

10 NOVEMBER 2021

THAILAND / OIL & GAS

THAI OIL TOP TB

BUY

UNCHANGED

TARGET PRICE	THB67.00
CLOSE	THB55.00
UP/DOWNSIDE	+21.8%
PRIOR TP	THB67.00
CHANGE IN TP	UNCHANGED
TP vs CONSENSUS	+12.7%

From 3Q21 bottom to 4Q21 top

Weaker operating performance offset by a large inventory gain

TOP posted a 3Q21 net profit (NP) of THB2.06b, down 2.8% q-q, which was 30% below BBG consensus and 5% below our estimate. The NP was driven by a pre-tax inventory gain of THB3.9b, an FX loss of THB1.2b, a THB0.5b loss on financial instruments, and a THB1.4b net loss (NL) from a hedging loss. Its 3Q21 core NP stood at THB1.25b, owing to 1) a refinery NL of THB1.3b, greater than the NL of THB1b in 2Q21 due to a lower market gross refining margin (GRM) vs a higher cost at USD4.4/bbl; and 2) lower non-refinery earnings from weak NPs from lube, power and olefins (from Chandra Asri) that were partly offset by the higher NP from aromatics.

Only aromatics earnings improved in 3Q21

The 3Q21 refinery NL of THB1.3b was dragged down by a higher cost and a higher crude premium despite the higher market GRM of USD1.6/bbl, up 3x q-q. The accounting gross integrated margin (GIM) was at USD10.5/bbl in 3Q21, up 5% q-q due to a higher stock gain of USD5/bbl vs USD4.8/bbl in 2Q21. Aromatics NP jumped to THB1b in 3Q21, up 9% q-q and 62x y-y due to a higher paraxylene-gasoline spread, but the unit had a slightly lower utilisation rate of 88%, down from 89% in 2Q21. The lube unit posted a 3Q21 NP of THB1b, down 25% q-q, due to a lower product-to-feed margin at USD187/t (-19% q-q), with a lower utilisation rate of 88%. Power NP dipped to THB0.7b in 3Q21, down 7% q-q, due to lower NPs from small power producers caused by higher gas costs and the shutdown impact.

A strong 4Q21 is around the corner

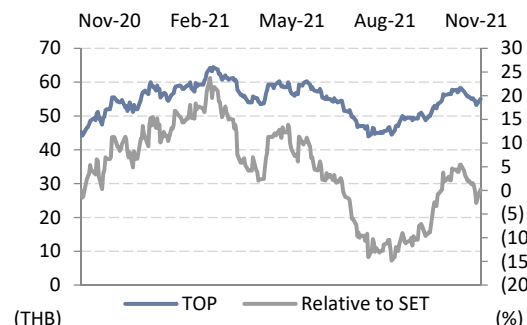
We project TOP's NP to improve markedly q-q in 4Q21, driven by our projected higher market GRM on higher product margins, led by a rising diesel and jet-Dubai margin and q-q higher utilisation rates, which should offset the higher projected crude premiums. During its conference call, TOP indicated its plans to pursue a capital increase in 1H22.

Finally, a sustainable rise in GRM should be coming

We maintain BUY and our TP of THB67. We expect TOP's market GRM to continue to improve from 3Q21 into 2022, backed by higher product margins, relatively stable crude premiums, and higher utilisation rates. We think the jet-Dubai margin will lead the charge for a market GRM improvement on increasingly high rates of travel worldwide.

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 (%)	-	29.7	44.3	35.9
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	-	-	-
EPS growth (%)	nm	nm	(7.3)	2.2
Core P/E (x)	(34.0)	8.8	9.5	9.3
Dividend yield (%)	3.6	5.1	4.7	4.8
EV/EBITDA (x)	(27.1)	7.6	8.1	8.3
Price/book (x)	1.0	0.9	0.9	0.8
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 (%)	(2.2)	22.2	42.9
Relative to country (%)	(1.8)	15.4	12.6
Mkt cap (USD m)	3,424		
3m avg. daily turnover (USD m)	23.8		
Free float (%)	45		
Major shareholder	PTT plc. (49%)		
12m high/low (THB)	66.00/37.50		
Issued shares (m)	2,040.03		

Sources: Bloomberg consensus; FSSIA estimates



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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 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.

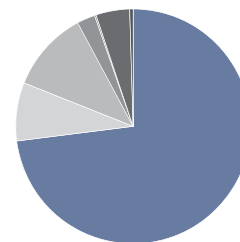
Company profile

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)

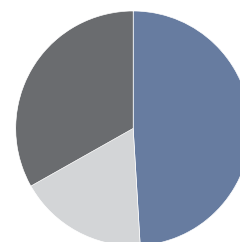
- Oil refinery - 73.0 %
- Lubed base oil refinery - 8.0 %
- Petrochemical - 11.1 %
- Power generation - 2.5 %
- Marine transportation services - 0.2 %



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
Feb 2022	4Q21/2021 results announcement

Key assumptions

	2021E (USD/bbl)	2022E (USD/bbl)	2023E (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.

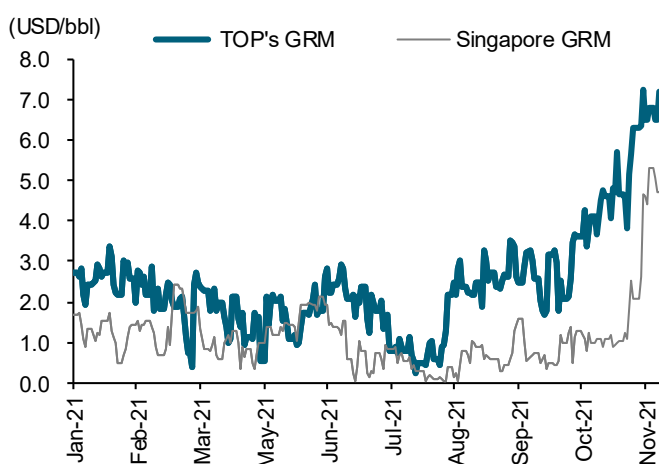
Source: FSSIA estimates

A solid 4Q21E net profit could be followed by a capital increase

While management indicated that TOP is now considering raising capital via an equity increase, likely in 1H22, we believe TOP's earnings outlook in 4Q21 into at least 1H22 is highly sanguine thanks to a sharp rise in the market GRM, higher utilisation rates, and the lower operating cost outlook. Key highlights include:

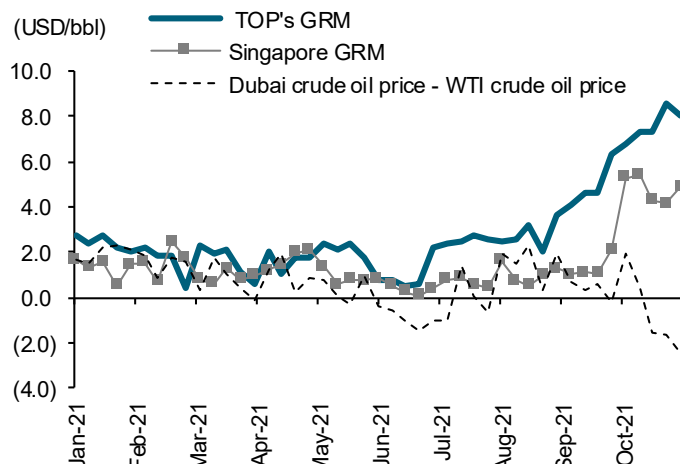
- The capital increase plan is now under consideration and is likely to be finalised in 1H21.
- We project the utilisation rate to rise to 110% in 4Q21 for its refinery, up by 10 ppts q-q.
- We expect a higher market GRM in 4Q21 to USD6/bbl, driven by a higher diesel margin on heating oil demand and a higher margin for jet fuel on the return of global travel. We expect the gasoline-crude margin to stay high at over USD10/bbl in 4Q21 into 2022 as a result of high demand.
- Higher crude premiums (we estimate by USD2-4/bbl q-q) should be more than offset by higher product margins.
- We expect the lube margin to drop q-q by USD0.5/bbl, particularly for linear alkylbenzene (LAB) due to the feedstock shortage of middle distillates (for LAB) and fuel oil (lube).
- Chandra Asri contributed a loss in 3Q21 to TOP due to the poor margin in Sep and higher administration costs related to the acquisition, despite the NP posted by Chandra Asri in the quarter.
- A gain of THB624m was booked in 3Q21 for the divestment of 9% of Ubon Bio Ethanol (UBE TB, not rated), or 98m shares, bringing TOP's holding stake down to 12%.
- We forecast the OPEX cost per bbl to increase from USD2.1/bbl in 3Q21 to USD2.6-2.8/bbl in 4Q21 due to high SG&A, while interest costs and depreciation expenses should remain stable q-q at USD0.7/bbl and USD1.4/bbl.

Exhibit 1: TOP's GRM vs Singapore GRM (daily)



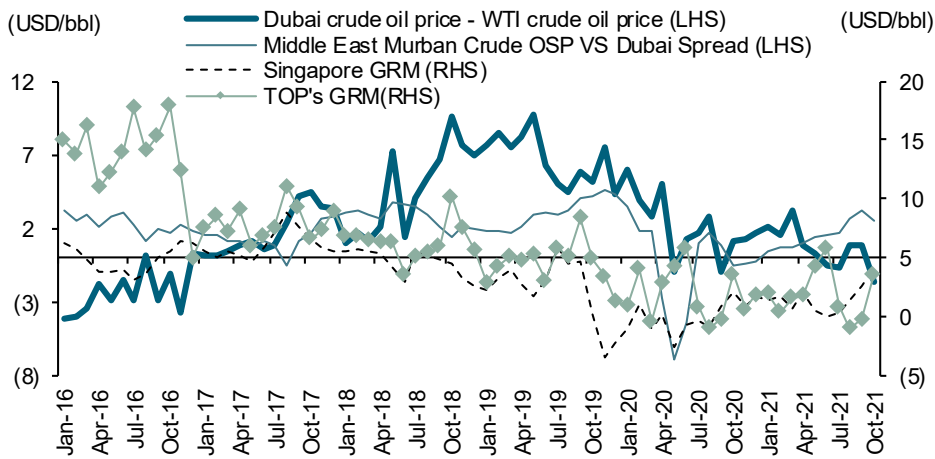
Source: Bloomberg

Exhibit 2: TOP's GRM vs Singapore GRM (weekly)



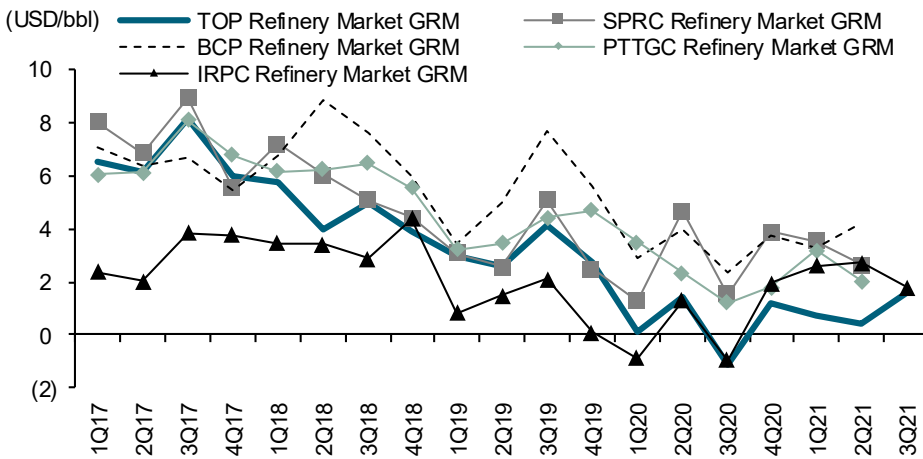
Source: Bloomberg

Exhibit 3: Dubai-WTI crude premium, Singapore GRM and TOP's GRM



Sources: Bloomberg; TOP

Exhibit 4: Refinery market GRM by company



Source: Companies

3Q21 results review

TOP posted a 3Q21 NP of THB2.06b, down 2.8% q-q, which was 30% below BBG consensus and 5% below our estimate.

The NP was driven by a pre-tax inventory gain of THB3.9b, an FX loss of THB1.2b, a THB0.5b loss on financial instruments, and a THB1.4b NL from a hedging loss.

Its 3Q21 core NP stood at THB1.25b, owing to:

- 1) A refinery NL of THB1.3b, greater than the NL of THB1b in 2Q21 due to a lower GRM vs a higher cost at USD4.4/bbl;
- 2) Lower non-refinery earnings from weak NPs from lube, power and olefins (from Chandra Asri) that were partly offset by the higher NP from aromatics.

The 3Q21 refinery NL of THB1.3b was dragged down by a higher cost and a higher crude premium despite the higher market GRM of USD1.6/bbl, up 3x q-q.

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Aromatics NP jumped to THB1b in 3Q21, up 9% q-q and 62x y-y due to a higher paraxylene-gasoline spread, but the unit had a slightly lower utilisation rate of 88%, down from 89% in 2Q21.

The lube unit posted a 3Q21 NP of THB1b, down 25% q-q, due to a lower product-to-feed margin at USD187/t (-19% q-q), with a lower utilisation rate of 88%.

Power NP dipped to THB0.7b in 3Q21, down 7% q-q, due to lower NPs from small power producers caused by higher gas costs and the impact of the unplanned shutdown.

Exhibit 5: Summary of 3Q21/9M21 operations

	3Q20	2Q21	3Q21			9M20	9M21	Chg.	2021E
	(THB m)	(THB m)	(THB m)	(q-q %)	(y-y %)	(THB m)	(THB m)	(y-y %)	(THB m)
Revenue	58,422	79,821	82,064	2.8	40.5	186,775	237,158	27.0	299,968
Operating costs	(54,327)	(70,404)	(72,144)	2.5	32.8	(191,716)	(207,050)	8.0	(264,104)
EBITDA	3,819	7,003	6,784	(3.1)	77.6	(5,548)	22,059	nm	32,590
<i>EBITDA margin (%)</i>	6.5	8.8	8.3	nm	nm	-3.0	9.3	nm	10.9
Depreciation & amort	(2,218)	(1,813)	(1,860)	2.6	(16.1)	(6,455)	(5,495)	(14.9)	(15,690)
EBIT	1,994	3,472	3,328	(4.2)	66.8	(10,010)	11,478	nm	16,900
Interest expense	(1,172)	(907)	(934)	3.0	(20.3)	(3,306)	(2,637)	(20.2)	(4,198)
Interest & invt inc	214	163	697	328.1	225.2	928	1,051	13.2	1,000
Associates' contrib	846	537	442	(17.6)	(47.7)	2,129	1,450	(31.9)	2,694
Exceptional	(276)	(2,415)	(3,136)	nm	nm	(607)	(8,050)	1,225.3	-
Pretax profit	1,608	851	396	(53.4)	(75.3)	(10,866)	3,292	nm	16,396
Tax	(33)	(358)	(213)	(40.6)	552.4	3,031	(959)	nm	(3,279)
<i>Tax rate (%)</i>	2.0	42.1	53.7	nm	nm	27.9	29.1	nm	20.0
Minority interests	(75)	(84)	(118)	39.9	57.4	(274)	(300)	9.6	(419)
Net profit	715	2,123	2,063	(2.8)	188.4	(10,559)	7,582	nm	12,698
Non-recurring	2,687	811	818	0.9	(69.6)	(8,402)	4,063	nm	-
Core profit	(1,972)	1,312	1,245	(5.1)	nm	(2,157)	3,519	nm	12,698
EPS (THB)	0.35	1.04	1.01	(2.8)	188.4	(5.18)	3.72	nm	6.22
Core EPS (THB)	(0.97)	0.64	0.61	(5.1)	nm	(1.06)	1.73	nm	6.22

Sources: TOP; FSSIA estimates

Exhibit 6: 3Q21/9M21 net profit breakdown

Net profit	3Q20	2Q21	3Q21	----- Change -----		9M20	9M21	Chg.
	(THB m)	(THB m)	(THB m)	(q-q %)	(y-y %)	(THB m)	(THB m)	
Consolidated	715	2,123	2,063	(3)	189	(10,559)	7,545	nm
- Refinery	(715)	(1,014)	(1,312)	29	83	(13,496)	(1,428)	(89)
- Aromatics	16	916	1,002	9	6,163	989	2,552	158
- Olefins	-	-	(23)	nm	nm	-	(23)	nm
- Lube	375	1,386	1,038	(25)	177	520	3,222	520
- Stock gain/loss	2,986	3,783	3,915	3	31	(9,190)	12,354	nm
- Power and others								
Power	833	709	656	(7)	(21)	2,135	1,963	(8)
Solvent	73	147	143	(3)	96	150	536	257
Marine transport	2	(1)	-	nm	nm	34	15	(56)
Ethanol	9	14	535	3,721	5,844	38	584	1,437
Others	100	100	108	8	8	436	290	(33)

Sources: TOP; FSSIA estimates

Exhibit 7: 3Q21/9M21 key quarterly drivers

Margin breakdown	Unit	3Q20	2Q21	3Q21	----- Change -----		9M20	9M21	Chg.
					(q-q %)	(y-y %)			
GIM (excl. stock gain/loss)	USD/bbl	1.0	5.2	5.5	6	450	2.0	4.9	145
GIM (incl. stock gain/loss)	USD/bbl	4.9	10.0	10.5	5	114	(1.8)	10.2	nm
Stock gain/loss	USD/bbl	3.9	4.8	5.0	4	28	(3.8)	5.3	nm
Refinery market GRM	USD/bbl	(1.1)	0.4	1.6	300	nm	0.1	0.9	800
Spread PX- ULG 95	USD/tonne	143.0	206.0	212.0	3	48	192.0	204.0	6
Spread BZ-ULG95	USD/tonne	25.0	313.0	287.0	(8)	1,048	80.0	260.0	225
Product to feed - aromatics	USD/tonne	68.0	112.0	90.0	(20)	32	77.0	103.0	34
Spread 500SN-HSFO	USD/tonne	340.0	1,037.0	896.0	(14)	164	360.0	905.0	151
Product to feed - lube	USD/tonne	100.0	231.0	187.0	(19)	87	70.0	197.0	181
Utilisation*		3Q20	2Q21	3Q21	ppts q-q	ppts y-y	9M20	9M21	ppts y-y
Refinery	%	93	98	92	(6)	(1)	101	97	(4)
Aromatics	%	56	89	88	(1)	32	71	86	15
Lube	%	89	95	88	(7)	(1)	86	92	6
LAB	%	70	117	118	1	48	99	109	10
Solvent	%	104	129	102	(27)	(2)	111	124	13
CAP	%	-	-	89	89	89	-	-	-
Ethanol - Sapthip	%	108	79	70	(9)	(38)	99	78	(21)
Ethanol - Ubon Bio	%	80	97	107	10	27	88	98	10

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

Sources: TOP; 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					
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					
Recurring P/E (x) *	17.9	(34.0)	8.8	9.5	9.3
Recurring P/E @ target price (x) *	21.8	(41.4)	10.8	11.6	11.4
Reported P/E (x)	17.9	(34.0)	8.8	9.5	9.3
Dividend yield (%)	2.7	3.6	5.1	4.7	4.8
Price/book (x)	0.9	1.0	0.9	0.9	0.8
Price/tangible book (x)	0.9	1.0	0.9	0.9	0.8
EV/EBITDA (x) **	14.7	(27.1)	7.6	8.1	8.3
EV/EBITDA @ target price (x) **	16.8	(30.3)	8.4	8.9	9.1
EV/invested capital (x)	0.9	0.9	0.8	0.8	0.8
* 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	TTB	TMILL	TNDT
TNL	TOA	TOP	TPBI	TQM	TRC	TRC	TSC	TSR	TSTE	TSTH
TTCL	TTW	TU	TVD	TVI	TVO	TWPC	U	UAC	UBIS	UV
VGI	VIH	WACOAL	WAVE	WHA	WHAUP	WICE	WINNER	TRUE		

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

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

Description	Score Range
Excellent	90-100
Very Good	80-89
Good	70-79

Disclaimer:

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

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

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

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

Anti-corruption Progress Indicator 2020

CERTIFIED										
2S	ADVANC	AI	AIE	AIRA	AKP	AMA	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	TTB	TMD	TMILL	TMT
TNITY	TNL	TNP	TNR	TOG	TOP	TPA	TPCORP	TPP	TRU	TSC
TSTH	TTCL	TU	TVD	TVI	TVO	TWPC	U	UBIS	UEC	UKEM
UOBKH	UWC	VGI	VIH	VNT	WACOAL	WHA	WHAUP	WICE	WIJK	XO
ZEN	TRUE									

DECLARED										
7UP	ABICO	AF	ALT	AMARIN	AMATA	AMATAV	ANAN	APURE	B52	BKD
BM	BROCK	BUI	CHO	CI	COTTO	DDD	EA	EFORL	EP	ERW
ESTAR	ETE	EVER	FSMART	GPI	ILINK	IRC	J	JKN	JMART	JMT
JSP	JTS	KWG	LDC	MAJOR	META	NCL	NOBLE	NOK	PK	PLE
ROJNA	SAAM	SAPPE	SCI	SE	SHANG	SINGER	SKR	SPALI	SSP	STANLY
SUPER	SYNEX	THAI	TKS	TOPP	TRITN	TTA	UPF	UV	WIN	ZIGA

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

Disclaimer:

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

Note: Companies participating in Thailand's Private Sector Collective Action Coalition Against Corruption programme (Thai CAC) under Thai Institute of Directors (as of June 24, 2019) are categorised into: 1) companies that have declared their intention to join CAC, and; 2) companies certified by CAC.

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

GENERAL DISCLAIMER

ANALYST(S) CERTIFICATION

Suwat Sinsadok FSS International Investment Advisory Securities Co., Ltd

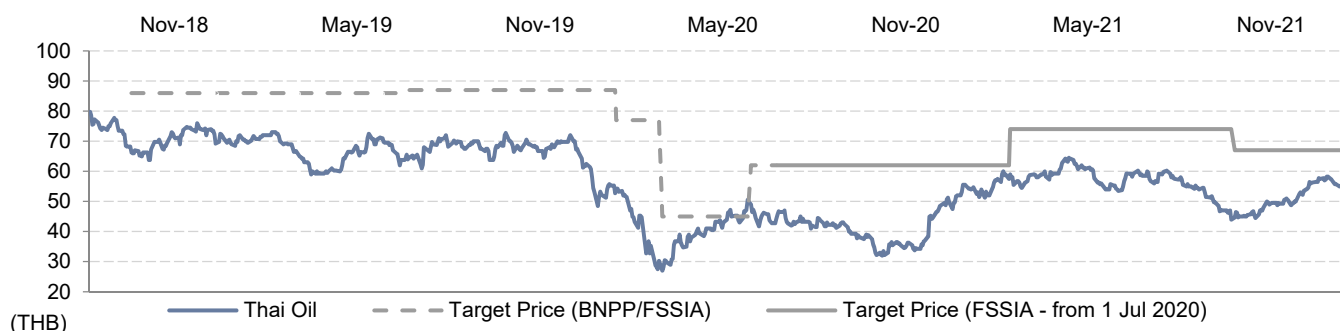
The individual(s) identified above certify(ies) that (i) all views expressed in this report accurately reflect the personal view of the analyst(s) with regard to any and all of the subject securities, companies or issuers mentioned in this report; and (ii) no part of the compensation of the analyst(s)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

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History of change in investment rating and/or target price

Thai Oil (TOP TB)



Date	Rating	Target price	Date	Rating	Target price	Date	Rating	Target price
18-Dec-2018	BUY	86.00	08-Jun-2020	BUY	62.00	15-Feb-2021	BUY	74.00
06-Aug-2019	BUY	87.00	08-Jun-2020	BUY	62.00	19-May-2021	BUY	74.00
12-Feb-2020	BUY	77.00	21-Aug-2020	BUY	62.00	30-Jul-2021	BUY	67.00
23-Mar-2020	BUY	45.00	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

Company	Ticker	Price	Rating	Valuation & Risks
Thai Oil	TOP TB	THB 55.00	BUY	Downside risks to our EV/EBITDA-based TP are a sharp rise in oil price and weak demand for refined oil products.

Source: FSSIA estimates

Additional Disclosures

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

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

All share prices are as at market close on 09-Nov-2021 unless otherwise stated.

RECOMMENDATION STRUCTURE

Stock ratings

Stock ratings are based on absolute upside or downside, which we define as $(\text{target price}^* - \text{current price}) / \text{current price}$.

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.