

# THAI OIL TOP TB

THAILAND / OIL & GAS

# BUY

UNCHANGED

## Glittering outlook ahead

- TOP's GRM has continued to be strong since Mar-22 to date, driven by the higher product margins over crude oil price.
- We project TOP to post a strong 1Q22 net profit of THB8.4b, up 69% q-q and 148% y-y.
- Maintain BUY and raise our TP from THB67 to THB70.

TARGET PRICE	THB70.00
CLOSE	THB55.75
UP/DOWNSIDE	+25.6%
PRIOR TP	THB67.00
CHANGE IN TP	+4.5%
TP vs CONSENSUS	+11.1%

### KEY STOCK DATA

YE Dec (THB m)	2021	2022E	2023E	2024E
Revenue	335,827	443,287	403,609	399,142
Net profit	12,578	13,238	13,825	15,294
EPS (THB)	6.17	6.49	6.78	7.50
vs Consensus (%)	-	1.0	30.5	11.6
EBITDA	20,640	27,689	29,017	31,444
Core net profit	12,578	13,238	13,825	15,294
Core EPS (THB)	6.17	6.49	6.78	7.50
Chg. In EPS est. (%)	-	7.7	12.2	14.7
EPS growth (%)	nm	5.2	4.4	10.6
Core P/E (x)	9.0	8.6	8.2	7.4
Dividend yield (%)	5.0	5.2	5.5	6.1
EV/EBITDA (x)	12.2	10.7	11.3	11.4
Price/book (x)	0.9	0.9	0.8	0.8
Net debt/Equity (%)	110.3	138.8	152.1	164.4
ROE (%)	10.6	10.6	10.5	10.9

### 2Q22 should be a golden period for TOP

TOP's GRM has continued to be strong since Mar-22 to date, driven by the higher product margins over crude oil price thanks to the tighter refinery supply and higher demand to more than offset the higher crude premium. YTD, the margins of gasoline, diesel, and jet fuel have significantly risen by over USD10/bbl from their 2021 averages, driven by the higher demand and tighter supply from the absence of some refiners in Europe due to the Russian crude supply shortage.

### Solid 1Q22E net profit of THB8.4b

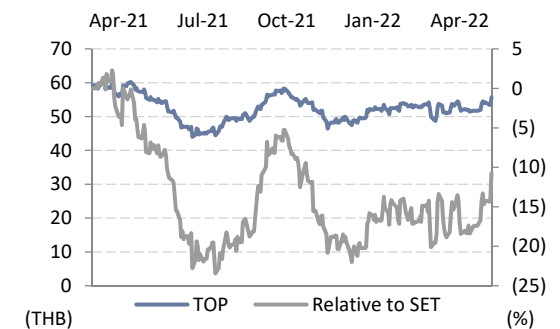
We project TOP to post a strong 1Q22 net profit of THB8.4b, up 69% q-q and 148% y-y. Excluding inventory gains and hedging losses, we expect its 1Q22 core net profit to rise to THB4.2b, up 341% q-q and 338% y-y. Key expectations are 1) a higher market gross refining margin (GRM) at USD6.8/bbl in 1Q22, up from USD5.4/bbl in 4Q21, due to higher margins of all refined products over Dubai crude oil price to more than offset the USD1/bbl q-q higher crude premium; 2) a poor aromatics gross integrated margin (GIM) at USD0.7/bbl, down from USD0.8/bbl, due to the depressed margins of paraxylene and benzene over naphtha; 3) a weaker lube GIM at USD0.5/bbl, down from USD0.9/bbl in 4Q21, due to weak demand; and 4) a net gain of THB0.3b from non-recurring items. The projected high inventory gain of THB1.1b would be mostly offset by a large hedging loss of THB0.7b, mainly from product margin hedging.

### EPS revisions

We raise our 2022-24E EPS by 7.7-14.7% to reflect 1) our higher Dubai oil price assumptions for 2022-24 by 28.6-33.3% to USD100/90/90 per bbl to reflect the impact of the supply risk from the sanctions on Russia; 2) higher GRM assumptions by 48-56% to include our higher estimates for the margins of oil products following our more positive outlook on the margins of gasoline, diesel, and jet due to the tighter supply; and 3) higher demand growth and our higher crude premium assumptions by USD0.5-1.5/bbl for 2022-24 to reflect the recent hikes.

### TP upgrade to THB70

We maintain BUY and raise our TP from THB67, previously based on 11.7x 2022E EV/EBITDA, to THB70, now based on 11.8x 2022E EV/EBITDA, to reflect our more positive GRM outlook thanks to the strong demand and tight supply, despite the higher crude cost.



Share price performance	1 Month	3 Month	12 Month
Absolute (%)	2.3	6.2	(1.8)
Relative to country (%)	3.6	4.4	(6.3)
Mkt cap (USD m)	3,300		
3m avg. daily turnover (USD m)	24.7		
Free float (%)	45		
Major shareholder	PTT plc. (49%)		
12m high/low (THB)	61.50/42.50		
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 2022 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.

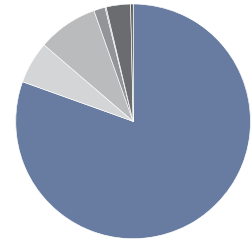
### Company profile

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](http://www.thaioilgroup.com)

### Principal activities (revenue, 2021)

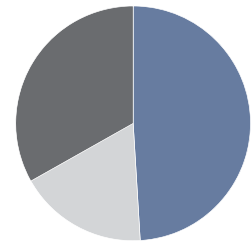
- Oil refinery - 80.5 %
- Lubed base oil refinery - 5.8 %
- Petrochemical - 8.3 %
- Power generation - 1.6 %
- Marine transportation services - 0.1 %



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
May 2022	1Q22 results announcement

### Key assumptions

	2022E (USD/bbl)	2023E (USD/bbl)	2024E (USD/bbl)
Dubai oil price	100.0	90.0	90.0
Refining margin	7.2	7.2	7.4
Crude premium	4.5	2.8	1.0
Diesel-Dubai margin	24.0	22.0	20.0
Jet-Dubai margin	23.0	22.0	20.0
Gasoline-Dubai margin	20.0	18.0	16.0
HSFO-Dubai margin	(15.0)	(12.0)	(12.0)

Source: FSSIA estimates

### Earnings sensitivity

- For every 1% increase in average Dubai oil price, we project 2022 earnings to rise by 2.4%, and vice versa, all else being equal.
- For every 1% increase in market GRM, we estimate 2022 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 good start in 2022 for a strong 1Q22E net profit

We project TOP to post a strong 1Q22 net profit of THB8.4b, up 69% q-q and 148% y-y. Excluding inventory gains and hedging losses, we expect its 1Q22 core net profit to rise to THB4.2b, up 341% q-q and 338% y-y.

- **Refinery to outshine.** We project the market GRM to jump to USD6.8/bbl in 1Q22, up from USD5.4/bbl in 4Q21. The key drivers would be the higher margins of all refined products over Dubai crude oil price, driven by the high demand and tight supply as a result of the Russia-Ukraine war. The crude premium should increase by USD1/bbl q-q, but will likely be more than offset by the higher product margins. We expect the utilisation rate to stay high at 110% thanks to the strong demand in Thailand and overseas for the export market.
- **Aromatics to weaken further.** The GIM for aromatics is likely to weaken q-q in 1Q22 to USD0.7/bbl, down from USD0.8/bbl, due to the depressed margins of paraxylene and benzene over naphtha caused by the chronic oversupply and higher naphtha cost. We expect the utilisation rate for aromatics to drop to 78% in 1Q22, down from 81% in 4Q21, due to the poor margin.
- **Lube EBITDA to decline.** We project the lube GIM to plunge to USD0.5/bbl, down from USD0.9/bbl in 4Q21, due to the weak demand which resulted in a poorer margin of lube over high sulphur fuel oil.
- **Net gain of THB0.3b from non-recurring items.** The projected high inventory gain of THB11b due to the sharp rise in the crude oil price would be mostly offset by a large hedging loss of THB0.7b, mainly from product margin hedging.

### Exhibit 1: 1Q22E financial performance

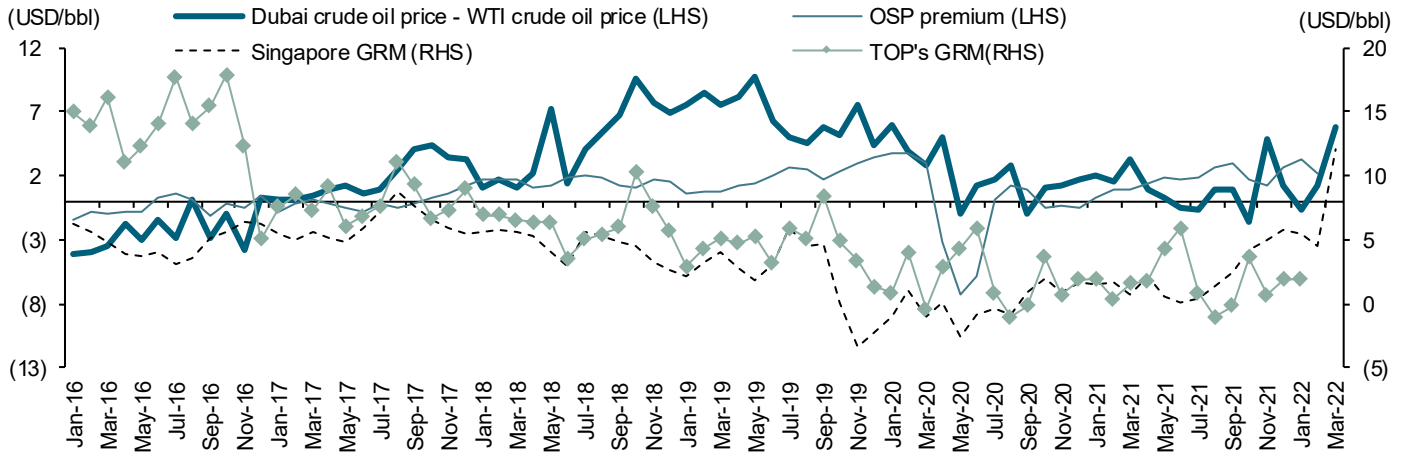
	1Q21	4Q21	----- 1Q22E-----		2021	2022E	Change	
	(THB m)	(THB m)	(THB m)	(q-q%)	(y-y%)	(THB m)		(THB m)
<b>Revenue</b>	<b>75,272</b>	<b>98,669</b>	<b>102,100</b>	<b>3.5</b>	<b>35.6</b>	<b>335,827</b>	<b>443,287</b>	<b>38.3</b>
Operating costs	(64,502)	(93,580)	(97,581)	4.3	51.3	(312,131)	(411,564)	26.0
<b>EBITDA</b>	<b>8,272</b>	<b>6,082</b>	<b>7,832</b>	<b>28.8</b>	<b>(5.3)</b>	<b>20,640</b>	<b>27,689</b>	<b>nm</b>
EBITDA margin (%)	11.0	6.2	7.7	nm	nm	6.1	6.2	nm
Depn & amort.	(1,821)	(1,930)	(1,925)	(0.2)	5.7	(7,424)	(17,272)	(1.7)
EBIT	4,678	7,217	9,757	35.2	108.6	13,216	10,417	nm
Interest expense	(796)	(958)	(1,088)	13.6	36.7	(3,595)	(3,516)	(16.2)
Interest & invt inc	191	9,747	213	(97.8)	11.5	8,336	8,419	(28.8)
Associates' contrib	470	225	263	17.1	(44.1)	1,675	1,758	(34.7)
Exceptionals	(2,499)	993	3,313	nm	nm	0	0	nm
<b>Pretax profit</b>	<b>2,045</b>	<b>17,223</b>	<b>12,458</b>	<b>(27.7)</b>	<b>509.2</b>	<b>15,037</b>	<b>17,078</b>	<b>nm</b>
Tax	(388)	(1,075)	(3,863)	259.5	896.9	(2,034)	(3,416)	nm
Tax rate (%)	19.0	6.2	31.0	nm	nm	13.5	20.0	nm
Minority interests	(97)	(125)	(156)	24.4	60.4	(425)	(425)	1.4
<b>Net profit</b>	<b>3,397</b>	<b>4,996</b>	<b>8,439</b>	<b>68.9</b>	<b>148.4</b>	<b>12,578</b>	<b>13,238</b>	<b>nm</b>
Non-recurring	2,435	4,040	4,229	4.7	73.7			nm
<b>Core profit</b>	<b>962</b>	<b>955</b>	<b>4,210</b>	<b>340.6</b>	<b>337.6</b>	<b>12,578</b>	<b>13,238</b>	<b>nm</b>
EPS (THB)	1.67	2.45	4.14	68.9	148.4	6.17	6.49	nm
Core EPS (THB)	0.47	0.47	2.06	340.6	337.6	6.17	6.49	nm

Sources: TOP; FSSIA estimates

### GRM on the uptrend in 2022

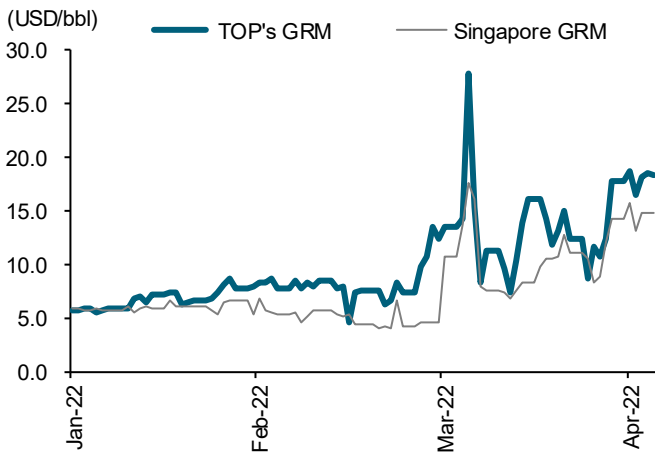
TOP's GRM has continued to be strong since Mar-22 to date, driven by the higher product margins over crude oil price thanks to the tighter refinery supply and higher demand. Despite the higher crude premium, the much wider product margins over crude price have continued to drive up TOP's market GRM since Mar-22.

**Exhibit 2: Dubai-WTI crude premium, Singapore GRM and TOP's GRM**



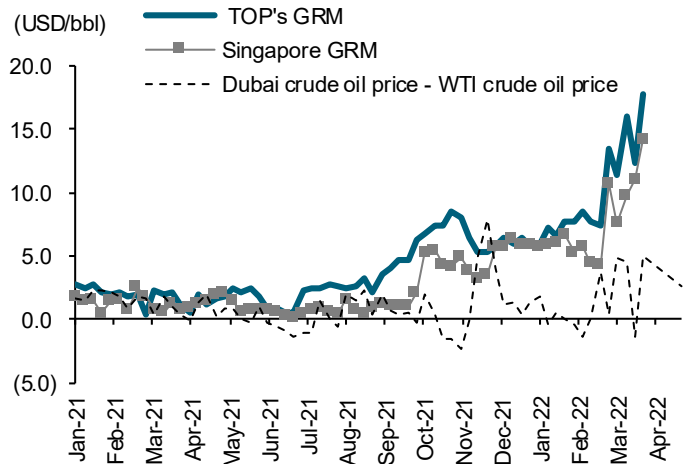
Source: Bloomberg

**Exhibit 3: TOP's GRM vs Singapore GRM (daily)**



Source: Bloomberg

**Exhibit 4: TOP's GRM vs Singapore GRM vs Dubai- WTI (weekly)**

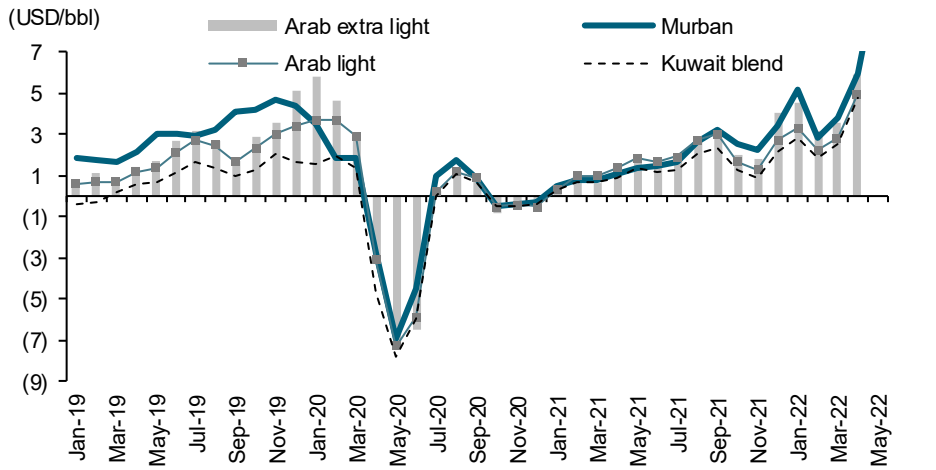


Source: Bloomberg

**Crude premium to rise in 2Q22.** Since turning negative in 4Q20, the crude premiums of the Arab group produced by Saudi Arabia have continued to rise as Saudi Arabia has taken advantage of the supply shortage of Russian crude oil due to the sanctions imposed by the US and its allies.

The crude premium for Arab Light crude has jumped from USD3/bbl in Feb-22 to over USD5/bbl in Apr-22 and is likely to rise further to over USD6/bbl for May-22, as the Russian crude supply is likely to continue to be absent from the market due to the ongoing sanctions.

**Exhibit 5: Crude premiums of Middle East producers**

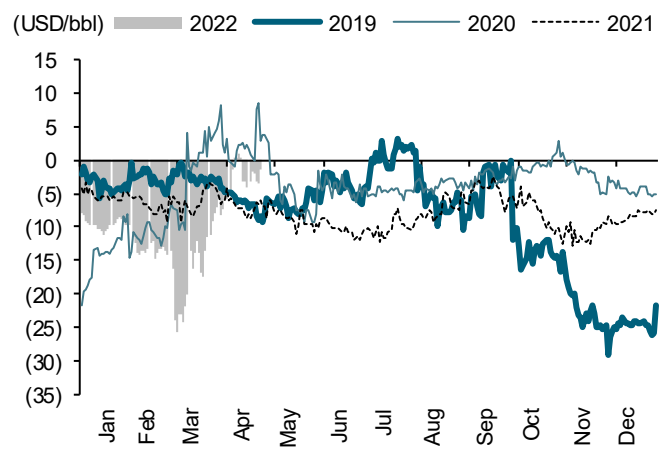
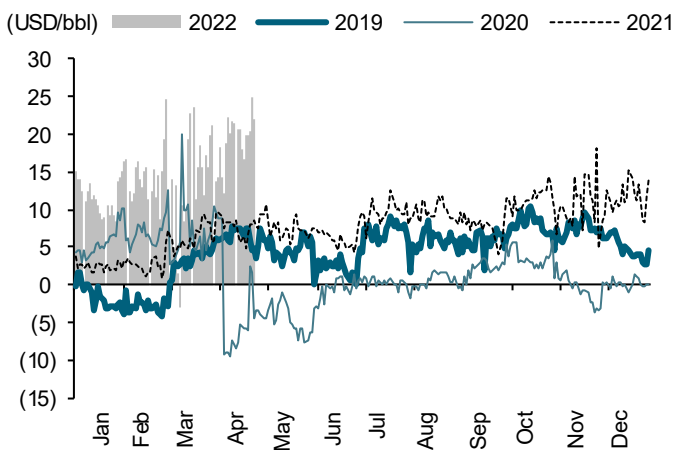


Source: TOP

**Product margins from strength to strength.** YTD, the margins of gasoline, diesel, and jet fuel, the three key products that together account for over two-thirds of all Thai refinery companies' production yields, have significantly risen by over USD10/bbl from their 2021 averages, driven by the higher demand and tighter supply from the absence of some refiners in Europe due to the Russian crude supply shortage.

**Exhibit 6: 92 Octane gasoline price – Dubai crude oil price**

**Exhibit 7: High sulphur fuel oil SG – Dubai crude price**



Source: Bloomberg

Source: Bloomberg

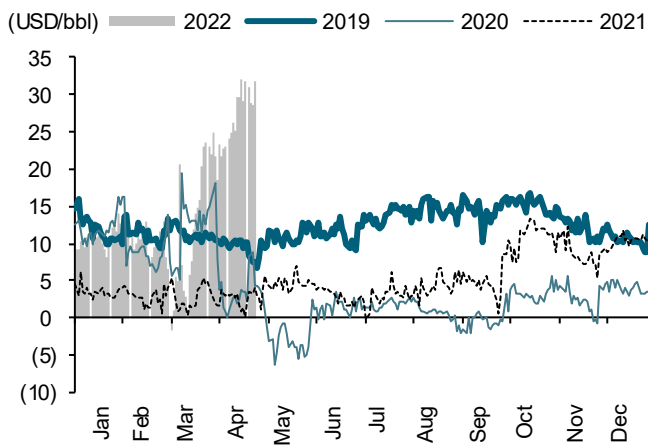
The gasoline-Dubai margin has stayed over USD15/bbl YTD ahead of the upcoming driving season in the US, reflecting that the supply for gasoline has been tighter, mainly due to the lower export volume from China, according to Bloomberg.

Meanwhile, the margins of the middle distillate products for diesel and jet have risen significantly by over USD10/bbl to over USD20/bbl since Mar-22. Given that middle distillates account for over 50% of the total production yields of Thai refiners, including TOP, we expect the market GRMs to jump markedly by over USD4-5/bbl q-q.

However, the benefit from the higher product margins should be partly offset by the higher crude premium, which we estimate to average around a USD1-2/bbl increase for Thai refiners. For TOP, in 1Q22, the impact of the crude premium will likely be USD1/bbl vs USD3/bbl higher for the rising product margins, resulting in a USD1.5-2.0/bbl higher market GRM in 1Q22.

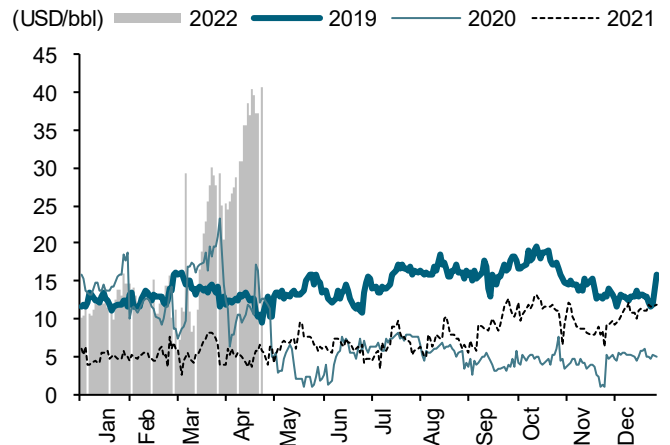
As the margin rises for gasoline, diesel, and jet which began in Mar-22 and are likely to continue into at least Aug-Sep 2022 – the end of driving season – we expect the benefit of the higher product margins to increase to USD2-4/bbl in 2Q22, even though we project the impact of the crude premium to rise by USD2-3/bbl.

**Exhibit 8: Jet Kerosene price – Dubai crude oil price**



Source: Bloomberg

**Exhibit 9: Gasoil 0.5% sulphur SG price – Dubai crude price**



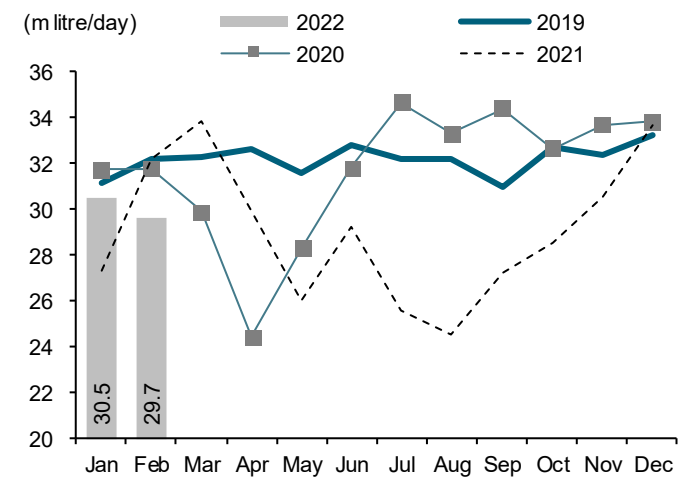
Source: Bloomberg

### GRM on the uptrend in 2022

As of Feb-22, Thailand has seen a resilient demand for diesel, which rose to 78m litres per day (mlpd) in Feb-22, surpassing the pre-Covid-19 level. This reflects the strong demand growth in the transportation and industrial segments despite the higher price. Meanwhile, the demand for gasoline has been relatively weaker y-y as a result of the higher demand elasticity for gasoline than for diesel due to the availability of more alternative fuels for consumers: LPG, NGV, or even EV cars.

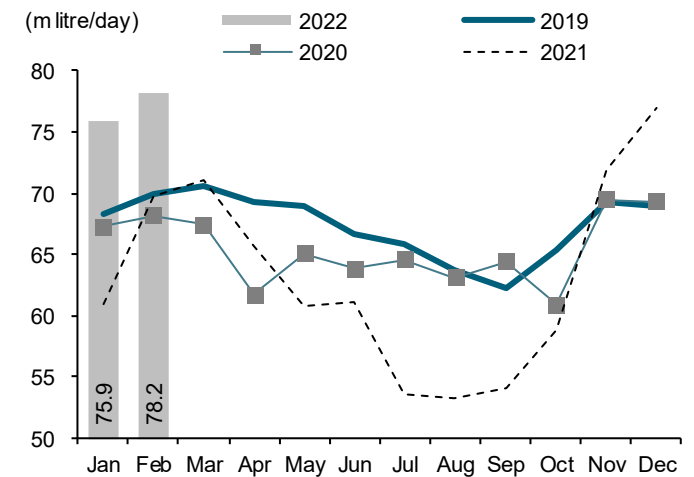
However, we expect demand to rise in Mar onward given the economic reopening and recovery. For jet, the demand remains low at 6.8mlpd as of Feb-22, but we expect that the demand for jet will rise substantially in Apr onward as the demand for higher flights for both domestic and international routes should be visible due to higher tourist arrival numbers and the normalisation of the economy.

**Exhibit 10: Thailand's consumption – Gasoline**



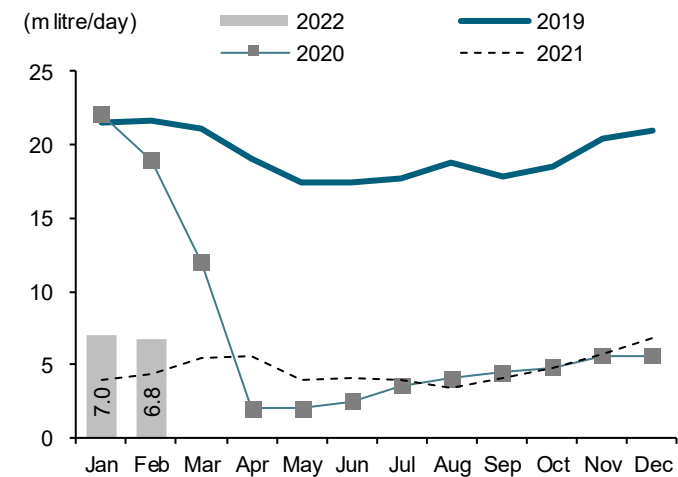
Sources: Department of Energy Business, Ministry of Energy (DOEB)

**Exhibit 11: Thailand's consumption – Diesel**



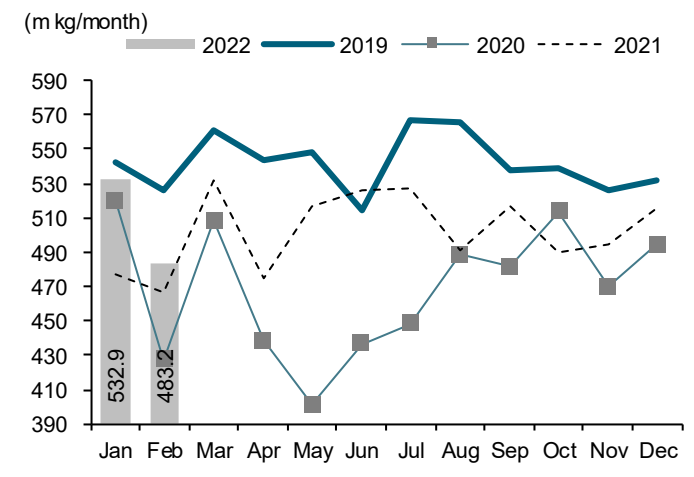
Sources: DOEB

**Exhibit 12: Thailand's consumption – Jet**



Sources: DOEB

**Exhibit 13: Thailand's consumption – LPG**



Sources: DOEB



## EPS and target price revisions

We raise our EPS forecasts for 2022-24 by 7.7-14.7% to reflect 1) our higher Dubai oil price assumptions for 2022-24 by 28.6-33.3% to USD100/90/90 per bbl to reflect the impact of the supply risk from the sanctions on Russia; 2) higher GRM assumptions by 48-56% to include our higher estimates for the margins of oil products following our more positive outlook on the margins of gasoline, diesel, and jet due to the tighter supply; and 3) higher demand growth and our higher crude premium assumptions by USD0.5-1.5/bbl for 2022-24 to reflect the recent hikes.

### Exhibit 14: Key changes in assumptions

	Current			Previous			Change		
	2022E (THB m)	2023E (THB m)	2024E (THB m)	2022E (THB m)	2023E (THB m)	2024E (THB m)	2022E (%)	2023E (%)	2024E (%)
Revenue	443,287	403,609	399,142	341,879	322,957	324,242	29.7	25.0	23.1
Gross profit	31,723	32,691	35,077	29,610	30,078	31,933	7.1	8.7	9.8
Operating profit	10,417	10,901	12,482	9,227	9,025	10,028	12.9	20.8	24.5
Net profit	13,238	13,825	15,294	12,286	12,324	13,331	7.7	12.2	14.7
EPS (THB/shr)	6.5	6.8	7.5	6.0	6.0	6.5	7.7	12.2	14.7
<b>Key assumptions (USD/bbl)</b>									
Dubai oil price	100.0	90.0	90.0	75.0	70.0	70.0	33.3	28.6	28.6
Refining margin	7.2	7.2	7.4	4.6	4.9	4.9	56.3	47.6	50.6
Crude premium	4.5	2.8	1.0	3.0	2.0	0.5	50.0	40.0	100.0
Diesel-Dubai margin	24.0	22.0	20.0	10.0	15.0	15.0	140.0	46.7	33.3
Jet-Dubai margin	23.0	22.0	20.0	10.0	15.0	15.0	130.0	46.7	33.3
Gasoline-Dubai margin	20.0	18.0	16.0	15.0	15.0	15.0	33.3	20.0	6.7
HSFO-Dubai margin	(15.0)	(12.0)	(12.0)	(5.0)	(5.0)	(5.0)	200.0	140.0	140.0

Source: FSSIA estimates



## Financial Statements

Thai Oil

Profit and Loss (THB m) Year Ending Dec	2020	2021	2022E	2023E	2024E
Revenue	242,840	335,827	443,287	403,609	399,142
Cost of goods sold	(247,746)	(312,131)	(411,564)	(370,918)	(364,065)
<b>Gross profit</b>	<b>(4,906)</b>	<b>23,697</b>	<b>31,723</b>	<b>32,691</b>	<b>35,077</b>
Other operating income	-	-	-	-	-
Operating costs	(2,650)	(3,056)	(4,034)	(3,673)	(3,633)
<b>Operating EBITDA</b>	<b>(7,556)</b>	<b>20,640</b>	<b>27,689</b>	<b>29,017</b>	<b>31,444</b>
Depreciation	(7,554)	(7,424)	(17,272)	(18,116)	(18,962)
Goodwill amortisation	0	0	0	0	0
<b>Operating EBIT</b>	<b>(15,110)</b>	<b>13,216</b>	<b>10,417</b>	<b>10,901</b>	<b>12,482</b>
Net financing costs	9,016	146	4,903	5,065	5,228
Associates	2,566	1,675	1,758	1,846	1,939
Recurring non-operating income	2,566	1,675	1,758	1,846	1,939
Non-recurring items	0	0	0	0	0
<b>Profit before tax</b>	<b>(3,529)</b>	<b>15,037</b>	<b>17,078</b>	<b>17,813</b>	<b>19,649</b>
Tax	647	(2,034)	(3,416)	(3,563)	(3,930)
<b>Profit after tax</b>	<b>(2,882)</b>	<b>13,003</b>	<b>13,663</b>	<b>14,250</b>	<b>15,719</b>
Minority interests	(419)	(425)	(425)	(425)	(425)
Preferred dividends	0	0	0	0	0
Other items	-	-	-	-	-
<b>Reported net profit</b>	<b>(3,301)</b>	<b>12,578</b>	<b>13,238</b>	<b>13,825</b>	<b>15,294</b>
<b>Non-recurring items &amp; goodwill (net)</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Recurring net profit</b>	<b>(3,301)</b>	<b>12,578</b>	<b>13,238</b>	<b>13,825</b>	<b>15,294</b>
<b>Per share (THB)</b>					
Recurring EPS *	(1.62)	6.17	6.49	6.78	7.50
Reported EPS	(1.62)	6.17	6.49	6.78	7.50
DPS	2.00	2.77	2.92	3.05	3.37
Diluted shares (used to calculate per share data)	2,040	2,040	2,040	2,040	2,040
<b>Growth</b>					
Revenue (%)	(32.9)	38.3	32.0	(9.0)	(1.1)
Operating EBITDA (%)	nm	nm	34.1	4.8	8.4
Operating EBIT (%)	nm	nm	(21.2)	4.6	14.5
Recurring EPS (%)	nm	nm	5.2	4.4	10.6
Reported EPS (%)	nm	nm	5.2	4.4	10.6
<b>Operating performance</b>					
Gross margin inc. depreciation (%)	(5.1)	4.8	3.3	3.6	4.0
Gross margin of key business (%)	(5.1)	4.8	3.3	3.6	4.0
Operating EBITDA margin (%)	(3.1)	6.1	6.2	7.2	7.9
Operating EBIT margin (%)	(6.2)	3.9	2.3	2.7	3.1
Net margin (%)	(1.4)	3.7	3.0	3.4	3.8
Effective tax rate (%)	18.3	13.5	20.0	20.0	20.0
Dividend payout on recurring profit (%)	(123.6)	45.0	45.0	45.0	45.0
Interest cover (X)	1.4	(102.0)	(2.5)	(2.5)	(2.8)
Inventory days	38.9	36.1	40.4	48.8	47.1
Debtor days	26.4	19.7	22.5	26.8	25.7
Creditor days	25.4	22.3	29.4	35.4	34.2
Operating ROIC (%)	(7.9)	5.8	3.9	4.0	4.7
ROIC (%)	(5.1)	4.9	2.9	2.6	2.7
ROE (%)	(2.8)	10.6	10.6	10.5	10.9
ROA (%)	(3.5)	3.9	2.4	2.2	2.3
* Pre-exceptional, pre-goodwill and fully diluted					
<b>Revenue by Division (THB m)</b>					
Oil refinery	177,280	270,267	377,727	338,049	333,582
Lubed base oil refinery	19,501	19,501	19,501	19,501	19,501
Petrochemical	27,070	27,911	27,670	27,670	27,670
Power generation	6,071	5,230	5,471	5,471	5,471

Sources: Thai Oil; FSSIA estimates

## Financial Statements

Thai Oil

Cash Flow (THB m) Year Ending Dec	2020	2021	2022E	2023E	2024E
Recurring net profit	(3,301)	12,578	13,238	13,825	15,294
Depreciation	7,554	7,424	17,272	18,116	18,962
Associates & minorities	-	-	-	-	-
Other non-cash items	-	-	-	-	-
Change in working capital	2,096	(8,611)	(10,962)	4,048	456
<b>Cash flow from operations</b>	<b>6,349</b>	<b>11,392</b>	<b>19,547</b>	<b>35,989</b>	<b>34,712</b>
Capex - maintenance	-	-	-	-	-
Capex - new investment	(38,666)	(33,174)	(15,984)	(16,105)	(16,060)
Net acquisitions & disposals	-	-	-	-	-
Other investments (net)	34,291	40,174	(53,733)	(53,733)	(53,733)
<b>Cash flow from investing</b>	<b>(4,375)</b>	<b>6,999</b>	<b>(69,717)</b>	<b>(69,838)</b>	<b>(69,793)</b>
Dividends paid	(3,060)	(5,660)	(5,957)	(6,221)	(6,882)
Equity finance	0	0	0	0	0
Debt finance	(2,363)	(1,219)	55,619	18,487	18,487
Other financing cash flows	(18,161)	(35,059)	12,183	12,271	12,364
<b>Cash flow from financing</b>	<b>(23,584)</b>	<b>(41,939)</b>	<b>61,845</b>	<b>24,537</b>	<b>23,969</b>
Non-recurring cash flows	-	-	-	-	-
Other adjustments	0	0	0	0	0
<b>Net other adjustments</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Movement in cash</b>	<b>(21,610)</b>	<b>(23,548)</b>	<b>11,675</b>	<b>(9,312)</b>	<b>(11,113)</b>
Free cash flow to firm (FCFF)	6,265.67	21,985.74	(46,653.52)	(30,410.65)	(31,721.19)
Free cash flow to equity (FCFE)	(18,550.29)	(17,887.83)	17,632.26	(3,090.94)	(4,230.23)

### Per share (THB)

FCFF per share	3.07	10.78	(22.87)	(14.91)	(15.55)
FCFE per share	(9.09)	(8.77)	8.64	(1.52)	(2.07)
Recurring cash flow per share	2.08	9.80	14.96	15.66	16.79

Balance Sheet (THB m) Year Ending Dec	2020	2021	2022E	2023E	2024E
Tangible fixed assets (gross)	279,568	320,167	336,151	352,256	368,316
Less: Accumulated depreciation	(134,343)	(141,768)	(159,039)	(177,155)	(196,118)
<b>Tangible fixed assets (net)</b>	<b>145,225</b>	<b>178,399</b>	<b>177,112</b>	<b>175,101</b>	<b>172,199</b>
<b>Intangible fixed assets (net)</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
Long-term financial assets	-	-	-	-	-
Invest. in associates & subsidiaries	24,521	55,412	57,170	59,017	60,955
Cash & equivalents	53,244	29,696	41,372	32,060	20,947
A/C receivable	12,702	23,508	31,030	28,253	27,940
Inventories	22,461	39,295	51,868	47,226	46,703
Other current assets	25,822	8,740	8,740	8,740	8,740
<b>Current assets</b>	<b>114,229</b>	<b>101,239</b>	<b>133,011</b>	<b>116,278</b>	<b>104,330</b>
Other assets	22,213	27,094	92,481	133,783	174,901
<b>Total assets</b>	<b>306,188</b>	<b>362,144</b>	<b>459,774</b>	<b>484,179</b>	<b>512,385</b>
Common equity	116,229	120,881	128,161	135,765	144,177
Minorities etc.	3,889	2,213	2,415	2,615	2,815
<b>Total shareholders' equity</b>	<b>120,118</b>	<b>123,094</b>	<b>130,577</b>	<b>138,381</b>	<b>146,992</b>
Long term debt	135,958	163,343	220,476	240,476	260,476
Other long-term liabilities	21,491	37,230	56,926	56,926	56,926
<b>Long-term liabilities</b>	<b>157,449</b>	<b>200,574</b>	<b>277,402</b>	<b>297,402</b>	<b>317,402</b>
A/C payable	9,517	28,545	37,679	34,307	33,927
Short term debt	5,665	2,142	2,115	2,089	2,063
Other current liabilities	13,438	7,789	12,001	12,001	12,001
<b>Current liabilities</b>	<b>28,620</b>	<b>38,476</b>	<b>51,796</b>	<b>48,397</b>	<b>47,991</b>
<b>Total liabilities and shareholders' equity</b>	<b>306,188</b>	<b>362,144</b>	<b>459,774</b>	<b>484,179</b>	<b>512,385</b>
Net working capital	38,030	35,209	41,958	37,911	37,455
Invested capital	229,989	296,114	368,722	405,812	445,510

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

### Per share (THB)

Book value per share	56.97	59.25	62.82	66.55	70.67
Tangible book value per share	56.97	59.25	62.82	66.55	70.67

### Financial strength

Net debt/equity (%)	73.6	110.3	138.8	152.1	164.4
Net debt/total assets (%)	28.9	37.5	39.4	43.5	47.2
Current ratio (x)	4.0	2.6	2.6	2.4	2.2
CF interest cover (x)	(1.2)	(103.7)	(5.9)	(1.6)	(1.3)

Valuation	2020	2021	2022E	2023E	2024E
<b>Recurring P/E (x) *</b>	<b>(34.4)</b>	<b>9.0</b>	<b>8.6</b>	<b>8.2</b>	<b>7.4</b>
<b>Recurring P/E @ target price (x) *</b>	<b>(43.3)</b>	<b>11.4</b>	<b>10.8</b>	<b>10.3</b>	<b>9.3</b>
Reported P/E (x)	(34.4)	9.0	8.6	8.2	7.4
Dividend yield (%)	3.6	5.0	5.2	5.5	6.1
Price/book (x)	1.0	0.9	0.9	0.8	0.8
Price/tangible book (x)	1.0	0.9	0.9	0.8	0.8
EV/EBITDA (x) **	(27.3)	12.2	10.7	11.3	11.4
EV/EBITDA @ target price (x) **	(31.1)	13.6	11.8	12.3	12.3
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	SEOIL	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	AMANAHA	AP	AQUA	ARROW
ASK	ASP	AYUD	B	BAFS	BANPU	BAY	BBL	BCH	BCP	BCPG
BGC	BGRIM	BJCHI	BKI	BLA	BPP	BROOK	BRR	BSBM	BTS	BWG
CEN	CENTEL	CFRESH	CGH	CHEWA	CHOTI	CHOW	CIG	CIMBT	CM	CMC
COL	COM7	CPALL	CPF	CPI	CPN	CSC	DCC	DELTA	DEMCO	DIMET
DRT	DTAC	DTC	EASTW	ECL	EGCO	FE	FNS	FPI	FPT	FSS
FTE	GBX	GC	GCAP	GEL	GFPT	GGC	GJS	GPSC	GSTEEL	GUNKUL
HANA	HARN	HMPRO	HTC	ICC	ICHI	IFS	INET	INSURE	INTUCH	IRPC
ITEL	IVL	K	KASET	KBANK	KBS	KCAR	KCE	KGI	KKP	KSL
KTB	KTC	KWC	L&E	LANNA	LHFG	LHK	LPN	LRH	M	MAKRO
MALEE	MBAX	MBK	MBKET	MC	MCOT	MFC	MFEC	MINT	MONO	MOONG
MPG	MSC	MTC	MTI	NBC	NEP	NINE	NKI	NMG	NNCL	NSI
NWR	OCC	OCEAN	OGC	ORI	PAP	PATO	PB	PCSGH	PDG	PDI
PDJ	PE	PG	PHOL	PL	PLANB	PLANET	PLAT	PM	PPP	PPPM
PPS	PREB	PRG	PRINC	PRM	PSH	PSL	PSTC	PT	PTG	PTT
PTTEP	PTTGC	PYLON	Q-CON	QH	QLT	QTC	RATCH	RML	RWI	S & J
SABINA	SAT	SC	SCB	SCC	SCCC	SCG	SCN	SEAOIL	SE-ED	SELIC
SENA	SGP	SIRI	SITHAI	SMIT	SMK	SMPC	SNC	SNP	SORKON	SPACK
SPC	SPI	SPRC	SRICHA	SSF	SSSC	SST	STA	SUSCO	SVI	SYNTEC
TAE	TAKUNI	TASCO	TBSP	TCAP	TCMC	TFG	TFI	TFMAMA	THANI	THCOM
THIP	THRE	THREL	TIP	TIPCO	TISCO	TKT	TTB	TMD	TMILL	TMT
TNITY	TNL	TNP	TNR	TOG	TOP	TPA	TPCORP	TPP	TRU	TSC
TSTH	TTCL	TU	TVD	TVI	TVO	TWPC	U	UBIS	UEC	UKEM
UOBKH	UWC	VGI	VIH	VNT	WACOAL	WHA	WHAUP	WICE	WIJK	XO
ZEN	TRUE									

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

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

**Disclaimer:**

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

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

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

**GENERAL DISCLAIMER**

**ANALYST(S) CERTIFICATION**

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

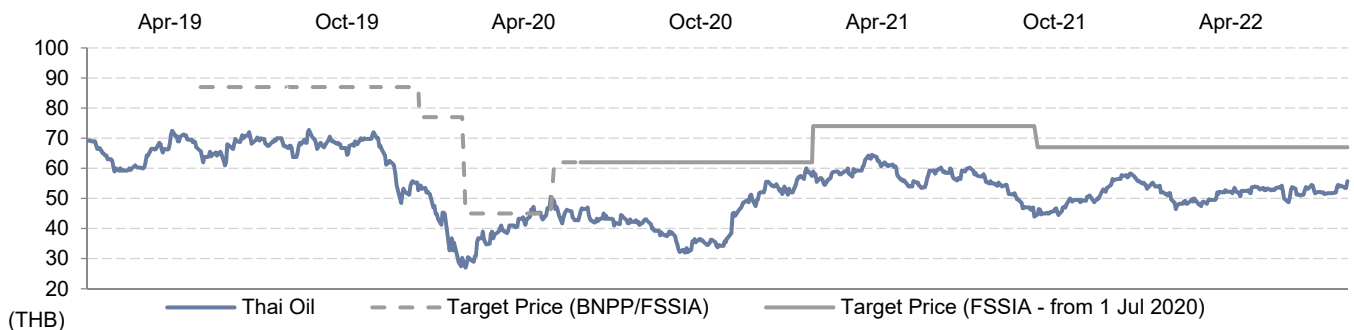
The individual(s) identified above certify(ies) that (i) all views expressed in this report accurately reflect the personal view of the analyst(s) with regard to any and all of the subject securities, companies or issuers mentioned in this report; and (ii) no part of the compensation of the analyst(s) 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
06-Aug-2019	BUY	87.00	23-Mar-2020	BUY	45.00	18-Jan-2021	BUY	74.00
12-Feb-2020	BUY	77.00	08-Jun-2020	BUY	62.00	30-Jul-2021	BUY	67.00

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

Price and TP are in local currency

Source: FSSIA estimates

Company	Ticker	Price	Rating	Valuation & Risks
Thai Oil	TOP TB	THB 55.75	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 28-Apr-2022 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.