30 OCTOBER 2020 THAILAND / OIL & GAS

FINANSIA FSS INTERNATIONAL INVESTMENT ADVISORY

STAR PETROLEUM REFINING



SPRC TB

TARGET PRICE THB8.00
CLOSE THB5.35
UP/DOWNSIDE +49.5%
PRIOR TP THB8.00
CHANGE IN TP UNCHANGED
TP vs CONSENSUS +20.6%

เบนซิน – ปัจจัยที่ช่วยกระตุ้นผลประกอบการ

เอาตัวรอดจากการดำเนินงานที่แคล่วคล่องและกลยุทธ์ที่ดี

เราเชื่อว่า SPRC ยังเป็นโรงกลั้นที่มีความสามารถในการแข่งขันสูงที่สุดแห่งหนึ่งในประเทศใน แง่ของต้นทุนโครงสร้างและกลยุทธ์การใช้น้ำมันดิบที่ยืดหยุ่น เพื่อรักษา Market GRM ของ บริษัทฯ ผ่านการปรับส่วนผสมน้ำมันดิบในท่ามกลางสภาวะแวดล้อมราคาน้ำมันดิบที่ไม่ แน่นอนอันเกิดขึ้นตั้งแต่ไดรมาส 1Q20 อย่างไรก็ดี Market GRM ของ SPRC มีแนวโน้มที่จะ อ่อนแอต่อเนื่องในช่วง 2H20 จาก Crude Premiums ที่อยู่ในระดับสูงและ Diesel และ Jet-Dubai Margins ที่ตกต่ำ

วิธีการปฏิบัติที่เป็นเลิศในด้านส่วนผสมน้ำมันดิบและการผลิตให้ได้ประโยชน์

นับตั้งแต่เดือน ก.ค. 2020 SPRC เลิกผลิตน้ำมันอากาศยาน (Jet Fuel) จากความต้องการที่ ตกต่ำและ Jet-Dubai Margin ที่อยู่ในระดับศูนย์หรือต่ำกว่า ต่างจากโรงกลั่นอื่น ๆ SPRC ประสบความสำเร็จในการเปลี่ยนการผลิตจากน้ำมันอากาศยานเป็นเบนซินในอัตราที่สูงกว่า ดีเซล ในขณะที่โรงกลั่นในประเทศส่วนมากเปลี่ยนการผลิตน้ำมันอากาศยานเป็นดีเซล ซึ่ง ก่อให้เกิดปริมาณน้ำมันดีเซลลันตลาด เราเชื่อว่า SPRC อยู่ในฐานะที่จะได้ประโยชน์อย่างยิ่ง จากการเปลี่ยนไปผลิตเบนซิน เนื่องจากบริษัทฯ อาจสามารถผลิตใด้ผลตอบแทนเป็นเบนซิน สูงสุดถึง 28% เทียบกับผลตอบแทนฯ เฉลี่ยที่ 21% ของโรงกลั่นรายอื่นในประเทศ

คาดผลประกอบการไตรมาส 3Q20 จะอ่อนแอ

เราคาดกำไรสุทธิไตรมาส 3Q20 ที่ 353 ลบ. ลดลง 69% q-q แต่เพิ่มขึ้นจากผลขาดทุนสุทธิที่ 925 ลบ. ในไตรมาส 3Q19 หักกำไรจากสินค้าคงคลัง เราคาดผลขาดทุนสุทธิจากการ ดำเนินงาน (Core Net Loss) ที่ 209 ลบ. ลดลงจากกำไรสุทธิฯ ที่ 117 ลบ. ในไตรมาส 2Q20 และ 231 ลบ. ในไตรมาส 3Q19 โดยมีปัจจัยสำคัญประกอบด้วย 1) Market GRM ที่ USD1.8/bbl ลดลงจาก USD4.7/bbl ในไตรมาส 2Q20 และ USD5.1/bbl ในไตรมาส 3Q19 จาก Crude Premiums ที่สูงขึ้น q-q และ Product Margin ที่ลดลงทั้ง y-y และ q-q ในทุก ผลิตภัณฑ์จากการแพร่ระบาด COVID-19; 2) ค่าการกลั่นทางบัญชี (Accounting GRM) ที่ USD3.7/bbl (รวมกำไรจากสินค้าคงคลังที่ USD1.9/bbl หรือ 0.6พัน ลบ.) ลดลงจาก 7.5/bbl ในไตรมาส 2Q20 เนื่องจากกำไรจากสินค้าคงคลังที่ลดลง q-q; และ 3) อัตราการใช้กำลังการ ผลิตที่ลดลงเหลือ 82% จาก 86% ในไตรมาส 2Q20

คงคำแนะนำซื้อ ปรับลดประมาณการ EPS ในปี 2020

เราคงคำแนะนำซื้อและราคาเป้าหมายของเราที่ 8 บาทโดยคิดจาก FY21E EV/EBITDA ที่ 3.9x เรามองว่า SPRC เป็นโรงกลั่นที่ดีที่สุดของไทยที่จะได้ประโยชน์จาก Gasoline-Dubai Margin และความต้องการที่คาดว่าจะพื้นคืนสภาพในประเทศไทย และควรได้รับผลกระทบน้อย ที่สุดจากความต้องการและอัตรากำไร Jet และ Diesel-Dubai ที่ตกต่ำ เราปรับลดประมาณการ กำไรสุทธิและกำไรต่อหุ้นจากการดำเนินงาน (Core Net Profit และ Core EPS) ในปี 2020 ลง 331% เพื่อสะท้อน 1) ผลขาดทุนจากสินค้าคงคลังที่สูงเกินคาดในช่วง 1H20; และ 2) Market GRM ที่ลดลง 56% จาก Jet-Dubai และ Diesel-Dubai Margins ที่คาดว่าจะลดลงในปี 2020

KEY STOCK DATA

YE Dec (THB m)	2019	2020E	2021E	2022E
Revenue	168,840	92,648	156,891	160,375
Net profit	(2,809)	(3,851)	5,773	6,454
EPS (THB)	(0.65)	(0.89)	1.33	1.49
vs Consensus (%)	-	(100.0)	142.7	117.5
EBITDA	(2,336)	3,290	10,627	11,426
Core net profit	(2,809)	(3,851)	5,773	6,454
Core EPS (THB)	(0.65)	(0.89)	1.33	1.49
Chg. In EPS est. (%)	-	(331.4)	-	-
EPS growth (%)	(224.1)	(37.1)	nm	11.8
Core P/E (x)	(8.3)	(6.0)	4.0	3.6
Dividend yield (%)	3.4	3.7	15.0	16.8
EV/EBITDA (x)	(12.8)	9.7	2.8	2.2
Price/book (x)	0.7	0.8	0.7	0.7
Net debt/Equity (%)	20.9	30.9	20.1	6.7
ROE (%)	(7.9)	(12.7)	19.4	19.8



Share price performa	ance	1 Month	3 Month	12 Month
Absolute (%)		(2.7)	(21.3)	(35.2)
Relative to country (%)	1.8	(12.4)	(14.1)
Mkt cap (USD m)				742
3m avg. daily turnov	er (USD m)			3.9
Free float (%)				39
Major shareholder	Chevron S	outh Asia H	loldings Pte	Ltd (61%)
12m high/low (THB)				11.70/3.82
Issued shares (m)				4,335.90

Sources: Bloomberg consensus; FSSIA estimates



Suwat Sinsadok suwat.sin@fssia.com +66 2611 3558

Siriluck Pinthusoonthorn

siriluck.pin@fssia.com +66 2611 3562

PREPARED BY FSS INTERNATIONAL INVESTMENT ADVISORY SECURITIES CO LTD (FSSIA). ANALYST CERTIFICATION AND IMPORTANT DISCLOSURES CAN BE FOUND AT THE END OF THIS REPORT

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 2021-22, driven by sustainable earnings from a higher market gross refining margin (GRM) and its low-cost structure.

Company profile

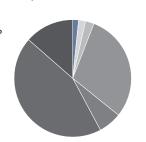
SPRC is a subsidiary of US-based Chevron, with capacity of 165kb/d. Its competitive, low-cost structure and high crude consumption flexibility are key to sustaining its high market GRM.

www.sprc.co.th

Principal activities (revenue, 2019)

- Polymer Grade Propylene 1.6 %
- Liquefied Petroleum Gas 1.9 %
- Light Naphtha 2.4 %
- Gasoline 29.9 %
- Jet Fuel 6.4 %
- Diesel 44.3 %
- Others 13.6 %

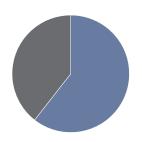




Major shareholders

Chevron South Asia Holdings Pte Ltd - 60.6 %

■ Others - 39.4 %



Source: Star Petroleum Refining

Catalyst

We expect SPRC's earnings growth to recover in 2021 on a widening diesel-Dubai spread.

Risk 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
November 2020	3Q20 results announcement

Key assumptions

	2020E	2021E	2022E
Utilisation rate (%)	82.0	95.0	95.0
Market GRM (USD/bbl)	1.8	5.8	6.2
Dubai crude price (USD/bbl)	40.0	50.0	50.0
Gasoline-Dubai spread (USD/bbl)	6.0	10.0	14.0
Jet-Dubai spread (USD/bbl)	1.0	10.0	10.0
Diesel-Dubai spread (USD/bbl)	4.0	12.0	15.0
Fuel oil-Dubai spread (USD/bbl)	(4.0)	(3.0)	(7.0)
Crude premium (USD/bbl)	1.5	3.3	4.3

Source: FSSIA estimates

Earnings sensitivity

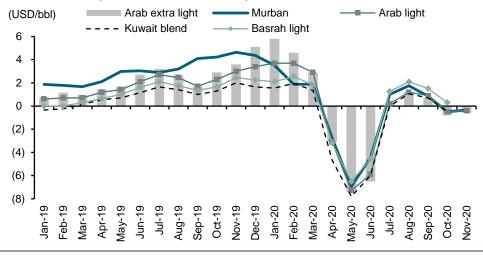
- For every 1% increase in average Dubai oil price, we project that 2020 earnings would rise by 2.8%, and vice versa, all else being equal.
- For every 1% increase in market GRM, we project that 2020 earnings would rise by 2.5%, and vice versa, all else being equal.
- Stability in crude oil price, rising diesel cracks and low crude premiums are key for earnings growth.

Source: FSSIA estimates

Gasoline-Dubai margin remains only a key supporter in 2H20

Saudi Arabia recently announced that it would decrease its Oct-20 official selling price (OSP), or the crude premiums of its benchmark crudes, by USD0.2/bbl to a discount of USD0.6/bbl over Dubai crude price for Arab Extra Light (AXL), and by USD0.1/bbl to a discount of USD0.4/bbl over Dubai for Arab Light (ARL). We think the major factors affecting Thai refiners' market GRMs now are the higher crude costs with continued depressed product margins.

Exhibit 1: Crude premiums of Middle East producers



Source: SPRC

These USD8.8-6.9/bbl higher crude premiums within six months will likely lead to 1) continued losses from SPRC's market gross refining margin (GRM), despite its low-cost structure; and 2) much less flexibility to change crude types from among Middle East (ME) crudes, including Saudi Arabia's ARL and AXL and the UAE's Murban crudes, the three most popular crude types used by Thai refiners.

No way out yet for crude flexibility in 2H20

According to management, SPRC will continue to use ME crude as its key feedstock in 3Q20 and likely in 4Q20 onward, despite the price hike since July. SPRC has increased its ME crude intake from 66% in 4Q19 to 82% in 1Q-2Q20, and we project the company to slightly decrease its ME crude consumption to 80% in 3Q20, supplanted by a higher intake of the more economical Far East (FE) crude, which is lighter and can produce a higher gasoline content. This would help SPRC achieve the highest profitability for its refinery amid the industry's weak product margins.

Exhibit 2: Crude mix

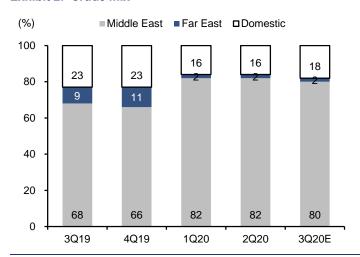
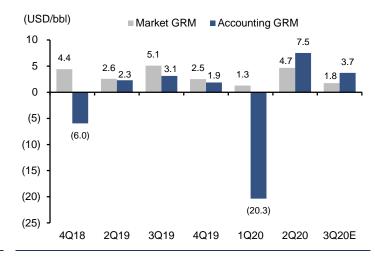


Exhibit 3: Market and accounting GRM



Sources: SPRC; FSSIA estimates

Sources: SPRC; FSSIA estimates

We believe SPRC remains one of the most competitive refiners in Thailand in terms of cost structure and its flexible crude intake strategy of sustaining its market GRM via timely changes to its crude mix throughout the uncertain crude price environment that has existed since 1Q20.

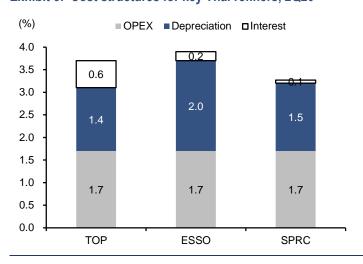
Cost structure remains key to its competitiveness. As of 3Q20, we project SPRC's cash operating cost (OPEX) per bbl at USD1.7/bbl, down from USD1.98/bbl in 1Q-2Q20. Despite excluding the one-time expenses related to its plant maintenance shutdown of USD0.16-0.32/bbl in 1Q-2Q20, SPRC's OPEX per bbl should remain lower q-q, from USD1.82/bbl (excluding the shutdown-related expense) to USD1.7/bbl in 3Q20, thanks to the company's high operational efficiency.

However, including depreciation, we estimate SPRC's accounting cost per bbl for 3Q20 to be USD3.1/bbl, which is still higher than the estimated market GRM of USD1.75/bbl in 3Q20. Including a stock gain of USD1.9/bbl, we project SPRC's 3Q20 reported GRM to be USD3.7/bbl, still higher than its total estimated cost of USD3.1/bbl.

Exhibit 4: Cost structure of SPRC

(USD/bbl) ■ OPEX Depreciation 6 5 1.40 4 3 1.40 1.402 1 1 84 3.89 1.94 4.19 1.98 1.98 1.70 0 3Q19 4Q19 1Q20 2Q20 3Q20E 4Q18 2Q19

Exhibit 5: Cost structures for key Thai refiners, 2Q20

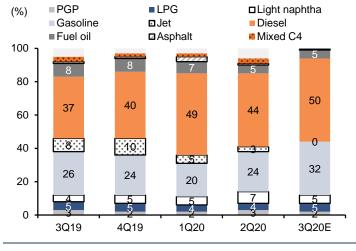


Sources: SPRC; FSSIA estimates

Source: Company data

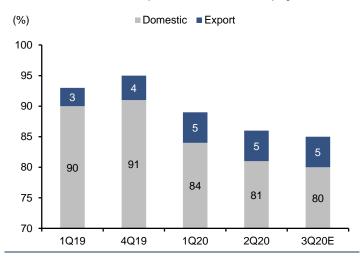
Maximisation of gasoline and minimisation of diesel yield. Since Jul-20, SPRC has produced zero jet fuel, given the depressed demand and jet-Dubai margin at or below zero. Unlike other refiners, SPRC has successfully shifted from producing jet fuel to producing gasoline at a higher rate than diesel. Most Thai refiners have shifted their jet fuel production to diesel, leading to a diesel oversupply.

Exhibit 6: Production yield



Sources: SPRC; FSSIA estimates

Exhibit 7: Sales volume (in terms of utilisation) by market



Sources: SPRC; FSSIA estimates

Thailand is an importer of gasoline and LPG but an exporter of diesel and fuel oil to ASEAN markets. In 8M20, Thailand had already imported gasoline amounting to 4.92m bbls, or an average of 20.5kbpd, due to the higher demand for gasoline in the country. The gasoline demand had already recovered to surpass pre-COVID levels since Jul-20. We believe SPRC stands to benefit greatly from its shift to gasoline, as it could potentially produce the highest gasoline yield at up to 28% vs the average gasoline yield of 21% for other Thai refiners.

Exhibit 8: Gasoline demand in Thailand

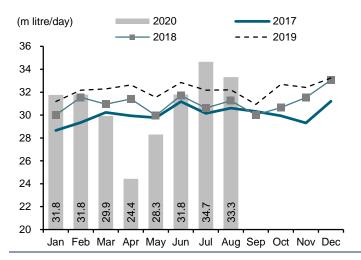
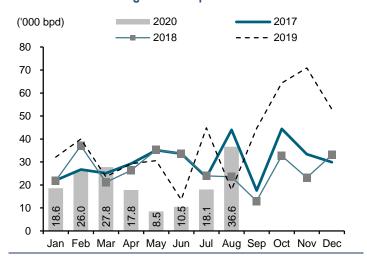


Exhibit 9: Thailand's gasoline imports



Source: Department of Energy Business (DOEB)

Source: Energy Planning and Policy Office (EPPO)

Demand for middle distillate products remains weak. Since Apr-20, the demand for jet fuel in Thailand collapsed due to the ban on international flights as a result of the pandemic. Thanks to SPRC's high operational flexibility, the company has reduced its jet fuel production to zero since Jul-20. This production level is likely to continue into 2021, as the projected demand for jet in Thailand remains depressed on account of the continued international flight ban.

Exhibit 10: Diesel demand in Thailand

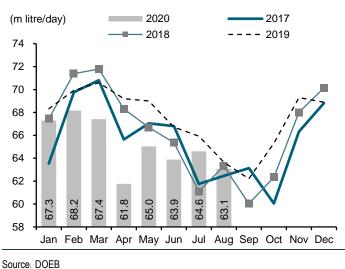
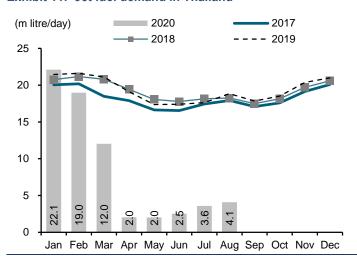


Exhibit 11: Jet fuel demand in Thailand



Source: DOEB

SPRC is maintaining its plan to produce high sulphur fuel oil (HSFO) at 7%, and has no plan to produce low sulphur fuel oil (LSFO), as the higher crude cost does not justify its production, according to management.

3Q20E earnings preview

We project SPRC to post a 3Q20 net profit of THB353m, down 69% q-q but up from a net loss of THB925m in 3Q19. Excluding inventory gains, we project a core net loss of THB209m, down from a net profit of THB117m in 2Q20 and THB231m in 3Q19.

- We project a USD1.8/bbl market GRM, down from USD4.7/bbl in 2Q20 and USD5.1/bbl in 3Q19, due to q-q higher crude premiums and y-y and q-q lower product margins across the board as a result of the COVID-19 pandemic;
- Including an inventory gain of USD1.9/bbl, or THB0.6b, we forecast an accounting GRM of USD3.7/bbl, down from 7.5/bbl in 2Q20 due to a q-q lower inventory gain, but up from USD3.1/bbl in 3Q19 due to the large inventory loss in that quarter;
- We forecast a lower utilisation rate to 82%, down from 86% in 2Q20 due to the poorer product margins.

Exhibit 12: 3Q20E earnings preview

	3Q19	2Q20		3Q20E		9M19	9M20E	Chg.	2020E	Comments
	(THB m)	(THB m)	(THB m)	(q-q%)	(y-y%)	(THB m)	(THB m)	(y-y%)	(THB m)	
Revenue	44,307	25,831	29,845	15.5	(32.6)	141,036	95,052	(32.6)	92,648	Lower y-y due to a lower selling price
Operating costs	(45,079)	(24,696)	(29,362)	18.9	(34.9)	(140,109)	(103,311)	(26.3)	(88,431)	Lower y-y due to lower crude costs
EBITDA	(772)	1,135	483	(57.5)	nm	927	(8,259)	nm	3,290	Lower q-q due to a lower GRM
EBITDA margin (%)	(1.7)	4	1.6	nm	nm	0.7	(8.7)	nm	3.6	
Depreciation	(628)	(720)	(721)	0.1	14.7	(1,942)	(2,148)	10.6	(2,598)	
EBIT	(1,401)	415	(238)	nm	83.3	(1,015)	(10,407)	nm	692	
Interest expense	(14)	(31)	(35)	13.9	159.2	(28)	(118)	nm	(327)	
Interest income	0	0	0	-	-	0	0	-	0	
Other income	9	8	12	55.2	40.6	30	33	10.1	(5,089)	
Associates	0	0	0	-	-	0	0	-	0	
Exceptional	226	1,021	562	(45.0)	148.8	1,065	(6,311)	nm	0	Inventory gain
Pretax profit	(1,180)	1,413	301	(78.7)	(125.5)	52	(16,802)	nm	(4,723)	Lower due to inventory
Tax	255	(275)	52	nm	(79.6)	114	1,885	nm	873	losses and a lower GRM
Tax rate (%)	22	19	(17)	nm	nm	(216)	11	nm	18	
Minority interests	0	0	0	-	-	0	0	-	0	
Net profit	(925)	1,138	353	(69.0)	nm	166	(6,782)	nm	(3,851)	
Core net profit	231	117	(209)	nm	nm	1,566	(471)	nm	(3,851)	
EPS (THB)	(0.21)	0.26	0.08	(69.0)	nm	0.04	(1.56)	nm	(0.89)	
Core EPS (THB)	0.05	0.03	(0.05)	nm	nm	0.36	(0.11)	nm	(0.89)	

Sources: SPRC; FSSIA estimates

EPS revisions

We cut our core net profit and core EPS forecast for 2020 by 331% to reflect 1) the larger-than-expected inventory losses in 1H20; 2) the 56% decline in market GRM due to the projected lower jet-Dubai and diesel-Dubai margins in 2020 by 50% and 33%, respectively; and 3) the lower utilisation rate from 85% to 82% in 2020E, due to our more conservative view on SPRC's lower utilisation rates to optimise its profitability.

Exhibit 13: Change of key assumptions

		New			Old			Change	
	2020E	2021E	2022E	2020E	2021E	2022E	2020E	2021E	2022E
	(THB m)	(%)	(%)	(%)					
Revenue	92,648	156,891	160,375	111,159	156,891	160,375	(16.7)	0.0	0.0
Gross profit	4,217	12,198	13,031	6,516	12,198	13,031	(35.3)	0.0	0.0
Operating profit	692	7,341	8,140	2,336	7,341	8,140	(70.4)	0.0	0.0
Core net profit	(3,851)	5,773	6,454	1,664	5,773	6,454	(331.4)	(0.0)	0.0
EPS (THB)	0.1	1.3	1.5	0.4	1.3	1.5	(80.6)	0.0	0.0
Key assumptions									
Utilisation rate (%)	82.0	95.0	95.0	85.0	95.0	95.0	(3.2)	0.0	0.0
Market GRM (USD/bbl)	1.8	5.8	6.2	4.1	5.8	6.2	(56.0)	0.0	0.0
Dubai crude price (USD/bbl)	40.0	50.0	50.0	40.0	50.0	50.0	0.0	0.0	0.0
Gasoline-Dubai spread (USD/bbl)	6.0	10.0	14.0	6.0	10.0	14.0	0.0	0.0	0.0
Jet-Dubai spread (USD/bbl)	1.0	10.0	10.0	2.0	10.0	10.0	(50.0)	0.0	0.0
Diesel-Dubai spread (USD/bbl)	4.0	12.0	15.0	6.0	12.0	15.0	(33.3)	0.0	0.0
Fuel oil-Dubai spread (USD/bbl)	(4.0)	(3.0)	(7.0)	(4.0)	(3.0)	(7.0)	0.0	0.0	0.0
Crude premium (USD/bbl)	1.5	3.3	4.3	1.5	3.3	4.3	0.0	0.0	0.0

Source: FSSIA estimates

We maintain BUY and our TP of THB8, based on 3.9x FY21E EV/EBITDA. We think SPRC is Thailand's best refiner to benefit from the expected resilient gasoline-Dubai margin and demand in Thailand, and should be the least impacted by the depressed jet and diesel-Dubai demand and margins.

Exhibit 14: Valuation comparison of companies under coverage as of 29 Oct 2020

		Rec	Share p	orice	Up	EPS gr	owth	PI	E	Div	Yld	RO	E	PB	V	EV/EBI	TDA
			Current	Target	side	20E	21E	20E	21E	20E	21E	20E	21E	20E	21E	20E	21E
			(THB)	(THB)	(%)	(%)	(%)	(x)	(x)	(%)	(%)	(%)	(%)	(x)	(x)	(x)	(x)
PTT	PTT TB	BUY	31.00	60.00	94	33.0	(0.2)	7.2	7.2	4.8	11.6	13.5	12.7	0.9	0.9	4	4
PTT Explor	PTTEP TB	BUY	79.00	101.00	28	(54.9)	21.0	14.3	11.8	4.2	5.1	6.1	7.2	0.9	8.0	4	4
Thai Oil	TOP TB	BUY	34.50	62.00	80	10.4	110.7	10.7	5.1	4.2	8.8	5.2	10.4	0.5	0.5	7	6
Star Petroleum	SPRC TB	BUY	5.35	8.00	50	(37.1)	nm	(6.0)	4.0	3.7	15.0	(12.7)	19.4	0.8	0.7	10	3
Bangchak Corp	BCP TB	BUY	14.70	21.00	43	(512.8)	(145.2)	(2.7)	6.0	1.4	8.9	(10.6)	5.0	0.3	0.3	47	8
PTG Energy	PTG TB	BUY	18.80	22.00	17	(5.8)	17.7	21.4	18.1	0.0	8.0	21.1	22.3	4.3	3.8	7	6
Esso Thailand	ESSO TB	BUY	6.00	9.90	65	(8.3)	nm	(7.4)	5.9	0.0	6.7	(13.7)	17.1	1.1	0.9	44	5
Coverage						(1.7)	24.9	9.4	7.6	4.5	9.9	9.3	11.2	0.9	0.8	5	4

Source: FSSIA estimates

Financial Statements

Star Petroleum Refining

Profit and Loss (THB m) Year Ending Dec	2018	2019	2020E	2021E	2022E
Revenue	209,159	168,840	92,648	156,891	160,375
Cost of goods sold	(203,451)	(169,486)	(88,431)	(144,693)	(147,344)
Gross profit	5,709	(646)	4,217	12,198	13,031
Other operating income	-	-	-	-	-
Operating costs	(947)	(1,690)	(927)	(1,570)	(1,605)
Operating EBITDA	4,762	(2,336)	3,290	10,627	11,426
Depreciation	(2,737)	(2,565)	(2,598)	(3,286)	(3,286)
Goodwill amortisation	0	0	0	0	0
Operating EBIT	2,025	(4,901)	692	7,341	8,140
Net financing costs	743	1,179	(327)	(294)	(261)
Associates	0	0	0	0	C
Recurring non operating income	35	29	(5,089)	35	38
Non recurring items	0	0	0	0	C
Profit before tax	2,804	(3,693)	(4,723)	7,082	7,917
Гах	(541)	885	873	(1,308)	(1,463)
Profit after tax	2,263	(2,809)	(3,851)	5,773	6,454
Minority interests	0	0	0	0	C
Preferred dividends	0	0	0	0	(
Other items	-	-	-	-	
Reported net profit	2,263	(2,809)	(3,851)	5,773	6,454
Non recurring items & goodwill (net)	0	0	0	0	0
Recurring net profit	2,263	(2,809)	(3,851)	5,773	6,454
Per share (THB)					
Recurring EPS *	0.52	(0.65)	(0.89)	1.33	1.49
Reported EPS	0.52	(0.65)	(0.89)	1.33	1.49
DPS	0.59	0.18	0.20	0.80	0.90
Diluted shares (used to calculate per share data)	4,336	4,336	4,336	4,336	4,336
Growth					
Revenue (%)	22.6	(19.3)	(45.1)	69.3	2.2
Operating EBITDA (%)	(61.3)	(149.1)	(240.8)	223.1	7.5
Operating EBIT (%)	(78.6)	(342.0)	(114.1)	961.1	10.9
Recurring EPS (%)	(74.6)	(224.1)	37.1	(249.9)	11.8
Reported EPS (%)	(74.6)	(224.1)	37.1	(249.9)	11.8
Operating performance					
Gross margin inc depreciation (%)	1.4	(1.9)	1.7	5.7	6.1
Gross margin of key business (%)	1.4	(1.9)	1.7	5.7	6.1
Operating EBITDA margin (%)	2.3	(1.4)	3.6	6.8	7.1
Operating EBIT margin (%)	1.0	(2.9)	0.7	4.7	5.1
Net margin (%)	1.1	(1.7)	(4.2)	3.7	4.0
Effective tax rate (%)	19.3	24.0	18.5	18.5	18.5
Dividend payout on recurring profit (%)	113.6	(28.2)	(22.5)	60.1	60.5
nterest cover (X)	(2.8)	4.1	(13.5)	25.1	31.3
nventory days	24.3	33.0	56.1	31.0	38.1
Debtor days	21.6	21.3	28.3	16.7	16.4
Creditor days	19.9	27.7	42.6	23.5	29.0
Operating ROIC (%)	3.9	(10.3)	1.5	(4.1)	(4.6
ROIC (%)	3.9	(9.9)	(9.1)	(3.9)	(4.4)
ROE (%)	5.6	(7.9)	(12.7)	19.4	19.8
ROA (%)	2.9	(6.9)	(7.2)	11.8	12.6
* Pre-exceptional, pre-goodwill and fully diluted		, ,	` ,		
Revenue By Division (THB m)	2018	2019	2020E	2021E	2022E
Polymer Grade Propylene	3,963	2,716	4,088	7,209	4,305
Liquefied Petroleum Gas	4,450	3,216	1,091	3,221	3,221
Light Naphtha	5,912	4,027	2,524	4,225	4,225
Gasoline	60,711	50,452	2,524 34,428	55,843	
Jasonio	00,711	JU, 4 JZ	54,420	JJ,04J	50,194

Sources: Star Petroleum Refining; FSSIA estimates

Financial Statements

Star Petroleum Refining

ash Flow (THB m) Year Ending Dec	2018	2019	2020E	2021E	2022
Recurring net profit	2,263	(2,809)	(3,851)	5,773	6,4
Depreciation	2,737	2,565	2,598	3,286	3,28
ssociates & minorities	-	-	-	-	
Other non-cash items	- 0.500	- (4.045)	-	(4.007)	/5
hange in working capital	3,592	(1,245)	1,829	(1,237)	(5
ash flow from operations	8,592	(1,489)	576	7,823	9,68
apex - maintenance	(2,685) (2,041)	(2,518)	(2,598) (330)	(3,286)	(3,28 (1,01
apex - new investment et acquisitions & disposals	(2,041)	(1,965) 0	(330)	(1,019) 0	(1,01
ther investments (net)	6,609	6,645	(5,120)	0	
ash flow from investing	1,883	2,162	(8,048)	(4,305)	(4,30
ividends paid	(12,652)	(8,317)	(271)	(3,035)	(3,46
quity finance	0	0	0	0	(0, .0
ebt finance	(3,689)	6,369	2,681	(3,000)	(3,00
Other financing cash flows	3,768	1,220	5,779	2,038	2,0
ash flow from Financing	(12,573)	(727)	8,189	(3,997)	(4,43
on-recurring cash flows	-	-	-	-	•
ther adjustments	0	0	0	0	
et other adjustments	0	0	0	0	
lovement in cash	(2,098)	(54)	718	(479)	9
ree cash flow to firm (FCFF)	10,525.25	719.65	(7,144.70)	3,811.89	5,639.
ree cash flow to equity (FCFE)	10,554.11	8,263.27	989.07	2,555.69	4,415.
er share (THB)					
CFF per share	2.43	0.17	(1.65)	0.88	1.3
CFE per share	2.43	1.91	0.23	0.59	1.
ecurring cash flow per share	1.15	(0.06)	(0.29)	2.09	2.
alance Sheet (THB m) Year Ending Dec	2018	2019	2020E	2021E	2022
angible fixed asset (gross) ess: Accumulated depreciation	72,396 (43,698)	69,391 (42,705)	71,659 (45,303)	73,927 (48,589)	76,1 (51,87
angible fixed assets (Net)	28,698	26,686	26,356	25,337	24,3
tangible fixed assets (Net)	144	124	124	124	1
ong-term financial assets	-	124	124	124	
vest. In associates & subsidiaries	0	0	0	0	
ash & equivalents	74	20	738	259	1,2
/C receivable	12,541	7,192	7,192	7,192	7,1
ventories	12,820	17,856	9,317	15,244	15,5
ther current assets	87	456	250	424	4
urrent assets	25,521	25,524	17,497	23,118	24,3
ther assets	647	1,960	1,960	1,960	1,9
otal assets	55,011	54,294	45,937	50,540	50,7
ommon equity	38,529	32,476	28,354	31,092	34,0
linorities etc.	0	0	0	0	
otal Shareholders' equity	38,529	32,476	28,354	31,092	34,0
ong term debt	449	0	4,000	1,000	
ther long-term liabilities	328	484	484	484	4
ong-term liabilities	778	484	4,484	1,484	4
/C payable	12,126	13,567	7,079	11,582	11,7
hort term debt	0	6,819	5,500	5,500	3,5
ther current liabilities	3,579	949	521	882	9
urrent liabilities	15,704	21,334	13,099	17,964	16,1
otal liabilities and shareholders' equity	55,011	54,294	45,937	50,540	50,7
et working capital	9,743	10,989	9,159	10,396	10,4
vested capital ncludes convertibles and preferred stock which is be	39,233	39,759	37,600	37,818	36,8
nicidaes conventibles and preferred stock which is be	Ing treated as debt				
er share (THB)					
ook value per share	8.89	7.49	6.54	7.17	7
angible book value per share	8.85	7.46	6.51	7.14	7
nancial strength					
et debt/Equity (%)	1.0	20.9	30.9	20.1	•
et debt/total assets (%)	0.7	12.5	19.1	12.3	
urrent ratio (x)	1.6	1.2	1.3	1.3	2
F interest cover (x)	(15.9)	(7.7)	5.0	13.2	2
aluation	2018	2019	2020E	2021E	202
ecurring P/E (x) *	10.2	(8.3)	(6.0)	4.0	
ecurring P/E @ target price (x) *	15.3	(12.3)	(9.0)	6.0	
eported P/E (x)	10.2	(8.3)	(6.0)	4.0	
ividend yield (%)	11.1	3.4	3.7	15.0	1
rice/book (x)	0.6	0.7	0.8	0.7	
rice/tangible book (x)	0.6	0.7	0.8	0.7	
V/EBITDA (x) **	5.0	(12.8)	9.7	2.8	
V/EBITDA @ target price (x) **	7.4	(17.8)	13.2	3.9	;
V/invested capital (x)	0.6	0.8	0.8	0.8	(

Sources: Star Petroleum Refining; FSSIA estimates

Corporate Governance report of Thai listed companies 2019

EXCELLE	NT LEVEL									
AAV	ADVANC	AIRA	AKP	AKR	AMA	AMATA	AMATAV	ANAN	AOT	AP
ARROW	BAFS	BANPU	BAY	BCP	BCPG	BOL	BRR	BTS	BTW	BWG
CFRESH	CHEWA	CHO	CK	CKP	CM	CNT	COL	COMAN	CPALL	CPF
CPI	CPN	CSS	DELTA	DEMCO	DRT	DTAC	DTC	EA	EASTW	ECF
EGCO	GBX	GC	GCAP	GEL	GFPT	GGC	GOLD	GPSC	GRAMMY	GUNKUL
HANA	HARN	HMPRO	ICC	ICHI	III	ILINK	INTUCH	IRPC	IVL	JKN
JSP	K	KBANK	KCE	KKP	KSL	KTB	KTC	KTIS	LH	LHFG
LIT	LPN	MAKRO	MALEE	MBK	MBKET	MC	MCOT	MFEC	MINT	MONO*
MTC	NCH	NCL	NKI	NSI	NVD	NYT	OISHI	ОТО	PAP	PCSGH
PDJ	PG	PHOL	PJW	PLANB	PLANET	PORT	PPS	PR9	PREB	PRG
PRM	PSH	PSL	PTG	PTT	PTTEP	PTTGC	PYLON	Q-CON	QH	QTC
RATCH	ROBINS**	RS	S	S&J	SABINA	SAMART	SAMTEL	SAT	SC	SCB
SCC	SCCC	SCN	SDC	SEAFCO	SEAOIL	SE-ED	SELIC	SENA	SIS	SITHAI
SNC	SORKON	SPALI	SPI	SPRC	SSSC	STA	STEC	SVI	SYNTEC	TASCO
TCAP	THAI	THANA	THANI	THCOM	THIP	THREL	TIP	TISCO	TK	TKT
TMB	TMILL	TNDT	TOA	TOP	TRC	TRU	TRUE	TSC	TSR	TSTH
TTA	TTCL	TTW	TU	TVD	TVO	U	UAC	UV	VGI	VIH
WACOAL	WAVE	WHA	WHAUP	WICE	WINNER					
	OD LEVEL									
2S	ABM	ADB	AF	AGE	AH	AHC	AIT	ALLA	ALT	AMANAH
AMARIN	APCO	APCS	AQUA	ARIP	ASAP	ASIA	ASIAN	ASIMAR	ASK	ASN
ASP	ATP30	AUCT	AYUD	В	BA	BBL	BDMS	BEC	BEM	BFIT
BGC	BGRIM	BIZ	BJC	BJCHI	BLA	BPP	BROOK	CBG	CEN	CENTEL
CGH	CHG	CHOTI	CHOW	CI	CIMBT	CNS	COLOR	COM7	COTTO	CRD
CSC	CSP ETE	DCC FLOYD	DCON FN	DDD	DOD	EASON	ECL	EE	EPG	ERW FVC
ESTAR				FNS	FORTH	FPI	FPT	FSMART	FSS	
GENCO	GJS	GL	GLOBAL	GLOW**	GULF	HPT	HTC	HYDRO	ICN	IFS
NET	INSURE	IRC	IRCP	IT	ITD***	ITEL	J	JAS*	JCK	JCKH
JMART	JMT	JWD	KBS	KCAR	KGI	KIAT	KOOL	KWC	KWM	L&E
_ALIN	LANNA	LDC	LHK	LOXLEY	LRH	LST	M	MACO	MAJOR	MBAX
MEGA	METCO	MFC	MK	MODERN	MOONG	MPG	MSC	MTI	NEP	NETBAY
NEX	NINE	NOBLE	NOK	NTV	NWR	OCC	OGC	ORI	OSP	PATO
PB	PDG	PDI	PL	PLAT	PM	PPP	PRECHA	PRIN	PRINC	PSTC
PT	QLT	RCL	RICHY	RML	RWI	S11	SAAM	SALEE	SAMCO	SANKO
SAPPE	SAWAD	SCG	SCI	SCP	SE	SFP	SIAM	SINGER	SIRI	SKE
SKR	SKY	SMIT	SMK	SMPC	SMT	SNP	SONIC	SPA	SPC	SPCG
SPVI	SR	SRICHA	SSC	SSF	SST	STANLY	STPI	SUC	SUN	SUSCO
SUTHA	SWC	SYMC	SYNEX	T	TACC	TAE	TAKUNI	TBSP	TCC	TCMC
TEAM	TEAMG	TFG	TFMAMA	THG	THRE	TIPCO	TITLE	TIW	TKN	TKS
TM	TMC	TMD	TMI	TMT	TNITY	TNL	TNP	TNR	TOG	TPA
TPAC	TPBI	TPCORP	TPOLY	TRITN	TRT	TSE	TSTE	TVI	TVT	TWP
TWPC					UP	UPF	UPOIC	UT		
	UBIS	UEC	UMI	UOBKH	UP	UPF	UPUIC	UI	UWC	VNT
WIIK	XO	YUASA	ZEN	ZMICO						
GOOD LE										
A	ABICO	ACAP***	AEC	AEONTS	AJ	ALUCON	AMC	APURE	AS	ASEFA
AU	B52	BCH	BEAUTY	BGT	BH	BIG	BLAND	BM	BR	BROCK
BSBM	BSM	BTNC	CCET	CCP	CGD	CHARAN	CHAYO	CITY	CMAN	CMC
CMO	CMR	CPL	CPT	CSR	CTW	CWT	D	DIMET	EKH	EMC
-000	ECCO	FE	FTE	GIFT	GLAND	GLOCON	GPI	GREEN	GTB	GYT
-100	ESSO	1 L		11.10.1/	ITC	JUBILE	KASET	KCM	KKC	KWG
	HUMAN	IHL	INGRS	INOX	JTS	JUDILE	KASET		MOT	MJD
HTECH			INGRS MATCH	MATI	M-CHAI	MCS	MDX	META	MGT	IVIOL
HTECH KYE	HUMAN	IHL						META OCEAN	PAF	PF
HTECH KYE MM	HUMAN LEE MVP	IHL LPH NC	MATCH NDR	MATI NER	M-CHAI NNCL	MCS NPK	MDX NUSA	OCEAN	PAF	PF
HTECH KYE MM PICO	HUMAN LEE MVP PIMO	IHL LPH NC PK	MATCH NDR PLE	MATI NER PMTA	M-CHAI NNCL POST	MCS NPK PPM	MDX NUSA PROUD	OCEAN PTL	PAF RCI	PF RJH
HTECH KYE MM PICO ROJNA	HUMAN LEE MVP PIMO RPC	IHL LPH NC PK RPH	MATCH NDR PLE SF	MATI NER PMTA SGF	M-CHAI NNCL POST SGP	MCS NPK PPM SKN	MDX NUSA PROUD SLP	OCEAN PTL SMART	PAF RCI SOLAR	PF RJH SPG
HTECH KYE MM PICO ROJNA SQ	HUMAN LEE MVP PIMO RPC SSP	IHL LPH NC PK RPH STI	MATCH NDR PLE SF SUPER	MATI NER PMTA SGF SVOA	M-CHAI NNCL POST SGP TCCC	MCS NPK PPM SKN THE	MDX NUSA PROUD SLP THMUI	OCEAN PTL SMART TIC	PAF RCI SOLAR TIGER	PF RJH SPG TNH
EPCO HTECH KYE MM PICO ROJNA SQ TOPP	HUMAN LEE MVP PIMO RPC SSP TPCH	IHL LPH NC PK RPH STI TPIPP	MATCH NDR PLE SF SUPER TPLAS	MATI NER PMTA SGF SVOA TQM	M-CHAI NNCL POST SGP	MCS NPK PPM SKN	MDX NUSA PROUD SLP	OCEAN PTL SMART	PAF RCI SOLAR	PF RJH SPG
HTECH KYE MM PICO ROJNA SQ TOPP	HUMAN LEE MVP PIMO RPC SSP TPCH WORK	IHL LPH NC PK RPH STI TPIPP WP	MATCH NDR PLE SF SUPER	MATI NER PMTA SGF SVOA TQM ZIGA	M-CHAI NNCL POST SGP TCCC TTI	MCS NPK PPM SKN THE TYCN	MDX NUSA PROUD SLP THMUI	OCEAN PTL SMART TIC VCOM	PAF RCI SOLAR TIGER VIBHA	PF RJH SPG TNH
HTECH KYE MM PICO ROJNA SQ TOPP	HUMAN LEE MVP PIMO RPC SSP TPCH WORK	IHL LPH NC PK RPH STI TPIPP WP	MATCH NDR PLE SF SUPER TPLAS	MATI NER PMTA SGF SVOA TQM ZIGA	M-CHAI NNCL POST SGP TCCC TTI	MCS NPK PPM SKN THE TYCN	MDX NUSA PROUD SLP THMUI	OCEAN PTL SMART TIC VCOM	PAF RCI SOLAR TIGER VIBHA	PF RJH SPG TNH
HTECH KYE MM PICO ROJNA SQ TOPP	HUMAN LEE MVP PIMO RPC SSP TPCH WORK Score F	IHL LPH NC PK RPH STI TPIPP WP Range	MATCH NDR PLE SF SUPER TPLAS	MATI NER PMTA SGF SVOA TQM ZIGA	M-CHAI NNCL POST SGP TCCC TTI	MCS NPK PPM SKN THE TYCN	MDX NUSA PROUD SLP THMUI	OCEAN PTL SMART TIC VCOM	PAF RCI SOLAR TIGER VIBHA Description Excellent	PF RJH SPG TNH
HTECH KYE MM PICO ROJNA SQ TOPP	HUMAN LEE MVP PIMO RPC SSP TPCH WORK	IHL LPH NC PK RPH STI TPIPP WP Range	MATCH NDR PLE SF SUPER TPLAS	MATI NER PMTA SGF SVOA TQM ZIGA	M-CHAI NNCL POST SGP TCCC TTI	MCS NPK PPM SKN THE TYCN	MDX NUSA PROUD SLP THMUI	OCEAN PTL SMART TIC VCOM	PAF RCI SOLAR TIGER VIBHA	PF RJH SPG TNH
HTECH KYE MM PICO ROJNA SQ	HUMAN LEE MVP PIMO RPC SSP TPCH WORK Score F	IHL LPH NC PK RPH STI TPIPP WP Range	MATCH NDR PLE SF SUPER TPLAS	MATI NER PMTA SGF SVOA TQM ZIGA	M-CHAI NNCL POST SGP TCCC TTI Number of Lo	MCS NPK PPM SKN THE TYCN	MDX NUSA PROUD SLP THMUI	OCEAN PTL SMART TIC VCOM	PAF RCI SOLAR TIGER VIBHA Description Excellent	PF RJH SPG TNH
HTECH KYE MM PICO ROJNA SQ TOPP	HUMAN LEE MVP PIMO RPC SSP TPCH WORK Score F	IHL LPH NC PK RPH STI TPIPP WP Range 00 39	MATCH NDR PLE SF SUPER TPLAS	MATI NER PMTA SGF SVOA TQM ZIGA	M-CHAI NNCL POST SGP TCCC TTI	MCS NPK PPM SKN THE TYCN	MDX NUSA PROUD SLP THMUI	OCEAN PTL SMART TIC VCOM	PAF RCI SOLAR TIGER VIBHA Description Excellent Very Good	PF RJH SPG TNH
HTECH KYE MM PICO ROJNA GQ TOPP	HUMAN LEE MVP PIMO RPC SSP TPCH WORK Score i 90-1	IHL LPH NC PK RPH STI TPIPP WP Range 00 39	MATCH NDR PLE SF SUPER TPLAS	MATI NER PMTA SGF SVOA TQM ZIGA	M-CHAI NNCL POST SGP TCCC TTI Number of Lo	MCS NPK PPM SKN THE TYCN	MDX NUSA PROUD SLP THMUI	OCEAN PTL SMART TIC VCOM	PAF RCI SOLAR TIGER VIBHA Description Excellent Very Good Good	PF RJH SPG TNH

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.

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

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

Anti-corruption Progress Indicator

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

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 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.

This report has been prepared by FSS International Investment Advisory Company Limited (FSSIA). The information herein has been obtained from sources believed to be reliable and accurate; however FSS makes no representation as to the accuracy and completeness of such information. Information and opinions expressed herein are subject to change without notice. FSS has no intention to solicit investors to buy or sell any security in this report. In addition, FSS does not guarantee returns nor price of the securities described in the report nor accept any liability for any loss or damage of any kind arising out of the use of such information or opinions in this report. Investors should study this report carefully in making investment decisions. All rights are reserved.

This report may not be reproduced, distributed or published by any person in any manner for any purpose without permission of FSSIA. Investment in securities has risks. Investors are advised to consider carefully before making investment decisions.

Company	Ticker	Price	Rating	Valuation & Risks
Star Petroleum Refining	SPRC TB	THB 5.35	BUY	TP is based on EV/EBITDA. Downside risks are a sharp rise in oil price and weak demand for refined oil products.
PTT	PTT TB	THB 31.00	BUY	Risks to our SoTP-based valuation are the oil price and potential earnings downsides from government intervention.
PTT Explor & Prod	PTTEP TB	THB 79.00	BUY	Risks our TP, which is based on EV/EBITDA, are a sharp decline in oil price and potential earnings downsides from government intervention.
Thai Oil	ТОР ТВ	THB 34.50	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	ВСР ТВ	THB 14.70	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.
PTG Energy	PTG TB	THB 18.80	BUY	The downside risks to our SoTP-based TP include 1) a government cap on oil prices; and 2) weaker demand for diesel and gasoline.
Esso Thailand	ESSO TB	THB 6.00	BUY	The downside risks to our SoTP-based TP on ESSO include 1) lower-than-expected demand for petroleum products; 2) higher crude premiums; and 3) unplanned shutdowns of its refinery and petrochemical plants.

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 29-Oct-2020 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.