

GLOBAL POWER SYNERGY

THAILAND / UTILITIES - CONVENTIONAL

GPSC TB

HOLD

UNCHANGED

Divergence of gas cost and earnings

- GPSC's 3Q22 NP was weak at THB331m, (-52% q-q, -82% y-y). Core NP was THB784m, (-35% q-q and -65% y-y).
- We expect GPSC's weak earnings to continue in 4Q22, dragged down by high gas and coal costs.
- We maintain HOLD and trim our SoTP-based TP to THB68.5.

TARGET PRICE	THB68.50
CLOSE	THB65.25
UP/DOWNSIDE	+5.0%
PRIOR TP	THB70.00
CHANGE IN TP	-2.1%
TP vs CONSENSUS	-12.0%

KEY STOCK DATA

YE Dec (THB m)	2021	2022E	2023E	2024E
Revenue	74,874	86,832	96,548	112,184
Net profit	7,319	4,868	7,676	12,263
EPS (THB)	2.60	1.73	2.72	4.35
vs Consensus (%)	-	21.1	5.4	33.5
EBITDA	22,231	14,852	18,424	23,778
Core net profit	8,907	4,868	7,676	12,263
Core EPS (THB)	3.16	1.73	2.72	4.35
Chg. In EPS est. (%)	-	-	-	-
EPS growth (%)	(0.6)	(45.3)	57.7	59.8
Core P/E (x)	20.7	37.8	24.0	15.0
Dividend yield (%)	2.3	1.8	3.1	3.1
EV/EBITDA (x)	12.7	20.3	17.0	13.4
Price/book (x)	1.7	1.7	1.6	1.5
Net debt/Equity (%)	74.6	89.3	94.8	93.3
ROE (%)	8.4	4.5	6.9	10.5

Gas and coal cost hikes hurt 3Q22 earnings

GPSC's 3Q22 net profit (NP) was weak at THB331m, down 52% q-q and 82% y-y. Core NP was THB784m, down 35% q-q and 65% y-y, missing BBG's consensus estimate by 72%. Key drags were the higher gas and coal costs, but these were partly offset by a higher q-q share of profits from GPSC's 25%-owned Xaiyaburi (XPCL) hydropower plant. Core NPs from GPSC's main power plants dropped in 3Q22 due to: 1) lower gross profits (GPs) from small power producers (SPPs) due to higher y-y gas and coal costs; and 2) lower availability payments from independent power producers (IPPs) due to the planned shutdown of GHECO-One.

Cost hikes turned SPPs into losers

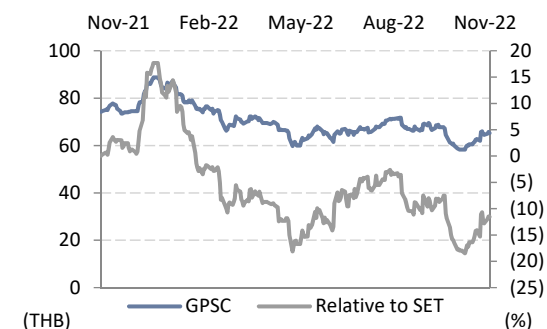
Overall, 3Q22 GP dipped q-q to THB2.9b (-19% q-q, -40% y-y), while 3Q22 GP from SPPs was THB1.4b (-29% q-q, -63% y-y) on the y-y higher gas cost at THB513/mmbtu (+19% q-q, +89% y-y) and the higher coal cost at USD356/tonne (+73% q-q, +236% y-y). These were partly offset by the higher steam sales volume (+5% y-y for GPSC, -1% y-y for Glow Energy (GLOW, not listed)) and electricity sales volumes (+1% y-y for GPSC, +0.4% y-y for GLOW). The higher y-y GP from IPPs at THB1.6b (-6% q-q, +43% y-y) was due to the higher electricity dispatch by the Electricity Generating Authority of Thailand for the use of diesel instead of natural gas.

Hydropower is a cushion

XPCL (25%-owned by GPSC) contributed a net profit of THB741m in 3Q22, up from only THB459m in 2Q22 due to seasonally higher water levels, boosting the overall share of profits q-q in 3Q22 to THB682m (+58% q-q, -1% y-y). NP from another power plant, Nam Lik 1, was flat q-q at THB14m. Nava Nakorn contributed a net loss of THB48m, worsening from the net loss of THB2m in 2Q22. The acquired solar farms from Avaada contributed a net loss of THB110m due to high financing costs, while the solar farms in Thailand added THB77m in net profit in 3Q22.

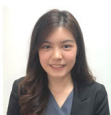
Maintain HOLD, trim TP to THB68.5

We maintain HOLD and trim our SoTP-based TP to THB68.5 to reflect our valuation rollover to 2023. We expect GPSC's weak earnings to continue in 4Q22, dragged down by high gas and coal costs. With this report, we transfer coverage of GPSC to Siriluck Pinthusoonthorn.



Share price performance	1 Month	3 Month	12 Month
Absolute (%)	8.8	(8.1)	(13.3)
Relative to country (%)	5.9	(8.3)	(12.8)
Mkt cap (USD m)	4,988		
3m avg. daily turnover (USD m)	13.5		
Free float (%)	25		
Major shareholder	PTT Plc (47%)		
12m high/low (THB)	89.75/57.25		
Issued shares (m)	2,819.73		

Sources: Bloomberg consensus; FSSIA estimates


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Investment thesis

Backed by the PTT Group as a major shareholder, GPSC is the fourth-largest utilities company in Thailand by market capitalisation, with its operations comprising the generation of electricity, steam and other utilities.

Established as a power investment arm of the PTT Group – Thailand’s leading energy company – GPSC has long leveraged its solid ties with the group to expand its electricity generation capacity growth and capture domestic and international opportunities. Currently, GPSC generates electricity mainly from natural gas (80%), and most of its capacity is aimed at supporting PTT Group companies, including PTT (PTT TB, BUY, TP THB50), PTT Global Chemical (PTTGC TB, REDUCE, TP THB40), Thai Oil (TOP TB, BUY, TP THB70) and IRPC (IRPC TB, HOLD, TP THB3.2).

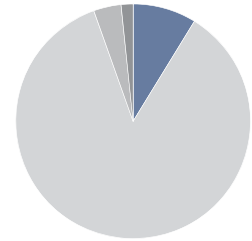
Company profile

GPSC is a power flagship company of PTT Group. It operates small power producers, is an independent power producer and has a presence in renewable energy.

www.gpscgroup.com

Principal activities (revenue, 2021)

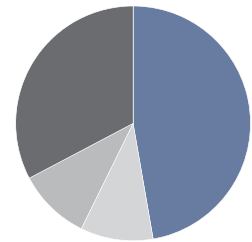
- Independent power producer - 8.7 %
- Small power producer - 85.8 %
- Very small power producer - 3.8 %
- Others - 1.6 %



Source: Global Power Synergy

Major shareholders

- PTT Plc - 47.3 %
- PTTGC Plc - 10.0 %
- TOP Plc - 10.0 %
- Others - 32.7 %



Source: Global Power Synergy

Catalysts

Higher costs of gas and coal, lower utilisation rates of power plants, and rising demand for electricity in Thailand and Japan are key potential growth drivers.

Risks to our call

The downside risks to our SoTP-based TP on GPSC include 1) lower-than-expected demand for electricity in Thailand; 2) a lower crude price; and 3) lower-than-expected demand from industrial users. Upside risks are a lower gas price and higher sales volume.

Event calendar

Date	Event
Feb 2023	4Q22/2022 results announcement

Key assumptions

	2022E	2023E	2024E
Gas cost (THB/mmbtu)	380	350	354
Coal cost (USD/tonne)	250	200	200
Tariff (THB/kWh)	3.45	3.49	3.52
Capacity (MW)	7,516	7,641	7,641
CAPEX (THB m)	(23,197)	(16,997)	(13,599)

Source: FSSIA estimates

Earnings sensitivity

- Ceteris Paribus, for every 1% increase in gas price, we estimate 2023 earnings will decline 1.1%, and vice versa.
- Ceteris Paribus, for every 1% increase in interest rate, we estimate 2023 earnings will decline 1.1%, and vice versa.

Source: FSSIA estimates

Exhibit 1: Summary of 3Q22/9M22 operations

	3Q21	2Q22	3Q22			9M21	9M22	Change	2022E
	(THB m)	(THB m)	(THB m)	(q-q %)	(y-y %)	(THB m)	(THB m)	(y-y %)	(THB m)
Revenue	17,996	27,719	33,866	22.2	88.2	52,855	88,846	68.1	86,832
Operating costs	(13,074)	(24,524)	(31,312)	27.7	139.5	(38,048)	(80,669)	112.0	(71,498)
EBITDA	4,922	3,195	2,554	(20.1)	(48.1)	14,807	8,177	(44.8)	14,852
<i>EBITDA margin (%)</i>	27	12	8	<i>nm</i>	<i>nm</i>	28	9	<i>nm</i>	17
Depn & amort.	(2,205)	(2,157)	(2,150)	(0.3)	(2.5)	(6,430)	(6,442)	0.2	(7,668)
EBIT	2,717	1,038	404	(61.1)	(85.1)	8,377	1,735	(79.3)	7,185
Interest expense	(998)	(1,046)	(1,069)	2.1	7.1	(2,959)	(3,089)	4.4	(3,305)
Interest & invt inc	0	0	0	<i>nm</i>	<i>nm</i>	0	0	<i>nm</i>	0
Other income	284	625	211	(66.3)	(25.9)	1,075	1,768	64.4	0
Associates' contrib	690	432	683	58.0	(1.0)	1,416	1,258	(11.2)	1,967
Exceptional	(461)	(188)	14	<i>nm</i>	<i>nm</i>	(451)	(224)	(50.2)	0
Pretax profit	2,232	861	243	(71.8)	(89.1)	7,459	1,447	(80.6)	5,847
Tax	(295)	(53)	158	<i>nm</i>	<i>nm</i>	(1,095)	139	<i>nm</i>	(336)
<i>Tax rate (%)</i>	13	6	(65)	<i>nm</i>	<i>nm</i>	15	(10)	<i>nm</i>	6
Minority interests	(63)	(124)	(70)	(43.8)	10.8	(213)	(258)	20.9	(643)
Net profit	1,875	684	331	(51.6)	(82.4)	6,150	1,328	(78.4)	4,868
Non-recurring	381	520	453	(12.9)	18.8	1,185	1,431	20.8	0
Core net profit	2,256	1,204	784	(34.9)	(65.2)	7,335	2,759	(62.4)	4,868
EPS (THB)	0.66	0.24	0.12	(51.6)	(82.4)	2.18	0.47	(78.4)	1.73
Core EPS (THB)	0.80	0.43	0.28	(34.9)	(65.2)	2.60	0.98	(62.4)	1.73

Sources: GPSC; FSSIA estimates

Exhibit 2: 3Q22/9M22 – key performance

	3Q21	2Q22	3Q22	(q-q %)	(y-y %)	9M21	9M22	(y-y %)	Unit
IPP									
Gross profit	1,089	1,658	1,558	(6.0)	43.1	3,467	4,549	31.2	THB m
Gross profit margin*	33	20	15	(5.0)	(18.0)	31	16	(15.0)	%
Availability rate (Sriracha)*	100	90	45	(45.0)	(55.0)	100	73	(27.0)	%
Availability rate (GIPP)*	98	100	96	(4.0)	(2.0)	91	98	7.0	%
Availability rate (GHECO-ONE)*	69	84	78	(6.0)	9.0	68	79	11.0	%
Average selling price	2.77	4.68	5.02	7.3	81.2	2.36	4.80	103.4	THB/kWh
Natural gas consumption (Sriracha)	473	25	30	20.0	(93.7)	6,645	80	(98.8)	('000 MMBTU)
Natural gas consumption (GLOW)	311	242	250	3.3	(19.6)	3,875	283	(92.7)	('000 MMBTU)
Average coal cost	90	196	169	(13.8)	88.1	74	175	137.4	USD/tonne JPU
SPP									
Gross profit	3,721	1,930	1,375	(28.8)	(63.0)	11,986	4,750	(60.4)	THB m
Gross profit margin*	26	10	6	(4.0)	(20.0)	29	8	(21.0)	%
Weighted average selling price (Electricity)	3.05	3.81	4.86	27.6	59.3	2.95	4.16	41.0	THB/kWh
Weighted average selling price (Steam)	980	1,455	1,633	12.2	66.6	945	1,490	57.7	THB/Tonnes
Natural gas consumption	31,413	31,796	33,491	5.3	6.6	93,492	95,212	1.8	('000 MMBTU)
- GPSC	13,562	13,590	14,191	4.4	4.6	39,950	41,236	3.2	('000 MMBTU)
- GLOW	17,851	18,206	19,300	6.0	8.1	53,542	53,976	0.8	('000 MMBTU)
Average price of natural gas	271	432	513	18.8	89.3	245	461	88.2	THB/MMBTU
Average coal cost	106	205	356	73.1	236.3	88	246	180.6	USD/tonne JPU
VSPP									
Gross profit	112	37	16	(56.8)	(85.7)	294	88	(70.1)	THB m
Gross profit margin*	63	15	7	(8.0)	(56.0)	58	14	(44.0)	%
Average selling price (Electricity)	14.59	8.22	5.49	(33.2)	(62.4)	9.49	5.94	(37.4)	THB/kWh
Average selling price (Chilled water)	7.03	7.83	8.21	4.9	16.8	7.10	8.05	13.4	THB/RT
Share of profits from associates and joint ventures	690	432	682	57.9	(1.2)	1,416	1,234	(12.9)	THB m
- Xayaburi Power Company Limited (XPCL)	591	459	741	61.4	25.4	907	1,201	32.4	THB m
- Bangpa-in Cogeneration Company Limited (BIC)	34	15	5	(66.7)	(85.3)	100	38	(62.0)	THB m
- Nava Nakorn Electricity Generating Company Limited (NNEG)	31	(2)	(48)	<i>nm</i>	<i>nm</i>	112	(65)	<i>nm</i>	THB m
- Nam Lik 1 Power Company Limited (NL1PC)	18	14	14	0.0	(22.2)	46	48	4.3	THB m
- Thai Solar Renewable Company Limited (TSR)	79	91	77	(15.4)	(2.5)	270	261	(3.3)	THB m
- Eastern Seaboard Clean Energy Company (ESCE)	7	7	6	(14.3)	(14.3)	21	21	0.0	THB m
- Avaada Energy Private Limited (Avaada)	(31)	(154)	(110)	(28.6)	254.8	(31)	(290)	835.5	THB m
- Global Renewable Power Company Limited (GRP)	(39)	12	10	(16.7)	<i>nm</i>	(9)	44	<i>nm</i>	THB m
- Nuovo Plus Company Limited (NUOVO PLUS)	0	(10)	(13)	30.0	<i>nm</i>	0	(24)	<i>nm</i>	

*Note: Change in margin % is represented in ppt change

Sources: GPSC; FSSIA estimates

Exhibit 3: SoTP-based target price

Cost of equity assumptions		(%)	Cost of debt assumptions		(%)
Risk-free rate		2.3	Pretax cost of debt		4.0
Market risk premium		8.5	Marginal tax rate		20.0
Stock beta		1.09			
Cost of equity, Ke		11.6	Net cost of debt, Kd		3.2
Weight applied		37.2	Weight applied		62.8
WACC (%)		6.3			
DCF valuation estimate		(THB m)	(THB/share)	Comments	
Core operating assets		152,346	54.0	Include all SPPs and two hydropower plants, WACC 6%	
Investments		15,336	5.4	Estimated value for affiliates post 2015, assume EIRR of 12%	
Cash		5,289	1.9	At end-2023E	
Debt		(122,811)	(43.6)	At end-2023E	
Minorities		(10,901)	(3.9)	At end-2023E	
Residual ordinary equity - Exc. ERU		39,258	14.4		
GLOW		78,372	27.8	Excluding SPP replacement projects	
XPCL		4,621	1.6	Assume EIRR 12%, COD Oct 2019	
ERU - TOP		(1,381)	(0.5)	Assume EIRR 9.4%, COD 2024E	
GLOW SPP replacement		67,095	23.8	Including GEN phase 2, GSPP2&3, and GSPP11#1	
Avaada - solar farms (India)		5,509	2.0	Assume EIRR 15%	
CI - offshore wind farms (Taiwan)		(1,593)	(0.6)	Assume EIRR 8%	
Target price		191,881	68.5		

Source: FSSIA estimates

Financial Statements

Global Power Synergy

Profit and Loss (THB m) Year Ending Dec	2020	2021	2022E	2023E	2024E
Revenue	69,578	74,874	86,832	96,548	112,184
Cost of goods sold	(47,742)	(54,504)	(71,498)	(76,954)	(86,938)
Gross profit	21,836	20,370	15,335	19,594	25,245
Other operating income	1,402	3,236	1,151	648	650
Operating costs	(497)	(1,374)	(1,633)	(1,819)	(2,117)
Operating EBITDA	22,741	22,231	14,852	18,424	23,778
Depreciation	(8,706)	(9,232)	(7,668)	(8,561)	(8,552)
Goodwill amortisation	0	0	0	0	0
Operating EBIT	14,035	13,000	7,185	9,862	15,226
Net financing costs	(4,022)	(3,915)	(3,305)	(4,831)	(5,011)
Associates	924	1,536	1,967	4,095	4,168
Recurring non-operating income	924	1,536	1,967	4,095	4,168
Non-recurring items	(1,454)	(1,588)	0	0	0
Profit before tax	9,483	9,032	5,847	9,126	14,383
Tax	(993)	(1,192)	(336)	(605)	(1,234)
Profit after tax	8,490	7,840	5,511	8,521	13,149
Minority interests	(982)	(522)	(643)	(845)	(886)
Preferred dividends	0	0	0	0	0
Other items	-	-	-	-	-
Reported net profit	7,508	7,319	4,868	7,676	12,263
Non-recurring items & goodwill (net)	1,454	1,588	0	0	0
Recurring net profit	8,962	8,907	4,868	7,676	12,263
Per share (THB)					
Recurring EPS *	3.18	3.16	1.73	2.72	4.35
Reported EPS	2.66	2.60	1.73	2.72	4.35
DPS	1.50	1.50	1.20	2.05	2.05
Diluted shares (used to calculate per share data)	2,820	2,820	2,820	2,820	2,820
Growth					
Revenue (%)	4.5	7.6	16.0	11.2	16.2
Operating EBITDA (%)	20.8	(2.2)	(33.2)	24.0	29.1
Operating EBIT (%)	19.5	(7.4)	(44.7)	37.3	54.4
Recurring EPS (%)	60.8	(0.6)	(45.3)	57.7	59.8
Reported EPS (%)	84.9	(2.5)	(33.5)	57.7	59.8
Operating performance					
Gross margin inc. depreciation (%)	18.9	14.9	8.8	11.4	14.9
Gross margin of key business (%)	18.9	14.9	8.8	11.4	14.9
Operating EBITDA margin (%)	32.7	29.7	17.1	19.1	21.2
Operating EBIT margin (%)	20.2	17.4	8.3	10.2	13.6
Net margin (%)	12.9	11.9	5.6	8.0	10.9
Effective tax rate (%)	11.6	15.9	8.7	12.0	12.1
Dividend payout on recurring profit (%)	47.2	47.5	69.5	75.3	47.1
Interest cover (X)	3.7	3.7	2.8	2.9	3.9
Inventory days	49.6	44.2	40.9	44.8	43.8
Debtor days	56.4	54.9	67.1	80.5	89.1
Creditor days	32.6	34.7	37.8	41.4	40.4
Operating ROIC (%)	10.4	(2.3)	(1.2)	(8.3)	(11.7)
ROIC (%)	5.4	(1.2)	(0.7)	(6.2)	(8.2)
ROE (%)	8.8	8.4	4.5	6.9	10.5
ROA (%)	5.2	3.3	1.7	0.9	2.3
* Pre-exceptional, pre-goodwill and fully diluted					
Revenue by Division (THB m)					
Independent power producer	10,695	6,550	5,188	14,534	29,560
Small power producer	55,525	64,249	77,211	77,579	78,186
Very small power producer	2,136	2,851	3,208	3,208	3,208
Others	1,222	1,224	1,225	1,227	1,229

Sources: Global Power Synergy; FSSIA estimates

Financial Statements

Global Power Synergy

Cash Flow (THB m) Year Ending Dec	2020	2021	2022E	2023E	2024E
Recurring net profit	8,962	8,907	4,868	7,676	12,263
Depreciation	8,706	9,232	7,668	8,561	8,552
Associates & minorities	924	1,536	1,967	4,095	4,168
Other non-cash items	1,317	1,318	1,318	1,319	1,319
Change in working capital	(10,510)	(4,686)	(5,827)	(6,166)	(7,421)
Cash flow from operations	9,400	16,307	9,994	15,486	18,881
Capex - maintenance	(8,706)	(9,232)	(5,868)	(6,761)	(6,802)
Capex - new investment	(1,296)	(4,398)	(17,329)	(10,236)	(6,796)
Net acquisitions & disposals	(540)	(16,535)	0	0	0
Other investments (net)	0	0	0	0	0
Cash flow from investing	(10,543)	(30,165)	(23,197)	(16,997)	(13,599)
Dividends paid	0	0	(3,384)	(4,371)	(5,780)
Equity finance	0	0	0	0	0
Debt finance	5,705	(2,683)	17,179	4,000	5,000
Other financing cash flows	(3,113)	10,045	(2,644)	(4,571)	(4,603)
Cash flow from financing	2,592	7,362	11,152	(4,941)	(5,383)
Non-recurring cash flows	-	-	-	-	-
Other adjustments	0	0	0	0	0
Net other adjustments	0	0	0	0	0
Movement in cash	1,450	(6,496)	(2,051)	(6,452)	(100)
Free cash flow to firm (FCFF)	2,881.11	(9,998.19)	(9,897.51)	3,319.91	10,293.72
Free cash flow to equity (FCFE)	1,449.90	(6,496.07)	1,332.75	(2,081.86)	5,679.95

Per share (THB)

FCFF per share	1.02	(3.55)	(3.51)	1.18	3.65
FCFE per share	0.51	(2.30)	0.47	(0.74)	2.01
Recurring cash flow per share	7.06	7.45	5.61	7.68	9.33

Balance Sheet (THB m) Year Ending Dec	2020	2021	2022E	2023E	2024E
Tangible fixed assets (gross)	127,437	132,273	153,671	168,870	180,720
Less: Accumulated depreciation	(27,460)	(36,692)	(42,560)	(49,321)	(56,123)
Tangible fixed assets (net)	99,978	95,581	111,112	119,549	124,597
Intangible fixed assets (net)	6,072	5,116	5,116	5,116	5,116
Long-term financial assets	-	-	-	-	-
Invest. in associates & subsidiaries	11,165	27,700	27,700	27,700	27,700
Cash & equivalents	20,289	13,793	11,741	5,289	5,188
A/C receivable	9,084	13,441	18,495	24,113	30,641
Inventories	6,253	6,938	9,102	9,796	11,067
Other current assets	7,828	11,318	13,125	14,594	16,958
Current assets	43,454	45,490	52,463	53,792	63,854
Other assets	95,987	96,492	96,492	96,492	96,492
Total assets	256,656	270,379	292,883	302,649	317,759
Common equity	102,901	108,334	109,818	113,124	119,607
Minorities etc.	8,966	9,413	10,056	10,901	11,787
Total shareholders' equity	111,867	117,748	119,875	124,025	131,394
Long term debt	92,321	92,511	101,811	97,811	102,811
Other long-term liabilities	30,405	37,084	37,084	37,084	37,084
Long-term liabilities	122,726	129,595	138,895	134,895	139,895
A/C payable	3,952	6,407	8,405	9,046	10,220
Short term debt	11,993	9,121	17,000	25,000	25,000
Other current liabilities	6,118	7,508	8,708	9,682	11,250
Current liabilities	22,063	23,036	34,112	43,728	46,470
Total liabilities and shareholders' equity	256,656	270,379	292,883	302,649	317,759
Net working capital	13,096	17,782	23,609	29,775	37,196
Invested capital	226,298	242,671	264,029	278,632	291,101

* Includes convertibles and preferred stock which is being treated as debt

Per share (THB)

Book value per share	36.49	38.42	38.95	40.12	42.42
Tangible book value per share	34.34	36.61	37.13	38.30	40.60

Financial strength

Net debt/equity (%)	75.1	74.6	89.3	94.8	93.3
Net debt/total assets (%)	32.7	32.5	36.6	38.8	38.6
Current ratio (x)	2.0	2.0	1.5	1.2	1.4
CF interest cover (x)	1.7	0.5	6.6	2.7	3.5

Valuation	2020	2021	2022E	2023E	2024E
Recurring P/E (x) *	20.5	20.7	37.8	24.0	15.0
Recurring P/E @ target price (x) *	21.6	21.7	39.7	25.2	15.8
Reported P/E (x)	24.5	25.1	37.8	24.0	15.0
Dividend yield (%)	2.3	2.3	1.8	3.1	3.1
Price/book (x)	1.8	1.7	1.7	1.6	1.5
Price/tangible book (x)	1.9	1.8	1.8	1.7	1.6
EV/EBITDA (x) **	12.2	12.7	20.3	17.0	13.4
EV/EBITDA @ target price (x) **	12.6	13.1	20.9	17.5	13.8
EV/invested capital (x)	1.2	1.2	1.1	1.1	1.1

* Pre-exceptional, pre-goodwill and fully diluted ** EBITDA includes associate income and recurring non-operating income

Sources: Global Power Synergy; FSSIA estimates

Corporate Governance report of Thai listed companies 2021

EXCELLENT LEVEL – Score range 90-100										
AAV	BCPG	CPALL	GCAP	K	MSC	PLANET	SAMART	SPI	THRE	TVD
ADVANC	BDMS	CPF	GFPT	KBANK	MST	PLAT	SAMTEL	SPRC	THREL	TVI
AF	BEM	CPI	GGC	KCE	MTC	PORT	SAT	SPVI	TIPCO	TVO
AH	BGC	CPN	GLAND	KKP	MVP	PPS	SC	SSSC	TISCO	TWPC
AIRA	BGRIM	CRC	GLOBAL	KSL	NCL	PR9	SCB	SST	TK	U
AKP	BIZ	CSS	GPI	KTB	NEP	PREB	SCC	STA	TKT	UAC
AKR	BKI	DDD	GPSC	KTC	NER	PRG	SCCC	STEC	TMT	UBIS
ALT	BOL	DELTA	GRAMMY	LALIN	NKI	PRM	SCG	STI	TNDT	UV
AMA	BPP	DEMCO	GULF	LANNA	NOBLE	PROUD	SCGP	SUN	TNITY	VGI
AMATA	BRR	DRT	GUNKUL	LH	NSI	DRS	SCM	SUSCO	TOA	VIH
AMATAV	BTS	DTAC	HANA	LHFG	NVD	PSL	SDC	SUTHA	TOP	WACOAL
ANAN	BTW	DUSIT	HARN	LIT	NWR	PTG	SEAFCO	SVI	TPBI	WAVE
AOT	BWG	EA	HMPRO	LPN	NYT	PTT	SEAOIL	SYMC	TQM	WHA
AP	CENTEL	EASTW	ICC	MACO	OISHI	PTTEP	SE-ED	SYNTEC	TRC	WHAUP
ARIP	CFRESH	ECF	ICHI	MAJOR	OR	PTTGC	SELIC	TACC	TRU	WICE
ARROW	CHEWA	ECL	III	MAKRO	ORI	PYLON	SENA	TASCO	TRUE	WINNER
ASP	CHO	EE	ILINK	MALEE	OSP	Q-CON	SHR	TCAP	TSC	ZEN
AUCT	CIMBT	EGCO	ILM	MBK	OTO	QH	SIRI	TEAMG	TSR	
AWC	CK	EPG	INTUCH	MC	PAP	QTC	SIS	TFMAMA	TSTE	
AYUD	CKP	ETC	IP	MCOT	PCSGH	RATCH	SITHAI	TGH	TSTH	
BAFS	CM	FPI	IRPC	METCO	PDG	RS	SMK	THANA	TTA	
BANPU	CNT	FPT	ITEL	MFEC	PDJ	S	SMPC	THANI	TTB	
BAY	COM7	FSMART	IVL	MINT	PG	S & J	SNC	THCOM	TTCL	
BBL	COMAN	GBX	JSP	MONO	PHOL	SAAM	SONIC	THG	TTW	
BCP	COTTO	GC	JWD	MOONG	PLANB	SABINA	SPALI	THIP	TU	
VERY GOOD LEVEL – Score range 80-89										
2S	ASIMAR	CHOW	FLOYD	IT	LOXLEY	OCC	RPC	SKY	TCC	TVT
7UP	ASK	CI	FN	ITD	LRH	OGC	RT	SLP	TCMC	TWP
ABICO	ASN	CIG	FNS	J	LST	PATO	RWI	SMIT	TEAM	UEC
ABM	ATP30	CMC	FORTH	JAS	M	PB	S11	SMT	TFG	UMI
ACE	B	COLOR	FSS	JCK	MATCH	PICO	SA	SNP	TFI	UOBKH
ACG	BA	CPL	FTE	JCKH	MBAX	PIMO	SAK	SO	TIGER	UP
ADB	BAM	CPW	FVC	JMART	MEGA	PJW	SALEE	SORKON	TITLE	UPF
AEONTS	BC	CRD	GEL	JMT	META	PL	SAMCO	SPA	TKN	UPOIC
AGE	BCH	CSC	GENCO	KBS	MFC	PM	SANKO	SPC	TKS	UTP
AHC	BEC	CSP	GJS	KCAR	MGT	PMTA	SAPPE	SPCG	TM	VCOM
AIT	BEYOND	CWT	GYT	KEX	MICRO	PPP	SAWAD	SR	TMC	VL
ALL	BFIT	DCC	HEMP	KGI	MILL	PPPM	SCI	SRICHA	TMD	VPO
ALLA	BJC	DCON	HPT	KIAT	MITSIB	PRIME	SCN	SSC	TMI	VRANDA
ALUCON	BJCHI	DHOUSE	HTC	KISS	MK	PRIN	SCP	SSF	TMILL	WGE
AMANAH	BLA	DOD	HYDRO	KOOL	MODERN	PRINC	SE	STANLY	TNL	WIJK
AMARIN	BR	DOHOME	ICN	KTIS	MTI	PSG	SFLEX	STGT	TNP	WP
APCO	BROOK	DV8	IFS	KUMWEL	NBC	PSTC	SFP	STOWER	TOG	XO
APCS	CBG	EASON	IMH	KUN	NCAP	PT	SFT	STPI	TPA	XPG
APURE	CEN	EFORL	IND	KWC	NCH	QLT	SGF	SUC	TPAC	YUASA
AQUA	CGH	ERW	INET	KWM	NETBAY	RBF	SIAM	SWC	TPCS	
ASAP	CHARAN	ESSO	INSET	L&E	NEX	RCL	SINGER	SYNEX	TPS	
ASEFA	CHAYO	ESTAR	INSURE	LDC	NINE	RICHY	SKE	TAE	TRITN	
ASIA	CHG	ETE	IRC	LEO	NRF	RML	SKN	TAKUNI	TRT	
ASIAN	CHOTI	FE	IRCP	LHK	NTV	ROJNA	SKR	TBSP	TSE	
GOOD LEVEL – Score range 70-79										
A	BGT	CITY	GIFT	JTS	MDX	PK	SGP	SUPER	TQR	YGG
AI	BH	CMAN	GLOCON	JUBILE	MJD	PLE	SICT	SVOA	TTI	ZIGA
AIE	BIG	CMO	GREEN	KASET	MORE	PPM	SIMAT	TC	TYCN	
AJ	BLAND	CMR	GSC	KCM	MUD	PRAKIT	SISB	TCCC	UKEM	
ALPHAX	BM	CPT	GTB	KK	NC	PRAPAT	SK	THMUI	UMS	
AMC	BROCK	CRANE	HTECH	KKC	NDR	PRECHA	SMART	TNH	UNIQ	
APP	BSBM	CSR	HUMAN	KWI	NFC	PTL	SOLAR	TNR	UPA	
AQ	BSM	D	IHL	KYE	NNCL	RJH	SPACK	TOPP	UREKA	
ARIN	BTNC	EKH	IIG	LEE	NOVA	RP	SPG	TPCH	VIBHA	
AS	BYD	EMC	INGRS	LPH	NPK	RPH	SQ	TPIPL	W	
AU	CAZ	EP	INOX	MATI	NUSA	RSP	SSP	TIPIP	WIN	
B52	CCP	F&D	JAK	M-CHAI	PAF	SABUY	STARK	TPLAS	WORK	
BEAUTY	CGD	FMT	JR	MCS	PF	SF	STC	TPOLY	WPH	

Disclaimer:

The disclosure of the survey results of the Thai Institute of Directors Association ("IOD") regarding corporate governance is made pursuant to the policy of the Office of the Securities and Exchange Commission. The survey of the IOD is based on the information of a company listed on the Stock Exchange of Thailand and the Market for Alternative Investment disclosed to the public and able to be accessed by a general public investor. The result, therefore, is from the perspective of a third party. It is not an evaluation of operation and is not based on inside information.

The survey result is as of the date appearing in the Corporate Governance Report of Thai Listed Companies. As a result, the survey results may be changed after that date. FSS International Investment Advisory Company Limited does not confirm nor certify the accuracy of such survey results.

* CGR scoring should be considered with news regarding wrong doing of the company or director or executive of the company such unfair practice on securities trading, fraud, and corruption SEC imposed a civil sanction against insider trading of director and executive

Sources: Thai Institute of Directors Association (IOD); FSSIA's compilation; data as of 26 October 2021

Anti-corruption Progress Indicator

CERTIFIED										
2S	BCH	CPALL	GC	K	MFC	PE	QLT	SNP	THCOM	TU
7UP	BCP	CPF	GCAP	KASET	MFEC	PG	QTC	SORKON	THIP	TVD
ADVANC	BCPG	CPI	GEL	KBANK	MILL	PHOL	RATCH	SPACK	THRE	TVI
AF	BE8	CPN	GFPT	KBS	MINT	PK	RML	SPALI	THREL	TVO
AI	BEYOND	CSC	GGC	KCAR	MONO	PL	RWI	SPC	TIDLOR	TWPC
AIE	BGC	DCC	GJS	KCE	MOONG	PLANB	S & J	SPI	TIPCO	U
AIRA	BGRIM	DELTA	GPI	KGI	MSC	PLANET	SAAM	SPRC	TISCO	UBE
AKP	BJCHI	DEMCO	GPSC	KKP	MST	PLAT	SABINA	SRICHA	TKS	UBIS
ALPHAX	BKI	DIMET	GSTEEL	KSL	MTC	PM	SAPPE	SSF	TKT	UEC
AMA	BLA	DRT	GUNKUL	KTB	MTI	PPP	SAT	SSP	TMD	UKEM
AMANAHA	BPP	DTAC	HANA	KTC	NBC	PPPM	SC	SSSC	TMILL	UOBKH
AMATA	BROOK	DUSIT	HARN	KWC	NEP	PPS	SCB	SST	TMT	UPF
AMATAV	BRR	EA	HEMP	KWI	NINE	PR9	SCC	STA	TNITY	UV
AP	BSBM	EASTW	HENG	L&E	NKI	PREB	SCCC	STOWER	TNL	VGI
APCS	BTS	ECL	HMPRO	LANNA	NMG	PRG	SCG	SUSCO	TNP	VIH
AQUA	BWG	EGCO	HTC	LH	NNCL	PRINC	SCN	SVI	TNR	WACOAL
ARROW	CEN	EP	ICC	LHFG	NOBLE	PRM	SEAOIL	SYMC	TOG	WHA
AS	CENTEL	EPG	ICHI	LHK	NOK	PROS	SE-ED	SYNTEC	TOP	WHAUP
ASIAN	CFRESH	ERW	IFEC	LPN	NSI	PSH	SELIC	TAE	TOPP	WICE
ASK	CGH	ESTAR	IFS	LRH	NWR	PSL	SENA	TAKUNI	TPA	WIJK
ASP	CHEWA	ETE	ILINK	M	OCC	PSTC	SGP	TASCO	TPP	XO
AWC	CHOTI	FE	INET	MAKRO	OGC	PT	SINGER	TBSP	TRU	ZEN
AYUD	CHOW	FNS	INSURE	MALEE	ORI	PTG	SIRI	TCAP	TRUE	
B	CIG	FPI	INTUCH	MATCH	PAP	PTT	SITHAI	TCMC	TSC	
BAFS	CIMBT	FPT	IRC	MBAX	PATO	PTTEP	SKR	TFG	TSTE	
BAM	CM	FSMART	IRPC	MBK	PB	PTTGC	SMIT	TFI	TSTH	
BANPU	CMC	FSS	ITEL	MC	PCSGH	PYLON	SMK	TFMAMA	TTA	
BAY	COM7	FTE	IVL	MCOT	PDG	Q-CON	SMPC	TGH	TTB	
BBL	COTTO	GBX	JKN	META	PDJ	QH	SNC	THANI	TTCL	
DECLARED										
AJ	CHG	DDD	ETC	JR	MAJOR	NUSA	RS	SSS	TQM	YUASA
ALT	CPL	DHOUSE	FLOYD	JTS	NCAP	NYT	SAK	STECH	TSI	ZIGA
APCO	CPR	DOHOME	GULF	KEX	NCL	OR	SCGP	STGT	VARO	
B52	CPW	ECF	III	KUMWEL	NOVA	PIMO	SCM	TKN	VCOM	
BEC	CRC	EKH	INOX	LDC	NRF	PLE	SIS	TMI	VIBHA	

Level	
Certified	This level indicates practical participation with thoroughly examination in relation to the recommended procedures from the audit committee or the SEC's certified auditor, being a certified member of Thailand's Private Sector Collective Action Coalition Against Corruption programme (Thai CAC) or already passed examination to ensure independence from external parties.
Declared	This level indicates determination to participate in the Thailand's Private Sector Collective Action Coalition Against Corruption programme (Thai CAC)

Disclaimer:

The disclosure of the Anti-Corruption Progress Indicators of a listed company on the Stock Exchange of Thailand, which is assessed by Thaipat Institute, is made in order to comply with the policy and sustainable development plan for the listed companies of the Office of the Securities and Exchange Commission. Thaipat Institute made this assessment based on the information received from the listed company, as stipulated in the form for the assessment of Anti-corruption which refers to the Annual Registration Statement (Form 56-1), Annual Report (Form 56-2), or other relevant documents or reports of such listed company. The assessment result is therefore made from the perspective of Thaipat Institute that is a third party. It is not an assessment of operation and is not based on any inside information. Since this assessment is only the assessment result as of the date appearing in the assessment result, it may be changed after that date or when there is any change to the relevant information. Nevertheless, FSS International Investment Advisory Company Limited does not confirm, verify, or certify the accuracy and completeness of the assessment results.

Note: Companies participating in Thailand's Private Sector Collective Action Coalition Against Corruption programme (Thai CAC) under Thai Institute of Directors (as of 26 October 2021) are categorised into: 1) companies that have declared their intention to join CAC, and; 2) companies certified by CAC.

Sources: The Securities and Exchange Commission, Thailand; * FSSIA's compilation

GENERAL DISCLAIMER

ANALYST(S) CERTIFICATION

Siriluck Pinthusoonthorn FSS International Investment Advisory Securities Co., Ltd

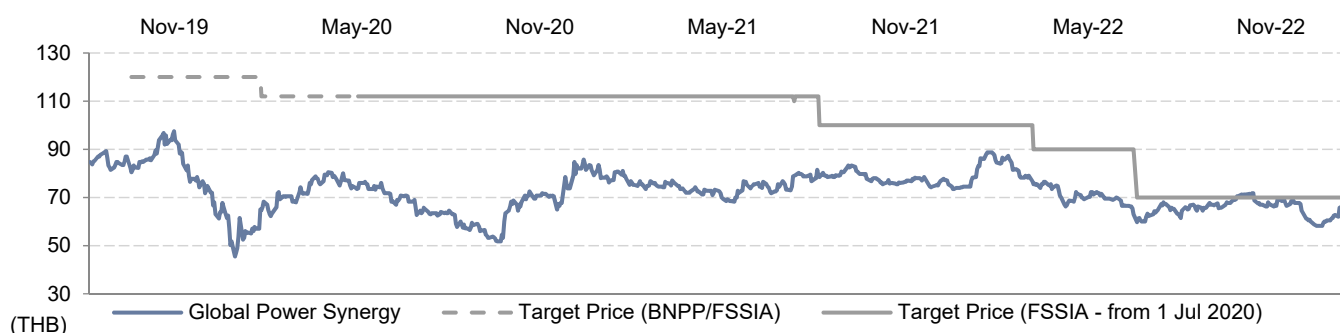
The individual(s) identified above certify(ies) that (i) all views expressed in this report accurately reflect the personal view of the analyst(s) with regard to any and all of the subject securities, companies or issuers mentioned in this report; and (ii) no part of the compensation of the analyst(s) was, is, or will be, directly or indirectly, related to the specific recommendations or views expressed herein.

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History of change in investment rating and/or target price

Global Power Synergy (GPSC TB)



Date	Rating	Target price	Date	Rating	Target price	Date	Rating	Target price
17-Dec-2019	BUY	120.00	15-Jul-2021	BUY	112.00	06-May-2022	HOLD	70.00
08-Apr-2020	BUY	112.00	05-Aug-2021	BUY	100.00			
14-Jul-2021	BUY	110.00	07-Feb-2022	BUY	90.00			

Siriluck Pinthusoonthorn started covering this stock from 08-May-2020

Price and TP are in local currency

Source: FSSIA estimates

PTT PCL (PTT TB)



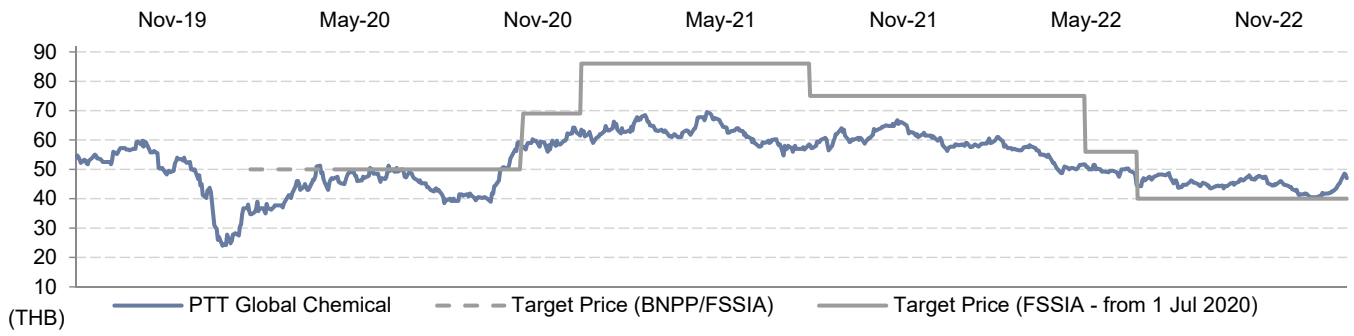
Date	Rating	Target price	Date	Rating	Target price	Date	Rating	Target price
21-Feb-2020	BUY	60.00	30-Jun-2022	BUY	50.00	-	-	-

Suwat Sinsadok, CFA, FRM, ERP started covering this stock from 12-May-2020

Price and TP are in local currency

Source: FSSIA estimates

PTT Global Chemical (PTTGC TB)



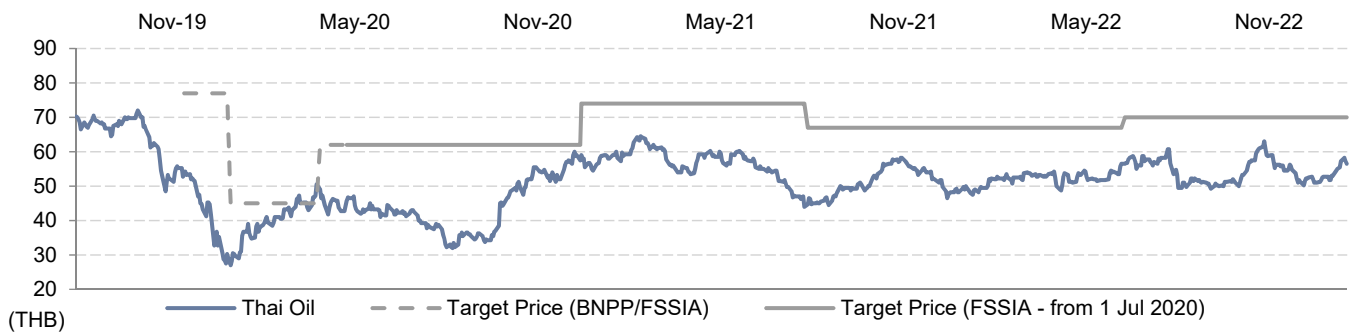
Date	Rating	Target price	Date	Rating	Target price	Date	Rating	Target price
09-Apr-2020	BUY	50.00	18-Jan-2021	BUY	86.00	28-Mar-2022	HOLD	56.00
27-Nov-2020	BUY	69.00	03-Aug-2021	BUY	75.00	12-May-2022	REDUCE	40.00

Suwat Sinsadok, CFA, FRM, ERP started covering this stock from 08-May-2020

Price and TP are in local currency

Source: FSSIA estimates

Thai Oil (TOP TB)



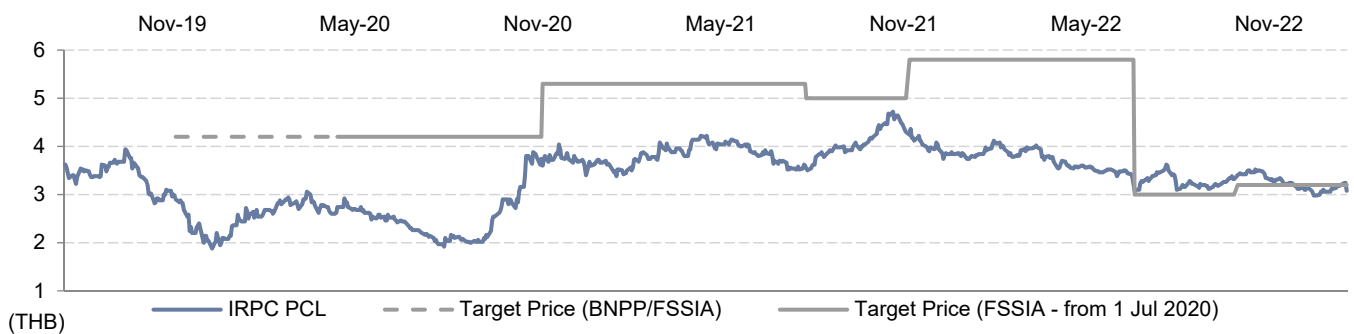
Date	Rating	Target price	Date	Rating	Target price	Date	Rating	Target price
12-Feb-2020	BUY	77.00	08-Jun-2020	BUY	62.00	30-Jul-2021	BUY	67.00
23-Mar-2020	BUY	45.00	18-Jan-2021	BUY	74.00	29-Apr-2022	BUY	70.00

Suwat Sinsadok, CFA, FRM, ERP started covering this stock from 08-Jun-2020

Price and TP are in local currency

Source: FSSIA estimates

IRPC PCL (IRPC TB)



Date	Rating	Target price	Date	Rating	Target price	Date	Rating	Target price
14-Feb-2020	BUY	4.20	04-Aug-2021	BUY	5.00	11-May-2022	REDUCE	3.00
22-Dec-2020	BUY	5.30	29-Oct-2021	BUY	5.80	05-Aug-2022	HOLD	3.20

Suwat Sinsadok, CFA, FRM, ERP started covering this stock from 08-May-2020

Price and TP are in local currency

Source: FSSIA estimates

Company	Ticker	Price	Rating	Valuation & Risks
Global Power Synergy	GPSC TB	THB 65.25	HOLD	The downside risks to our SoTP-based TP on GPSC include 1) lower-than-expected demand for electricity in Thailand; 2) a lower crude price; and 3) lower-than-expected demand from industrial users. Upside risks are a lower gas price and higher sales volume.
PTT PCL	PTT TB	THB 35.00	BUY	Risks to our SoTP-based valuation are the oil price and potential earnings downsides from government intervention.
PTT Global Chemical	PTTGC TB	THB 47.00	REDUCE	The key upside risks to our EV/EBITDA-based TP are a stronger-than-expected HDPE price and HDPE-naphtha margin.
Thai Oil	TOP TB	THB 56.50	BUY	Downside risks to our EV/EBITDA-based TP are 1) a sharp fall in oil price; 2) weak demand for refined oil products; 3) customer concentrations; 4) currency risk; 5) interest rate risk; and 6) a raw material shortage.
IRPC PCL	IRPC TB	THB 3.08	HOLD	Key upside risks to our neutral view and EV/EBITDA-based target price are rising margins of PP-naphtha, SM and ABS-benzene, and a higher market GRM, while downside risks are weak demand for refinery and petrochemical products and a higher naphtha price.

Source: FSSIA estimates

Additional Disclosures

Target price history, stock price charts, valuation and risk details, and equity rating histories applicable to each company rated in this report is available in our most recently published reports. You can contact the analyst named on the front of this note or your representative at Finansia Syrus Securities Public Company Limited

FSSIA may incorporate the recommendations and target prices of companies currently covered by FSS Research into equity research reports, denoted by an 'FSS' before the recommendation. FSS Research is part of Finansia Syrus Securities Public Company Limited, which is the parent company of FSSIA.

All share prices are as at market close on 09-Nov-2022 unless otherwise stated.

RECOMMENDATION STRUCTURE

Stock ratings

Stock ratings are based on absolute upside or downside, which we define as (target price* - current price) / current price.

BUY (B). The upside is 10% or more.

HOLD (H). The upside or downside is less than 10%.

REDUCE (R). The downside is 10% or more.

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 market price and the formal recommendation.

* In most cases, the target price will equal the analyst's assessment of the current fair value of the stock. However, if the analyst doesn't think the market will reassess the stock over the specified time horizon due to a lack of events or catalysts, then the target price may differ from fair value. In most cases, therefore, our recommendation is an assessment of the mismatch between current market price and our assessment of current fair value.

Industry Recommendations

Overweight. The analyst expects the fundamental conditions of the sector to be positive over the next 12 months.

Neutral. The analyst expects the fundamental conditions of the sector to be maintained over the next 12 months.

Underweight. The analyst expects the fundamental conditions of the sector to be negative over the next 12 months.

Country (Strategy) Recommendations

Overweight (O). Over the next 12 months, the analyst expects the market to score positively on two or more of the criteria used to determine market recommendations: index returns relative to the regional benchmark, index sharpe ratio relative to the regional benchmark and index returns relative to the market cost of equity.

Neutral (N). Over the next 12 months, the analyst expects the market to score positively on one of the criteria used to determine market recommendations: index returns relative to the regional benchmark, index sharpe ratio relative to the regional benchmark and index returns relative to the market cost of equity.

Underweight (U). Over the next 12 months, the analyst does not expect the market to score positively on any of the criteria used to determine market recommendations: index returns relative to the regional benchmark, index sharpe ratio relative to the regional benchmark and index returns relative to the market cost of equity.