

30 JULY 2021

THAILAND / OIL & GAS

THAI OIL TOP TB

BUY

UNCHANGED

TARGET PRICE	THB67.00
CLOSE	THB47.00
UP/DOWNSIDE	+42.6%
PRIOR TP	THB74.00
CHANGE IN TP	-9.5%
TP vs CONSENSUS	+9.6%

ซื้อหุ้น 15.4% ใน Chandra Asri

การเพิ่มของ Crude Premiums เทียบกับการเพิ่มของ Product Margins

เนื่องจากโรงกลั่นของ TOP ใช้ Murban Crude มากกว่า 50% ค่า Premiums ที่ยิ่งสูงขึ้นสำหรับน้ำมันดิบที่นำเข้ามาจากตะวันออกกลางจะบั่นทอนค่า Market GRM ของ TOP ใน 2Q21 อย่างไรก็ตามเราคาดว่า Market GRM น่าจะเริ่มปรับตัวดีขึ้นอย่างเห็นได้ชัดใน 2H21 โดยมีสมมติฐานจาก 1) Diesel และ Jet-Dubai Margin ที่คาดว่าจะค่อย ๆ เพิ่มขึ้นจากความต้องการที่สูงขึ้นในสหรัฐฯ และจีน; และ 2) Crude Premiums เพิ่มขึ้นในอัตราที่น้อยกว่าเมื่อเทียบกับ 1H21 เนื่องจากการผลิตน้ำมันดิบของ OPEC เพิ่มขึ้น 0.4 ล้านบาร์เรลต่อวันในเดือน ส.ค. - ต.ค. 2021

ซื้อหุ้น 15.4% ใน Chandra Asri

เมื่อวันที่ 29 ก.ค. 2021 TOP ประกาศซื้อหุ้น 15.38% ใน Chandra Asri Petrochemical Tbk (CAP) ในราคา USD1.183 พันล้าน CAP เป็นผู้ผลิตปิโตรเคมีรายใหญ่ที่สุดของอินโดนีเซียและ Siam Cement (SCC TB, BUY, TP THB494) มีหุ้นอยู่ 30.57% เรามองการลงทุนดังกล่าวเป็นบวกในทางยุทธศาสตร์ CAP มีความเหมาะสมในด้านการดำเนินงานในแง่วัตถุดิบเนื่องจาก TOP จะผลิต Naphtha และ LPG ได้มากเกินความต้องการจากโครงการ CFP ตั้งแต่ปี 2024 เป็นต้นไป จากข้อมูลของผู้บริหาร TOP จะเซ็นสัญญาซื้อขายวัตถุดิบกับ CAP เพื่อป้อน Naphtha และ LPG ให้แก่ CAP และโครงการ CAP2 เป็นจำนวนไม่เกิน 1.05 mtpa ในราคาตลาด สัญญาดังกล่าวจะรับรองได้ว่า TOP จะได้ประโยชน์จากการขายวัตถุดิบส่วนเกินบางส่วนให้แก่บุคคลภายนอกในราคาที่มีส่วนลด นอกจากนี้ TOP ยังเซ็นสัญญาตัวแทนกับ CAP เพื่อจำหน่ายโพลีเมอร์จำนวนไม่เกิน 176 ktpa และผลิตภัณฑ์น้ำมันอื่นที่ CAP และ CAP2 เป็นผู้ผลิตอีกไม่เกิน 124 ktpa ผ่านกลไกราคาตลาด

ธุรกิจที่ไม่ใช่โรงกลั่นอาจช่วยพยุงกำไรสุทธิ 2Q21

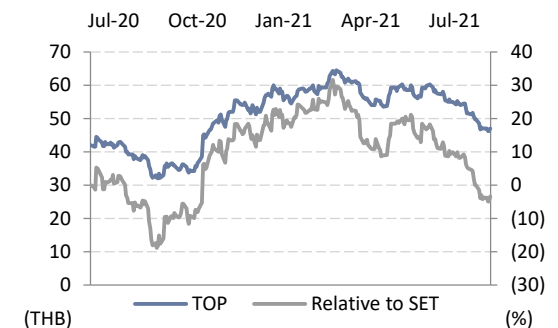
ใน 2Q21 เราคาดว่ากำไรสุทธิจะอยู่ที่ 4.1 พัน ลบ. เพิ่มขึ้น 19% q-q และพลิกจากผลขาดทุนสุทธิจำนวน 13.8 พัน ลบ. ใน 2Q20 เมื่อหักกำไรจากสินค้าคงคลังและผลกระทบจากอัตราแลกเปลี่ยน กำไรสุทธิจากการดำเนินงานอาจเพิ่มเป็น 3.1 พัน ลบ. (+95% q-q) จากผลขาดทุนสุทธิจากการดำเนินงานจำนวน 345 ลบ. ใน 2Q20 โดยมีสมมติฐานสำคัญประกอบด้วย: 1) Market GRM ที่ลดลงเหลือ USD0.5/bbl จาก Crude Premium ที่เพิ่มขึ้น q-q; 2) Aromatics GIM ที่สูงขึ้นเป็น USD2.3/bbl; 3) Lube GIM ที่สูงขึ้นเป็น USD2.5/bbl; 4) ต้นทุนต่อหน่วยที่สูงขึ้นเป็น USD4/bbl; 5) ผลขาดทุนจากสัญญาป้องกันความเสี่ยงที่สูงกว่า 1 พัน ลบ. จากค่าเงินบาทที่อ่อนตัวลง 0.7 บาท/USD ใน 2Q21; และ 6) กำไรจากสินค้าคงคลังจำนวน 1 พัน ลบ.

คงคำแนะนำซื้อหลังปรับลดราคาเป้าหมายเป็น 67 บาท

เราคงคำแนะนำซื้อหลังปรับลดราคาเป้าหมายจาก 74 บาท (8.3x ของค่า 2021E EV/EBITDA) เป็น 67 บาท (8.4x ของค่า 2021E EV/EBITDA) เพื่อสะท้อนสมมติฐานราคาน้ำมันและ Crude Premium ที่สูงขึ้นอีก 10.1-17.3% สำหรับปี 2021-23 ตามลำดับ

KEY STOCK DATA

YE Dec (THB m)	2020	2021E	2022E	2023E
Revenue	242,840	299,968	298,113	298,521
Net profit	(3,301)	12,698	11,766	12,023
EPS (THB)	(1.62)	6.22	5.77	5.89
vs Consensus (%)	-	84.3	49.9	31.4
EBITDA	(7,556)	32,590	32,582	33,497
Core net profit	(3,301)	12,698	11,766	12,023
Core EPS (THB)	(1.62)	6.22	5.77	5.89
Chg. In EPS est. (%)	nm	(6.9)	(26.4)	(26.0)
EPS growth (%)	nm	nm	(7.3)	2.2
Core P/E (x)	(29.0)	7.6	8.1	8.0
Dividend yield (%)	4.3	6.0	5.5	5.6
EV/EBITDA (x)	(24.9)	7.1	7.6	7.9
Price/book (x)	0.8	0.8	0.7	0.7
Net debt/Equity (%)	73.6	103.5	110.3	115.8
ROE (%)	(2.8)	10.6	9.3	9.0



Share price performance	1 Month	3 Month	12 Month
Absolute (%)	(14.9)	(18.6)	9.3
Relative to country (%)	(12.6)	(16.6)	(4.7)
Mkt cap (USD m)	2,916		
3m avg. daily turnover (USD m)	21.3		
Free float (%)	45		
Major shareholder	PTT plc. (49%)		
12m high/low (THB)	66.00/31.75		
Issued shares (m)	2,040.03		

Sources: Bloomberg consensus; FSSIA estimates



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

บทวิเคราะห์ฉบับนี้แปลมาจากบทวิเคราะห์ของ FSSIA ฉบับวันที่ 30 กรกฎาคม 2021

Investment thesis

Since IMO 2020 regulations came into force mandating the use of low sulphur fuel oil (LSFO) by the global shipping industry, we think TOP has stood out as one of the potential refinery winners in Asia to capture the projected widening diesel-fuel oil spreads. TOP has sustained its earnings improvement since 2009, thanks to its well-diversified earnings portfolio. We expect 40-50% of its 2021-22 earnings to be derived from its non-refinery businesses, including aromatics (20%), lube (10%), power (10%) and marine transportation (3%). We believe TOP's Clean Fuel Project (CFP) will allow it to employ its capital more efficiently and position itself to benefit from the projected USD2-4/bbl higher market gross refining margin (GRM) from the widening diesel-Dubai spread. This is because TOP intends to convert all of its loss-making fuel oil capacity to produce diesel post-completion and start-up of CFP in 2024.

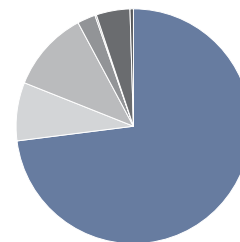
Company profile

TOP operates Thailand's largest single-site refinery, which is one of the most complex refineries in the Asia Pacific region with a nameplate capacity of 220,000 bopd. It also undertakes power generation, petrochemical production and oil and petrochemical product transportation.

www.thaioilgroup.com

Principal activities (revenue, 2020)

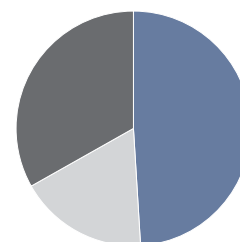
- Oil refinery - 73.0 %
- Lubed base oil refinery - 8.0 %
- Petrochemical - 11.1 %
- Power generation - 2.5 %
- Marine transportation services - 0.2 %



Source: Thai Oil

Major shareholders

- PTT plc. - 49.0 %
- Thai NVDR - 17.8 %
- Others - 33.2 %



Source: Thai Oil

Catalysts

A key potential catalyst for TOP would be a higher-than-expected recovery in market GRM due to stronger-than-expected diesel cracks and a lower-than-expected crude premium.

Risks to our call

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

Event calendar

Date	Event
Aug 2021	2Q21 results announcement

Key assumptions

	2021E	2022E	2023E
	(USD/bbl)	(USD/bbl)	(USD/bbl)
Dubai oil price	65.0	60.0	60.0
Refining margin	4.8	5.5	5.5
Crude premium	3.0	3.0	2.0
Diesel-Dubai margin	7.0	10.0	15.0
Jet-Dubai margin	5.0	10.0	15.0
Gasoline-Dubai margin	12.0	15.0	15.0
HSFO-Dubai margin	(3.0)	(5.0)	(5.0)

Source: FSSIA estimates

Earnings sensitivity

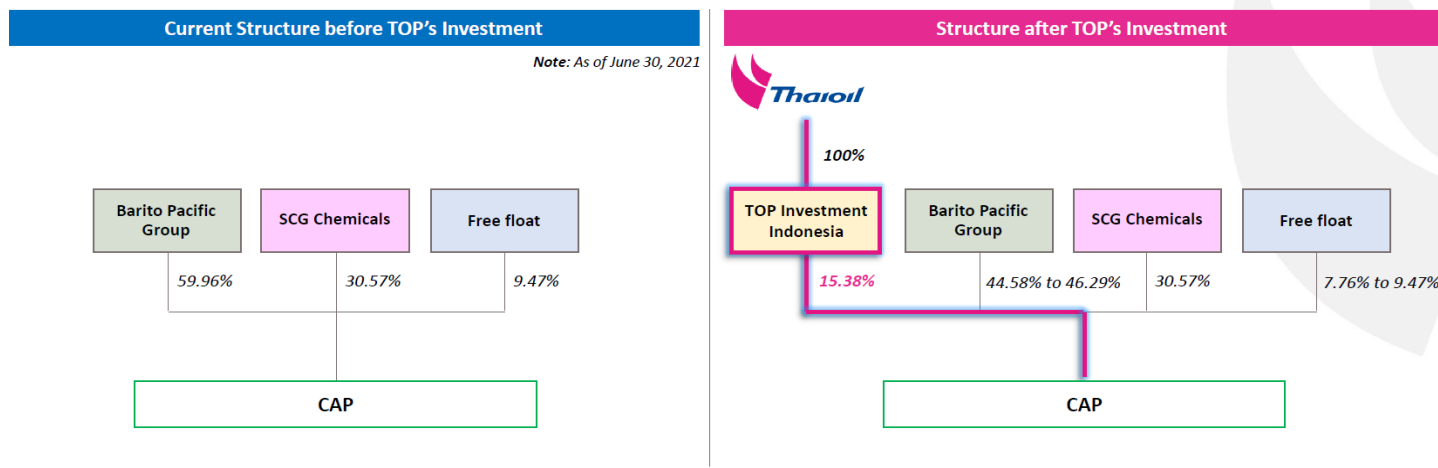
- For every 1% increase in average Dubai oil price, we project 2021 earnings to rise by 2.4%, and vice versa, all else being equal.
- For every 1% increase in market GRM, we estimate 2021 earnings will rise by 2%, and vice versa, all else being equal.
- Stability in crude oil price, rising diesel cracks and a low crude premium are key for earnings growth.

Source: FSSIA estimates

Acquisition of a 15.38% stake in Chandra Asri

On 29 July 2021, TOP announced the acquisition of a 15.38% stake in CAP at a cost of USD1.183b; Indonesia’s largest petrochemical producer owned 30.57% by SCC and 59.96% by Barito group. This is in line with our and the market’s expectation that TOP has been actively seeking to acquire a large-scale petrochemical producer overseas in ASEAN, focusing on the olefins value chain to complement TOP’s existing aromatics and refinery integrated value chain.

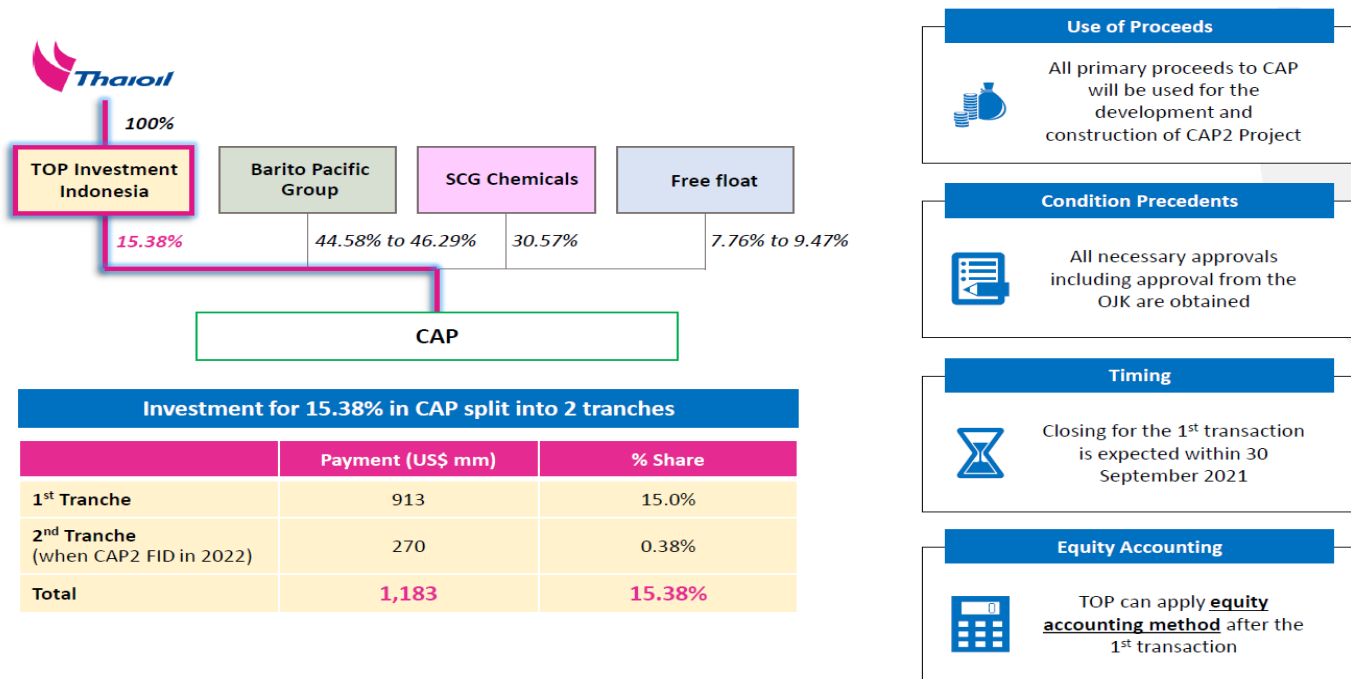
Exhibit 1: CAP’s shareholder structure pre and post TOP’s and SCG’s capital increases in CAP



Source: TOP

Transaction timeline and details. There are two transactions for TOP’s 15.38% stake acquisition of CAP. First, TOP will acquire a 15% stake at USD0.2815/share, or USD913m, via newly issued shares in the form of rights issues, currently under the existing shareholder, Barito group. SCG chemical (SCGC, not listed), SCC’s subsidiary, will fully apply for the rights issue in order to maintain its 30.57% stake in CAP. Second, TOP will acquire an additional 0.38% stake either via the unsubscribed rights issues from the 9.47% free float shareholders or from the Barito group at an average cost of USD0.3532/share, or USD270m for the second tranche.

Exhibit 2: Investment details and timeline



Source: TOP

Why CAP? Why now? Management has long indicated that TOP is seeking to diversify its business portfolio into the olefins chemical value chain via M&A overseas, leveraging its excess feedstocks of naphtha and LPG that will be produced from its Clean Fuel Project (CFP) – a USD4b upgrading project to convert high sulphur fuel oil (HSFO) into diesel and gasoline. Given the projected commercial operation date (COD) of CFP in 2024, TOP seeks to enhance its feedstocks produced from CFP by acquiring downstream chemical projects overseas.

Exhibit 3: CAP is the largest petrochemical producer in Indonesia

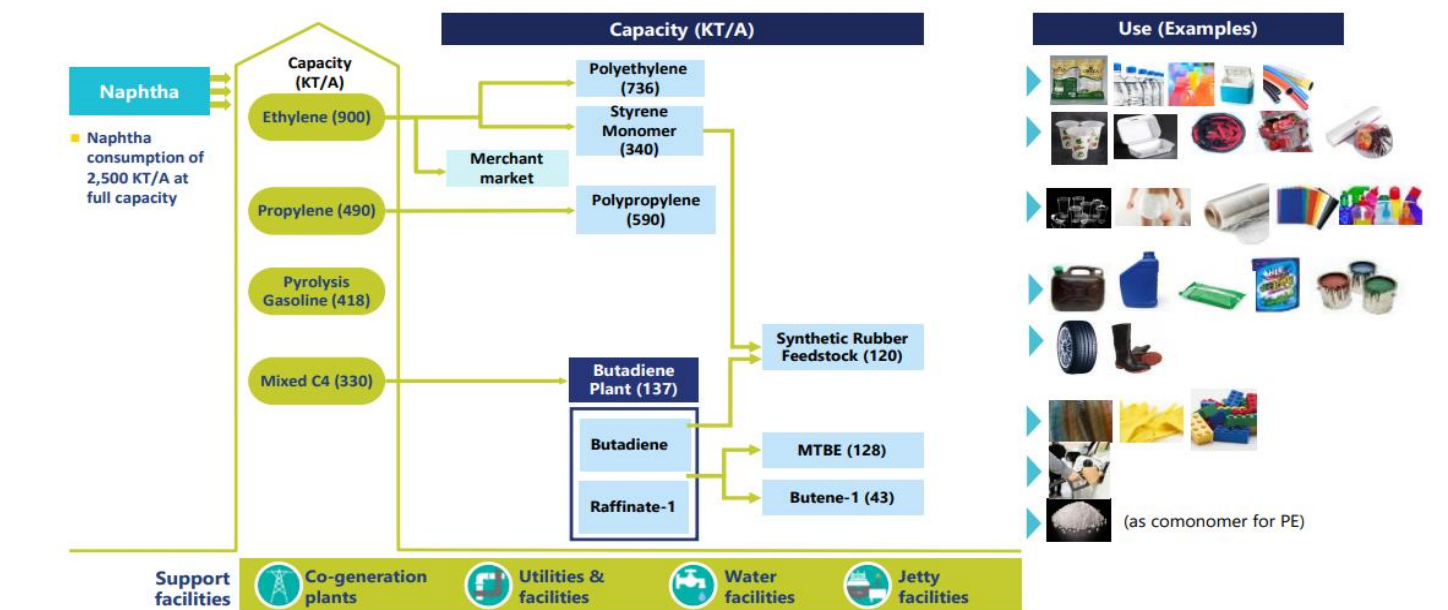
Kapasitas ('000 ton per tahun)	Chandra Asri	LOTTE CHEMICAL TITAN	PERTAMINA	Megaplex PT POLYMER INDO	ASC PT Asahim Chemical	PT SULFINDO ADIUSAHA	TPPI	Lainnya	Total
Ethylene	900	-	-	-	-	-	-	-	900
Propylene	490	-	625	-	-	-	-	-	1.115
LLDPE	400	200	-	-	-	-	-	-	600
HDPE	336	250	-	-	-	-	-	-	586
Polypropylene	590	-	45	300	-	-	-	-	935
Ethylene Dichloride	-	-	-	-	760	380	-	-	1.140
Vinyl Chloride Monomer	-	-	-	-	875	130	-	-	1.005
Polyvinyl Chloride	-	-	-	-	550	110	-	202	862
Ethylene Oxide	-	-	-	-	-	-	-	240	240
Mono Ethylene Glycol	-	-	-	-	-	-	-	220	220
Acrylic Acid	-	-	-	-	-	-	-	140	140
Butanol	-	-	-	-	-	-	-	20	20
2-Ethylhexanol	-	-	-	-	-	-	-	140	140
Py-Gas	418	-	-	-	-	-	-	-	418
Mixed C4	330	-	-	-	-	-	-	-	330
Butadiene	137	-	-	-	-	-	-	-	137
Benzene	-	-	100	-	-	-	207 ¹	-	307
Para-Xylene	-	-	270	-	-	-	500 ¹	-	770
Styrene	340	-	-	-	-	-	-	-	340
Synthetic Rubber	120	-	-	-	-	-	-	75	195
Methyl Tert-butyl Ether	128	-	-	-	-	-	-	-	128
Butene-1	43	-	-	-	-	-	-	-	43
Total	4,232	450	1,040	300	2,185	620	707	1,037	10,571

CAP offers the most diverse product range and is a dominant producer with market share of approximately 50%, 30%, and 32% of the domestic market (including imports) in olefins, polyethylene and polypropylene respectively

Source: CAP

CAP is Indonesia’s largest chemical producer with a current total capacity of 4.2mtpa, comprising upstream olefins of 1.39mtpa, downstream olefins of polyethylene (PE) at 1.3mtpa, downstream aromatics of styrene and synthetic rubber at 0.46mtpa, and a number of by-products, including mixed C4, pygas, methyl tert-butyl ether (MTBE), and butane-1.

Exhibit 4: CAP’s production plant structure



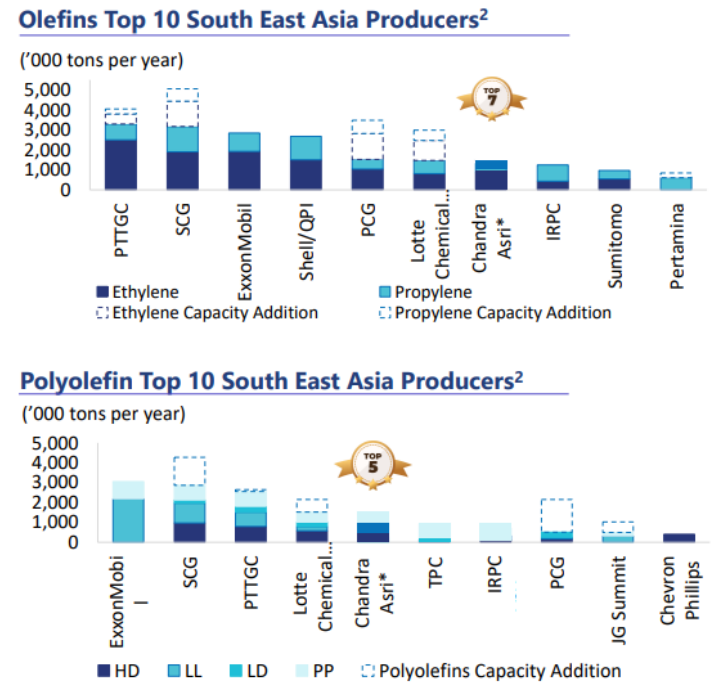
Source: CAP

Exhibit 5: CAP is Indonesia's market leader for its products



Source: CAP

Exhibit 6: CAP is ranked in the top 10 chemical producers in Southeast Asia



Source: CAP

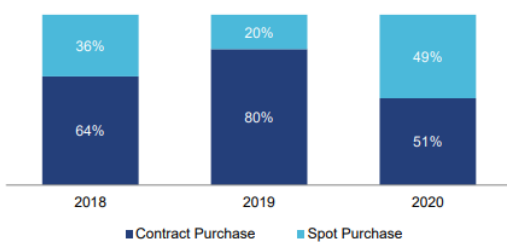
Strategic fit with TOP's CFP project. We believe TOP's acquisition of CAP is a positive move, both strategically and financially. Strategically, CAP is an operational fit for the excess feedstocks of naphtha and LPG produced from TOP's CFP project in 2024 onward. According to management, TOP will enter into a feedstock sales and purchase agreement with CAP to supply naphtha and LPG feedstocks to CAP and the CAP2 project of up to 1.05mtpa at the market price. This should ensure that TOP can enjoy the benefits of excess feedstocks partly sold to outsiders at a deep discount price. In addition, TOP also entered into a distribution agreement with CAP to distribute up to 176ktpa of polymers and 124ktpa of other liquid products produced by CAP and CAP2 via a market pricing mechanism.

Exhibit 7: Feedstock contracts for existing 4.2mtpa capacity

Feedstock Procurement Overview

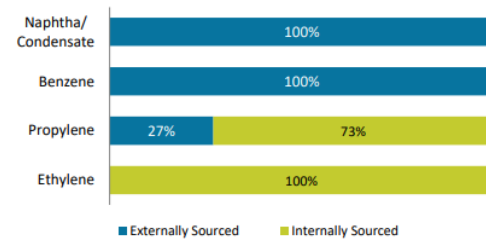
- Long-standing stable supplier relationships
- No material feedstock supply disruption historically
- Flexibility in feedstock purchasing (spot vs. contract)
 - Avoids single supplier dependence
 - 51% of naphtha under contract with major oil trading companies in 2020
- Procurement synergies with SCG
- Substantial naphtha storage capacity to support 27 days of operations

Naphtha Supply (2018-2020)



Source: CAP

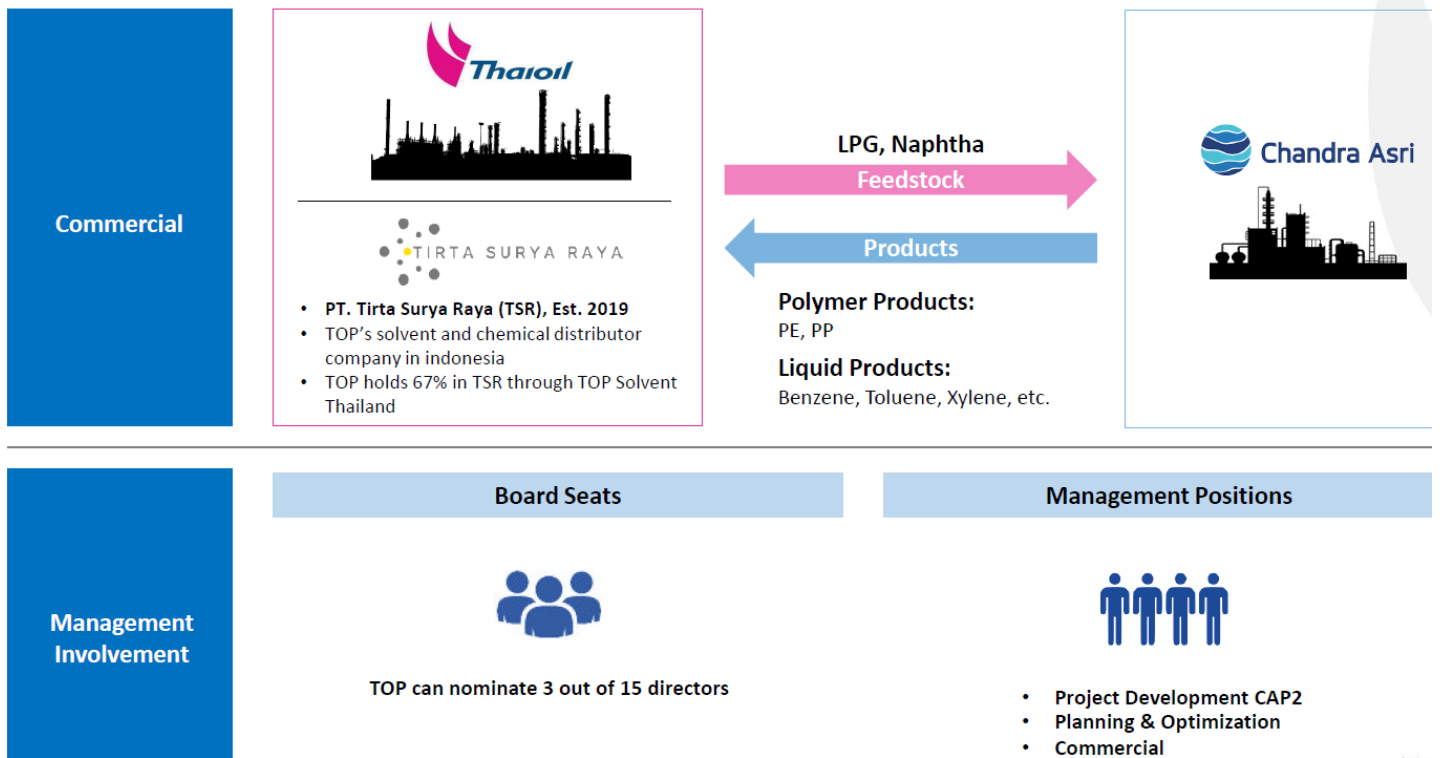
Main Raw Materials (2020)



Key Suppliers of Naphtha (2020)

Supplier	Million US\$	%
Saudi Aramco Product Trading Company	536.3	56.4
Marubeni Petroleum Co Ltd	235.5	24.8
Totsa Total Oil Trading S	42.2	4.4
Konsorsium PT. Titis Sampurna	34.8	3.7
Kuwait Petroleum Corporation	31.2	3.3
Shell MDS (Malaysia) Sendirian Berhad	25.5	2.7
Total Trading Asia Pte Ltd	22.0	2.3
Chevron U.S.A Inc. (Singapore Branch)	10.9	1.2
BP Singapore Pte. Ltd.	8.3	0.9
PT Surya Mandala Sakti	4.2	0.4
Total	950.9	100.0%

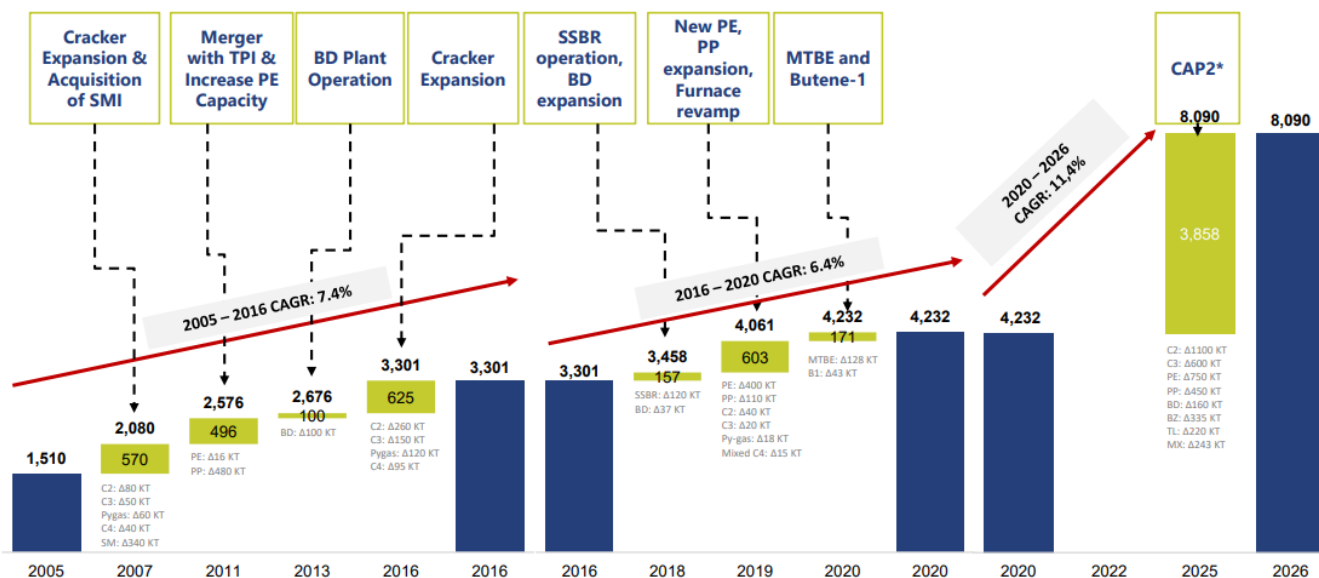
Exhibit 8: TOP's feedstock contract with CAP



Source: TOP

CAP's capacity expansion. CAP is now seeking funding for its USD5b CAP2 project, a new naphtha cracker with a 3.9mtpa capacity to almost double the capacity size of CAP from 4.2mtpa to 8.1mtpa by end-2026. According to management, TOP is contributing a USD1.18b capital increase for the 15.38% stake in CAP and SCGC's USD434m capital increase is being used to maintain its 30.57% stake in CAP. This would bring a total of USD1.614b cash to CAP to partly fund its USD5b CAP2 project.

Exhibit 9: CAP's historical track record of capacity increases

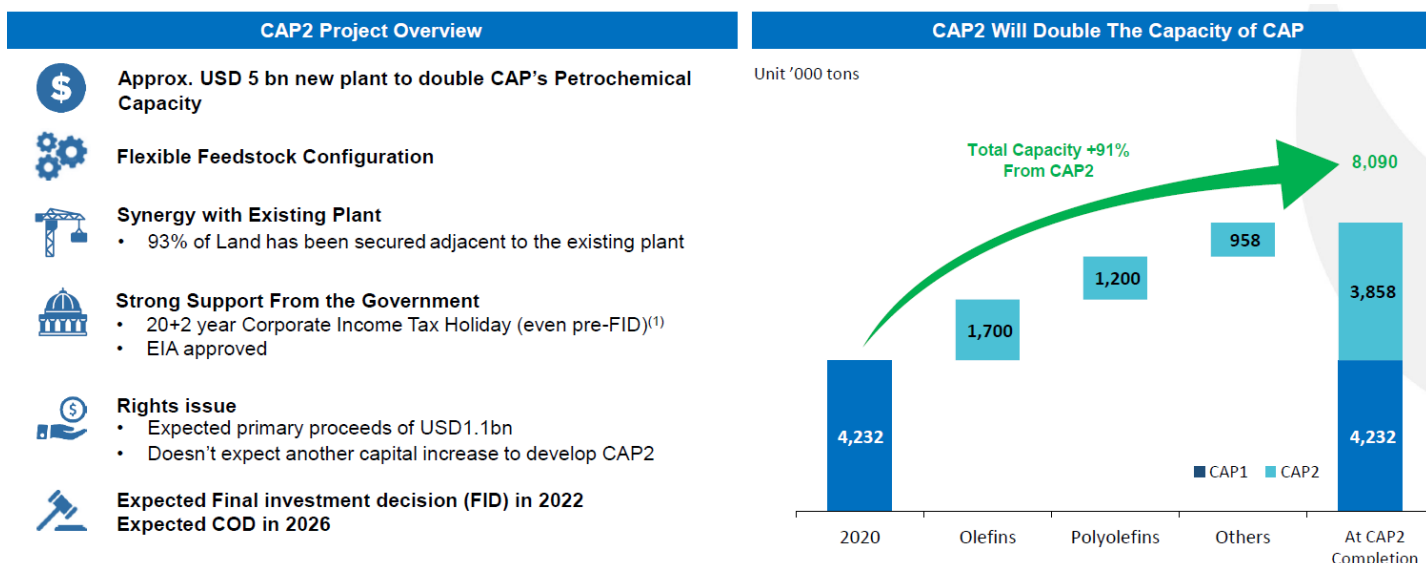


* Subject to FID

Source: CAP

CAP2 project is essentially a new naphtha cracker complex with 1.7mtpa of upstream olefins capacity, 1.2mtpa of downstream polyolefins, and 958ktpa of aromatics and other downstream products. With its CAP2 project, CAP will increase its capacity by 91% to 8.1mtpa, and the project is set to commence its COD in 2026 – two years after the COD of TOP's CFP project in 2024.

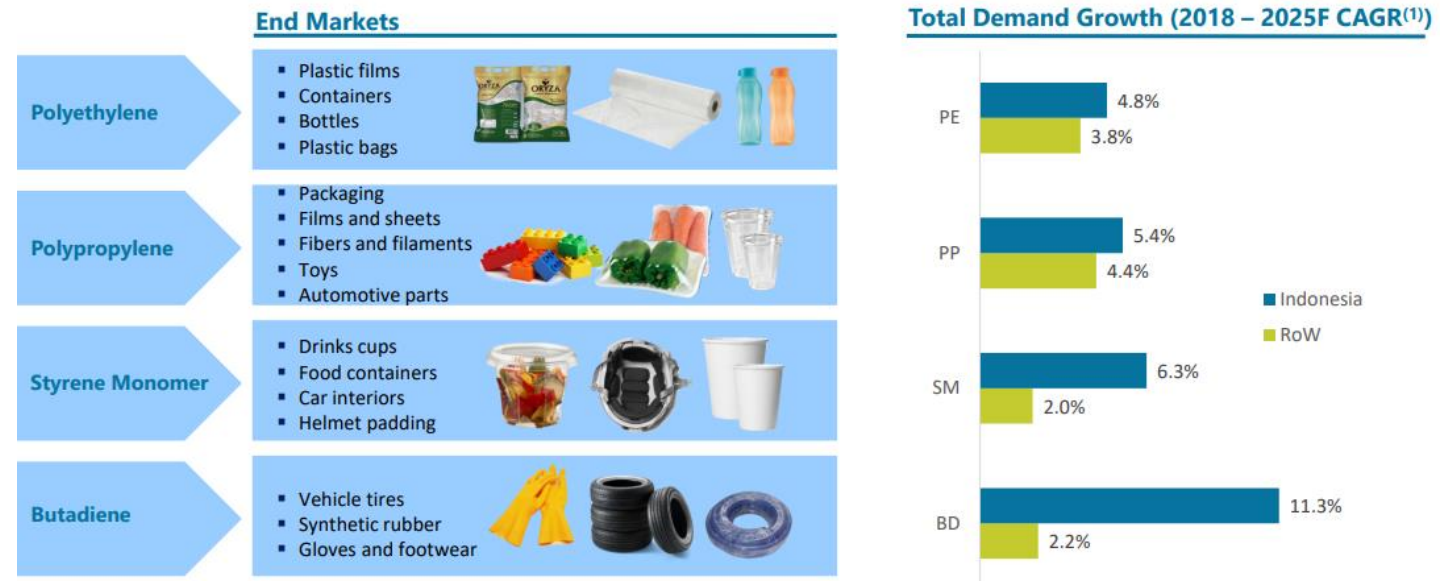
Exhibit 10: CAP2 expansion project



Source: TOP

Why the Indonesia market vs Thailand? Management indicated that the acquisition of CAP will allow TOP to not only monetise its excess feedstocks and enhance its CFP project for feedstock value creation via CAP's two petrochemical complexes (CAP1 and CAP2) but will also enable TOP to be the first company in the PTT (PTT TB, BUY, TP THB60) group to establish its production presence in the Indonesia market.

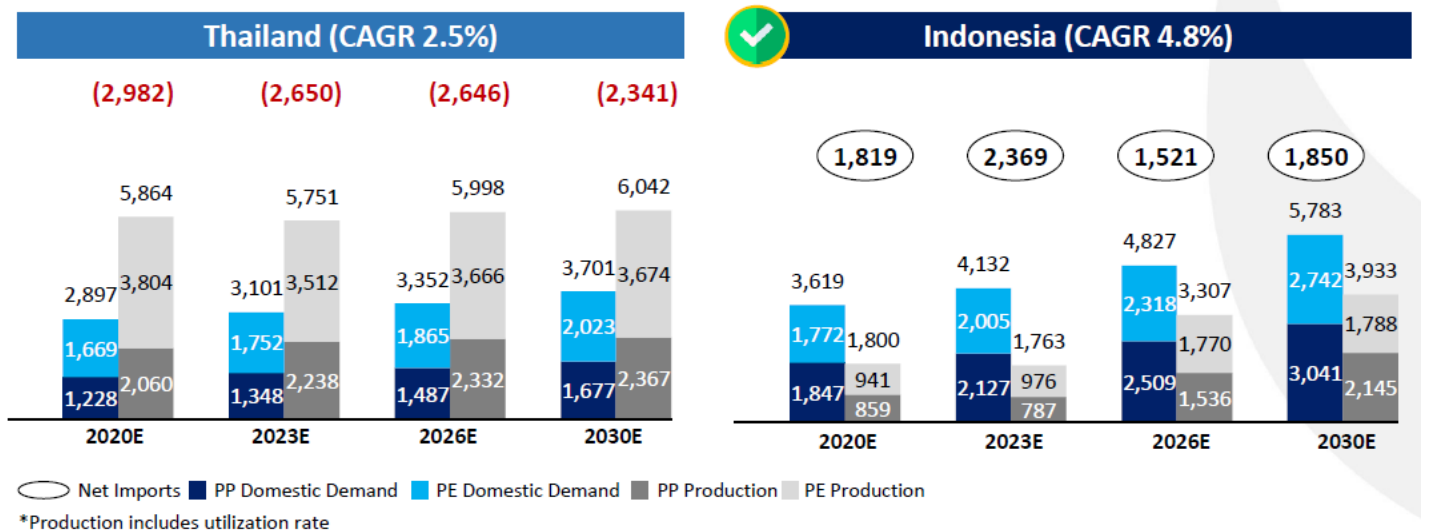
Exhibit 11: Strong demand growth in Indonesia



Source: CAP

According to TOP, Indonesia is projected to be an undersupplied petrochemical market despite the projected large influx of new capacity in 2026 onward. Unlike Thailand, which has long been an oversupplied export market, Indonesia should remain an import market for many petrochemical products until 2030, based on TOP's projection. Hence, the two new large-scale naphtha crackers from CAP2 and Lotte Titan will still be insufficient to serve Indonesia's high demand growth for petrochemical products.

Exhibit 12: Indonesia has a more balanced demand-supply and higher demand growth than Thailand

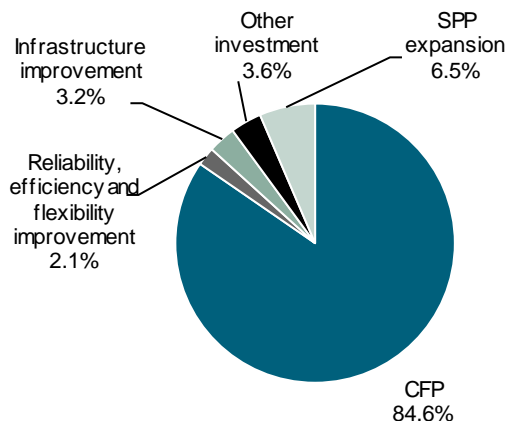


Source: TOP

Our positive view on TOP's acquisition of CAP

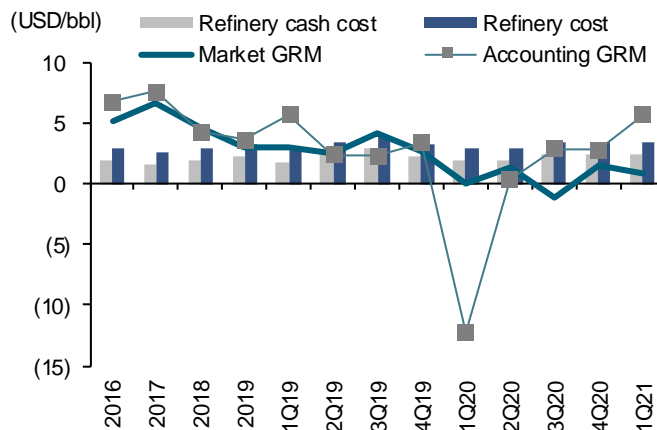
We believe TOP's acquisition of CAP is a right strategic move to strengthen its business portfolio, enhance its margin, and improve its earnings sustainability in the long term, given that its core refinery business is now in jeopardy from the demand risk from EVs and a lower GRM, pressured by the high crude cost and oversupply.

Exhibit 13: Capex plan (USD2.25b) in 2021-24



Source: TOP

Exhibit 14: TOP's refinery cash cost and accounting cost vs market GRM and accounting GRM



Source: TOP

Shareholder value creation. While in the short term, TOP's shareholders may see a lower ROE and tighter balance sheet from the rising debt to fund CFP and the acquisition of CAP, we think that in the long run, TOP's shareholders will be much better off with TOP's well-diversified asset portfolio with a more integrated petroleum-petrochemical value chain in both aromatics and olefins.

Monetising power investment into future olefins growth. TOP's current high cash position of THb45.9b cash on hand as of 1Q21 will be mostly used to fund its USD4b CFP project in 2021-23. Hence, the THB39.1b acquisition of CAP will have to be funded via other sources. TOP has decided to pursue its funding via a combination of a capital increase (11%) and the divestment of Global Power Synergy (GPSC TB, BUY, TP THB112)'s stake (10.8%). We think the two funding strategies are optimal for TOP, given the limited EPS dilution and the investment change from power (GPSC) to downstream olefins (CAP).

Exhibit 15: TOP's financial position pre- and post-CAP acquisition

Financial position pre-capital increase	1Q21	Unit
Cash	45,904	THB m
Debt	142,999	THB m
Equity	117,523	THB m
Net debt	97,095	THB m
Debt-to-equity	1.22	x
Net debt-to-equity	0.83	x
Net debt-to-equity covenant	2.00	x
Financial position post-capital increase		
Cash	45,904	THB m
RO	10,000	THB m
10.8% divestment in GPSC	20,099	THB m
Cash post RO	55,904	THB m
Cash post RO and GPSC	76,004	THB m
Debt	142,999	THB m
Net debt	66,996	THB m
Equity post RO	127,523	THB m

Sources: TOP; FSSIA estimates

Our analysis indicates that TOP's plan to fund its USD1.18b acquisition of CAP via a THB10b capital increase and the 10.8% divestment of GPSC would be sufficient to fund the transaction. During the period of capital raising and divestment, management indicated that TOP will receive a short-term bridging loan of USD1.18b from banks and PTT.

Exhibit 16: TOP's capital plan to fund the CAP acquisition

TOP's 2020 financial information			
Cash	71,354	THB m	
Debt	141,623	THB m	
Equity	120,118	THB m	
Net debt	70,269	THB m	
Debt-to-equity	1.18	x	
Net debt-to-equity	0.58	x	
Net debt covenant		x	
2021E net profit	12,698	THB m	
2021E EPS	6.22	THB/share	
CAP's acquisition			
Acquisition stake in CAP	15.38%	%	
Acquisition cost	1,183	USD m	
Acquisition cost	39,100	THB m	
Capital increase			
# shares outstanding	2,040	m shares	
Capital increase target	10,000	THB m	
PP price	43	THB/share	
# shares increase	232.6	m shares	
% # shares increase	11.4	%	
# shares post capital increase	2,272.6	m shares	
GPSC shares divestment			
GPSC's shares outstanding	2,819.7	m shares	
GPSC's major shareholders			
	TOP	PTTGC	PTT
% shares divestment (%)	10.8	na	na
Stake (%)	20.8	22.7	31.7
# shares owned (m shares)	586.1	640.9	894.4
# shares divested (m shares)	304.5	na	na
Assume GPSC share price divested (THB/share)	66.0	na	na
Capital raised from GPSC's 10.8% divestment (THB m)	20,099	na	na

Sources: TOP; GSPC; FSSIA estimates

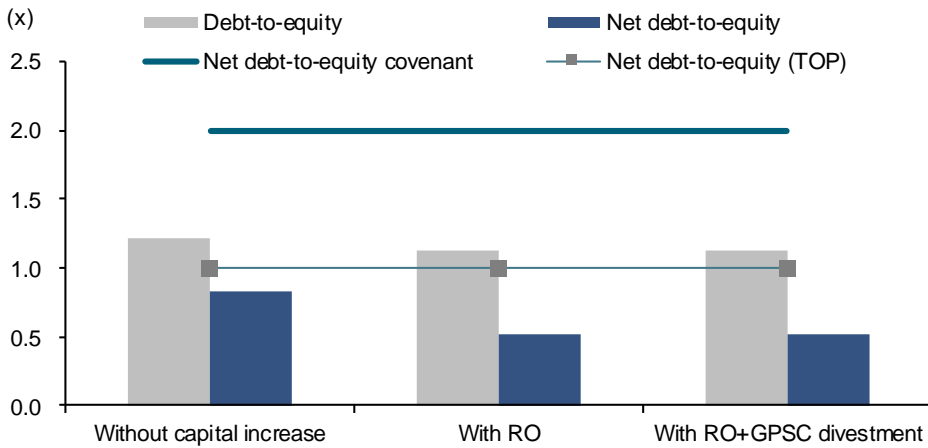
We estimate that after the THB10b, or 11.4% capital increase, based on a THB43 selling price for TOP, and the 10.8% stake divestment of GPSC, TOP's net debt-to-equity (DE) ratio would drop from 0.83x to 0.53x, far below TOP's internal cap of 1x and its debt covenant of 2x.

Exhibit 17: DE and net DE pre and post capital increase

	Without capital increase	With RO	With RO+GPSC divestment
Equity (THB m)	117,523	127,523	127,523
Debt-to-equity (x)	1.22	1.12	1.12
Net debt-to-equity (x)	0.83	0.53	0.53
Net debt-to-equity (TOP) (x)	1.00	1.00	1.00
Net debt-to-equity covenant (x)	2.00	2.00	2.00
2021E net profit (THB m)	12,698	12,698	12,698
2021E EPS (THB/share)	6.22	5.59	5.24
% EPS dilution (%)		(10.2)	(15.9)

Sources: TOP; FSSIA estimates

Exhibit 18: DE, net DE, and DE covenant



Sources: TOP; FSSIA estimates

Financial impact from CAP acquisition. According to Bloomberg, CAP’s financial performance has been improving in the past three years, partly due to the olefins industry’s strong demand and margins, and partly due to the knowledge transfer from SCGC to improve CAP’s operational efficiency and make timely investment decisions in the right strategic direction.

According to TOP, CAP is expected to contribute USD40m-50m equity income to TOP starting in 2022, based on CAP’s annualised net profit of USD84m in 1Q21. In addition, TOP should effectively add a 1.2mtpa capacity of olefins and derivative products from CAP’s 8.1mtpa by 2026, which would allow TOP to fully monetise its CFP project in a timely manner.

Exhibit 19: Financial benefits from CAP acquisition to TOP

Share of Profit from CAP to Enhance TOP’s Performance

Annual Net Income from 2016 to 2020

Unit: USD mm

Year	Net Income (USD mm)
2016	n.m.
2017	320
2018	185
2019	17
2020	51

Quarterly Net Income from 2Q2020 to 1Q2021

Quarter	Net Income (USD mm)
2Q20	(12)
3Q20	10
4Q20	71
1Q21	84

- Higher income stability**
from more diversified income source
- ~ USD 40 – 50 mm of annual share of profit**
in early years (based on 1Q2021 performance)
- Secured demand**
from feedstock supply agreement

Performance Expected to Increase Significantly From CAP2 Operations

Unit: '000 tones

Total Capacity +91% From CAP2

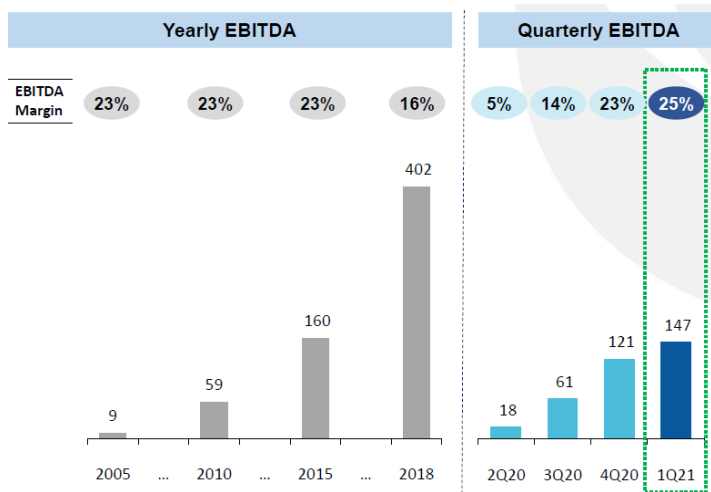
Year	CAP1 Capacity ('000 tones)	CAP2 Capacity ('000 tones)	Total Capacity ('000 tones)
2020	4,232	0	4,232
2026	4,232	3,858	8,090

- Production capacity to increase over 90%**
from CAP2 operations could result in double share of profit
- Expected margin improvement**
from operational synergy between CAP1 and CAP2 to enhance share of profit from CAP

Source: TOP

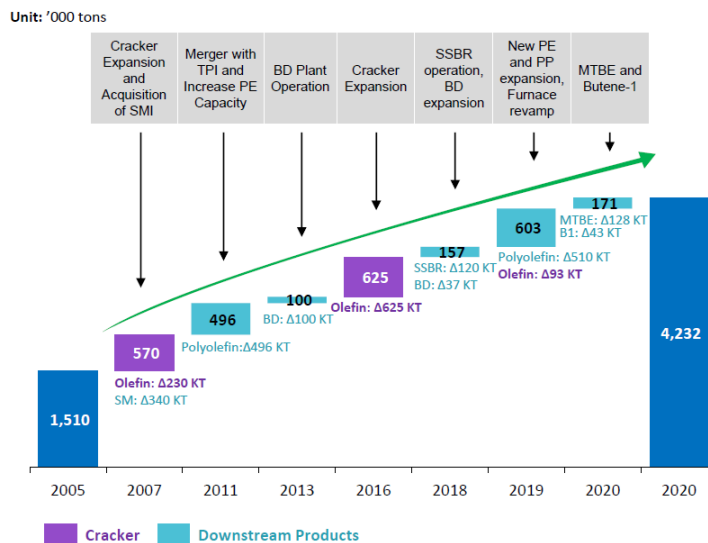
In the past four quarters, CAP's quarterly EBITDA and net profit have significantly improved, driven by the industry's higher olefins product margins and CAP's internally improving operational efficiency and capacity expansion to add new products, such as MTBE and butene-1, to timely benefit from the strong margins of both products.

Exhibit 20: CAP's historical financial performance



Source: CAP

Exhibit 21: CAP's capacity expansion since 2005



Source: CAP

We think TOP is paying a fair acquisition cost of USD1.183b for its 15.38% stake in CAP. First, at the USD1.183b acquisition cost for its 15.38% stake in CAP, we estimate that TOP will pay around 11-12x EV/EBITDA for CAP, based on the annualised 1Q21 EBITDA of USD147m. However, if we include CAP's future capacity expansion from the CAP2 project in 2026, we estimate that the acquisition cost would be only 5-6x EV/EBITDA.

Second, the acquisition cost of USD0.35/share is far lower than CAP's market price of USD0.55-0.60/share, listed on the Indonesia stock market.

Third, TOP is paying a similar acquisition price as what SCGC paid for its capital increase of USD434m, which we think implies that even though SCGC is an existing major shareholder, it would have to pay the same acquisition price as TOP.

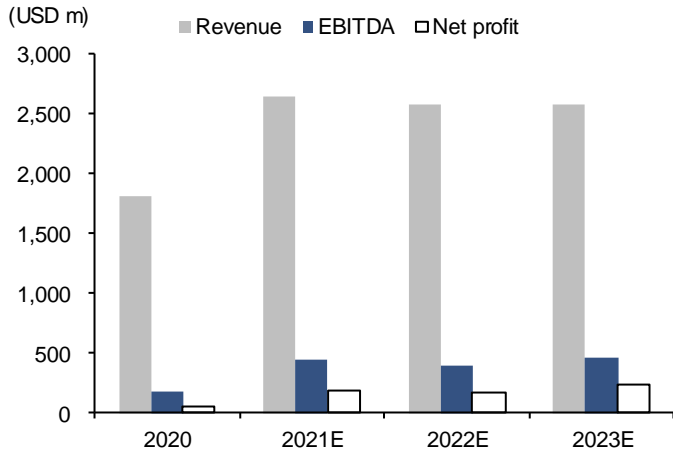
Exhibit 22: TOP's acquisition cost vs CAP's market share price



Source: TOP

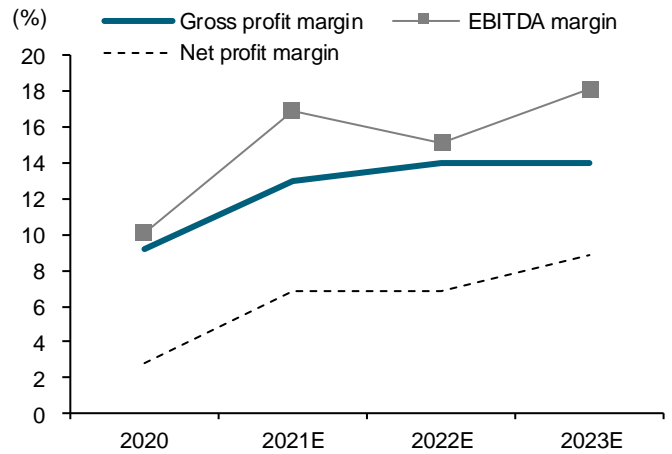
CAP's stronger net profit outlook in 2021-23. Looking at the 2021-23 net profit forecasts from Bloomberg consensus, we found that CAP's net profit is projected to grow from USD51m in 2020 to USD229m in 2023, growing at a 64.6% CAGR for net profit, 36.6% for EBITDA from USD183m in 2020 to USD467m in 2023, and at a 12.6% CAGR for revenue in 2020-23. This indicates that CAP has already successfully transformed itself from a subpar olefins producer into a more competitive integrated olefins producer in Indonesia and Asia.

Exhibit 23: CAP's financial forecasts



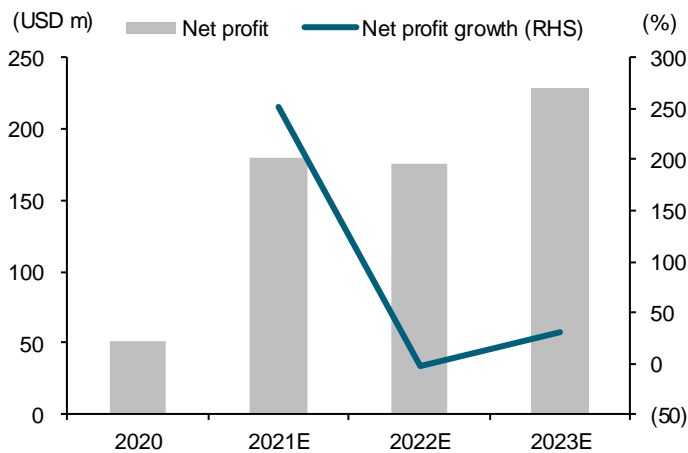
Source: Bloomberg

Exhibit 24: CAP's margins



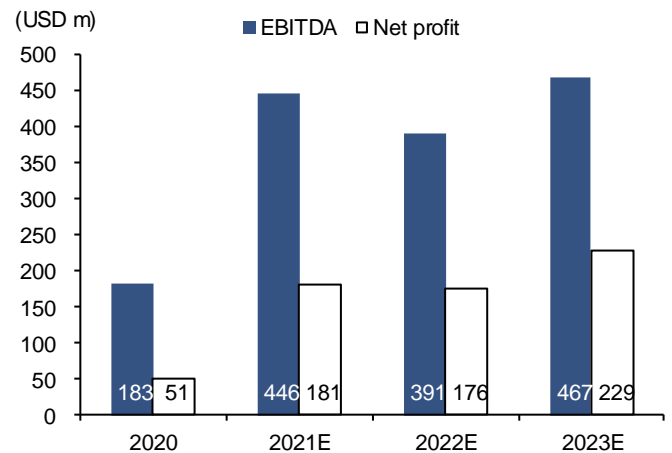
Source: Bloomberg

Exhibit 25: CAP's net profit and net profit growth



Source: Bloomberg

Exhibit 26: CAP's EBITDA and net profit

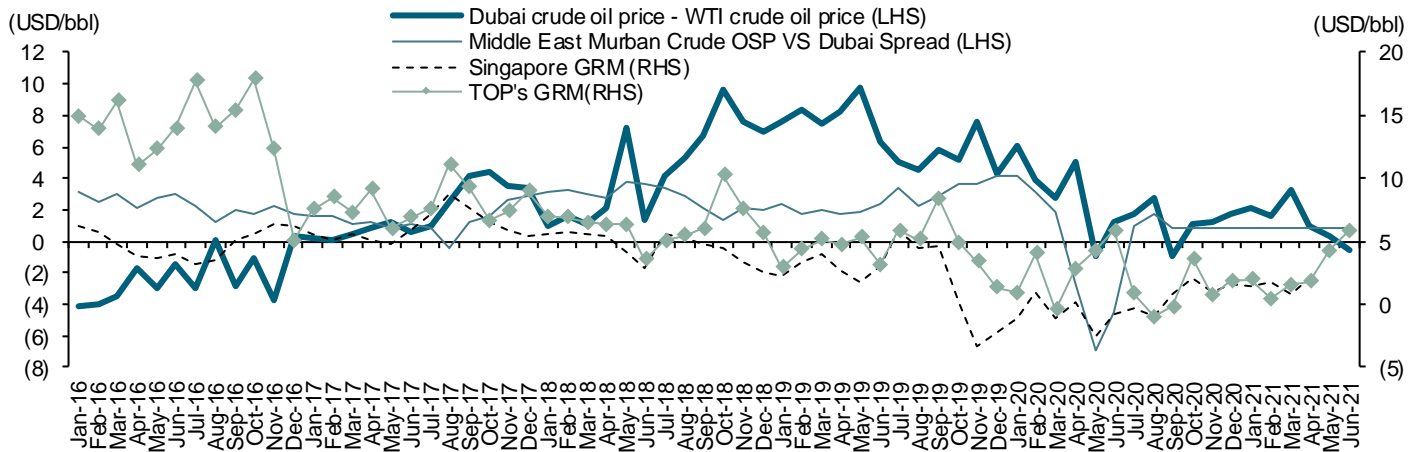


Source: Bloomberg

GRM remains under pressure

Despite the continued improving market GRM YTD, driven by the higher product margins of gasoline, diesel, and jet over Dubai crude oil price, we think the market GRM improvement pace will be slower than our previous forecast, given the intensifying resurgence of the Covid-19 pandemic from the Delta variant that has now spread worldwide.

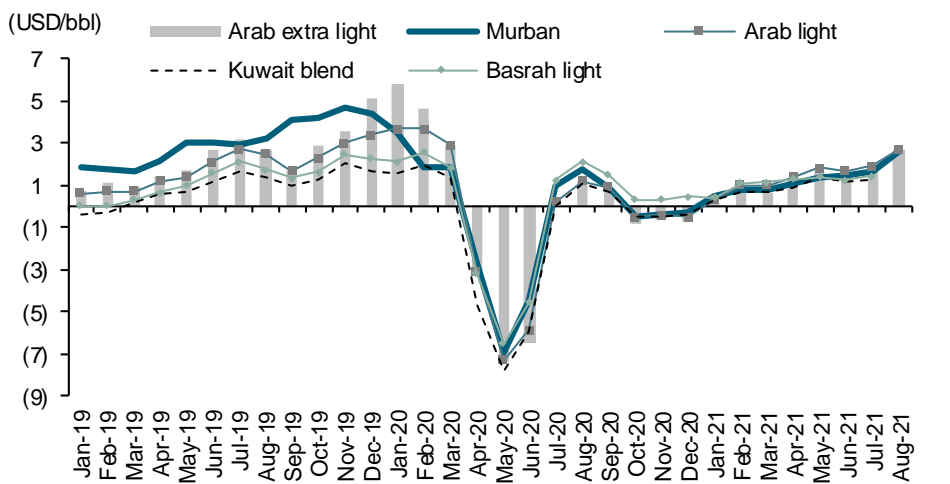
Exhibit 27: Dubai-WTI crude premium, Singapore GRM and TOP's GRM



Source: Bloomberg

In addition, the continued higher crude premium, which has risen from USD0.2/bbl in Jan-21 to USD2.8/bbl in Aug-21 for the Murban-Dubai crude premium announced one month in advance, has more than offset the improving product margins YTD. This led to weaker market GRMs for all Thai refiners, including TOP in 2Q21, based on our estimates.

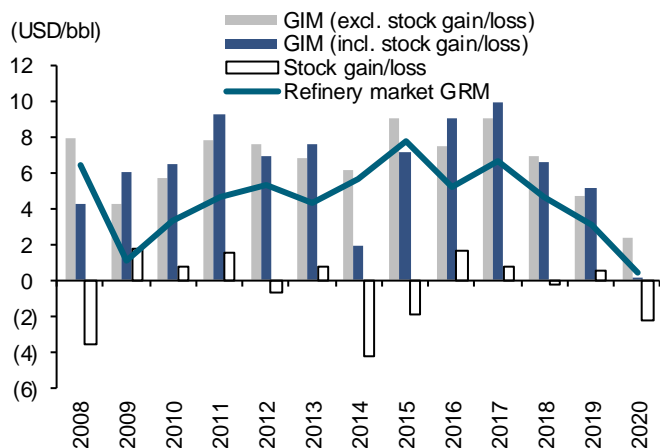
Exhibit 28: Crude premiums for key OPEC producers



Source: TOP

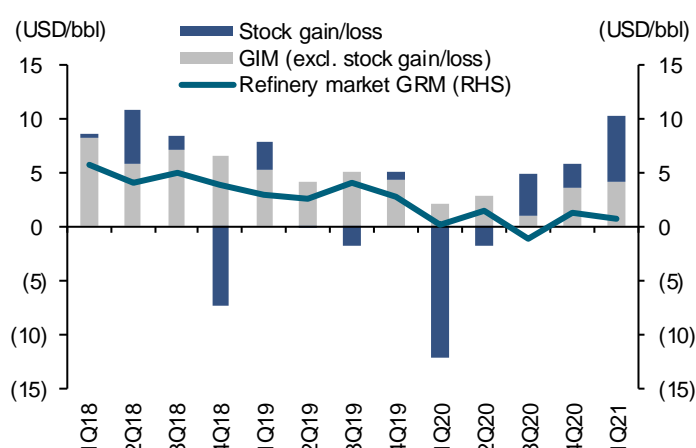
As a result, TOP has seen its market GRM collapse in 2020, with a depressed market GRM since 1Q20 hovering below USD1/bbl, far lower than TOP's cash cost of USD1.8-2.0/bbl and the total cost (including depreciation expense) of USD3.4-4.0/bbl. This led to consecutive quarterly operating net losses for TOP's refinery unit in 1Q20-1Q21. In 2Q21, we think the operating net loss will continue, given the sharp increase in the crude premium that has more than offset the rising product margins over Dubai crude price.

Exhibit 29: GIM, stock gain/loss, and market GRM



Source: TOP

Exhibit 30: Quarterly market GIM and GRM vs stock gain/loss

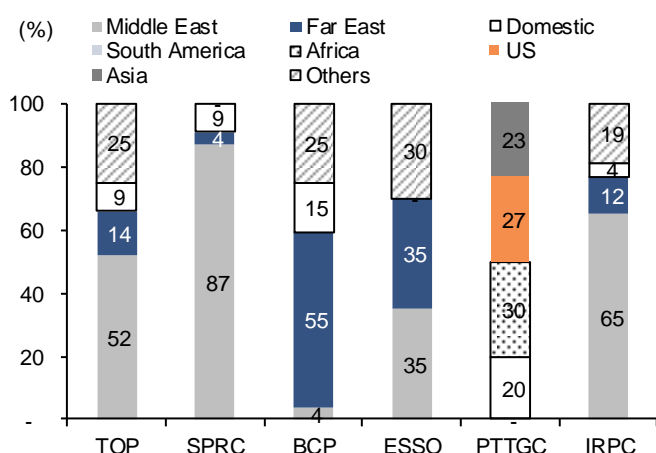


Source: TOP

Crude premium impact should subside in 2H21. As TOP consumes over 50% Murban crude for its refinery plant, the higher premiums for the crudes imported from the Middle East have all but eroded the market GRM for TOP in 2Q21.

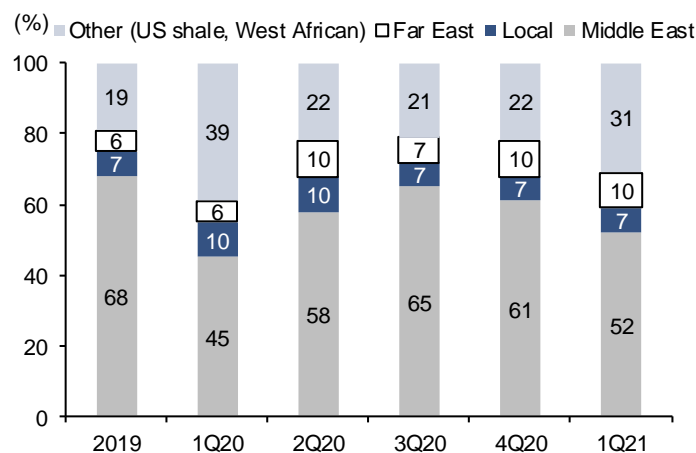
However, we project that the market GRM should start to improve meaningfully in 2H21, based on 1) the projected gradual rise in diesel and jet-Dubai margins due to the rising demand in the US and China; and 2) a smaller increase in the crude premiums compared to 1H21, given the higher crude oil production from the OPEC group by 0.4m barrels per day in Aug-Dec 2021.

Exhibit 31: Crude mix breakdown as of 1Q21



Source: Company data

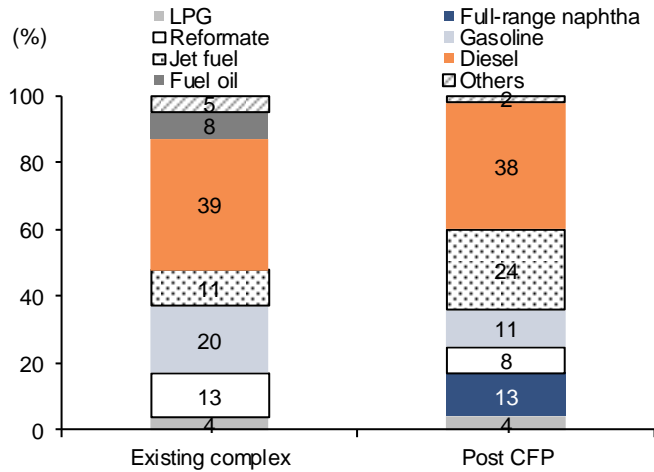
Exhibit 32: TOP's crude mix



Source: TOP

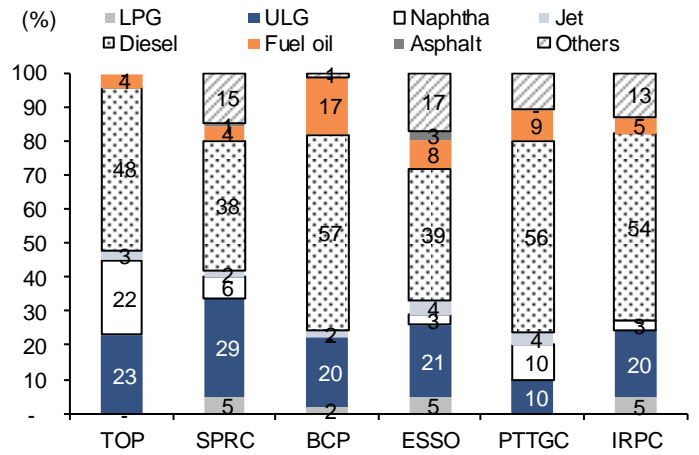
Production yield. Like other refiners, TOP continues to suffer from the depressed jet-Dubai margin with a 3% production yield of jet fuel. However, TOP's higher gasoline yield at 23% will partly help to offset the impact of the higher crude premiums. We project that the impact of the higher product margins over Dubai crude price should more than offset the impact of the rising crude premiums in 2H21, given the rising crude supply from OPEC.

Exhibit 33: TOP's product yield



Source: TOP

Exhibit 34: Product yield breakdown as of 1Q21



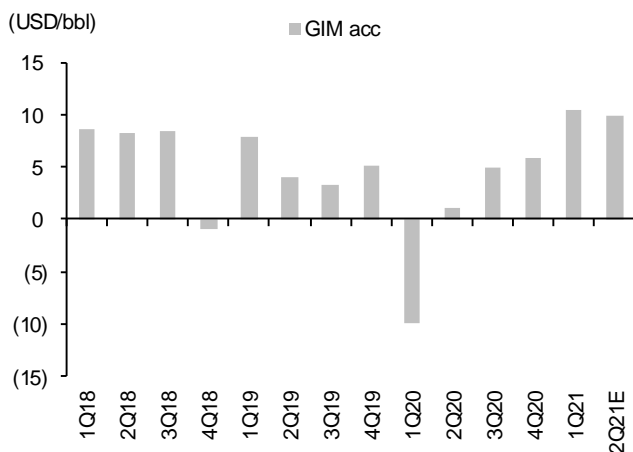
Source: Company data

2Q21E preview

We project TOP to post a 2Q21 net profit of THB4.1b, up 19% q-q and from a net loss of THB13.8b in 2Q20. Excluding an inventory gain and FX impact, its 2Q21E core net profit could rise to THB3.1b, up 95% q-q and up from a core net loss of THB345m in 2Q20. Key expectations are:

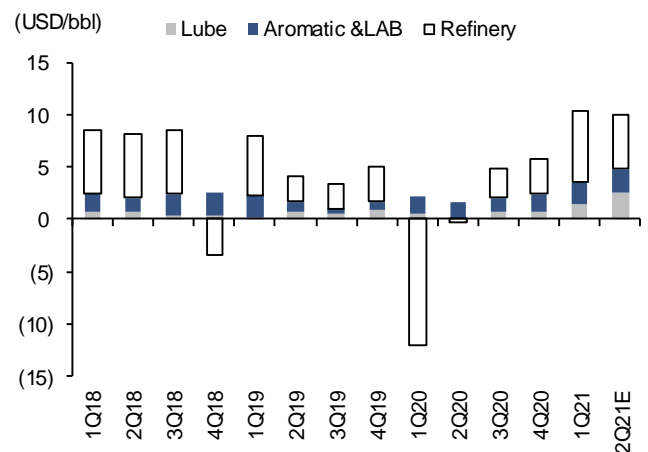
- A lower market GRM to USD0.5/bbl, down from USD0.7/bbl in 1Q21, due to the q-q higher crude premium by USD1/bbl that was partly offset by the higher product margins of gasoline, diesel, and jet over Dubai crude price.
- The aromatics product-to-feed (P2F) margin jumped to USD180/t, up from USD106/t in 1Q21, driven by the higher paraxylene-condensate and benzene-condensate margins. We expect the aromatics unit to contribute USD2.3/bbl in 2Q21, up from USD2.0/bbl in 1Q21.
- We expect the lube GIM to jump markedly from USD1.5/bbl in 1Q21 to USD2.5/bbl in 2Q21, driven by a 2x q-q higher lube margin due to the strong demand in China.
- A higher projected cost per unit to USD4/bbl, up from USD3.7/bbl in 1Q21, due to the lower production volume.
- We expect a hedging loss of over THB1b due to the THB0.7/USD weaker currency in 2Q21 on TOP's outstanding USD1.6b debt.
- An inventory gain of THB1b, down from USD1.2b in 1Q21.

Exhibit 35: Quarterly accounting GIM



Source: TOP

Exhibit 36: Quarterly GIM breakdown by segment



Source: TOP

Exhibit 37: 2Q21E preview

	2Q20	1Q21	2Q21E		6M20	6M21E	Change	2021E	
	(THB m)	(THB m)	(THB m)	(q-q%)	(y-y%)	(THB m)	(THB m)	(y-y%)	(THB m)
Revenue	77,831	75,272	80,541	7.0	3.5	128,353	155,814	21.4	299,968
Operating costs	(87,359)	(64,502)	(74,042)	14.8	(15.2)	(137,389)	(138,544)	0.8	(264,104)
EBITDA	(12,248)	8,272	9,245	11.8	nm	(9,367)	17,517	nm	32,590
EBITDA margin (%)	(15.7)	11.0	11.5	nm	nm	(7.3)	11.2	nm	10.9
Depn & amort.	(2,129)	(1,821)	(1,945)	6.8	(8.6)	(4,238)	(3,766)	(11.1)	(15,690)
EBIT	(16,145)	4,678	4,013	(14.2)	nm	(12,005)	8,691	nm	16,900
Interest expense	(1,105)	(796)	(852)	7.1	(22.9)	(2,134)	(1,648)	(22.8)	(4,198)
Interest & invt inc	399	191	254	32.9	(36.3)	714	445	(37.7)	1,000
Associates' contrib	584	470	490	4.2	(16.0)	1,283	960	(25.1)	2,694
Exceptionals	(2,720)	(2,499)	2,746	nm	nm	(332)	247	nm	-
Pretax profit	(18,988)	2,045	6,651	225.2	nm	(12,474)	8,696	nm	16,396
Tax	3,558	(388)	(2,444)	530.7	nm	3,063	(2,832)	nm	(3,279)
Tax rate (%)	18.7	19.0	36.7	nm	nm	24.6	32.6	nm	20.0
Minority interests	(62)	(97)	(156)	60.4	150.6	(199)	(253)	27.6	(419)
Net profit	(13,754)	3,397	4,051	19.2	nm	(11,274)	7,448	nm	12,698
Non-recurring	(13,409)	1,800	931	(48.3)	nm	(11,089)	2,731	nm	-
Core profit	(345)	1,597	3,120	95.4	nm	(185)	4,717	nm	12,698
EPS (THB)	(6.74)	1.67	1.99	19.2	nm	(5.53)	3.65	nm	6.22
Core EPS (THB)	(0.17)	0.78	1.53	95.4	nm	(0.09)	2.31	nm	6.22

Source: FSSIA estimates

EPS and target price revisions

We maintain BUY and lower our target price from THB74, previously based on 8.3x 2021E EV/EBITDA, down to THB67, now based on 8.4x 2021E EV/EBITDA, to reflect 1) our higher oil price assumptions; 2) higher crude premium assumptions; 3) lower assumptions on the margins of diesel and jet over Dubai in 2021-22 and a higher projected gasoline-Dubai margin in 2021; and 4) lower GRM assumptions by 10.1-17.3% for 2021-23 as a result of our higher crude premium, higher oil price, and lower product margin forecasts.

Exhibit 38: Key changes in assumptions

(THB m)	Current			Previous			Change (%)		
	2021E	2022E	2023E	2021E	2022E	2023E	2021E	2022E	2023E
Revenue	299,968	298,113	298,521	250,912	265,408	265,816	19.6	12.3	12.3
Gross profit	35,864	35,836	36,755	36,510	40,756	41,673	(1.8)	(12.1)	(11.8)
Operating profit	16,900	15,496	15,571	18,081	20,775	20,850	(6.5)	(25.4)	(25.3)
Net profit	12,698	11,766	12,023	13,643	15,989	16,246	(6.9)	(26.4)	(26.0)
EPS (THB/shr)	6.2	5.8	5.9	6.7	7.8	8.0	(6.9)	(26.4)	(26.0)
Key assumptions	(USD/bbl)	(USD/bbl)	(USD/bbl)	(USD/bbl)	(USD/bbl)	(USD/bbl)	(USD/bbl)	(USD/bbl)	(USD/bbl)
Dubai oil price	65.0	60.0	60.0	50.0	50.0	50.0	30.0	20.0	20.0
Refining margin	4.8	5.5	5.5	5.8	6.2	6.2	(17.3)	(10.1)	(10.1)
Crude premium	3.0	3.0	2.0	1.5	2.0	2.0	100.0	50.0	-
Diesel-Dubai margin	7.0	10.0	15.0	12.0	15.0	15.0	(41.7)	(33.3)	-
Jet-Dubai margin	5.0	10.0	15.0	10.0	15.0	15.0	(50.0)	(33.3)	-
Gasoline-Dubai margin	12.0	15.0	15.0	10.0	15.0	15.0	20.0	-	-
HSFO-Dubai margin	(3.0)	(5.0)	(5.0)	(3.0)	(5.0)	(5.0)	-	-	-

Sources: FSSIA estimates

Financial Statements

Thai Oil

Profit and Loss (THB m) Year Ending Dec	2019	2020	2021E	2022E	2023E
Revenue	361,768	242,840	299,968	298,113	298,521
Cost of goods sold	(348,029)	(247,746)	(264,104)	(262,277)	(261,766)
Gross profit	13,740	(4,906)	35,864	35,836	36,755
Other operating income	-	-	-	-	-
Operating costs	(2,546)	(2,650)	(3,274)	(3,254)	(3,258)
Operating EBITDA	11,193	(7,556)	32,590	32,582	33,497
Depreciation	(7,085)	(7,554)	(15,690)	(17,086)	(17,925)
Goodwill amortisation	0	0	0	0	0
Operating EBIT	4,109	(15,110)	16,900	15,496	15,571
Net financing costs	2,372	9,016	(3,198)	(3,093)	(2,989)
Associates	1,276	2,566	2,694	2,829	2,970
Recurring non-operating income	1,276	2,566	2,694	2,829	2,970
Non-recurring items	0	0	0	0	0
Profit before tax	7,757	(3,529)	16,396	15,232	15,553
Tax	(1,240)	647	(3,279)	(3,046)	(3,111)
Profit after tax	6,516	(2,882)	13,117	12,185	12,442
Minority interests	(240)	(419)	(419)	(419)	(419)
Preferred dividends	0	0	0	0	0
Other items	-	-	-	-	-
Reported net profit	6,277	(3,301)	12,698	11,766	12,023
Non-recurring items & goodwill (net)	0	0	0	0	0
Recurring net profit	6,277	(3,301)	12,698	11,766	12,023
Per share (THB)					
Recurring EPS *	3.08	(1.62)	6.22	5.77	5.89
Reported EPS	3.08	(1.62)	6.22	5.77	5.89
DPS	1.50	2.00	2.80	2.60	2.65
Diluted shares (used to calculate per share data)	2,040	2,040	2,040	2,040	2,040
Growth					
Revenue (%)	(7.1)	(32.9)	23.5	(0.6)	0.1
Operating EBITDA (%)	(45.9)	nm	nm	0.0	2.8
Operating EBIT (%)	(69.4)	nm	nm	(8.3)	0.5
Recurring EPS (%)	(38.2)	nm	nm	(7.3)	2.2
Reported EPS (%)	(38.2)	nm	nm	(7.3)	2.2
Operating performance					
Gross margin inc. depreciation (%)	1.8	(5.1)	6.7	6.3	6.3
Gross margin of key business (%)	1.8	(5.1)	6.7	6.3	6.3
Operating EBITDA margin (%)	3.1	(3.1)	10.9	10.9	11.2
Operating EBIT margin (%)	1.1	(6.2)	5.6	5.2	5.2
Net margin (%)	1.7	(1.4)	4.2	3.9	4.0
Effective tax rate (%)	16.0	18.3	20.0	20.0	20.0
Dividend payout on recurring profit (%)	48.8	(123.6)	45.0	45.0	45.0
Interest cover (X)	(2.3)	1.4	6.1	5.9	6.2
Inventory days	31.0	38.9	39.8	48.7	48.7
Debtor days	23.6	26.4	20.5	25.6	25.5
Creditor days	26.6	25.4	24.2	35.4	35.4
Operating ROIC (%)	2.2	(7.9)	6.9	5.9	6.0
ROIC (%)	2.4	(5.1)	5.7	4.5	4.2
ROE (%)	5.2	(2.8)	10.6	9.3	9.0
ROA (%)	1.6	(3.5)	4.5	3.5	3.2
* Pre-exceptional, pre-goodwill and fully diluted					
Revenue by Division (THB m)					
Oil refinery	298,325	177,280	234,408	232,553	232,961
Lubed base oil refinery	18,096	19,501	19,501	19,501	19,501
Petrochemical	28,390	27,070	27,911	27,670	27,670
Power generation	5,519	6,071	5,230	5,471	5,471

Sources: Thai Oil; FSSIA estimates

Financial Statements

Thai Oil

Cash Flow (THB m) Year Ending Dec	2019	2020	2021E	2022E	2023E
Recurring net profit	6,277	(3,301)	12,698	11,766	12,023
Depreciation	7,085	7,554	15,690	17,086	17,925
Associates & minorities	-	-	-	-	-
Other non-cash items	-	-	-	-	-
Change in working capital	(361)	2,096	(4,953)	189	(42)
Cash flow from operations	13,000	6,349	23,435	29,042	29,907
Capex - maintenance	-	-	-	-	-
Capex - new investment	(27,467)	0	(37,099)	(15,944)	(15,942)
Net acquisitions & disposals	-	-	-	-	-
Other investments (net)	49,798	(4,375)	(35,623)	(35,623)	(35,623)
Cash flow from investing	22,331	(4,375)	(72,722)	(51,567)	(51,565)
Dividends paid	(12,750)	(3,060)	(5,714)	(5,295)	(5,410)
Equity finance	0	0	0	0	0
Debt finance	(2,300)	(2,363)	24,568	58,404	18,404
Other financing cash flows	20,533	(18,161)	13,113	13,248	13,389
Cash flow from financing	5,482	(23,584)	31,967	66,358	26,383
Non-recurring cash flows	-	-	-	-	-
Other adjustments	0	0	0	0	0
Net other adjustments	0	0	0	0	0
Movement in cash	40,813	(21,610)	(17,320)	43,832	4,725
Free cash flow to firm (FCFF)	38,554.74	6,265.67	(45,088.98)	(18,422.11)	(17,649.30)
Free cash flow to equity (FCFE)	53,563.05	(18,550.29)	(11,605.99)	49,127.07	10,135.29

Per share (THB)

FCFF per share	18.90	3.07	(22.10)	(9.03)	(8.65)
FCFE per share	26.26	(9.09)	(5.69)	24.08	4.97
Recurring cash flow per share	6.55	2.08	13.92	14.14	14.68

Balance Sheet (THB m) Year Ending Dec	2019	2020	2021E	2022E	2023E
Tangible fixed assets (gross)	233,349	279,568	316,668	332,612	348,554
Less: Accumulated depreciation	(126,789)	(134,343)	(150,034)	(167,120)	(185,045)
Tangible fixed assets (net)	106,559	145,225	166,634	165,492	163,508
Intangible fixed assets (net)	0	0	0	0	0
Long-term financial assets	-	-	-	-	-
Invest. in associates & subsidiaries	32,442	24,521	27,214	30,043	33,013
Cash & equivalents	74,854	53,244	35,924	79,756	84,482
A/C receivable	22,466	12,702	20,998	20,868	20,896
Inventories	30,292	22,461	35,099	34,882	34,929
Other current assets	7,064	25,822	25,822	25,822	25,822
Current assets	134,676	114,229	117,843	161,328	166,129
Other assets	9,767	22,213	77,714	98,948	119,898
Total assets	283,445	306,188	389,405	455,810	482,549
Common equity	119,973	116,229	123,213	129,684	136,297
Minorities etc.	3,951	3,889	4,091	4,291	4,491
Total shareholders' equity	123,924	120,118	127,304	133,975	140,788
Long term debt	119,873	135,958	162,121	222,121	242,121
Other long-term liabilities	981	21,491	56,926	56,926	56,926
Long-term liabilities	120,854	157,449	219,047	279,047	299,047
A/C payable	25,015	9,517	25,497	25,340	25,374
Short term debt	2,912	5,665	5,556	5,447	5,339
Other current liabilities	10,740	13,438	12,000	12,001	12,001
Current liabilities	38,667	28,620	43,054	42,788	42,714
Total liabilities and shareholders' equity	283,445	306,188	389,405	455,810	482,549
Net working capital	24,067	38,030	44,421	44,231	44,273
Invested capital	172,836	229,989	315,983	338,714	360,692

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

Per share (THB)

Book value per share	58.81	56.97	60.40	63.57	66.81
Tangible book value per share	58.81	56.97	60.40	63.57	66.81

Financial strength

Net debt/equity (%)	38.7	73.6	103.5	110.3	115.8
Net debt/total assets (%)	16.9	28.9	33.8	32.4	33.8
Current ratio (x)	3.5	4.0	2.7	3.8	3.9
CF interest cover (x)	(33.2)	3.1	9.0	22.0	9.7

Valuation	2019	2020	2021E	2022E	2023E
Recurring P/E (x) *	15.3	(29.0)	7.6	8.1	8.0
Recurring P/E @ target price (x) *	21.8	(41.4)	10.8	11.6	11.4
Reported P/E (x)	15.3	(29.0)	7.6	8.1	8.0
Dividend yield (%)	3.2	4.3	6.0	5.5	5.6
Price/book (x)	0.8	0.8	0.8	0.7	0.7
Price/tangible book (x)	0.8	0.8	0.8	0.7	0.7
EV/EBITDA (x) **	13.2	(24.9)	7.1	7.6	7.9
EV/EBITDA @ target price (x) **	16.8	(30.3)	8.4	8.9	9.1
EV/invested capital (x)	0.9	0.8	0.7	0.7	0.7

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

Sources: Thai Oil; 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	ICI	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	SEAOIL	SE-ED	SELIC	SENA	SIRI	SIS	SITHAI	SMK	SMPC	SNC
SONIC	SORKON	SPALI	SPI	SPRC	SPVI	SSSC	SST	STA	SUSCO	SUTHA
SVI	SYMC	SYNTEC	TACC	TASCO	TCAP	TFMAMA	THANA	THANI	THCOM	THG
THIP	THRE	THREL	TIP	TIPCO	TISCO	TK	TKT	TMB	TMILL	TNDT
TNL	TOA	TOP	TPBI	TQM	TRC	TSC	TSR	TSTE	TSTH	TTA
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	TPIPP	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	AMANAH	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	TMB	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 FSS International Investment Advisory Securities Co., Ltd

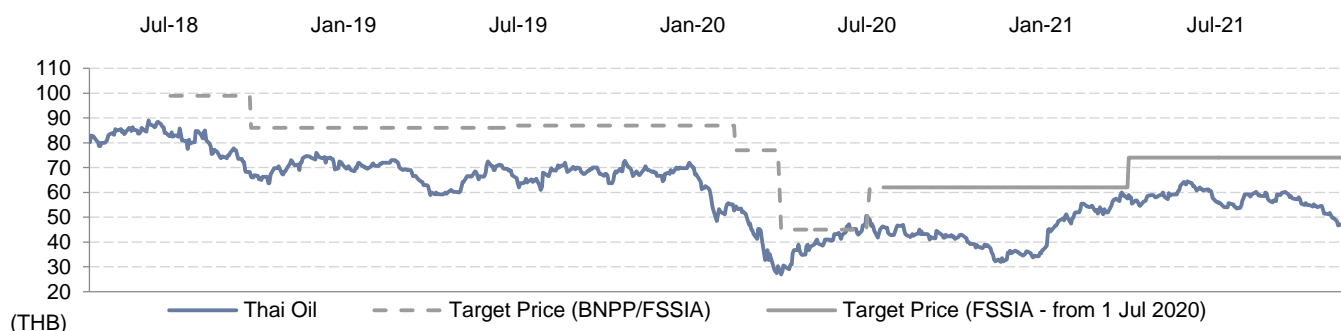
The individual(s) identified above certify(ies) that (i) all views expressed in this report accurately reflect the personal view of the analyst(s) with regard to any and all of the subject securities, companies or issuers mentioned in this report; and (ii) no part of the compensation of the analyst(s)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

History of change in investment rating and/or target price

Thai Oil (TOP TB)



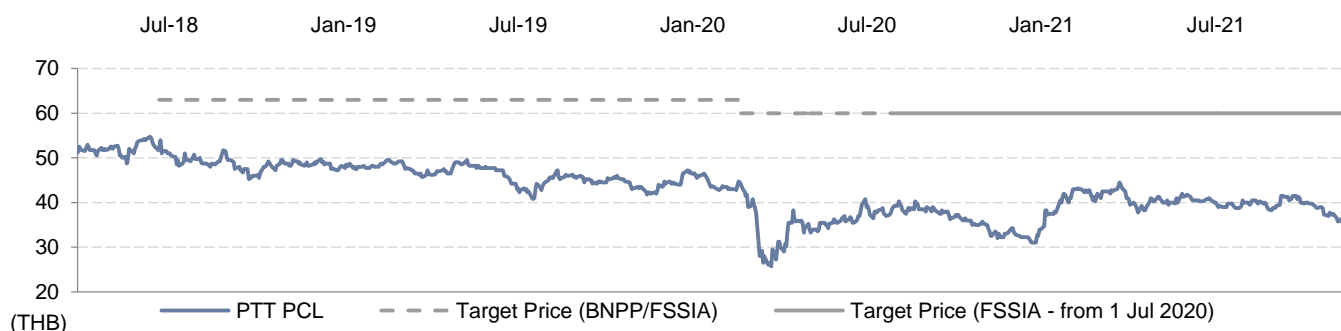
Date	Rating	Target price	Date	Rating	Target price	Date	Rating	Target price
09-Oct-2018	BUY	99.00	12-Feb-2020	BUY	77.00	08-Jun-2020	BUY	62.00
18-Dec-2018	BUY	86.00	23-Mar-2020	BUY	45.00	21-Aug-2020	BUY	62.00
06-Aug-2019	BUY	87.00	08-Jun-2020	BUY	62.00	18-Jan-2021	BUY	74.00

Suwat Sinsadok started covering this stock from 09-Oct-2018

Price and TP are in local currency

Source: FSSIA estimates

PTT PCL (PTT TB)



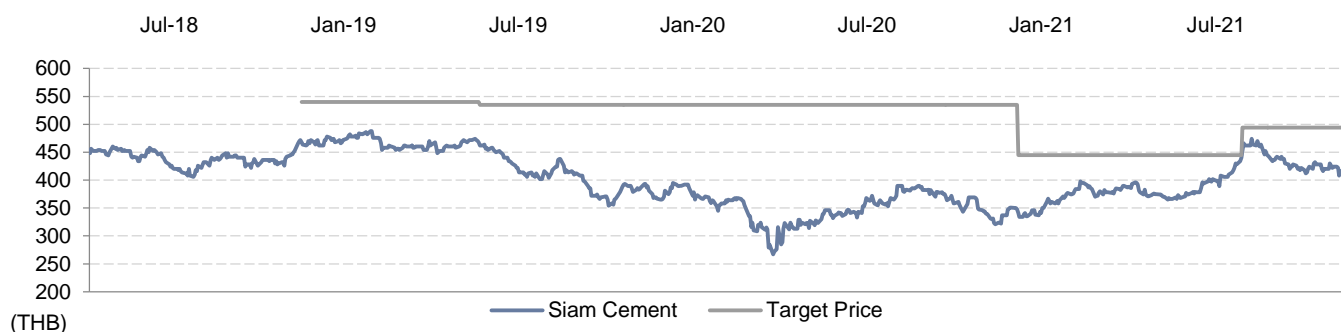
Date	Rating	Target price	Date	Rating	Target price	Date	Rating	Target price
09-Oct-2018	BUY	63.00	21-Feb-2020	BUY	60.00	-	-	-

Suwat Sinsadok started covering this stock from 09-Oct-2018

Price and TP are in local currency

Source: FSSIA estimates

Siam Cement (SCC TB)



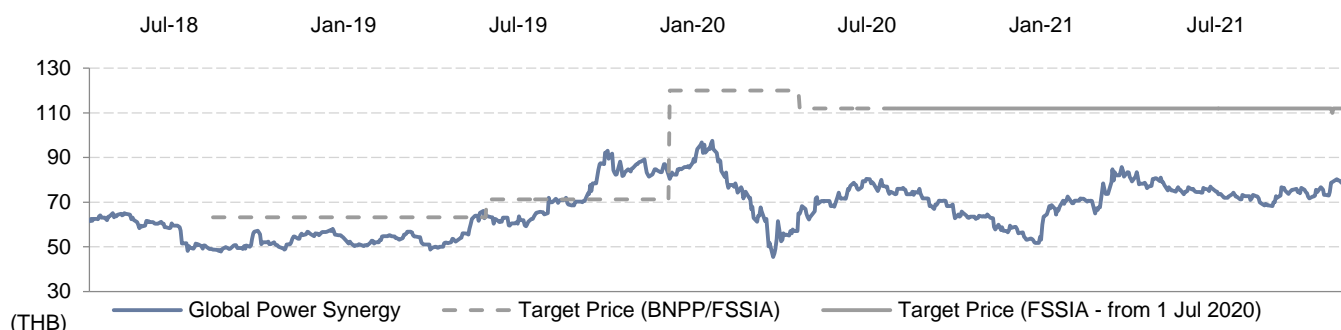
Date	Rating	Target price	Date	Rating	Target price	Date	Rating	Target price
31-Jan-2019	BUY	540.00	02-Apr-2020	BUY	535.00	28-Jan-2021	BUY	445.00
05-Jul-2019	BUY	535.00	14-Oct-2020	BUY	445.00	27-Apr-2021	BUY	494.00

Suwat Sinsadok started covering this stock from 14-Oct-2020

Price and TP are in local currency

Source: FSSIA estimates

Global Power Synergy (GPSC TB)



Date	Rating	Target price	Date	Rating	Target price	Date	Rating	Target price
15-Nov-2018	BUY	63.25	08-May-2020	BUY	112.00	14-Jul-2021	BUY	110.00
11-Jul-2019	BUY	71.27	03-Aug-2020	BUY	112.00	15-Jul-2021	BUY	112.00
17-Dec-2019	BUY	120.00	21-Aug-2020	BUY	112.00			
08-Apr-2020	BUY	112.00	08-Feb-2021	BUY	112.00			

Suwat Sinsadok started covering this stock from 15-Nov-2018

Price and TP are in local currency

Source: FSSIA estimates

Company	Ticker	Price	Rating	Valuation & Risks
Thai Oil	TOP TB	THB 47.00	BUY	Downside risks to our EV/EBITDA-based TP are a sharp rise in oil price and weak demand for refined oil products.
PTT PCL	PTT TB	THB 35.50	BUY	Risks to our SoTP-based valuation are the oil price and potential earnings downside from government intervention.
Siam Cement	SCC TB	THB 410.00	BUY	Downside risks to our SOTP-based TP include 1) a lower-than-expected demand for chemicals, CBM, and packaging; 2) rising coal costs for its cement and packaging units; and 3) weaker demand from the automobile industry that could erode the demand for SCC's chemical unit and its dividend contributions.
Global Power Synergy	GPSC TB	THB 79.50	BUY	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.

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 Finasia 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 Finasia Syrus Securities Public Company Limited, which is the parent company of FSSIA.

All share prices are as at market close on 29-Jul-2021 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.