

STAR PETROLEUM REFINING

THAILAND / OIL & GAS

SPRC TB

BUY

UNCHANGED

TARGET PRICE	THB14.00
CLOSE	THB10.20
UP/DOWNSIDE	+37.3%
PRIOR TP	THB13.50
CHANGE IN TP	+3.7%
TP vs CONSENSUS	+24.8%

IMO & Covid storms are now behind

- We believe SPRC stands as one of the best plays on the upcoming refinery upcycle, backed by its high leverage on the GRM rebound.
- Two downsides that could partly offset the strong GRM in 2022 – high proportion of ME crudes and oil spill in Jan-22.
- Maintain BUY; raise our TP to THB14.00 from THB13.50.

IMO and pandemic storms are now behind

In 2019-21, SPRC, as a pure refiner, suffered from a depressed market GRM ranging below USD5/bbl, with an average sub-USD4/bbl market GRM, leading to quarterly net losses despite SPRC's low cash cost (USD2/bbl) and total cost (USD3.8/bbl), based on our estimates. The major reasons for SPRC's poor quarterly earnings were 1) 2019: the IMO's ban on HSFO for the shipping industry to structurally erode the HSFO-Dubai margin; and 2) 2020-21: Covid-19 worsened the global GRM due to demand collapses and global supply chain disruptions.

Best refinery play on the GRM rebound

As the only pure refiner in Thailand with 100% EBITDA generated from its refinery business, we believe SPRC stands as one of the best plays on the upcoming refinery upcycle, backed by its high leverage on the GRM rebound. SPRC had high production yields of gasoline (29%) and diesel (39%) in 2021 and has the ability to quickly raise its jet production yield to over 10% within a few months to timely capture the strong margin of jet-Dubai as a result of the solid post-pandemic demand growth.

Two downsides vs GRM upsides

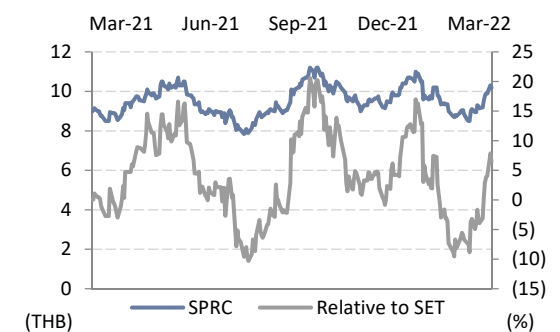
We see two downsides that could partly offset the strong GRM in 2022. First, SPRC's high proportion of crude imported from the Middle East whose price has recently jumped by over USD2/bbl after Saudi Arabia raised its Official Selling Price (OSP) or crude premium for its medium and sour crude types in response to the higher supply risk for Russian crude. Second, the oil spill incident that occurred in Jan-22, while being successfully controlled already, could result in a potential earnings downside which we think will be limited due to the insurance coverage for damages caused to operators in the tourism and fishery industries.

EPS and target price upgrades

We raise our EPS forecasts in 2022-24 by 10.6-24.4% to incorporate our higher market GRM assumptions by 11-22% to reflect the higher product-Dubai margins for diesel, gasoline, and jet to offset the weaker margins of HSFO-Dubai and higher crude premium costs. We lift our target price from THB13.5, previously based on 5.5x 2022E EV/EBITDA, to THB14, now based on 4.8x 2022E EV/EBITDA, to reflect our positive view on the product margins but negative view on the higher crude price and crude premiums.

KEY STOCK DATA

YE Dec (THB m)	2021	2022E	2023E	2024E
Revenue	172,484	333,272	301,205	297,439
Net profit	4,746	7,375	6,844	8,773
EPS (THB)	1.09	1.70	1.58	2.02
vs Consensus (%)	-	78.6	45.4	50.6
EBITDA	5,972	12,342	11,632	13,938
Core net profit	1,937	7,375	6,844	8,773
Core EPS (THB)	0.45	1.70	1.58	2.02
Chg. In EPS est. (%)	-	24.4	10.6	15.8
EPS growth (%)	(6.3)	280.7	(7.2)	28.2
Core P/E (x)	22.8	6.0	6.5	5.0
Dividend yield (%)	1.8	3.9	3.9	3.9
EV/EBITDA (x)	8.3	3.5	3.1	2.0
Price/book (x)	1.3	1.1	1.0	0.8
Net debt/Equity (%)	14.9	(3.2)	(16.7)	(29.7)
ROE (%)	6.4	19.6	15.7	17.7



Share price performance	1 Month	3 Month	12 Month
Absolute (%)	14.6	2.5	10.3
Relative to country (%)	14.3	0.6	3.7
Mkt cap (USD m)	1,313		
3m avg. daily turnover (USD m)	11.4		
Free float (%)	39		
Major shareholder	Chevron South Asia Holdings Pte Ltd (61%)		
12m high/low (THB)	11.50/7.75		
Issued shares (m)	4,335.90		

Sources: Bloomberg consensus; FSSIA estimates



Suwat Sinsadok, CFA, FRM, ERP
 suwat.sin@fssia.com
 +66 2611 3558

Siriluck Pinthusoonthorn
 siriluck.pin@fssia.com
 +66 2611 3562

Investment thesis

With IMO 2020 coming into force in Jan 2020 – limiting the sulphur content in fuel oil used by the shipping industry – we think SPRC faces a potential downside risk from a lower fuel oil-Dubai spread, but this should be offset by a widening diesel-fuel oil spread. While purely a refinery business, SPRC’s earnings sustainability comes from its low-cost structure, high crude flexibility and high operational efficiency, supported by its parent, Chevron.

We think SPRC’s earnings will continue to grow in 2022-23, driven by sustainable earnings from a higher market gross refining margin (GRM) and its low-cost structure.

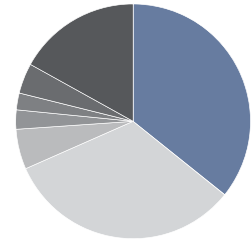
Company profile

SPRC is a subsidiary of US-based Chevron, with capacity of 165kb/d. Its competitive, low-cost structure and high crude consumption flexibility are key to sustaining its high market GRM.

www.sprc.co.th

Principal activities (revenue, 2021)

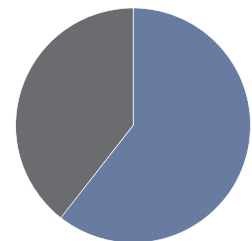
- Diesel - 35.8 %
- Gasoline - 32.6 %
- Jet Fuel - 5.5 %
- Light Naphtha - 2.6 %
- Liquefied Petroleum Gas - 2.3 %
- Polymer Grade Propylene - 4.2 %
- Others - 16.9 %



Source: Star Petroleum Refining

Major shareholders

- Chevron South Asia Holdings Pte Ltd - 60.6 %
- Others - 39.4 %



Source: Star Petroleum Refining

Catalysts

Higher refinery utilisation rates and a higher market GRM are key potential earnings drivers.

Risks to our call

TP is based on EV/EBITDA. Downside risks are a sharp rise in oil price and weak demand for refined oil products.

Event calendar

Date	Event
May 2022	1Q22 results announcement

Key assumptions

	2022E	2023E	2024E
Utilisation rate (%)	95.0	95.0	95.0
Market GRM (USD/bbl)	6.2	6.4	6.7
Dubai crude price (USD/bbl)	100.0	90.0	90.0
Gasoline-Dubai spread (USD/bbl)	20.0	18.0	16.0
Jet-Dubai spread (USD/bbl)	23.0	22.0	20.0
Diesel-Dubai spread (USD/bbl)	24.0	22.0	20.0
Fuel oil-Dubai spread (USD/bbl)	(15.0)	(12.0)	(12.0)
Crude premium (USD/bbl)	8.1	6.8	5.3

Source: FSSIA estimates

Earnings sensitivity

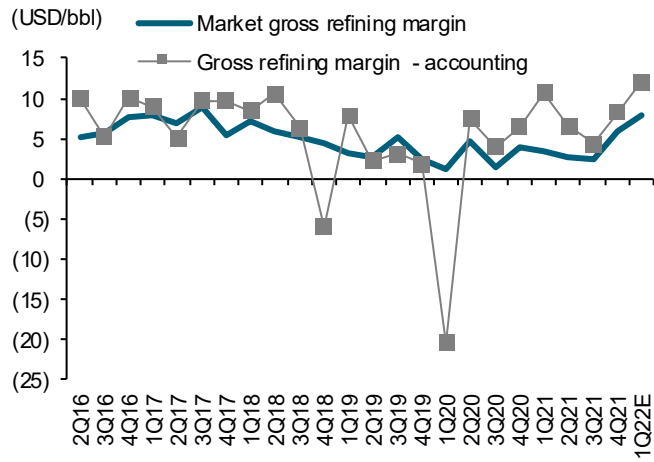
- For every 1% increase in average Dubai oil price, we project that 2022 earnings would rise by 2.8%, and vice versa, all else being equal.
- For every 1% increase in market GRM, we project that 2022 earnings would rise by 2.5%, and vice versa, all else being equal.
- Stability in crude oil price, rising diesel cracks and low crude premiums are key for earnings growth.

Source: FSSIA estimates

IMO and pandemic storms are now behind

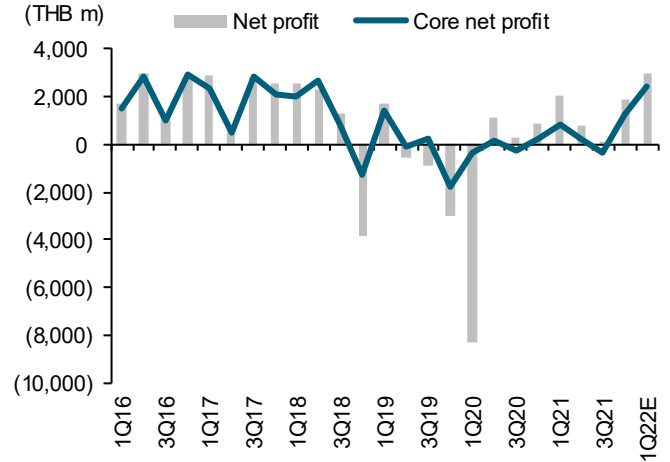
In the past three years during 2019-21, SPRC, as a pure refiner, suffered from a depressed market GRM ranging below USD5/bbl, with an average sub-USD4/bbl market GRM, leading to a number of quarterly net losses for SPRC as its cash cost is USD2/bbl and total cost is USD3.8/bbl, based on our estimates.

Exhibit 1: Market GRM and accounting GRM



Source: SPRC

Exhibit 2: Quarterly net profit and core net profit

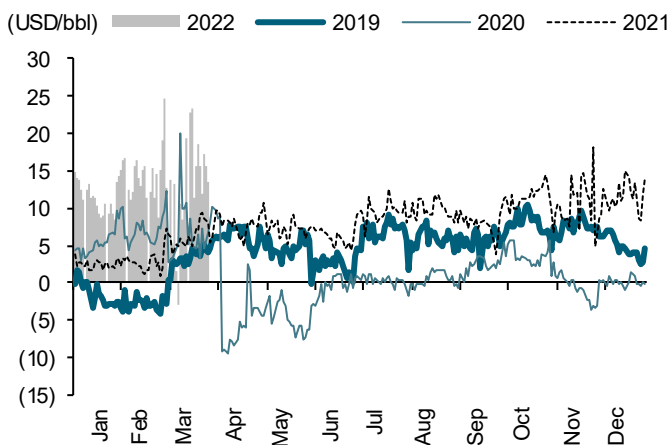


Source: SPRC

Despite its high operating efficiency and low-cost structure, SPRC posted weak quarterly net profits in 2019-21 due to the weak market GRM and poor domestic as well as global demand. A number of reasons led to SPRC's poor quarterly earnings during 2019-21.

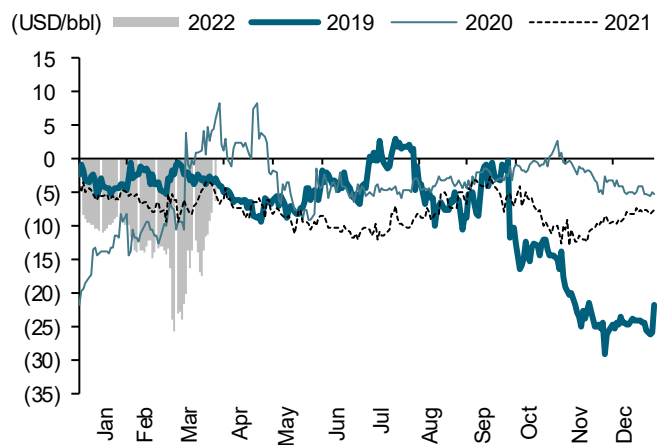
2019: IMO ban on HSFO for the shipping industry. Effective 1 Jan-19, the International Maritime Organization (IMO) began to enforce the ban on high sulphur fuel oil (HSFO) with sulphur content over 0.5% as a fuel for the global shipping industry.

Exhibit 3: 92 Octane gasoline price – Dubai crude oil price



Source: Bloomberg

Exhibit 4: High sulphur fuel oil SG – Dubai crude price

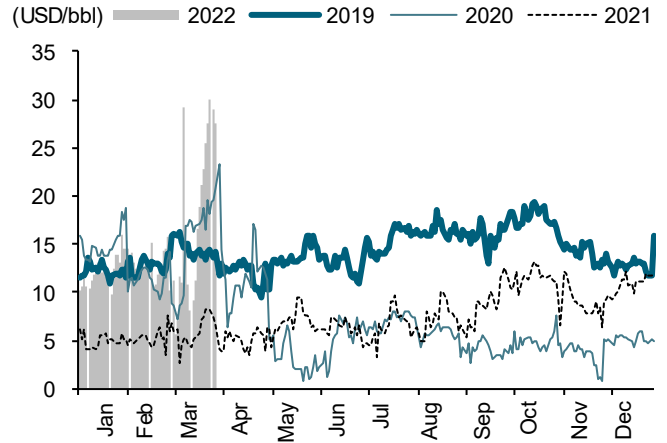
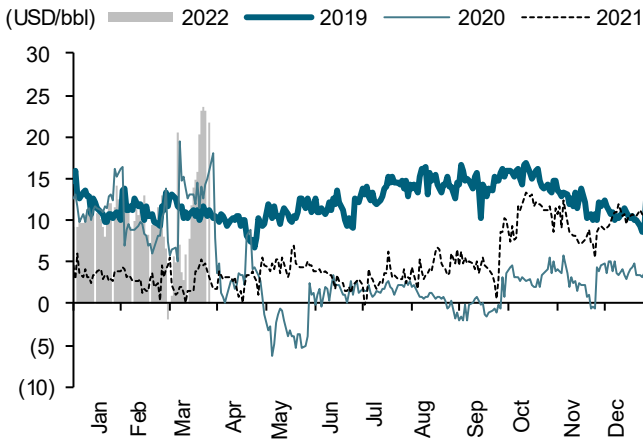


Source: Bloomberg

As a result, the margin of HSFO over the Dubai crude price collapsed in 4Q19 ahead of the IMO's effective mandate period in Jan-20. Meanwhile, the margins of "substitute" products including low sulphur fuel oil (LSFO) jumped markedly, while the diesel-Dubai margin remained relatively unchanged, due to most shipping companies shifting from HSFO to LSFO rather than to diesel as their alternative fuel.

Exhibit 5: Jet Kerosene price – Dubai crude oil price

Exhibit 6: Gasoil 0.5% sulphur SG price – Dubai crude price



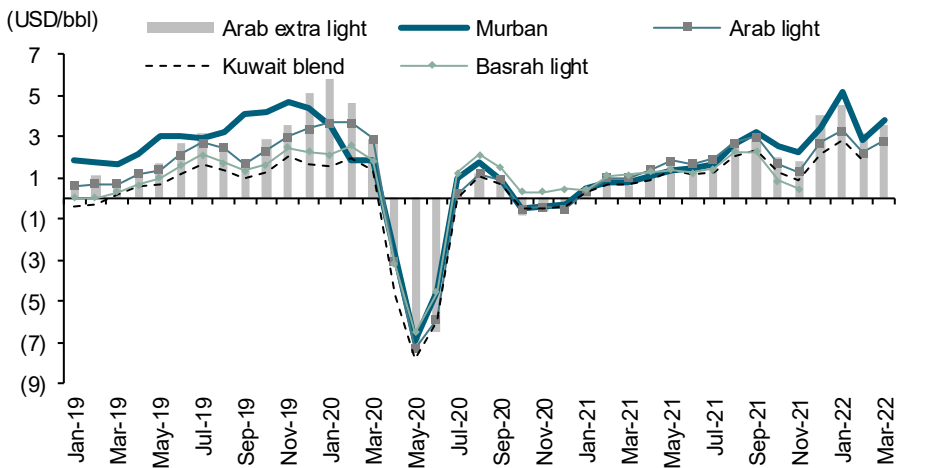
Source: Bloomberg

Source: Bloomberg

2020: Covid-19 pandemic worsened the global GRM. While the negative impact of the IMO's ban on HSFO continued, mainly in the form of a depressed HSFO-Dubai margin, the margins of other products remained weak. The sharp drop in demand due to the global lockdowns and the sudden halt of global air flights to fight against the Covid-19 pandemic led to demand collapses for global refined oils, particularly for jet fuel.

These demand collapses led to not only the sharp plunge in the market GRM but also crude premiums, which turned negative at USD8/bbl against the Dubai crude oil price in May-20. SPRC, like other refiners, suffered from weak market GRMs and inventory losses due to the oil price decline.

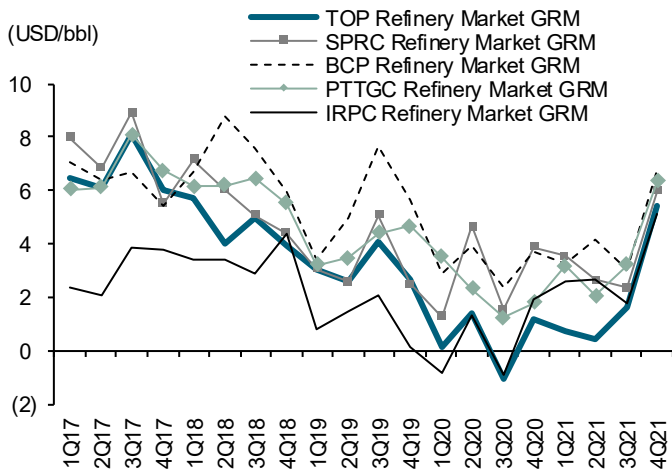
Exhibit 7: Crude premiums of Middle East producers



Source: TOP

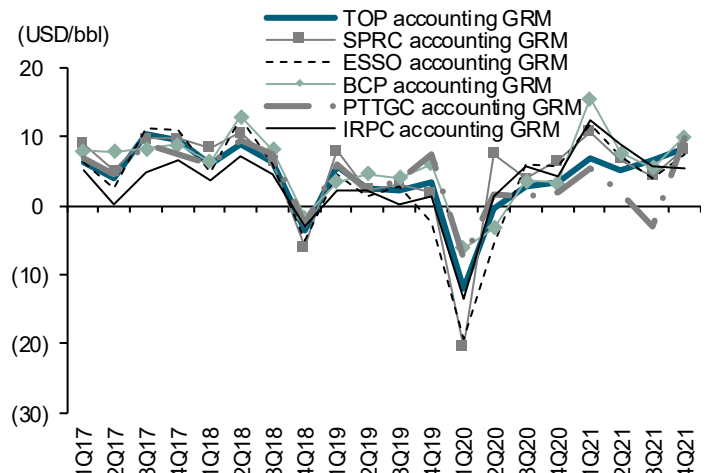
2021: Tale of two halves. In 2021, the refinery and oil markets entered the transition period from a downcycle to an upcycle, led by the rising oil price from the bottom in Apr-20 at below USD20/bbl for Brent to its peak of over USD130/bbl in Feb-22 when Russia invaded Ukraine, further heightening the global supply risks for both the refinery and oil markets.

Exhibit 8: Refinery market GRM



Source: Companies

Exhibit 9: Accounting GRM

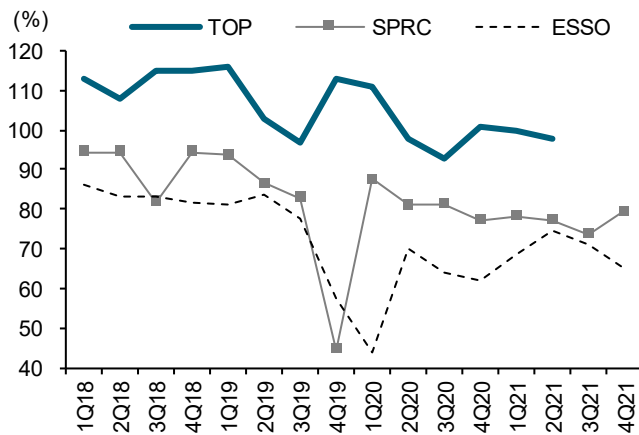


Source: Companies

In 1H21, the oil price and market GRM remained in the doldrums, hovering range-bound as the impact of Covid-19 continued to affect the global economy. Starting in 3Q21, the oil price and market GRMs for SPRC and its local peers, TOP and ESSO, all jumped markedly, driven by the rising margins of key products including diesel, jet, and gasoline, despite the sharp rise in the crude oil price.

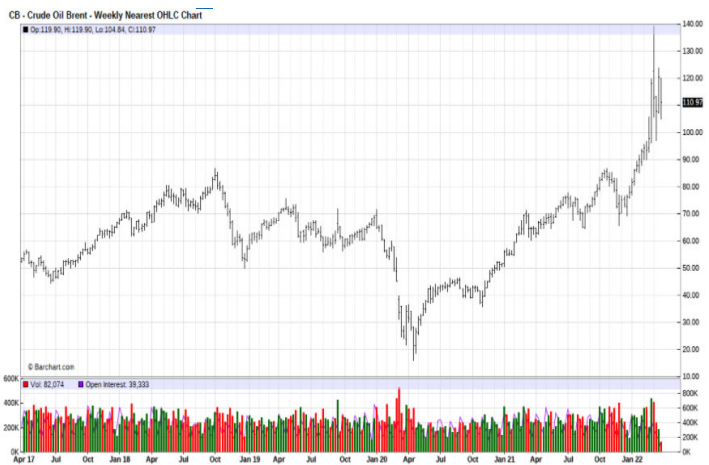
We believe the strong demand recovery and the tight supply due to the limited oil production level of OPEC+ have led to the tighter balance in the oil and refinery markets.

Exhibit 10: Refinery utilisation rates of SPRC vs TOP and ESSO



Source: Companies

Exhibit 11: Brent crude oil price



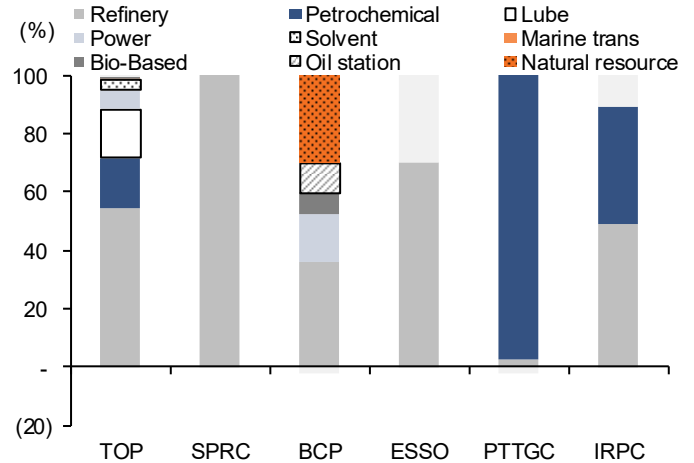
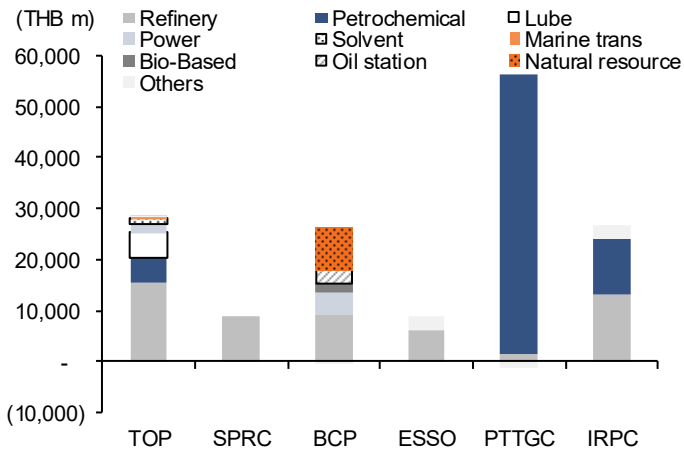
Source: [Barchart](#)

SPRC: One of the best plays on the GRM upcycle in 2022

As the only pure refiner in Thailand with 100% EBITDA generated from its refinery business, we believe SPRC stands as one of the best plays on the upcoming refinery upcycle, backed by its high leverage on the GRM rebound. SPRC had high production yields of gasoline (29%) and diesel (39%) in 2021 and has the ability to quickly raise its jet production yield to over 10% within a few months to timely capture the strong margin of jet-Dubai as a result of the solid post-pandemic demand growth.

Exhibit 12: EBITDA breakdown by business as of 2021

Exhibit 13: EBITDA breakdown by business as of 2021 (%)



Source: Companies

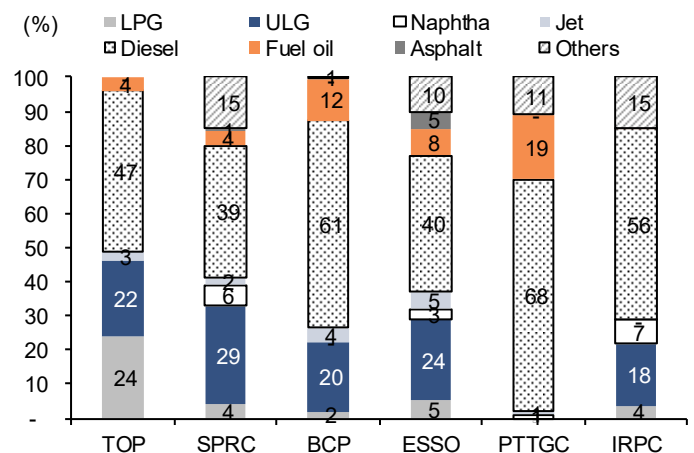
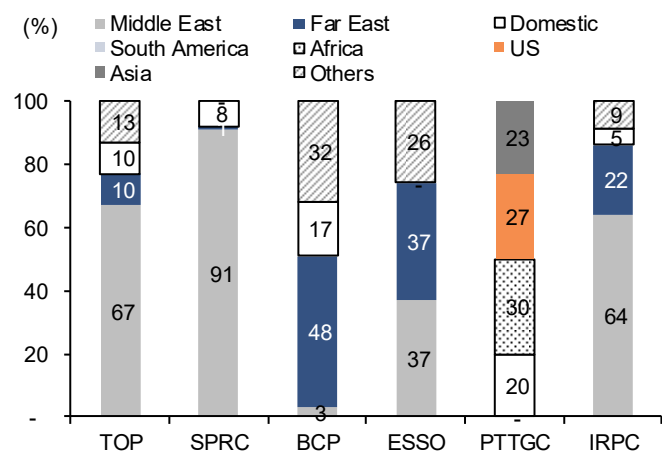
Source: Companies

Two downsides vs GRM upsides. However, SPRC has two key downsides that could partly offset the strong GRM in 2022. First, SPRC deploys a high proportion of crude imported from the Middle East. The price for that crude has recently jumped by over USD2/bbl after Saudi Arabia raised its OSP or crude premium for its Arab Light and other types of medium and sour crudes in response to the higher supply risk for Russian crude.

Second, the oil spill incident that occurred in Jan-22 was followed by the announcement of a second leak on 10 Feb-22 with an estimated 5,000 litres of oil having leaked during the investigation to find the root cause of the spill. While SPRC has successfully controlled the oil leak, the oil spill of 47,000 litres could result in a potential earnings downside, but we think it will be limited due to the insurance coverage that, according to management, should be sufficient to cover the complaints and damages caused to operators in the tourism and fishery industries.

Exhibit 14: Crude mix of Thai refiners as of 2021

Exhibit 15: Production yield of Thai refiners as of 2021

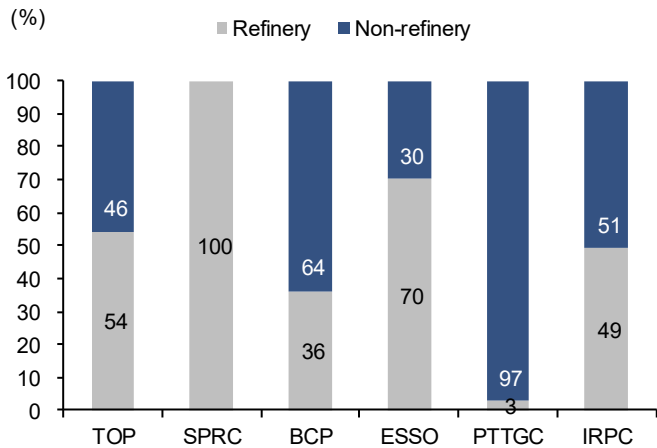


Source: Companies

Source: Companies

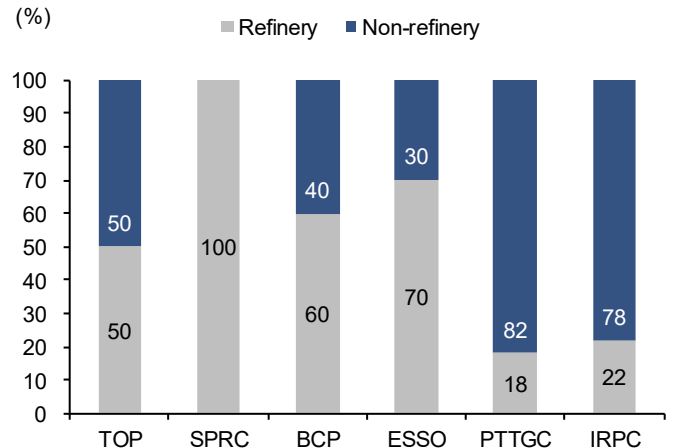
Refinery play vs integrated refinery play. Within six listed companies with refinery plants, SPRC is only the pure play in the refinery business while other refiners generate earnings from chemicals, power, lube (TOP, IRPC, PTTGC), oil stations (ESSO), and biofuels (BCP). We prefer refiners with oil stations (ESSO and BCP) as our top picks in the refinery sector based on the promising outlook for refineries and oil stations on the back of the demand recoveries and margin expansions expected in 2022.

Exhibit 16: EBITDA breakdown by refinery and non-refinery businesses as of 2021



Sources: Companies; FSSIA estimates

Exhibit 17: Net profit breakdown by refinery and non-refinery as of 2021

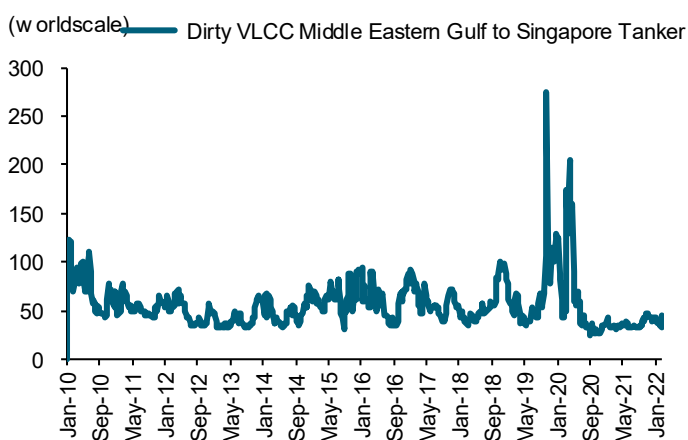


Sources: Companies; FSSIA estimates

Lower freight costs and higher domestic sales volumes. In 2022, we see two additional upsides to SPRC’s earnings. First, the freight cost, which spiked in 2020 due to the global lockdowns, has continued to decline and now normalised to even below the pre-Covid-19 level thanks to the higher supply.

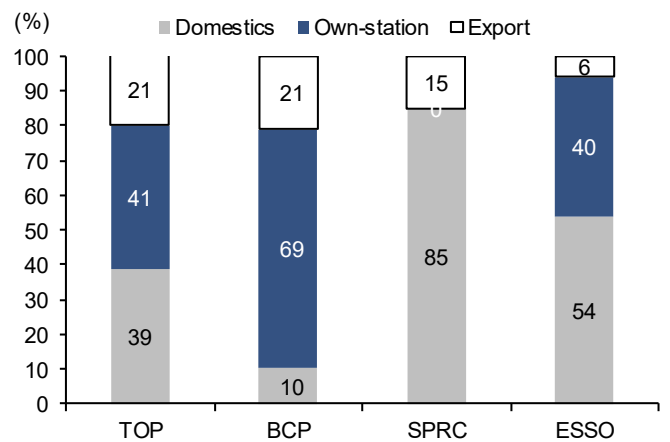
Second, SPRC should benefit from a higher proportion of sales in the domestic market as the demand for oils has significantly recovered to even surpass the pre-Covid-19 levels since 4Q21. On average, the GRM for domestic oil sales will be USD2-4/bbl higher than for export due to the additional costs incurred from freight, duties, and quality degrading pricing as most export markets for Thai refiners in ASEAN and CLMV (Cambodia, Laos, Malaysia, and Vietnam) still consume a lower quality of refined oils at Euro III.

Exhibit 18: VLCC freight from Middle East to Singapore



Source: Bloomberg

Exhibit 19: Sales volume breakdown as of 2021



Source: Companies

EPS and target price revisions

We raise our EPS forecasts in 2022-24 by 10.6-24.4% to incorporate our higher market GRM assumptions by 11-22% to reflect the higher product-Dubai margins for diesel, gasoline, and jet to offset the weaker margins of HSFO-Dubai and higher crude premium costs.

We lift our target price from THB13.5, previously based on 5.5x 2022E EV/EBITDA, to THB14, now based on 4.8x 2022E EV/EBITDA, to reflect our positive view on the product margins but negative view on the higher crude price and crude premiums.

Exhibit 20: Key changes in assumptions

	Current			Previous			Change		
	2022E (THB m)	2023E (THB m)	2024E (THB m)	2022E (THB m)	2023E (THB m)	2024E (THB m)	2022E (%)	2023E (%)	2024E (%)
Revenue	333,272	301,205	297,439	203,408	205,473	205,497	63.8	46.6	44.7
Gross profit	13,789	12,940	15,229	11,452	11,720	13,360	20.4	10.4	14.0
Operating profit	9,056	8,346	10,651	7,282	7,541	9,181	24.4	10.7	16.0
Core net profit	7,375	6,844	8,773	5,930	6,188	7,574	24.4	10.6	15.8
EPS (THB/shr)	1.70	1.58	2.02	1.37	1.43	1.75	24.4	10.6	15.8
Key assumptions									
Utilisation rate (%)	95.0	95.0	95.0	95.0	95.0	95.0	0.0	0.0	0.0
Market GRM (USD/bbl)	6.2	6.4	6.7	5.1	5.8	5.8	22.1	11.2	15.0
Dubai crude price (USD/bbl)	100.0	90.0	90.0	60.0	60.0	60.0	66.7	50.0	50.0
Gasoline-Dubai spread (USD/bbl)	20.0	18.0	16.0	14.0	16.0	16.0	42.9	12.5	0.0
Jet-Dubai spread (USD/bbl)	23.0	22.0	20.0	12.0	15.0	15.0	91.7	46.7	33.3
Diesel-Dubai spread (USD/bbl)	24.0	22.0	20.0	15.0	15.0	15.0	60.0	46.7	33.3
Fuel oil-Dubai spread (USD/bbl)	(15.0)	(12.0)	(12.0)	(7.0)	(7.0)	(7.0)	114.3	71.4	71.4
Crude premium (USD/bbl)	8.1	6.8	5.3	4.5	4.5	4.5	79.0	51.0	17.1

Note: Change of items in percentage terms are represented in ppt change

Sources: SPRC; FSSIA estimates

Exhibit 21: Peer comparisons

Company	BBG code	Rec	Share Price (LCY)	Target price (LCY)	Upside (%)	Market Cap (USD m)	3Y EPS CAGR (%)	PE		ROE		PBV		EV / EBITDA	
								22E (x)	23E (x)	22E (%)	23E (%)	22E (x)	23E (x)	22E (x)	23E (x)
THAILAND															
Thai Oil	TOP TB	BUY	54.25	67.00	24	3,287	2.0	9.0	9.0	9.9	9.4	0.9	0.8	10.7	11.7
Star Petroleum	SPRC TB	BUY	10.20	14.00	37	1,313	65.4	5.8	6.2	19.6	15.7	1.0	0.9	3.3	3.0
Bangchak Corp	BCP TB	BUY	30.25	40.00	32	1,278	27.3	6.1	6.0	12.3	11.7	0.7	0.7	5.2	5.4
Esso Thailand	ESSO TB	BUY	8.50	12.90	52	874	91.4	5.1	4.7	27.7	25.3	1.3	1.1	5.2	4.7
Ptt Global Chem	PTTGC TB	HOLD	51.50	56.00	9	6,896	(3.2)	8.0	8.3	9.1	8.9	0.7	0.7	7.8	7.6
Irpc	IRPC TB	BUY	3.60	5.80	61	2,185	0.6	5.7	4.7	14.3	16.2	0.8	0.7	5.4	4.5
Tipco Asphalt	TASCO TB	BUY	16.70	22.50	35	783	(8.9)	8.9	11.8	20.7	17.4	2.0	2.1	8.2	10.9
Thailand avg						16,616	1.4	7.5	7.6	12.5	12.0	0.9	0.9	7.4	7.5
INDIA															
Bharat Petrom	BPCL IN		358.45	NA	NA	10,332	(15.0)	7.8	7.5	18.9	18.1	1.4	1.3	7.0	6.6
Hindustan Petro	HPCL IN		267.55	NA	NA	5,098	(7.8)	5.9	5.4	16.7	17.1	1.0	0.9	6.5	5.6
Indian Oil	IOCL IN		118.30	NA	NA	14,742	(3.8)	5.0	5.9	18.2	14.7	0.9	0.8	5.0	5.4
India avg						30,172	(10.5)	6.1	6.3	18.2	16.3	1.1	1.0	5.9	5.9
TAIWAN															
Formosa Petro	6505 TT		94.70	NA	NA	31,792	5.3	20.0	19.7	12.4	12.1	2.6	2.5	12.0	12.2
Taiwan avg						31,792	5.3	20.0	19.7	12.4	12.1	2.6	2.5	12.0	12.2
SOUTH KOREA															
Sk Innovation	096770 KS		209,500	NA	NA	16,176	203.3	15.2	13.6	7.3	7.6	1.0	1.0	7.8	7.0
Gs Holdings	078930 KS		42,950	NA	NA	3,259	7.7	3.2	3.2	9.5	9.0	0.4	0.3	6.9	6.9
S-Oil Corp	010950 KS		97,800	NA	NA	9,023	(3.4)	7.4	8.7	20.8	15.2	1.4	1.2	5.3	5.9
South Korea avg						28,458	47.3	11.3	10.9	11.8	10.2	1.1	1.0	6.9	6.6
Refinery under coverage						16,616	1.4	7.5	7.6	12.5	12.0	0.9	0.9	7.4	7.5
Average (all)						107,038	30.67	11.83	11.71	13.92	12.75	1.48	1.41	8.24	8.21

Share prices as of 29 March 2022

Sources: Bloomberg, FSSIA estimates

Financial Statements

Star Petroleum Refining

Profit and Loss (THB m) Year Ending Dec	2020	2021	2022E	2023E	2024E
Revenue	130,163	172,484	333,272	301,205	297,439
Cost of goods sold	(126,265)	(165,763)	(319,483)	(288,265)	(282,210)
Gross profit	3,898	6,721	13,789	12,940	15,229
Other operating income	-	-	-	-	-
Operating costs	(911)	(749)	(1,447)	(1,308)	(1,292)
Operating EBITDA	2,988	5,972	12,342	11,632	13,938
Depreciation	(2,832)	(2,644)	(3,286)	(3,286)	(3,286)
Goodwill amortisation	0	0	0	0	0
Operating EBIT	156	3,328	9,056	8,346	10,651
Net financing costs	142	147	(261)	(229)	(196)
Associates	0	0	0	0	0
Recurring non-operating income	215	(371)	253	278	306
Non-recurring items	(8,072)	2,809	0	0	0
Profit before tax	(7,559)	5,913	9,047	8,396	10,762
Tax	1,555	(1,166)	(1,672)	(1,551)	(1,989)
Profit after tax	(6,004)	4,746	7,375	6,844	8,773
Minority interests	0	0	0	0	0
Preferred dividends	0	0	0	0	0
Other items	-	-	-	-	-
Reported net profit	(6,004)	4,746	7,375	6,844	8,773
Non-recurring items & goodwill (net)	8,072	(2,809)	0	0	0
Recurring net profit	2,068	1,937	7,375	6,844	8,773
Per share (THB)					
Recurring EPS *	0.48	0.45	1.70	1.58	2.02
Reported EPS	(1.38)	1.09	1.70	1.58	2.02
DPS	0.00	0.18	0.40	0.40	0.40
Diluted shares (used to calculate per share data)	4,336	4,336	4,336	4,336	4,336
Growth					
Revenue (%)	(22.9)	32.5	93.2	(9.6)	(1.3)
Operating EBITDA (%)	nm	99.9	106.7	(5.7)	19.8
Operating EBIT (%)	nm	2,038.5	172.1	(7.8)	27.6
Recurring EPS (%)	nm	(6.3)	280.7	(7.2)	28.2
Reported EPS (%)	nm	nm	55.4	(7.2)	28.2
Operating performance					
Gross margin inc. depreciation (%)	0.8	2.4	3.2	3.2	4.0
Gross margin of key business (%)	(5.4)	4.0	3.2	3.2	4.0
Operating EBITDA margin (%)	2.3	3.5	3.7	3.9	4.7
Operating EBIT margin (%)	0.1	1.9	2.7	2.8	3.6
Net margin (%)	1.6	1.1	2.2	2.3	2.9
Effective tax rate (%)	20.6	19.7	18.5	18.5	18.5
Dividend payout on recurring profit (%)	-	39.9	23.5	25.3	19.8
Interest cover (X)	(2.6)	(20.1)	35.6	37.7	55.9
Inventory days	38.9	28.1	27.9	38.9	37.3
Debtor days	22.0	23.0	14.5	16.0	16.2
Creditor days	30.9	24.0	23.6	33.0	31.6
Operating ROIC (%)	0.4	(1.9)	(4.7)	(4.4)	(5.8)
ROIC (%)	0.8	(1.6)	(4.6)	(4.3)	(5.6)
ROE (%)	7.0	6.4	19.6	15.7	17.7
ROA (%)	3.9	3.7	10.9	8.9	10.8
* Pre-exceptional, pre-goodwill and fully diluted					
Revenue by Division (THB m)					
Diesel	82,239	61,682	157,419	122,475	91,964
Gasoline	34,428	56,279	84,372	83,398	96,150
Jet Fuel	4,950	9,528	4,641	8,578	17,613
Light Naphtha	2,524	4,561	8,920	7,981	7,981

Sources: Star Petroleum Refining; FSSIA estimates

Financial Statements

Star Petroleum Refining

Cash Flow (THB m) Year Ending Dec	2020	2021	2022E	2023E	2024E
Recurring net profit	2,068	1,937	7,375	6,844	8,773
Depreciation	2,832	2,644	3,286	3,286	3,286
Associates & minorities	-	-	-	-	-
Other non-cash items	-	-	-	-	-
Change in working capital	2,661	(6,107)	(1,205)	240	65
Cash flow from operations	7,561	(1,526)	9,457	10,371	12,125
Capex - maintenance	(2,518)	(2,602)	(3,286)	(3,286)	(3,286)
Capex - new investment	(2,216)	(104)	(1,019)	(1,019)	(1,019)
Net acquisitions & disposals	0	0	0	0	0
Other investments (net)	2,146	3,243	0	0	0
Cash flow from investing	(2,588)	537	(4,305)	(4,305)	(4,305)
Dividends paid	(3,362)	(1,566)	(774)	(1,734)	(1,734)
Equity finance	0	0	0	0	0
Debt finance	3,418	(2,183)	(4,554)	0	0
Other financing cash flows	(3,413)	6,049	2,037	2,038	2,037
Cash flow from financing	(3,357)	2,299	(3,290)	303	303
Non-recurring cash flows	-	-	-	-	-
Other adjustments	0	0	0	0	0
Net other adjustments	0	0	0	0	0
Movement in cash	1,615	1,310	1,861	6,369	8,122
Free cash flow to firm (FCFF)	5,149.65	(777.58)	5,413.03	6,294.61	8,015.64
Free cash flow to equity (FCFE)	4,977.52	2,876.13	2,635.17	8,103.68	9,856.84

Per share (THB)

FCFF per share	1.19	(0.18)	1.25	1.45	1.85
FCFE per share	1.15	0.66	0.61	1.87	2.27
Recurring cash flow per share	1.13	1.06	2.46	2.34	2.78

Balance Sheet (THB m) Year Ending Dec	2020	2021	2022E	2023E	2024E
Tangible fixed assets (gross)	69,353	77,210	79,478	81,746	84,014
Less: Accumulated depreciation	(45,197)	(52,992)	(56,278)	(59,564)	(62,851)
Tangible fixed assets (net)	24,156	24,219	23,200	22,181	21,163
Intangible fixed assets (net)	93	93	93	93	93
Long-term financial assets	-	-	-	-	-
Invest. in associates & subsidiaries	0	0	0	0	0
Cash & equivalents	1,635	2,945	4,806	11,175	19,298
A/C receivable	8,515	13,219	13,219	13,219	13,219
Inventories	9,052	16,486	32,322	29,164	28,551
Other current assets	121	81	156	141	139
Current assets	19,323	32,731	50,504	53,699	61,207
Other assets	2,969	1,683	1,683	1,683	1,683
Total assets	46,541	58,726	75,480	77,657	84,146
Common equity	26,427	34,371	40,972	46,082	53,121
Minorities etc.	0	0	0	0	0
Total shareholders' equity	26,427	34,371	40,972	46,082	53,121
Long term debt	8,857	3,374	0	0	0
Other long-term liabilities	517	950	950	950	950
Long-term liabilities	9,374	4,324	950	950	950
A/C payable	7,821	13,961	27,371	24,696	24,178
Short term debt	1,380	4,680	3,500	3,500	3,500
Other current liabilities	1,539	1,390	2,687	2,428	2,398
Current liabilities	10,740	20,031	33,557	30,624	30,075
Total liabilities and shareholders' equity	46,541	58,726	75,480	77,657	84,146
Net working capital	8,328	14,435	15,640	15,400	15,334
Invested capital	35,546	40,430	40,616	39,357	38,273

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

Per share (THB)

Book value per share	6.09	7.93	9.45	10.63	12.25
Tangible book value per share	6.07	7.91	9.43	10.61	12.23

Financial strength

Net debt/equity (%)	32.6	14.9	(3.2)	(16.7)	(29.7)
Net debt/total assets (%)	18.5	8.7	(1.7)	(9.9)	(18.8)
Current ratio (x)	1.8	1.6	1.5	1.8	2.0
CF interest cover (x)	(49.5)	(19.3)	15.0	40.9	56.5

Valuation	2020	2021	2022E	2023E	2024E
Recurring P/E (x) *	21.4	22.8	6.0	6.5	5.0
Recurring P/E @ target price (x) *	29.4	31.3	8.2	8.9	6.9
Reported P/E (x)	(7.4)	9.3	6.0	6.5	5.0
Dividend yield (%)	-	1.8	3.9	3.9	3.9
Price/book (x)	1.7	1.3	1.1	1.0	0.8
Price/tangible book (x)	1.7	1.3	1.1	1.0	0.8
EV/EBITDA (x) **	17.7	8.3	3.5	3.1	2.0
EV/EBITDA @ target price (x) **	23.2	11.0	4.8	4.6	3.2
EV/invested capital (x)	1.5	1.2	1.1	0.9	0.7

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

Sources: Star Petroleum Refining; FSSIA estimates

Corporate Governance report of Thai listed companies 2020

EXCELLENT LEVEL										
AAV	ADVANC	AF	AIRA	AKP	AKR	ALT	AMA	AMATA	AMATAV	ANAN
AOT	AP	ARIP	ARROW	ASP	BAFS	BANPU	BAY	BCP	BCPG	BDMS
BEC	BEM	BGRIM	BIZ	BKI	BLA	BOL	BPP	BRR	BTS	BWG
CENTEL	CFRESH	CHEWA	CHO	CIMBT	CK	CKP	CM	CNT	COL	COMAN
COTTO	CPALL	CPF	CPI	CPN	CSS	DELTA	DEMCO	DRT	DTAC	DTC
DV8	EA	EASTW	ECF	ECL	EGCO	EPG	ETE	FNS	FPI	FPT
FSMART	GBX	GC	GCAP	GEL	GFPT	GGC	GPSC	GRAMMY	GUNKUL	HANA
HARN	HMPRO	ICC	ICHI	III	ILINK	INTUCH	IRPC	IVL	JKN	JSP
JWD	K	KBANK	KCE	KKP	KSL	KTB	KTC	LANNA	LH	LHFG
LIT	LPN	MAKRO	MALEE	MBK	MBKET	MC	MCOT	METCO	MFEC	MINT
MONO	MOONG	MSC	MTC	NCH	NCL	NEP	NKI	NOBLE	NSI	NVD
NYT	OISHI	ORI	OTO	PAP	PCSGH	PDJ	PG	PHOL	PLANB	PLANET
PLAT	PORT	PPS	PR9	PREB	PRG	PRM	PSH	PSL	PTG	PTT
PTTEP	PTTGC	PYLON	Q-CON	QH	QTC	RATCH	RS	S	S & J	SAAM
SABINA	SAMART	SAMTEL	SAT	SC	SCB	SCC	SCCC	SCG	SCN	SDC
SEAFCO	SEOIL	SE-ED	SELIC	SENA	SIRI	SIS	SITHAI	SMK	SMPC	SNC
SONIC	SORKON	SPALI	SPI	SPRC	SPVI	SSSC	SST	STA	SPSCO	SUTHA
SVI	SYMC	SYNTEC	TACC	TASCO	TCAP	TFMAMA	THANA	THANI	THCOM	THG
THIP	THRE	THREL	TIP	TIPCO	TISCO	TK	TKT	TTB	TMILL	TNDT
TNL	TOA	TOP	TPBI	TQM	TRC	TRC	TSC	TSR	TSTE	TSTH
TTCL	TTW	TU	TVD	TVI	TVO	TWPC	U	UAC	UBIS	UV
VGI	VIH	WACOAL	WAVE	WHA	WHAUP	WICE	WINNER	TRUE		

VERY GOOD LEVEL										
2S	ABM	ACE	ACG	ADB	AEC	AEONTS	AGE	AH	AHC	AIT
ALLA	AMANAHA	AMARIN	APCO	APCS	APURE	AQUA	ASAP	ASEFA	ASIA	ASIAN
ASIMAR	ASK	ASN	ATP30	AUCT	AWC	AYUD	B	BA	BAM	BBL
BFIT	BGC	BJC	BJCHI	BROOK	BTW	CBG	CEN	CGH	CHARAN	CHAYO
CHG	CHOTI	CHOW	CI	CIG	CMC	COLOR	COM7	CPL	CRC	CRD
CSC	CSP	CWT	DCC	DCON	DDD	DOD	DOHOME	EASON	EE	ERW
ESTAR	FE	FLOYD	FN	FORTH	FSS	FTE	FVC	GENCO	GJS	GL
GLAND	GLOBAL	GLOCON	GPI	GULF	GYT	HPT	HTC	ICN	IFS	ILM
IMH	INET	INSURE	IRC	IRCP	IT	ITD	ITEL	J	JAS	JCK
JCKH	JMART	JMT	KBS	KCAR	KGI	KIAT	KOOL	KTIS	KWC	KWM
L&E	LALIN	LDC	LHK	LOXLEY	LPH	LRH	LST	M	MACO	MAJOR
MBAX	MEGA	META	MFC	MGT	MILL	MITSIB	MK	MODERN	MTI	MVP
NETBAY	NEX	NINE	NTV	NWR	OCC	OGC	OSP	PATO	PB	PDG
PDI	PICO	PIMO	PJW	PL	PM	PPP	PRIN	PRINC	PSTC	PT
QLT	RCL	RICHY	RML	RPC	RWI	S11	SALEE	SAMCO	SANKO	SAPPE
SAWAD	SCI	SCP	SE	SEG	SFP	SGF	SHR	SIAM	SINGER	SKE
SKR	SKY	SMIT	SMT	SNP	SPA	SPC	SPCG	SR	SRICHA	SSC
SSF	STANLY	STI	STPI	SUC	SUN	SYNEX	T	TAE	TAKUNI	TBSP
TCC	TCMC	TEAM	TEAMG	TFG	TIGER	TITLE	TKN	TKS	TM	TMC
TMD	TMI	TMT	TNITY	TNP	TNR	TOG	TPA	TPAC	TPCORP	TPOLY
TPS	TRITN	TRT	TRU	TSE	TVT	TWP	UEC	UMI	UOBKH	UP
UPF	UPOIC	UT	UTP	UWC	VL	VNT	VPO	WIJK	WP	XO
YUASA	ZEN	ZIGA	ZMICO							

GOOD LEVEL										
7UP	A	ABICO	AJ	ALL	ALUCON	AMC	APP	ARIN	AS	AU
B52	BC	BCH	BEAUTY	BGT	BH	BIG	BKD	BLAND	BM	BR
BROCK	BSBM	BSM	BTNC	CAZ	CCP	CGD	CITY	CMAN	CMO	CMR
CPT	CPW	CRANE	CSR	D	EKH	EP	ESSO	FMT	GIFT	GREEN
GSC	GTB	HTECH	HUMAN	IHL	INOX	INSET	IP	JTS	JUBILE	KASET
KCM	KKC	KUMWEL	KUN	KWG	KYE	LEE	MATCH	MATI	M-CHAI	MCS
MDX	MJD	MM	MORE	NC	NDR	NER	NFC	NNCL	NPK	NUSA
OCEAN	PAF	PF	PK	PLE	PMTA	POST	PPM	PRAKIT	PRECHA	PRIME
PROUD	PTL	RBF	RCI	RJH	ROJNA	RP	RPH	RSP	SF	SFLEX
SGP	SISB	SKN	SLP	SMART	SOLAR	SPG	SQ	SSP	STARK	STC
SUPER	SVOA	TC	TCCC	THMUI	TIW	TNH	TOPP	TPCH	TIPIP	TPLAS
TTI	TYCN	UKEM	UMS	VCOM	VRANDA	WIN	WORK	WPH		

Description

Score Range

Excellent

90-100

Very Good

80-89

Good

70-79

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; ** delisted

Source: Thai Institute of Directors Association (IOD); FSSIA's compilation

Anti-corruption Progress Indicator 2020

CERTIFIED										
2S	ADVANC	AI	AIE	AIRA	AKP	AMA	AMANAHA	AP	AQUA	ARROW
ASK	ASP	AYUD	B	BAFS	BANPU	BAY	BBL	BCH	BCP	BCPG
BGC	BGRIM	BJCHI	BKI	BLA	BPP	BROOK	BRR	BSBM	BTS	BWG
CEN	CENTEL	CFRESH	CGH	CHEWA	CHOTI	CHOW	CIG	CIMBT	CM	CMC
COL	COM7	CPALL	CPF	CPI	CPN	CSC	DCC	DELTA	DEMCO	DIMET
DRT	DTAC	DTC	EASTW	ECL	EGCO	FE	FNS	FPI	FPT	FSS
FTE	GBX	GC	GCAP	GEL	GFPT	GGC	GJS	GPSC	GSTEEL	GUNKUL
HANA	HARN	HMPRO	HTC	ICC	ICHI	IFS	INET	INSURE	INTUCH	IRPC
ITEL	IVL	K	KASET	KBANK	KBS	KCAR	KCE	KGI	KKP	KSL
KTB	KTC	KWC	L&E	LANNA	LHFG	LHK	LPN	LRH	M	MAKRO
MALEE	MBAX	MBK	MBKET	MC	MCOT	MFC	MFEC	MINT	MONO	MOONG
MPG	MSC	MTC	MTI	NBC	NEP	NINE	NKI	NMG	NNCL	NSI
NWR	OCC	OCEAN	OGC	ORI	PAP	PATO	PB	PCSGH	PDG	PDI
PDJ	PE	PG	PHOL	PL	PLANB	PLANET	PLAT	PM	PPP	PPPM
PPS	PREB	PRG	PRINC	PRM	PSH	PSL	PSTC	PT	PTG	PTT
PTTEP	PTTGC	PYLON	Q-CON	QH	QLT	QTC	RATCH	RML	RWI	S & J
SABINA	SAT	SC	SCB	SCC	SCCC	SCG	SCN	SEAOIL	SE-ED	SELIC
SENA	SGP	SIRI	SITHAI	SMIT	SMK	SMPC	SNC	SNP	SORKON	SPACK
SPC	SPI	SPRC	SRICHA	SSF	SSSC	SST	STA	SUSCO	SVI	SYNTEC
TAE	TAKUNI	TASCO	TBSP	TCAP	TCMC	TFG	TFI	TFMAMA	THANI	THCOM
THIP	THRE	THREL	TIP	TIPCO	TISCO	TKT	TTB	TMD	TMILL	TMT
TNITY	TNL	TNP	TNR	TOG	TOP	TPA	TPCORP	TPP	TRU	TSC
TSTH	TTCL	TU	TVD	TVI	TVO	TWPC	U	UBIS	UEC	UKEM
UOBKH	UWC	VGI	VIH	VNT	WACOAL	WHA	WHAUP	WICE	WIJK	XO
ZEN	TRUE									
DECLARED										
7UP	ABICO	AF	ALT	AMARIN	AMATA	AMATAV	ANAN	APURE	B52	BKD
BM	BROCK	BUI	CHO	CI	COTTO	DDD	EA	EFORL	EP	ERW
ESTAR	ETE	EVER	FSMART	GPI	ILINK	IRC	J	JKN	JMART	JMT
JSP	JTS	KWG	LDC	MAJOR	META	NCL	NOBLE	NOK	PK	PLE
ROJNA	SAAM	SAPPE	SCI	SE	SHANG	SINGER	SKR	SPALI	SSP	STANLY
SUPER	SYNEX	THAI	TKS	TOPP	TRITN	TTA	UPF	UV	WIN	ZIGA

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 June 24, 2019) are categorised into: 1) companies that have declared their intention to join CAC, and; 2) companies certified by CAC.

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

GENERAL DISCLAIMER

ANALYST(S) CERTIFICATION

Suwat Sinsadok, CFA, FRM, ERP FSS International Investment Advisory Securities Co., Ltd

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Company	Ticker	Price	Rating	Valuation & Risks
Star Petroleum Refining	SPRC TB	THB 10.20	BUY	TP is based on EV/EBITDA. Downside risks are a sharp rise in oil price and weak demand for refined oil products.
Thai Oil	TOP TB	THB 54.25	BUY	Downside risks to our EV/EBITDA-based TP are a sharp rise in oil price and weak demand for refined oil products.
Bangchak Corp	BCP TB	THB 30.25	BUY	The downside risks to our SoTP-based TP include: 1) lower-than-expected demand for petroleum products; 2) higher crude premiums; and 3) unplanned shutdowns of the company's refinery plants.
Esso Thailand	ESSO TB	THB 8.50	BUY	The downside risks to our SoTP-based TP on ESSO include 1) lower-than-expected demand for petroleum products; 2) a higher crude premium; and 3) unplanned shutdowns of its refinery and petrochemical plants.
PTT Global Chemical	PTTGC TB	THB 51.50	HOLD	The key upside/downside risks to our EV/EBITDA-based TP are a stronger or weaker-than-expected HDPE price and HDPE-naphtha margin.
IRPC PCL	IRPC TB	THB 3.60	BUY	Key risks to our positive view and EV/EBITDA-based target price are weaker-than-expected oil product demand growth and lower-than-expected PP-naphtha and SM-benzene margins.
Tipco Asphalt	TASCO TB	THB 16.70	BUY	Downside risks to our EV/EBITDA multiple based TP include 1) a lower asphalt margin due to a oversupply in Asia on the back of faster recovery of utilisation rate for global refiners; and 2) a lower-than-expected supply of alternative crudes and asphalt.

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

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All share prices are as at market close on 29-Mar-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.