bed Chularat Mae Sot Hospital are scheduled to open in late 1Q23.

Note that CHG’s hospital management contract will expire in September 2024. CHG will renegotiate to roll over the contract. To be conservative, we won’t factor the management fee into our projections from October 2024 unless it can roll over the contract.

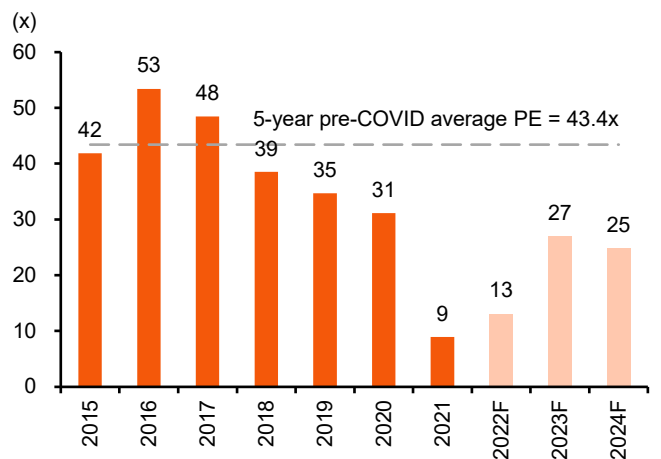
However, we see the de-rating of CHG’s PE as being overdone given CHG’s strong growth in non-COVID earnings to Bt1.4bn in 2023F, which is double the 2019 level.

Ex 8: Earnings And Non-COVID Earnings



Sources: Company data, Thanachart estimates

Ex 9: CHG’s PE Band



Sources: Company data, Bloomberg, Thanachart estimates

Ex 10: 12-month DCF-based TP Calculation, Using A Base Year Of 2023F

(Bt m)	2023F	2024F	2025F	2026F	2027F	2028F	2029F	2030F	2031F	2032F	2033F	Terminal Value
EBITDA excl. depre from right of use	1,976	2,207	2,394	2,580	2,783	3,000	3,231	3,464	3,705	3,960	4,227	—
Free cash flow	2,628	2,055	2,127	1,768	1,935	2,111	2,296	2,485	2,679	2,884	3,101	68,459
PV of free cash flow	2,621	1,824	1,755	1,368	1,405	1,436	1,465	1,488	1,504	1,519	1,531	33,810
Risk-free rate (%)	2.5											
Market risk premium (%)	8.0											
Beta	0.6											
WACC (%)	6.1											
Terminal growth (%)	2.0											
Enterprise value	51,726											
Net debt (end-2022F)	(1,394)											
Minority interest	348											
Equity value	52,772											
# of shares (m)	11,000											
Equity value / share (Bt)	4.80											

Sources: Company data, Thanachart estimates

Valuation Comparison

Ex 11: Valuation Comparison With Regional Peers

Name	BBG code	Country	Market Cap (US\$ m)	EPS growth		PE		P/BV		EV/EBITDA		Div yield	
				22F (%)	23F (%)	22F (x)	23F (x)	22F (x)	23F (x)	22F (x)	23F (x)	22F (%)	23F (%)
Ramsay Healthcare	RHC AU	Australia	10,033	19.3	31.6	47.3	36.0	3.7	3.6	13.6	12.4	1.6	1.8
Guangzhou Pharmaceutical	874 HK	Hong Kong	7,399	2.3	4.7	10.2	9.8	1.2	1.1	8.9	8.7	2.8	2.8
Lijun Int'l Pharmaceutical	2005 HK	Hong Kong	1,565	49.3	15.5	10.6	9.2	1.8	1.5	7.3	6.6	4.1	4.1
Apollo Hospitals Enterprise	APHS IN	India	8,234	(12.5)	6.1	73.5	69.3	12.0	10.5	31.1	31.2	0.2	0.2
Fortis Healthcare India	FORH IN	India	2,622	(33.1)	40.9	58.3	41.4	3.3	3.2	21.2	20.3	0.0	0.0
KPJ Healthcare	KPJ MK	Malaysia	958	160.5	22.6	31.3	25.5	1.9	1.8	12.2	11.2	1.6	2.1
IHH Healthcare Bhd	IHH MK	Malaysia	11,815	(14.4)	17.9	34.1	28.9	2.1	2.0	15.0	14.0	1.0	1.1
Ryman	RYM NZ	New Zealand	2,118	na	24.5	14.6	11.8	1.0	0.9	17.3	13.9	2.9	3.1
Raffles Medical Group	RFMD SP	Singapore	1,868	28.6	(8.6)	23.6	25.8	2.5	2.4	12.5	13.6	2.1	2.0
Bangkok Chain Hospital *	BCH TB	Thailand	1,443	(39.0)	(59.1)	12.1	29.7	3.6	3.5	7.9	14.9	3.2	1.7
Bangkok Dusit Medical *	BDMS TB	Thailand	12,913	43.0	5.7	39.9	37.7	5.2	4.9	24.7	23.3	1.9	1.6
Bumrungrad Hospital *	BH TB	Thailand	4,873	265.1	21.4	36.7	30.2	8.8	7.7	24.6	20.3	1.4	2.0
Chularat Hospital *	CHG TB	Thailand	1,129	(30.4)	(51.3)	13.5	27.8	4.8	5.0	9.9	18.7	5.9	3.1
Ladprao General Hospital *	LPH TB	Thailand	116	(49.9)	(17.6)	17.5	21.2	2.3	2.3	9.7	11.4	4.3	3.5
Praram 9 Hospital *	PR9 TB	Thailand	383	101.6	2.2	26.8	26.2	2.9	2.7	13.2	12.7	1.7	1.7
Rajthanee Hospital *	RJH TB	Thailand	259	11.5	(58.9)	8.0	19.5	4.1	4.4	6.1	13.2	9.9	3.8
Ratchaphruek Hospital *	RPH TB	Thailand	94	(26.2)	(52.4)	11.1	23.3	1.8	1.8	6.6	11.1	5.4	3.2
Thonburi Healthcare Group*	THG TB	Thailand	1,595	2.4	(44.7)	39.9	72.2	5.7	5.8	22.9	31.4	1.6	0.8
Average				28.1	(5.5)	28.3	30.3	3.8	3.6	14.7	16.1	2.9	2.1

Source: Bloomberg, Thanachart estimates

Note: * Thanachart estimates, using Thanachart normalized EPS

Based on 7 Dec 2022 closing prices

COMPANY DESCRIPTION

Chularat Hospital Pcl (CHG) operates a private hospital chain under the “Chularat” brand in the eastern region of Thailand, particularly in Samut Prakan and Chachoengsao provinces. The company was established in 1986. Presently, CHG has nine main hospitals and four clinics in its portfolio, providing medical treatment to cash and Social Security (SS) patients. Chularat Group offers expertise in hand surgery and microsurgery, NICU, heart surgery, and stroke treatment.

Source: Thanachart

THANACHART'S SWOT ANALYSIS

S — Strength

- One of the big hospital chains in Thailand with significant experience and a reputable managed-care scheme brand.
- Hospitals in CHG's portfolio are in prime locations (communities, factories, and industrial estates).
- Owns a nursing assistant school that supplies professional nursing assistants for the group.

O — Opportunity

- Limited public healthcare supply in Thailand.
- Capacity expansion to support rising healthcare demand in the future.
- Ageing society mega trend.
- Rising patient flows from neighbouring countries.
- Increasing COVID-19 infections.

CONSENSUS COMPARISON

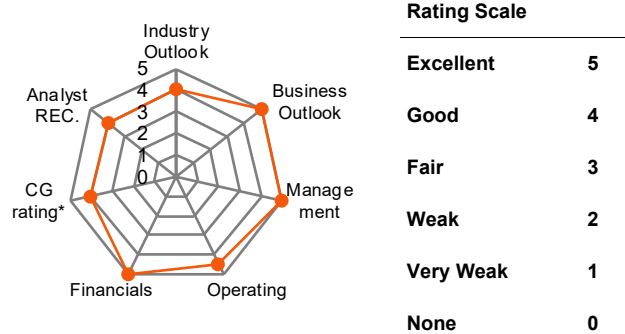
	Consensus	Thanachart	Diff
Target price (Bt)	4.17	4.80	15%
Net profit 22F (Bt m)	2,883	2,926	1%
Net profit 23F (Bt m)	1,397	1,423	2%
Consensus REC	BUY: 11	HOLD: 6	SELL: 2

HOW ARE WE DIFFERENT FROM THE STREET?

- Our earnings and TP are above the Bloomberg consensus numbers, which we attribute to us having a more bullish view on CHG's growth trajectory.

Sources: Bloomberg consensus, Thanachart estimates

COMPANY RATING



Source: Thanachart; *CG Rating

W — Weakness

- Limited patient-base diversification as CHG still mainly focuses on the low- to mid-tier and managed-care markets.

T — Threat

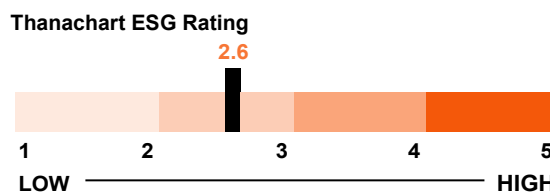
- Growing importance of franchise names and big players such as Bangkok Dusit Medical Services (BDMS TB, Bt28.50, BUY), which have entered the mid-market segment.
- Regulatory risk.
- Increasing COVID-19 infections

RISKS TO OUR INVESTMENT CASE

- If CHG's strategy of boosting revenue from the cash-patient business turns out to be worse than we expect, this would present the key downside risk to our earnings forecasts.
- If the Adjusted Relative Weight (RW) under the SSS or Universal Coverage schemes falls, this would pose a secondary downside risk to our earnings forecasts.
- Given CHG's capacity expansion plans over the next few years, its new buildings may turn profitable more slowly than we currently expect, representing a third downside risk.
- If there is more competition from existing private-healthcare operators and/or newcomers to the healthcare market in Thailand, this would represent a fourth downside risk.

Source: Thanachart

We consider our ESG score for CHG of 2.6 to be moderate. CHG’s healthcare business doesn’t involve many environmental issues. It has started to assign more importance to ESG aspects but we still see room for improvement when it comes up with clearer plans and targets.



	SETTHSI Index	THSI Index	DJSI Index	MSCI (CCC-AAA)	Arabesque S-Ray (0-100)	Refinitiv (0-100)	S&P Global (0-100)	Moody's (0-100)	CG Rating (0-5)
CHG	-	-	-	-	56.40	60.21	21.13	-	4.0

Sources: SETTRADE, SETTHSI Index, Thailand Sustainability Investment (THSI), The Dow Jones Industrial Average (DJSI), MSCI ESG Research LLC, Arabesque S-Ray®, Refinitiv ESG Information, S&P Global Market Intelligence, Moody's ESG Solutions, Thai IOD (CG rating)
 Note: Please see third party on “terms of use” toward the back of this report.

Factors	Our Comments
<p>ENVIRONMENT</p> <ul style="list-style-type: none"> Environmental Policies & Guidelines Energy Management Carbon Management Water Management Waste Management 	<ul style="list-style-type: none"> CHG is the sixth-largest hospital chain in Thailand with nine hospitals in its portfolio. The nature of its business doesn’t generate much greenhouse gas (GHG) and it has no clear ESG targets at this stage. That said, CHG mentioned in its sustainability report that it is committed to an effective environmental management system in accordance with the laws and standards of the Healthcare Accreditation Institute (HA) and Joint Commission International (JCI). CHG targets to be a “Green Hospital” and it has a zero waste and waste recycling policy. It has launched a “Tree Planting Campaign” to plant trees in free space in the hospital area. It has a policy to reduce plastic bag and Styrofoam box consumption, use both sides of pieces of paper, and replace fluorescent bulbs and fluorescent lights with LED bulbs. CHG has a sewage system and treats waste water to improve water quality.
<p>SOCIAL</p> <ul style="list-style-type: none"> Human Rights Staff Management Health & Safety Product Safety & Quality Social Responsibility 	<ul style="list-style-type: none"> CHG attaches importance to human rights through its core value, “iCare”. “iCare” focuses on International Patient Safety, which is all about equal medical treatment and the safety of patients, along with respect for individuality. CHG believes it offers appropriate compensation and benefits with a good atmosphere and good hygiene in the workplace. It also provides training and scholarships to employees. Chularat Inter Health provides training to nursing assistants. CHG focuses on service quality with speed and safety. This includes effective patient assessment, analysis, diagnosis, treatment plans, reassessment plans, good communication with patients, and appropriate patient-discharge and after-care services. CHG provides training to the public and employees of its client companies, such as first aid training, child-care training for pregnant mothers, mobile community health promotion projects, and cardiopulmonary resuscitation training.
<p>GOVERNANCE & SUSTAINABILITY</p> <ul style="list-style-type: none"> Board Ethics & Transparency Business Sustainability Risk Management Innovation 	<ul style="list-style-type: none"> CHG has 12 directors on its board (two women and 10 men). The board comprises directors with diverse qualifications including skills, experience and abilities. CHG has guidelines and working groups on anti-corruption, risk-assessment planning, and compliance with its code of conduct and laws for efficient and transparent operations. CHG has developed competitive strategies for business sustainability, i.e. for its hospital service network, customer diversification, quality of products and services, and cost control. CHG has a risk management committee to oversee organizational risks. As for innovation, CHG’s “New Normal Care” is a communication technology to provide medical and homecare services via wireless networks.

Source: Thanachart, Company

INCOME STATEMENT

Core operation set to reach a new, higher base

FY ending Dec (Bt m)	2020A	2021A	2022F	2023F	2024F
Sales	5,433	11,742	10,291	7,988	8,793
Cost of sales	3,685	5,882	5,978	5,684	6,223
Gross profit	1,748	5,860	4,314	2,305	2,571
% gross margin	32.2%	49.9%	41.9%	28.9%	29.2%
Selling & administration expenses	673	821	841	742	798
Operating profit	1,075	5,038	3,473	1,563	1,773
% operating margin	19.8%	42.9%	33.7%	19.6%	20.2%
Depreciation & amortization	370	371	397	428	448
EBITDA	1,445	5,409	3,870	1,991	2,221
% EBITDA margin	26.6%	46.1%	37.6%	24.9%	25.3%
Non-operating income	32	259	289	294	240
Non-operating expenses	0	0	0	0	0
Interest expense	(36)	(21)	(14)	(16)	(18)
Pre-tax profit	1,071	5,276	3,747	1,841	1,994
Income tax	219	1,009	746	359	389
After-tax profit	852	4,267	3,002	1,482	1,605
% net margin	15.7%	36.3%	29.2%	18.6%	18.3%
Shares in affiliates' Earnings	0	0	0	0	0
Minority interests	24	(63)	(76)	(59)	(65)
Extraordinary items	0	0	0	0	0
NET PROFIT	877	4,204	2,926	1,423	1,541
Normalized profit	877	4,204	2,926	1,423	1,541
EPS (Bt)	0.1	0.4	0.3	0.1	0.1
Normalized EPS (Bt)	0.1	0.4	0.3	0.1	0.1

BALANCE SHEET

Two new hospitals due to open in 1Q23

FY ending Dec (Bt m)	2020A	2021A	2022F	2023F	2024F
ASSETS:					
Current assets:	1,763	5,897	5,807	5,517	5,998
Cash & cash equivalent	580	2,790	1,800	2,800	3,500
Account receivables	983	2,437	3,383	2,189	1,927
Inventories	179	295	295	272	290
Others	22	376	329	256	281
Investments & loans	0	0	0	0	0
Net fixed assets	4,167	4,362	4,690	4,778	4,693
Other assets	271	291	252	200	202
Total assets	6,201	10,550	10,750	10,494	10,894
LIABILITIES:					
Current liabilities:	1,429	2,208	1,861	1,919	1,995
Account payables	570	842	901	856	938
Bank overdraft & ST loans	570	34	203	219	241
Current LT debt	136	97	51	55	60
Others current liabilities	153	1,235	706	789	756
Total LT debt	407	313	152	165	181
Others LT liabilities	171	187	165	131	131
Total liabilities	2,008	2,709	2,178	2,215	2,307
Minority interest	169	272	348	407	472
Preferreds shares	0	0	0	0	0
Paid-up capital	1,100	1,100	1,100	1,100	1,100
Share premium	1,146	1,146	1,146	1,146	1,146
Warrants	0	0	0	0	0
Surplus	0	0	0	0	0
Retained earnings	1,778	5,323	5,978	5,626	5,869
Shareholders' equity	4,024	7,569	8,224	7,872	8,115
Liabilities & equity	6,201	10,550	10,750	10,494	10,894

Sources: Company data, Thanachart estimates

CASH FLOW STATEMENT

*COVID services
strengthen cash inflow
streams*

FY ending Dec (Bt m)	2020A	2021A	2022F	2023F	2024F
Earnings before tax	1,071	5,276	3,747	1,841	1,994
Tax paid	(193)	(376)	(1,064)	(363)	(397)
Depreciation & amortization	370	371	397	428	448
Chg In working capital	20	(1,298)	(888)	1,173	325
Chg In other CA & CL / minorities	20	136	(165)	160	(50)
Cash flow from operations	1,288	4,109	2,028	3,239	2,321
Capex	(186)	(546)	(709)	(500)	(350)
Right of use	(87)	(22)	(5)	(5)	(1)
ST loans & investments	0	0	0	0	0
LT loans & investments	0	0	0	0	0
Adj for asset revaluation	0	0	0	0	0
Chg In other assets & liabilities	23	(2)	5	9	(15)
Cash flow from investments	(250)	(570)	(710)	(496)	(366)
Debt financing	(426)	(669)	(38)	32	43
Capital increase	0	0	0	0	0
Dividends paid	(550)	(660)	(2,270)	(1,775)	(1,298)
Warrants & other surplus	(5)	0	0	0	0
Cash flow from financing	(980)	(1,329)	(2,308)	(1,743)	(1,255)
Free cash flow	1,103	3,563	1,319	2,739	1,971

VALUATION

*Inexpensive valuation, in
our view*

FY ending Dec	2020A	2021A	2022F	2023F	2024F
Normalized PE (x)	45.2	9.4	13.5	27.8	25.7
Normalized PE - at target price (x)	60.2	12.6	18.0	37.1	34.3
PE (x)	45.2	9.4	13.5	27.8	25.7
PE - at target price (x)	60.2	12.6	18.0	37.1	34.3
EV/EBITDA (x)	27.8	6.9	9.9	18.7	16.5
EV/EBITDA - at target price (x)	36.9	9.3	13.3	25.3	22.4
P/BV (x)	9.8	5.2	4.8	5.0	4.9
P/BV - at target price (x)	13.1	7.0	6.4	6.7	6.5
P/CFO (x)	30.7	9.6	19.5	12.2	17.1
Price/sales (x)	7.3	3.4	3.8	5.0	4.5
Dividend yield (%)	1.4	5.6	5.9	3.1	3.5
FCF Yield (%)	2.8	9.0	3.3	6.9	5.0
(Bt)					
Normalized EPS	0.1	0.4	0.3	0.1	0.1
EPS	0.1	0.4	0.3	0.1	0.1
DPS	0.1	0.2	0.2	0.1	0.1
BV/share	0.4	0.7	0.7	0.7	0.7
CFO/share	0.1	0.4	0.2	0.3	0.2
FCF/share	0.1	0.3	0.1	0.2	0.2

Sources: Company data, Thanachart estimates

FINANCIAL RATIOS

Strong financial status

FY ending Dec	2020A	2021A	2022F	2023F	2024F
Growth Rate					
Sales (%)	5.2	116.1	(12.4)	(22.4)	10.1
Net profit (%)	24.3	379.6	(30.4)	(51.3)	8.2
EPS (%)	24.3	379.6	(30.4)	(51.3)	8.2
Normalized profit (%)	24.3	379.6	(30.4)	(51.3)	8.2
Normalized EPS (%)	24.3	379.6	(30.4)	(51.3)	8.2
Dividend payout ratio (%)	62.7	52.3	80.0	85.0	90.0
Operating performance					
Gross margin (%)	32.2	49.9	41.9	28.9	29.2
Operating margin (%)	19.8	42.9	33.7	19.6	20.2
EBITDA margin (%)	26.6	46.1	37.6	24.9	25.3
Net margin (%)	15.7	36.3	29.2	18.6	18.3
D/E (incl. minor) (x)	0.3	0.1	0.0	0.1	0.1
Net D/E (incl. minor) (x)	0.1	(0.3)	(0.2)	(0.3)	(0.4)
Interest coverage - EBIT (x)	30.2	235.7	248.3	97.5	97.4
Interest coverage - EBITDA (x)	40.5	253.0	276.7	124.1	122.1
ROA - using norm profit (%)	14.1	50.2	27.5	13.4	14.4
ROE - using norm profit (%)	22.7	72.5	37.0	17.7	19.3
DuPont					
ROE - using after tax profit (%)	22.1	73.6	38.0	18.4	20.1
- asset turnover (x)	0.9	1.4	1.0	0.8	0.8
- operating margin (%)	20.4	45.1	36.5	23.3	22.9
- leverage (x)	1.6	1.4	1.3	1.3	1.3
- interest burden (%)	96.8	99.6	99.6	99.1	99.1
- tax burden (%)	79.6	80.9	80.1	80.5	80.5
WACC (%)	6.1	6.1	6.1	6.1	6.1
ROIC (%)	18.1	89.4	53.2	18.4	25.9
NOPAT (Bt m)	856	4,075	2,782	1,258	1,427
invested capital (Bt m)	4,558	5,224	6,831	5,511	5,097

Sources: Company data, Thanachart estimates

ESG Information - Third Party Terms

www.Settrade.com

SETTRADE: You acknowledge that the use of data, information or service displayed and/or contained in this website may require third party's data, content or software which is subject to the terms of third party provider. By accessing and/or using of such certain data, you acknowledge and agree to comply with and be bound by the applicable third party terms specified below.

ESG Scores by Third Party data from www.SETTRADE.com

1. MSCI (CCC- AAA)
2. Arabesque S-Ray (0-100)
3. Refinitiv (0-100)
4. S&P Global (0-100)
5. Moody's ESG Solutions (0-100)

SET THSI Index (SETTHSI)

Nowadays, long-term investment tends to be more focused on sustainable companies. The financial statement performance and the consideration in environmental, social and governance (ESG) perspective are keys aspects for analysis.

SET has created a Thailand Sustainability Investment (THSI) list since 2015 for using as an alternative investment in the high performance ESG stocks for investors while, supporting the sustainable Thai companies. SET defines the sustainable companies as the companies that embrace risk management, supply chain management and innovations together with responsibility for environmental, social and governance aspects

As a result, SET has created the SETTHSI for the purpose of indicating the price of these sustainable companies that pass the market capital size and liquidity criteria.

Arabesque S-Ray®

The S-Ray data here is published with a 3 month delay. For the latest data, please contact sray@arabesque.com

Arabesque S-Ray® is a service (the "Service") provided by Arabesque S-Ray GmbH ("Arabesque S-Ray") and its branch and subsidiary companies. Arabesque S-Ray is a limited liability company (Gesellschaft mit beschränkter Haftung) incorporated in Frankfurt am Main and organized under the laws of Germany with registered number HRB 113087 in the commercial register of the local court with its seat and business address at Zeppelinallee 15, 60325 Frankfurt am Main, Germany. The Service is unconnected to any of the asset management activities conducted within the wider group of Arabesque companies, and is not investment advice or a solicitation or an offer to buy any security or instrument or to participate in investment services. RELIANCE - Arabesque S-Ray makes no representation or warranty, express or implied, as to the accuracy or completeness of the information contained herein, and accepts no liability for any loss, of whatever kind, howsoever arising, in relation thereto, and nothing contained herein should be relied upon. ENQUIRIES - Any enquiries in respect of this document should be addressed to Arabesque S-Ray.

Arabesque S-Ray® - The ESG Score, ranging from 0 to 100, identifies sustainable companies that are better positioned to outperform over the long run, based on the principles of financial materiality. That is, when computing the ESG Score of a company, the algorithm will only use information that significantly helps explain future risk-adjusted performance. Materiality is applied by overweighting features with higher materiality and rebalancing these weights on a rolling quarterly basis to stay up-to-date

MSCI ESG Research LLC

"Certain information @2021 MSCI ESG Research LLC. Reproduced by permission"

"Although [User ENTITY NAME's] information providers, including without limitation, MSCI ESG Research LLC and its affiliates (the "ESG Parties"), obtain information (the "Information") from sources they consider reliable, none of the ESG Parties warrants or guarantees the originality, accuracy and/or completeness, of any data herein and expressly disclaim all express or implied warranties, including those of merchantability and fitness for a particular purpose. The Information may only be used for your internal use, may not be reproduced or disseminated in any form and may not be used as a basis for, or a component of, any financial instruments or products or indices. Further, non of the Information can in and of itself be used to determine which securities to buy or sell or when to buy or sell them. None of the ESG Parties shall have any liability for any errors or omissions in connection with any data herein, or any liability for any direct, indirect, special, punitive, consequential or any other damages (including lost profits) even if notified of the possibility of such damages."

Score range	Description
CCC - B	LAGGARD: A company lagging its industry based on its high exposure and failure to manage significant ESG risks
BB - BBB - A	AVERAGE : A company with a mixed or unexceptional track record of managing the most significant ESG risks and opportunities relative to industry peers
AA - AAA	LEADER: A company leading its industry in managing the most significant ESG risks and opportunities

The Dow Jones Sustainability Indices (DJSI)

The Dow Jones Sustainability Indices (DJSI) are a family of best-in-class benchmarks for investors who have recognized that sustainable business practices are critical to generating long-term shareholder value and who wish to reflect their sustainability convictions in their investment portfolios. The family was launched in 1999 as the first global sustainability benchmark and tracks the stock performance of the world's leading companies in terms of economic, environmental and social criteria. Created jointly by S&P Dow Jones Indices and SAM, the DJSI combine the experience of an established index provider with the expertise of a specialist in Sustainable Investing to select the most sustainable companies from across 61 industries. The indices serve as benchmarks for investors who integrate sustainability considerations into their portfolios, and provide an effective engagement platform for investors who wish to encourage companies to improve their corporate sustainability practices.

S&P Global Market Intelligence

Copyright © 2021, S&P Global Market Intelligence (and its affiliates as applicable). Reproduction of any information, opinions, views, data or material, including ratings ("Content") in any form is prohibited except with the prior written permission of the relevant party. Such party, its affiliates and suppliers ("Content Providers") do not guarantee the accuracy, adequacy, completeness, timeliness or availability of any Content and are not responsible for any errors or omissions (negligent or otherwise), regardless of the cause, or for the results obtained from the use of such Content. In no event shall Content Providers be liable for any damages, costs, expenses, legal fees, or losses (including lost income or lost profit and opportunity costs) in connection with any use of the Content. A reference to a particular investment or security, a rating or any observation concerning an investment that is part of the Content is not a recommendation to buy, sell or hold such investment or security, does not address the suitability of an investment or security and should not be relied on as investment advice. Credit ratings are statements of opinions and are not statements of fact.

ESG risk combines the concepts of management and exposure to arrive at an absolute assessment of ESG risk. We identify five categories of ESG risk severity that could impact a company's enterprise value

Moody's ESG Solutions

© 2022 Moody's Corporation, Moody's Investors Service, Inc., Moody's Analytics, Inc. and/or their licensors and affiliates (collectively, "MOODY'S"). All rights reserved.

CREDIT RATINGS ISSUED BY MOODY'S CREDIT RATINGS AFFILIATES ARE THEIR CURRENT OPINIONS OF THE RELATIVE FUTURE CREDIT RISK OF ENTITIES, CREDIT COMMITMENTS, OR DEBT OR DEBT-LIKE SECURITIES, AND MATERIALS, PRODUCTS, SERVICES AND INFORMATION PUBLISHED BY MOODY'S (COLLECTIVELY, "PUBLICATIONS") MAY INCLUDE SUCH CURRENT OPINIONS. MOODY'S DEFINES CREDIT RISK AS THE RISK THAT AN ENTITY MAY NOT MEET ITS CONTRACTUAL FINANCIAL OBLIGATIONS AS THEY COME DUE AND ANY ESTIMATED FINANCIAL LOSS IN THE EVENT OF DEFAULT OR IMPAIRMENT. SEE APPLICABLE MOODY'S RATING SYMBOLS AND DEFINITIONS PUBLICATION FOR INFORMATION ON THE TYPES OF CONTRACTUAL FINANCIAL OBLIGATIONS ADDRESSED BY MOODY'S CREDIT RATINGS. CREDIT RATINGS DO NOT ADDRESS ANY OTHER RISK, INCLUDING BUT NOT LIMITED TO: LIQUIDITY RISK, MARKET VALUE RISK, OR PRICE VOLATILITY. CREDIT RATINGS, NON-CREDIT ASSESSMENTS ("ASSESSMENTS"), AND OTHER OPINIONS INCLUDED IN MOODY'S PUBLICATIONS ARE NOT STATEMENTS OF CURRENT OR HISTORICAL FACT. MOODY'S PUBLICATIONS MAY ALSO INCLUDE QUANTITATIVE MODEL-BASED ESTIMATES OF CREDIT RISK AND RELATED OPINIONS OR COMMENTARY PUBLISHED BY MOODY'S ANALYTICS, INC. AND/OR ITS AFFILIATES. MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS AND PUBLICATIONS DO NOT CONSTITUTE OR PROVIDE INVESTMENT OR FINANCIAL ADVICE, AND MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS AND PUBLICATIONS ARE NOT AND DO NOT PROVIDE RECOMMENDATIONS TO PURCHASE, SELL, OR HOLD PARTICULAR SECURITIES. MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS AND PUBLICATIONS DO NOT COMMENT ON THE SUITABILITY OF AN INVESTMENT FOR ANY PARTICULAR INVESTOR. MOODY'S ISSUES ITS CREDIT RATINGS, ASSESSMENTS AND OTHER OPINIONS AND PUBLISHES ITS PUBLICATIONS WITH THE EXPECTATION AND UNDERSTANDING THAT EACH INVESTOR WILL, WITH DUE CARE, MAKE ITS OWN STUDY AND EVALUATION OF EACH SECURITY THAT IS UNDER CONSIDERATION FOR PURCHASE, HOLDING, OR SALE.

MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS, AND PUBLICATIONS ARE NOT INTENDED FOR USE BY RETAIL INVESTORS AND IT WOULD BE RECKLESS AND INAPPROPRIATE FOR RETAIL INVESTORS TO USE MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS OR PUBLICATIONS WHEN MAKING AN INVESTMENT DECISION. IF IN DOUBT YOU SHOULD CONTACT YOUR FINANCIAL OR OTHER PROFESSIONAL ADVISER.

ALL INFORMATION CONTAINED HEREIN IS PROTECTED BY LAW, INCLUDING BUT NOT LIMITED TO, COPYRIGHT LAW, AND NONE OF SUCH INFORMATION MAY BE COPIED OR OTHERWISE REPRODUCED, REPACKAGED, FURTHER TRANSMITTED, TRANSFERRED, DISSEMINATED, REDISTRIBUTED OR RESOLD, OR STORED FOR SUBSEQUENT USE FOR ANY SUCH PURPOSE, IN WHOLE OR IN PART, IN ANY FORM OR MANNER OR BY ANY MEANS WHATSOEVER, BY ANY PERSON WITHOUT MOODY'S PRIOR WRITTEN CONSENT.

MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS AND PUBLICATIONS ARE NOT INTENDED FOR USE BY ANY PERSON AS A BENCHMARK AS THAT TERM IS DEFINED FOR REGULATORY PURPOSES AND MUST NOT BE USED IN ANY WAY THAT COULD RESULT IN THEM BEING CONSIDERED A BENCHMARK.

All information contained herein is obtained by MOODY'S from sources believed by it to be accurate and reliable. Because of the possibility of human or mechanical error as well as other factors, however, all information contained herein is provided "AS IS" without warranty of any kind. MOODY'S adopts all necessary measures so that the information it uses in assigning a credit rating is of sufficient quality and from sources MOODY'S considers to be reliable including, when appropriate, independent third-party sources. However, MOODY'S is not an auditor and cannot in every instance independently verify or validate information received in the rating process or in preparing its Publications.

To the extent permitted by law, MOODY'S and its directors, officers, employees, agents, representatives, licensors and suppliers disclaim liability to any person or entity for any indirect, special, consequential, or incidental losses or damages whatsoever arising from or in connection with the information contained herein or the use of or inability to use any such information, even if MOODY'S or any of its directors, officers, employees, agents, representatives, licensors or suppliers is advised in advance of the possibility of such losses or damages, including but not limited to: (a) any loss of present or prospective profits or (b) any loss or damage arising where the relevant financial instrument is not the subject of a particular credit rating assigned by MOODY'S.

To the extent permitted by law, MOODY'S and its directors, officers, employees, agents, representatives, licensors and suppliers disclaim liability for any direct or compensatory losses or damages caused to any person or entity, including but not limited to by any negligence (but excluding fraud, willful misconduct or any other type of liability that, for the avoidance of doubt, by law cannot be excluded) on the part of, or any contingency within or beyond the control of, MOODY'S or any of its directors, officers, employees, agents, representatives, licensors or suppliers, arising from or in connection with the information contained herein or the use of or inability to use any such information.

NO WARRANTY, EXPRESS OR IMPLIED, AS TO THE ACCURACY, TIMELINESS, COMPLETENESS, MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE OF ANY CREDIT RATING, ASSESSMENT, OTHER OPINION OR INFORMATION IS GIVEN OR MADE BY MOODY'S IN ANY FORM OR MANNER WHATSOEVER.

Moody's Investors Service, Inc., a wholly-owned credit rating agency subsidiary of Moody's Corporation ("MCO"), hereby discloses that most issuers of debt securities (including corporate and municipal bonds, debentures, notes and commercial paper) and preferred stock rated by Moody's Investors Service, Inc. have, prior to assignment of any credit rating, agreed to pay to Moody's Investors Service, Inc. for credit ratings opinions and services rendered by it fees ranging from \$1,000 to approximately \$5,000,000. MCO and Moody's Investors Service also maintain policies and procedures to address the independence of Moody's Investors Service credit ratings and credit rating processes. Information regarding certain affiliations that may exist between directors of MCO and rated entities, and between entities who hold credit ratings from Moody's Investors Service and have also publicly reported to the SEC an ownership interest in MCO of more than 5%, is posted annually at www.moody.com under the heading "Investor Relations — Corporate Governance — Director and Shareholder Affiliation Policy." Additional terms for Australia only: Any publication into Australia of this document is pursuant to the Australian Financial Services License of MOODY'S affiliate, Moody's Investors Service Pty Limited ABN 61 003 399 657AFSL 336969 and/or Moody's Analytics Australia Pty Ltd ABN 94 105 136 972 AFSL 383569 (as applicable). This document is intended to be provided only to "wholesale clients" within the meaning of section 761G of the Corporations Act 2001. By continuing to access this document from within Australia, you represent to MOODY'S that you are, or are accessing the document as a representative of, a "wholesale client" and that neither you nor the entity you represent will directly or indirectly disseminate this document or its contents to "retail clients" within the meaning of section 761G of the Corporations Act 2001. MOODY'S credit rating is an opinion as to the creditworthiness of a debt obligation of the issuer, not on the equity securities of the issuer or any form of security that is available to retail investors.

Additional terms for Japan only: Moody's Japan K.K. ("MJKK") is a wholly-owned credit rating agency subsidiary of Moody's Group Japan G.K., which is wholly-owned by Moody's Overseas Holdings Inc., a wholly-owned subsidiary of MCO. Moody's SF Japan K.K. ("MSFJ") is a wholly-owned credit rating agency subsidiary of MJKK. MSFJ is not a Nationally Recognized Statistical Rating Organization ("NRSRO"). Therefore, credit ratings assigned by MSFJ are Non-NRSRO Credit Ratings. Non-NRSRO Credit Ratings are assigned by an entity that is not a NRSRO and, consequently, the rated obligation will not qualify for certain types of treatment under U.S. laws. MJKK and MSFJ are credit rating agencies registered with the Japan Financial Services Agency and their registration numbers are FSA Commissioner (Ratings) No. 2 and 3 respectively.

Additional terms for Hong Kong only: Any Second Party Opinion or other opinion that falls within the definition of "advising on securities" under the Hong Kong Securities and Futures Ordinance ("SFO") is issued by Vigeo Eiris Hong Kong Limited, a company licensed by the Hong Kong Securities and Futures Commission to carry out the regulated activity of advising on securities in Hong Kong. This Second Party Opinion or other opinion that falls within the definition of "advising on securities" under the SFO is intended for distribution only to "professional investors" as defined in the SFO and the Hong Kong Securities and Futures (Professional Investors) Rules. This Second Party Opinion or other opinion must not be distributed to or used by persons who are not professional investors.

MJKK or MSFJ (as applicable) hereby disclose that most issuers of debt securities (including corporate and municipal bonds, debentures, notes and commercial paper) and preferred stock rated by MJKK or MSFJ (as applicable) have, prior to assignment of any credit rating, agreed to pay to MJKK or MSFJ (as applicable) for credit ratings opinions and services rendered by it fees ranging from JPY125,000 to approximately JPY550,000,000.

MJKK and MSFJ also maintain policies and procedures to address Japanese regulatory requirements.

Refinitiv ESG

These Terms of Use govern your access or use of the ESG information and materials on the Refinitiv website and any AI powered voice assistance software ("Refinitiv ESG Information"). 2020© Refinitiv. All rights reserved. Refinitiv ESG Information is proprietary to Refinitiv Limited and/or its affiliates ("Refinitiv").

The Refinitiv ESG Information is for general informational and non-commercial purposes only. Reproduction, redistribution or any other form of copying or transmission of the Refinitiv ESG Information is prohibited without Refinitiv's prior written consent.

All warranties, conditions and other terms implied by statute or common law including, without limitation, warranties or other terms as to suitability, merchantability, satisfactory quality and fitness for a particular purpose, are excluded to the maximum extent permitted by applicable laws. The Refinitiv ESG Information is provided "as is" and Refinitiv makes no express or implied warranties, representations or guarantees concerning the accuracy, completeness or currency of the information in this service or the underlying Third Party Sources (as defined below). You assume sole responsibility and entire risk as to the suitability and results obtained from your use of the Refinitiv ESG Information.

The Refinitiv ESG Information does not amount to financial, legal or other professional advice, nor does it constitute: (a) an offer to purchase shares in the funds referred to; or (b) a recommendation relating to the sale and purchase of instruments; or (c) a recommendation to take any particular legal, compliance and/or risk management decision. Investors should remember that past performance is not a guarantee of future results.

The Refinitiv ESG Information will not be used to construct or calculate an index or a benchmark, used to create any derivative works or used for commercial purposes. Refinitiv's disclaimer in respect of Benchmark Regulations applies to the Refinitiv ESG Information.

No responsibility or liability is accepted by Refinitiv its affiliates, officers, employees or agents (whether for negligence or otherwise) in respect of the Refinitiv ESG Information, or for any inaccuracies, omissions, mistakes, delays or errors in the computation and compilation of the Refinitiv ESG Information (and Refinitiv shall not be obliged to advise any person of any error therein). For the avoidance of doubt, in no event will Refinitiv have any liability for any direct, indirect, special, punitive, consequential or any other damages (including lost profits) relating to any use of the Refinitiv ESG Information.

You agree to indemnify, defend and hold harmless Refinitiv from and against any claims, losses, damages, liabilities, costs and expenses, including, without limitation, reasonable legal and experts' fees and costs, as incurred, arising in any manner out of your use of, or inability to use, any Information contained on the Refinitiv web site or obtained via any AI powered voice assistance software.

You represent to us that you are lawfully able to enter into these Terms of Use. If you are accepting these Terms of Use for and on behalf of an entity such as the company you work for, you represent to us that you have legal authority to bind that entity.

By accepting these Terms of Use you are also expressly agreeing to the following Refinitiv's website Terms of Use.

Refinitiv ESG scores are derived from third party publicly available sources ("Third Party Sources") and are formulated on the basis of Refinitiv own transparent and objectively applied methodology. Refinitiv's ESG Information methodology can be accessed here.

Score range	Description	
0 to 25	First Quartile	Scores within this range indicates poor relative ESG performance and insufficient degree of transparency in reporting material ESG data publicly.
> 25 to 50	Second Quartile	Scores within this range indicates satisfactory relative ESG performance and moderate degree of transparency in reporting material ESG data publicly.
> 50 to 75	Third Quartile	Scores within this range indicates good relative ESG performance and above average degree of transparency in reporting material ESG data publicly.
> 75 to 100	Fourth Quartile	Score within this range indicates excellent relative ESG performance and high degree of transparency in reporting material ESG data publicly.

CG Report : by Thai Institute of Directors Association (Thai IOD), Established in December 1999, the Thai IOD is a membership organization that strives to promote professionalism in directorship. The Thai IOD offers directors certification and professional development courses, provides a variety of seminars, forums and networking events, and conducts research on board governance issues and practices. Membership comprises board members from companies ranging from large publicly listed companies to small private firms.

90-100	▲▲▲▲▲	Excellent
80-89	▲▲▲▲	Very Good
70-79	▲▲▲	Good
60-69	▲▲	Satisfactory
50-59	▲	Pass
Below		N/A

General Disclaimers And Disclosures:

This report is prepared and issued by Thanachart Securities Public Company Limited (TNS) as a resource only for clients of TNS, Thanachart Capital Public Company Limited (TCAP) and its group companies. Copyright © Thanachart Securities Public Company Limited. All rights reserved. The report may not be reproduced in whole or in part or delivered to other persons without our written consent.

This report is prepared by analysts who are employed by the research department of TNS. While the information is from sources believed to be reliable, neither the information nor the forecasts shall be taken as a representation or warranty for which TNS or TCAP or its group companies or any of their employees incur any responsibility. This report is provided to you for informational purposes only and it is not, and is not to be construed as, an offer or an invitation to make an offer to sell or buy any securities. Neither TNS, TCAP nor its group companies accept any liability whatsoever for any direct or consequential loss arising from any use of this report or its contents.

The information and opinions contained herein have been compiled or arrived at from sources believed reliable. However, TNS, TCAP and its group companies make no representation or warranty, express or implied, as to their accuracy or completeness. Expressions of opinion herein are subject to change without notice. The use of any information, forecasts and opinions contained in this report shall be at the sole discretion and risk of the user.

TNS, TCAP and its group companies perform and seek to perform business with companies covered in this report. TNS, TCAP, its group companies, their employees and directors may have positions and financial interest in securities mentioned in this report. TNS, TCAP or its group companies may from time to time perform investment banking or other services for, or solicit investment banking or other business from, any entity mentioned in this report. Therefore, investors should be aware of conflict of interest that may affect the objectivity of this report.

Note: Thanachart Securities Public Company Limited act as a Market Maker and Derivative Warrants Issuer. At present, TNS has issued 75 Derivative Warrants which are ADVANC16C2301A, ADVANC16C2302A, AMATA16C2212A, AOT16C2212A, AOT16C2302A, BANPU16C2303A, BANPU16C2212A, BANPU16C2302A, BBL16C2212A, BGRIM16C2212A, BGRIM16C2301A, BGRIM16C2302A, BH16C2303A, BH16C2212A, BH16C2212B, BLA16C2212A, BLA16C2302A, BTS16C2301A, CBG16C2301A, CBG16C2301B, CBG16C2302A, COM716C2302A, CPN16C2303A, CPN16C2301A, CRC16C2303A, DOHOME16C2301A, DOHOME16C2303A, DTAC16C2212A, EA16C2303A, ESSO16C2303A, ESSO16C2302A, GPSC16C2301A, GPSC16C2302A, GULF16C2301A, GULF16C2302A, GULF16C2302B, GUNKUL16C2301A, GUNKUL16C2302A, HANA16C2301A, HANA16C2303A, IVL16C2212A, IVL16C2301A, JMART16C2303A, JMT16C2302A, KBANK16C2301A, KBANK16C2302A, KCE16C2303A, KCE16C2301A, KCE16C2301B, KCE16C2302A, KTB16C2303A, MINT16C2301A, MINT16C2302A, MTC16C2212A, MTC16C2301A, PSL16C2212A, PTTEP16C2212A, PTTEP16C2303A, RCL16C2303A, SAWAD16C2302A, SCB16C2301A, SCGP16C2212A, SCGP16C2303A, SET5016P2303A, SET5016C2303A, SET5016C2212A, SET5016C2212B, SET5016C2212C, SET5016P2212A, SET5016P2212B, SINGER16C2212A, SPRC16C2212A, TIDLOR16C2212A, TRUE16C2212A, VGI16C2301A (underlying securities are (ADVANC, AMATA, AOT, BANPU, BBL, BGRIM, BH, BLA, BTS, CBG, COM7, CPN, CRC, DOHOME, DTAC, EA, ESSO, GPSC, GULF, GUNKUL, HANA, IVL, JMART, JMT, KBANK, KCE, KTB, MINT, MTC, PSL, PTTEP, RCL, SAWAD, SCB, SCGP, SET50, SINGER, SPRC, TIDLOR, VGI, TRUE). before making investment decisions.

Note: Our major shareholder TCAP (Thanachart Capital Pcl) which holding 89.96% of Thanachart Securities and also TCAP holding 100% of Thanachart SPV1 Co. Ltd. TCAP and Thanachart SPV1 Co. Ltd has stake in THANI for 60% and being the major shareholder of THANI.

Note: Thanachart Capital Public Company Limited (TCAP), TMBThanachart Bank Public Company Limited (TTB), are related companies to Thanachart Securities Public Company Limited (TNS). Thanachart Securities Pcl is a subsidiary of Thanachart Capital Pcl (TCAP) which holds 24.33% of the shareholding in TMBThanachart Bank Pcl.

Thanachart Capital Public Company Limited (TCAP), Ratchthani Leasing Public Company Limited (THANI), MBK PUBLIC COMPANY LIMITED (MBK) and PATUM RICE MILL AND GRANARY PUBLIC COMPANY LIMITED (PRG) are related companies to Thanachart Securities Public Company Limited (TNS) . Since TNS covers those securities in research report, consequently TNS incurs conflicts of interest.

Disclosure of Interest of Thanachart Securities

Investment Banking Relationship

Within the preceding 12 months, Thanachart Securities has lead-managed public offerings and/or secondary offerings (excluding straight bonds) of the securities of the following companies: The One Enterprise Pcl. (ONEE TB)

Recommendation Structure:

Recommendations are based on absolute upside or downside, which is the difference between the target price and the current market price. If the upside is 10% or more, the recommendation is BUY. If the downside is 10% or more, the recommendation is SELL. For stocks where the upside or downside is less than 10%, the recommendation is HOLD. Unless otherwise specified, these recommendations are set with a 12-month horizon. Thus, it is possible that future price volatility may cause a temporary mismatch between upside/downside for a stock based on the market price and the formal recommendation.

For sectors, an "Overweight" sector weighting is used when we have BUYs on majority of the stocks under our coverage by market cap. "Underweight" is used when we have SELLs on majority of the stocks we cover by market cap. "Neutral" is used when there are relatively equal weightings of BUYs and SELLs.

Thanachart Securities Pcl.

Research Team

18 Floor, MBK Tower

444 Phayathai Road, Pathumwan Road, Bangkok 10330

Tel: 662 - 779-9119

Email: thanachart.res@thanachartsec.co.th

Pimpaka Nichgaroon, CFA

Head of Research

Tel: 662-779-9199

pimpaka.nic@thanachartsec.co.th

Pattarawan Wangmingmat

Senior Technical Analyst

Tel: 662-779-9105

pattarawan.wan@thanachartsec.co.th

Phannarai Tiyapittayarut

Property, Retail

Tel: 662-779-9109

phannarai.von@thanachartsec.co.th

Sarachada Sornsong

Bank, Finance

Tel: 662-779-9106

sarachada.sor@thanachartsec.co.th

Witchanan Tambamroong

Technical Analyst

Tel: 662-779-9123

witchanan.tam@thanachartsec.co.th

Adisak Phupiphathirungul, CFA

Retail Market Strategy

Tel: 662-779-9120

adisak.phu@thanachartsec.co.th

Nuttapop Prasitsuksant

Telecom, Utilities

Tel: 662-483-8296

nuttapop.pra@thanachartsec.co.th

Rata Limsuthiwanpoom

Auto, Industrial Estate, Media, Prop. Fund

Tel: 662-483-8297

rata.lim@thanachartsec.co.th

Siriporn Arunothai

Small Cap, Healthcare, Hotel

Tel: 662-779-9113

siriporn.aru@thanachartsec.co.th

Sittichet Rungrassameephat

Analyst, Quantitative

Tel: 662-483-8303

sittichet.run@thanachartsec.co.th

Chak Reungsinpinya

Strategy, Insurance, Paper

Tel: 662-779-9104

chak.reu@thanachartsec.co.th

Pattadol Bunnak

Electronics, Food & Beverage, Shipping

Tel: 662-483-8298

pattadol.bun@thanachartsec.co.th

Saksid Phadthanarak

Construction, Transportation

Tel: 662-779-9112

saksid.pha@thanachartsec.co.th

Yupapan Polpornprasert

Energy, Petrochemical

Tel: 662-779-9110

yupapan.pol@thanachartsec.co.th

Thaloengsak Kucharoenpaisan

Analyst, Retail Market

Tel: 662-483-8304

thaloengsak.kuc@thanachartsec.co.th