

THAI OIL TOP TB

THAILAND / ENERGY

BUY

UNCHANGED

Normalised years ahead

- Reinitiate coverage with a BUY rating and TP at THB61.80/share.
- We expect TOP to benefit from refinery GRM normalisation and the recovery of petrochemical spreads in 2024-25.
- Key catalyst is a higher GRM from an expected diesel spread recovery in 2H23.

TARGET PRICE	THB61.80
CLOSE	THB43.25
UP/DOWNSIDE	+42.9%
PRIOR TP	THB70.00
CHANGE IN TP	-11.7%
TP vs CONSENSUS	+0.3%

KEY STOCK DATA

YE Dec (THB m)	2022	2023E	2024E	2025E
Revenue	529,589	447,275	459,496	572,939
Net profit	32,668	14,048	14,866	18,763
EPS (THB)	15.29	6.29	6.65	8.40
vs Consensus (%)	-	2.2	6.9	(7.3)
EBITDA	52,014	27,213	27,327	37,921
Core net profit	32,668	14,048	14,866	18,762
Core EPS (THB)	15.29	6.29	6.65	8.40
Chg. In EPS est. (%)	nm	(6.0)	1.9	nm
EPS growth (%)	147.9	(58.9)	5.8	26.2
Core P/E (x)	2.8	6.9	6.5	5.1
Dividend yield (%)	8.6	7.3	7.7	9.7
EV/EBITDA (x)	4.1	7.9	6.7	4.0
Price/book (x)	0.6	0.6	0.6	0.5
Net debt/Equity (%)	71.0	69.1	47.7	29.2
ROE (%)	23.6	8.8	8.9	10.7

2H23 outlook brightens

We believe 2Q23 will be the bottom of the year, mainly from weaker diesel spreads due to the higher supply in the region and the end of the peak season. However, we see a brighter refinery outlook in 2H23 while petrochemicals recover at a slower pace. The acceleration of economic activity in China in conjunction with lower crude premiums should help drive GRM in 2H23. We expect TOP's 2023 net profit to normalise at THB14.0b and improve 6.4% y-y to THB14.9b in 2024.

Refinery and aromatics: stable long-term outlook

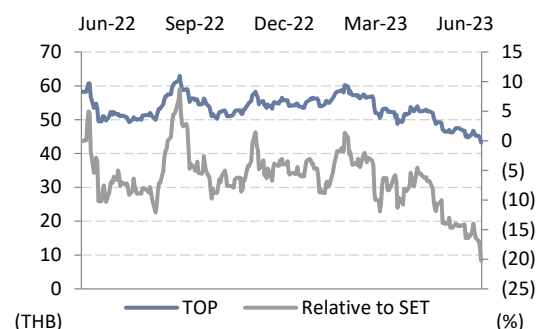
Our GRM estimates are pegged at USD6.9/bbl in 2023 and USD6.7/bbl in 2024, down from the high base in 2022. Our assumptions are based on normalised gasoline- and diesel-to-Dubai spreads of USD17/bbl and USD17/bbl in 2023, and USD15/bbl/USD13/bbl in 2024. Nevertheless, we expect crude premiums to remain low at USD3.35/bbl in 2023 and drop further to USD1.8/bbl in 2024. We expect GRM to stay at a healthy level above pre-Covid.

Resilient and competitive player in the long term

We believe TOP is one of the most competitive players in the long term due to its investments in diversification and expansion. In 2025 onwards, we expect TOP's refinery capacity to increase 45% from 275kbd to 400kbd from the upgraded refinery units in its USD4.8b Clean Fuel Project (CFP). Product yield will move more toward middle distillates (53% to 62%) while lower-valued products such as fuel oil (7% to 0%) will be eliminated.

Reinitiate with a BUY rating; TP at THB61.80/share

We reinitiate coverage of TOP with a BUY rating. Our TP at THB61.80/share is based on 0.8x 2024E P/BV, which is -1SD of its historical 10-year average. We expect the stock to trade at this level to reflect the normalisation of the refinery business and the slower-than-expected recovery of its petrochemical business. We think its weak share price performance already reflects its negative factors, which means now is a good time to accumulate. Key risks are a sharp decline in crude oil prices and GRM.



Share price performance	1 Month	3 Month	12 Month
Absolute (%)	(7.0)	(14.4)	(25.4)
Relative to country (%)	(7.3)	(9.4)	(19.1)
Mkt cap (USD m)	2,776		
3m avg. daily turnover (USD m)	14.7		
Free float (%)	52		
Major shareholder	PTT plc. (48%)		
12m high/low (THB)	63.25/43.00		
Issued shares (m)	2,234.00		

Sources: Bloomberg consensus; FSSIA estimates


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Investment thesis

We believe the refinery and petrochemical business will recover in 2H23, led by the acceleration of economic activity in China which should boost diesel and petrochemical product demand and drive product spreads higher.

In addition, as a low cost structure refinery, we expect TOP to stand out based on its earnings resilience relative to its local refinery peers during this shoulder period, as refinery spreads normalise and the petrochemical business begins to recover.

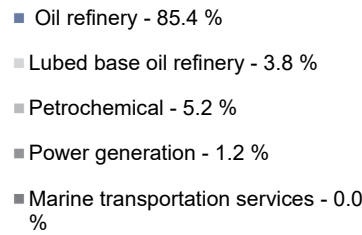
Long-term, we anticipate that its Clean Fuel Project (CFP) project (COD in 1Q25) will allow TOP to maximise profits from greater feedstock flexibility and better yields of higher value middle distillate products. In addition, its 15.38% stake in the expansion project of Chandra Asri Petrochemical (CAP2), an olefin investment in Indonesia (COD in 2026), should support and diversify TOP's earnings.

Company profile

TOP operates the largest single-site refinery in Thailand, which is one of the most complex refineries in the Asia-Pacific region with a nameplate capacity of 275 kbd. It also undertakes power generation, petrochemical production, and oil and petrochemical product transportation.

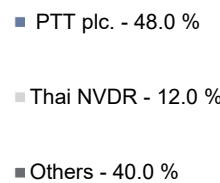
www.thaioilgroup.com

Principal activities (revenue, 2022)



Source: Thai Oil

Major shareholders



Source: Thai Oil

Catalysts

Potential catalysts are 1) a faster-than-expected resumption of economic activity in China in 2H23, which would boost diesel and aromatics product demand and send product spreads higher; 2) lower-than-expected crude premiums; and 3) a sharp rise in oil prices.

Risks to our call

Downside risks to our P/BV-based TP are 1) a sharp fall in oil prices; 2) weaker demand for refined oil products; 3) GRM volatility; and 4) unplanned refinery shutdowns..

Event calendar

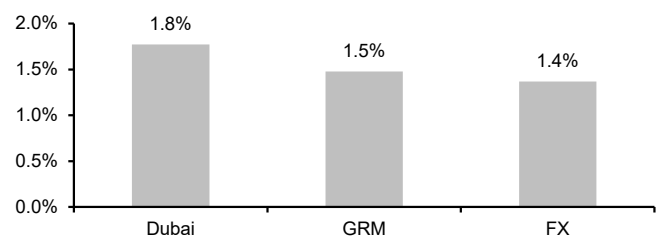
Date	Event
17 Aug 2023	2Q23 analyst meeting
23 Aug 2023	2Q23 Opportunity Day
20 Nov 2023	3Q23 analyst meeting
22 Nov 2023	3Q23 Opportunity Day

Key assumptions

	2021 (USD/bbl)	2022 (USD/bbl)	2023E (USD/bbl)	2024E (USD/bbl)	2025E (USD/bbl)
Marketing GRM	2.2	12.0	6.9	6.7	7.2
Stock gain/loss	4.7	1.0	-	-	-
Accounting GRM	6.9	13.0	6.9	6.7	7.2
Crude premium	1.8	7.1	3.3	1.8	1.4
Diesel-Dubai	6.7	34.3	17.0	13.0	13.0
Gasoline-Dubai	11.1	18.8	17.0	15.0	15.0
Capacity utilisation rate	100%	107%	108%	110%	110%
PX-ULG95	177	124	200	220	260
BZ-ULG95	232	50	104	125	150

Source: FSSIA estimates

Earnings sensitivity

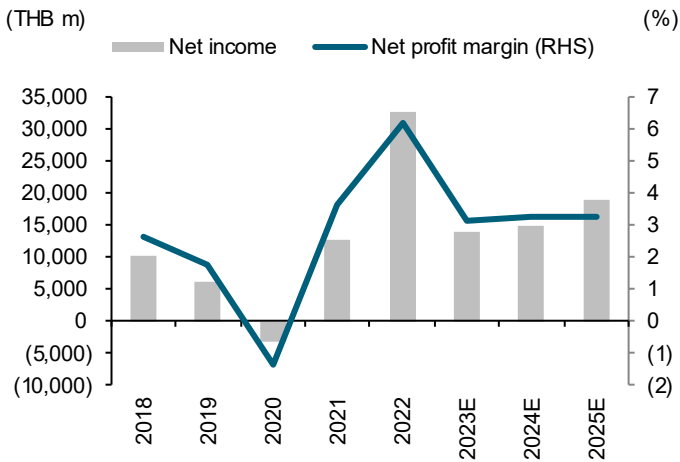


For every 1% increase in Dubai, GRM and FX, we estimate 2023 earnings would increase according to the above chart, and vice versa, all else being equal.

Source: FSSIA estimates

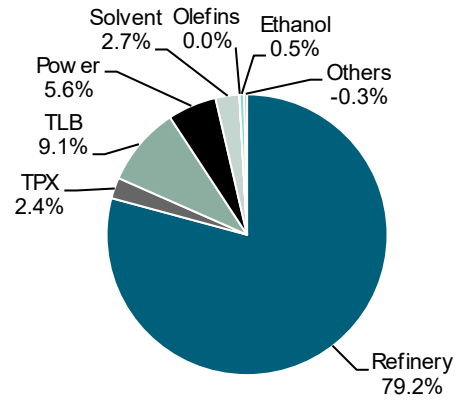
Company profile

Exhibit 1: Net profit vs net profit margin



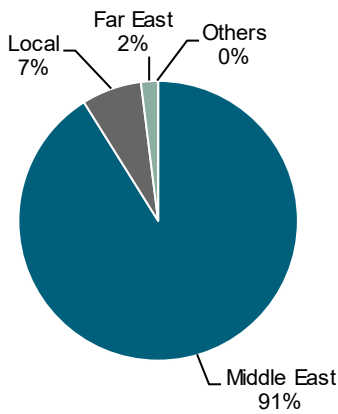
Sources: TOP; FSSIA estimates

Exhibit 2: EBITDA breakdown by business (2022)



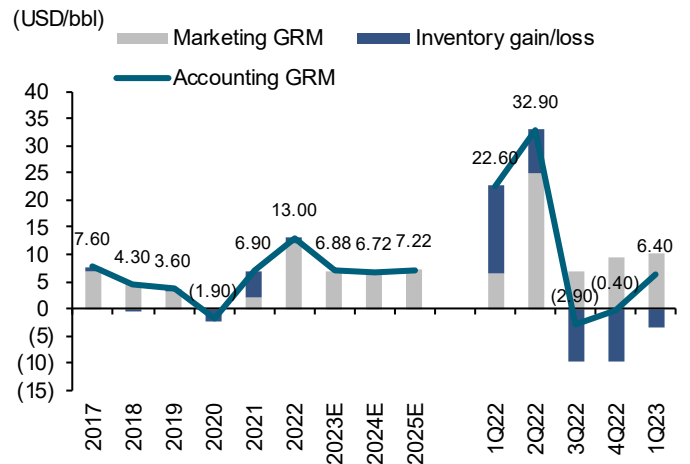
Sources: TOP; FSSIA's compilation

Exhibit 3: Crude intake breakdown (2022)



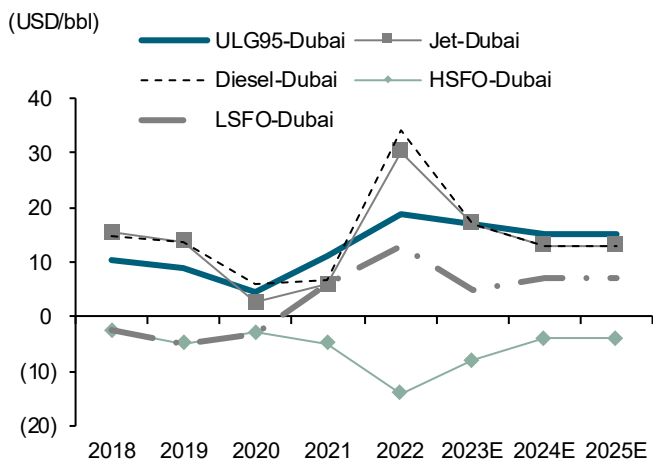
Sources: TOP; FSSIA's compilation

Exhibit 4: TOP's GRM



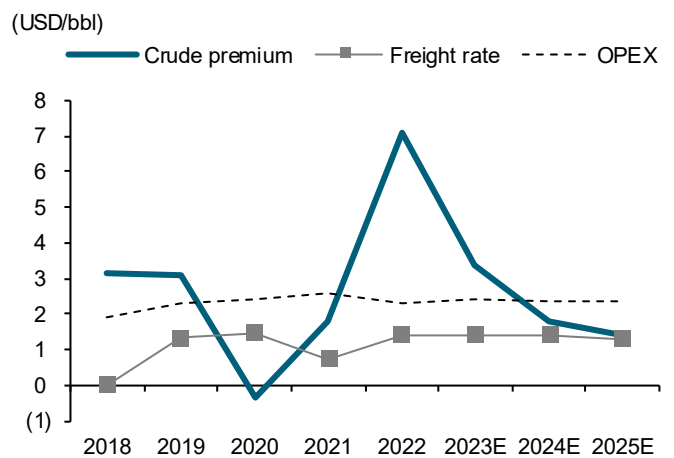
Sources: TOP; FSSIA estimates

Exhibit 5: Petroleum product spreads



Sources: TOP; FSSIA estimates

Exhibit 6: Cost per barrel



Sources: TOP; FSSIA estimates

Normalised years ahead

Brighter outlook in 2H23

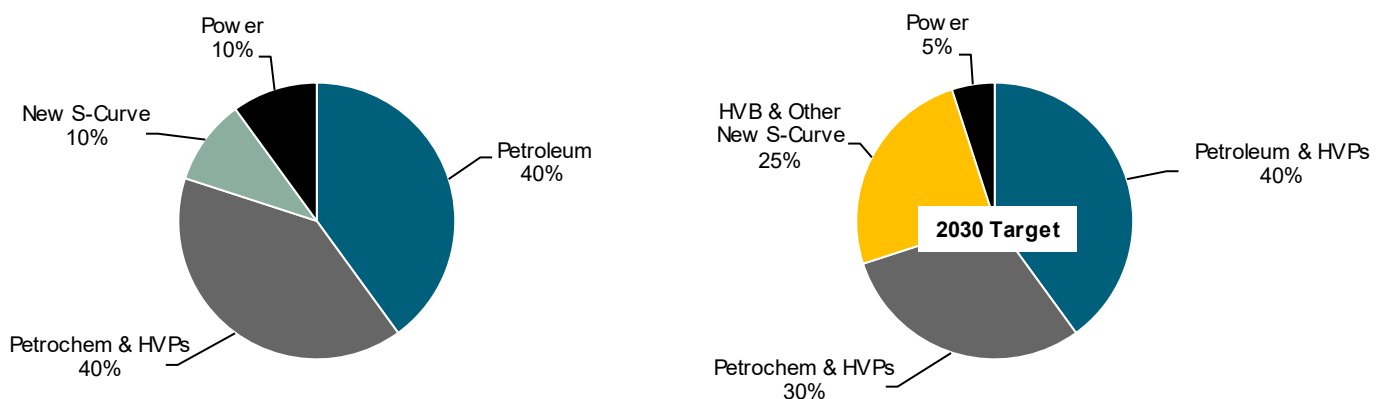
We believe 2Q23 will mark the bottom of the year for TOP, mainly from weaker diesel spreads due to the higher supply in the region and the end of peak seasonal demand. We expect a brighter refinery outlook in 2H23 while petrochemicals recover at a slower pace. Furthermore, the acceleration of economic activity in China in conjunction with lower crude premiums should help drive GRM in 2H23. Due to its a low cost structure refinery, we expect TOP will be one of the outperformers during this shoulder period. We estimate TOP’s 2023 net profit to normalise at THB14.0b and improve 6.4% y-y to THB14.9b in 2024. Longer-term, we believe the petrochemicals business should be the key driver as the oversupply situation eases.

Refinery and aromatics: stable long-term outlook

We estimate GRMs at USD6.9/bbl in 2023 and USD 6.7/bbl in 2024, down from the high base in 2022. Our assumptions are based on normalised gasoline- and diesel-to-Dubai spreads of USD17/bbl and USD17/bbl in 2023 and USD15/bbl/USD13/bbl in 2024. Nevertheless, we expect crude premiums to stay low at USD3.35/bbl in 2023 and drop further to USD1.8/bbl in 2024. We think GRMs will stay at a healthy level above pre-Covid while refined product spreads should normalise. We expect a stable outlook for the refinery business going forward amid limited additional supply and gradually increasing demand. The outlook for aromatic products (PX/BZ) should be supported for the same reasons, in our view.

Long-term refinery business outlook: enhanced flexibility, reduced volatility

Exhibit 7: Net profit contribution in 2022 vs 2030 target



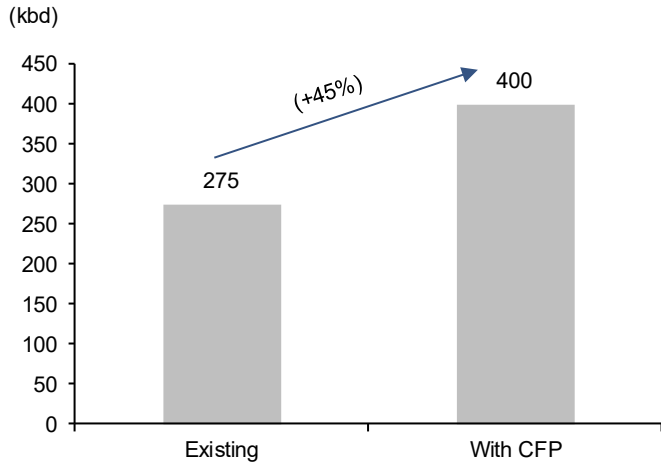
Sources: TOP; FSSIA’s compilation

We believe TOP will be one of the most competitive players in the long term due to its investments in diversification and expansion. TOP targets reducing its reliance on refinery earnings, which is a very cyclical business, and increasing both its production flexibility and proportion of higher value-added products (HVPs). Its targets for 2030 are 1) reducing the proportional net profit contribution from its refinery to <40%; and 2) increasing HVP and new S-curve contributions to >25%. We think the CFP is a key step in that direction.

Clean Fuel Project (CFP)

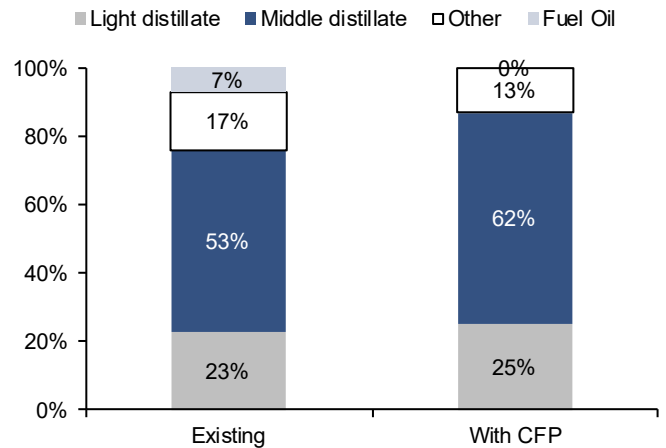
This USD4.8b project will increase TOP's refinery capacity by 45% from 275kbd to 400kbd by upgrading and expanding its production units. Product yield will move more toward middle distillates (53% to 62%) while lower value-added products such as fuel oil (7% to 0%) will be eliminated. With more flexibility in feedstock choices, costs should fall while profit is maximised from its higher value output. While the project will gradually start operations in 2024, we expect meaningful contributions to materialise in 2025 onwards.

Exhibit 8: 45% capacity growth with CFP



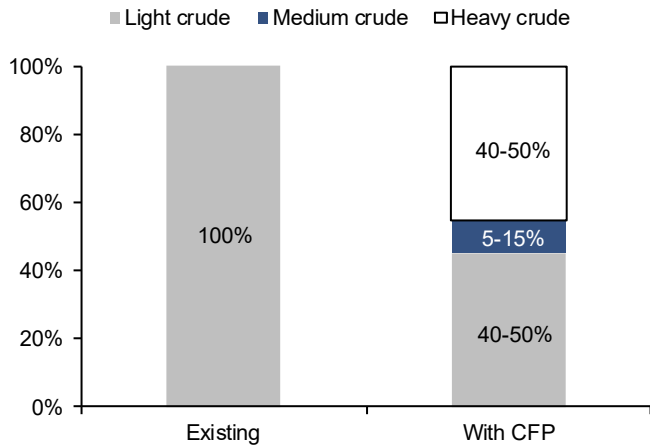
Sources: TOP; FSSIA's compilation

Exhibit 9: Increased middle distillate production as fuel oil phased out



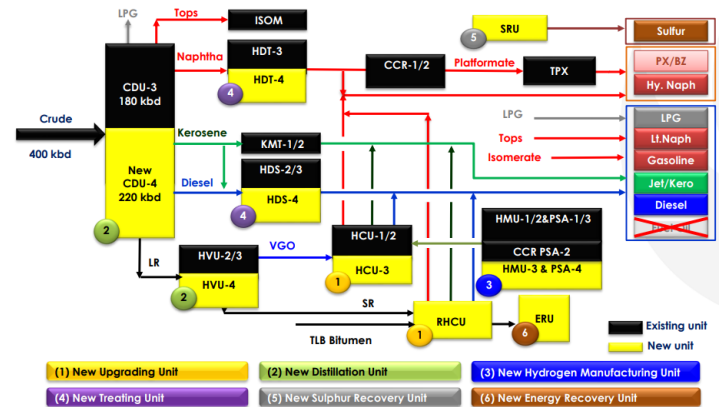
Sources: TOP; FSSIA's compilation

Exhibit 10: Enhanced feedstock flexibility for cost optimisation



Sources: TOP; FSSIA's compilation

Exhibit 11: CFP unit upgrades and expansions



Source: TOP

Reinitiate with a BUY rating; TP at THB61.80/shr

We reinitiate coverage of TOP with a BUY rating. Our TP at THB61.80/share is based on 0.8x 2024E P/BV which is -1SD of its historical 10-year average. We expect the stock to trade at this level to reflect the normalisation of its refinery business and a slower-than-expected petrochemicals recovery. We think its weak share price performance already reflects the negative factors, which means now is a good time to accumulate the stock. Risks are volatility in oil prices and GRM, and a slower-than-expected demand recovery from China's reopening.

Management team

Exhibit 12: Key management profiles

Name	Mr. Bandhit Thamprajamchit	Mrs. Wanida Boonpiraks	Mr. Chatapong Wungtanagorn	Mr. Jeerawat Pattanasomsit	Mr. Rathakorn Kampanathsanyakorn
Position	Chief Executive Officer	Executive Vice President-Finance and Accounting	Executive Vice President-Corporate Commercial	Executive Vice President-Power, New Business and Digitalisation	Executive Vice President-Strategy
5 years past experiences	<p>Jul 2017 - Sep 2018: Senior Executive Vice President-Petroleum & Petrochemical and Acting Executive Vice President-Manufacturing, TOP</p> <p>Oct 2018 - Jan 2020: Senior Executive Vice President-Petroleum & Petrochemical and Acting Executive Vice President-Operational Excellence, TOP</p> <p>Feb - Dec 2020: Senior Executive Vice President-Petroleum & Petrochemical, TOP</p> <p>Jan 2021 - Dec 2022: Senior Executive Vice President-Hydrocarbon and Acting Executive Vice President-Manufacturing, TOP</p> <p>Jan 2023 - Present: >> Senior Executive Vice President, PTT Secondment to TOP as Chief Executive Officer and President >> Acting Senior Executive Vice President-Hydrocarbon and Acting Executive Vice President-Manufacturing, TOP >> Acting Managing Director, LABIX Co., Ltd.</p>	<p>Nov 2016-Jan 2018: Chief Financial Officer, GPSC</p> <p>Feb 2018-Mar 2020: Executive Vice President-Finance and Accounting, GPSC</p> <p>Apr-Dec 2020: Chief Financial Officer, GPSC</p> <p>Jan 2021-Present: Executive Vice President-Finance and Accounting, TOP</p>	<p>Jan-Dec 2018: Executive Vice President-Corporate Commercial</p> <p>Jan 2019-Dec 2021: Executive Vice President - Corporate Commercial and Vice President-Commercial Planning (Act.)</p> <p>Jan 2022-Present: Executive Vice President-Corporate Commercial</p>	<p>Oct 2018-Apr 2019: Executive Vice President-Manufacturing (Act.) and Vice President-Refinery</p> <p>Apr 2019-Dec 2020: Executive Vice President-Manufacturing and Vice President-Refinery (Act.)</p> <p>Jan 2021-Sep 2022: Executive Vice President-Power, New Business and Digitalisation and Vice President-New S-curve Business Development (Act.) Oct</p> <p>2022-Present: Executive Vice President-Power, New Business and Digitalisation</p>	<p>Sep 16-Nov 15, 2018: Executive Vice President-Downstream Business Group Planning (Act.), PTT</p> <p>Nov 16, 2018-Sep 2021: Executive Vice President-Downstream Business Group Planning, PTT</p> <p>Oct 2021-Present: Executive Vice President-Strategy, TOP</p>
Education	<p>>> Bachelor of Engineering (Chemical Engineering) (1st Class Honours, Gold Medal), Chulalongkorn University</p> <p>>> M.Sc. in Advanced Chemical Engineering (Distinction), Imperial College, University of London, United Kingdom</p> <p>>> Master of Business Administration (Executive), Sasin Graduate Institute of Business Administration of Chulalongkorn University</p>	<p>>> Bachelor of Accountancy, Chulalongkorn University</p> <p>>> Master of Business Administration (Finance), University of St. Thomas, USA</p>	<p>>> Bachelor of Engineering, King Mongkut's University of Technology Thonburi</p> <p>>> Master of Advanced Chemical Engineering, The Imperial College of Science, Technology and Medicine, London, United Kingdom</p> <p>>> Master of Management, College of Management, Mahidol University</p>	<p>>> Bachelor of Engineering, Kasetsart University</p> <p>>> Master of Science, The Petroleum and Petrochemical College, Chulalongkorn University</p>	<p>>> Bachelor of Engineering, Chulalongkorn University</p> <p>>> Master of Science, Chemical Engineering, Imperial College London, United Kingdom</p> <p>>> Master of Science, International Management, King's College London, United Kingdom</p>

Sources: TOP; FSSIA's compilation

Financial Statements

Thai Oil

Profit and Loss (THB m) Year Ending Dec	2021	2022	2023E	2024E	2025E
Revenue	345,496	529,589	447,275	459,496	572,939
Cost of goods sold	(312,131)	(473,393)	(416,299)	(428,451)	(534,445)
Gross profit	33,366	56,196	30,976	31,045	38,494
Other operating income	-	-	-	-	-
Operating costs	(3,056)	(4,182)	(3,763)	(3,718)	(573)
Operating EBITDA	30,309	52,014	27,213	27,327	37,921
Depreciation	(7,424)	(7,744)	(7,744)	(7,744)	(13,576)
Goodwill amortisation	0	0	0	0	0
Operating EBIT	22,885	44,270	19,469	19,583	24,345
Net financing costs	(9,523)	(1,733)	(1,561)	(1,453)	(1,345)
Associates	1,675	(513)	200	1,000	1,000
Recurring non-operating income	1,675	(513)	200	1,000	1,000
Non-recurring items	0	0	0	0	1
Profit before tax	15,037	42,024	18,108	19,130	24,001
Tax	(2,034)	(8,918)	(3,622)	(3,826)	(4,800)
Profit after tax	13,003	33,106	14,486	15,304	19,201
Minority interests	(425)	(438)	(438)	(438)	(438)
Preferred dividends	0	0	0	0	0
Other items	-	-	-	-	-
Reported net profit	12,578	32,668	14,048	14,866	18,763
Non-recurring items & goodwill (net)	0	0	0	0	(1)
Recurring net profit	12,578	32,668	14,048	14,866	18,762
Per share (THB)					
Recurring EPS *	6.17	15.29	6.29	6.65	8.40
Reported EPS	6.17	15.29	6.29	6.65	8.40
DPS	2.60	3.70	3.14	3.33	4.20
Diluted shares (used to calculate per share data)	2,040	2,137	2,234	2,234	2,234
Growth					
Revenue (%)	39.4	53.3	(15.5)	2.7	24.7
Operating EBITDA (%)	nm	71.6	(47.7)	0.4	38.8
Operating EBIT (%)	nm	93.4	(56.0)	0.6	24.3
Recurring EPS (%)	nm	147.9	(58.9)	5.8	26.2
Reported EPS (%)	nm	147.9	(58.9)	5.8	26.2
Operating performance					
Gross margin inc. depreciation (%)	7.5	9.1	5.2	5.1	4.3
Gross margin of key business (%)	7.5	9.1	5.2	5.1	4.3
Operating EBITDA margin (%)	8.8	9.8	6.1	5.9	6.6
Operating EBIT margin (%)	6.6	8.4	4.4	4.3	4.2
Net margin (%)	3.6	6.2	3.1	3.2	3.3
Effective tax rate (%)	13.5	21.2	20.0	20.0	20.0
Dividend payout on recurring profit (%)	42.2	24.2	50.0	50.0	50.0
Interest cover (X)	2.6	25.2	12.6	14.2	18.8
Inventory days	36.3	36.6	47.2	45.2	41.3
Debtor days	19.1	18.0	24.5	25.2	23.0
Creditor days	19.0	37.5	49.2	32.8	30.0
Operating ROIC (%)	10.0	16.2	6.7	6.3	7.7
ROIC (%)	8.1	11.5	5.1	5.3	6.7
ROE (%)	10.6	23.6	8.8	8.9	10.7
ROA (%)	6.4	8.5	3.8	4.1	4.8
* Pre-exceptional, pre-goodwill and fully diluted					
Revenue by Division (THB m)					
Oil refinery	284,019	452,096	364,749	373,992	487,435
Lubed base oil refinery	18,826	20,078	23,926	23,689	23,689
Petrochemical	24,461	27,752	28,838	32,052	32,052
Power generation	4,059	6,211	6,211	6,211	6,211

Sources: Thai Oil; FSSIA estimates

Financial Statements

Thai Oil

Cash Flow (THB m) Year Ending Dec	2021	2022	2023E	2024E	2025E
Recurring net profit	12,578	32,668	14,048	14,866	18,762
Depreciation	7,424	7,744	7,744	7,744	13,576
Associates & minorities	-	-	-	-	-
Other non-cash items	-	-	-	-	-
Change in working capital	(14,344)	30,043	(35,678)	(1,247)	(11,572)
Cash flow from operations	5,659	70,455	(13,886)	21,364	20,766
Capex - maintenance	-	-	-	-	-
Capex - new investment	(33,174)	(28,076)	(12,124)	(12,064)	(12,058)
Net acquisitions & disposals	-	-	-	-	-
Other investments (net)	45,907	(1,454)	30,000	30,000	30,000
Cash flow from investing	12,733	(29,530)	17,876	17,936	17,942
Dividends paid	(5,304)	(8,265)	(7,024)	(7,433)	(9,381)
Equity finance	0	0	0	0	0
Debt finance	(1,219)	(550)	(21,357)	(1,551)	(21,551)
Other financing cash flows	(35,415)	(18,230)	638	1,438	1,439
Cash flow from financing	(41,939)	(27,045)	(27,743)	(7,546)	(29,493)
Non-recurring cash flows	-	-	-	-	-
Other adjustments	0	0	0	0	0
Net other adjustments	0	0	0	0	0
Movement in cash	(23,548)	13,880	(23,753)	31,754	9,215
Free cash flow to firm (FCFF)	21,985.74	44,785.11	7,764.77	42,987.70	42,310.34
Free cash flow to equity (FCFE)	(18,243.87)	22,145.27	(16,728.84)	39,186.49	18,595.98

Per share (THB)	2021	2022	2023E	2024E	2025E
FCFF per share	9.84	20.05	3.48	19.24	18.94
FCFE per share	(8.17)	9.91	(7.49)	17.54	8.32
Recurring cash flow per share	9.80	18.91	9.76	10.12	14.48

Balance Sheet (THB m) Year Ending Dec	2021	2022	2023E	2024E	2025E
Tangible fixed assets (gross)	320,167	355,988	368,112	380,176	392,234
Less: Accumulated depreciation	(141,768)	(149,512)	(157,256)	(165,001)	(178,577)
Tangible fixed assets (net)	178,399	206,476	210,855	215,175	213,657
Intangible fixed assets (net)	0	0	0	0	0
Long-term financial assets	-	-	-	-	-
Invest. in associates & subsidiaries	55,412	32,603	32,803	33,803	34,803
Cash & equivalents	29,696	43,576	19,823	51,577	60,792
A/C receivable	23,415	28,759	31,309	32,165	40,106
Inventories	39,576	55,343	52,335	53,765	67,039
Other current assets	8,552	26,150	10,000	10,000	10,000
Current assets	101,239	153,828	113,468	147,507	177,936
Other assets	27,094	51,674	32,040	27,405	1,654
Total assets	362,144	444,581	389,166	423,890	428,050
Common equity	120,881	156,034	163,058	170,491	179,873
Minorities etc.	2,213	2,623	2,825	3,025	3,225
Total shareholders' equity	123,094	158,657	165,883	173,516	183,098
Long term debt	163,343	151,442	131,635	131,635	111,635
Other long-term liabilities	37,230	30,809	30,809	56,926	56,926
Long-term liabilities	200,574	182,250	162,444	188,561	168,561
A/C payable	23,001	74,154	38,018	39,057	48,700
Short term debt	2,142	4,776	2,820	2,756	2,692
Other current liabilities	13,334	24,743	20,000	20,000	25,000
Current liabilities	38,476	103,673	60,838	61,813	76,391
Total liabilities and shareholders' equity	362,144	444,581	389,166	423,890	428,050
Net working capital	35,209	11,355	35,626	36,873	43,445
Invested capital	296,114	302,108	311,324	313,256	293,559

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

Per share (THB)	2021	2022	2023E	2024E	2025E
Book value per share	59.25	69.85	72.99	76.32	80.52
Tangible book value per share	59.25	69.85	72.99	76.32	80.52

Financial strength	2021	2022	2023E	2024E	2025E
Net debt/equity (%)	110.3	71.0	69.1	47.7	29.2
Net debt/total assets (%)	37.5	25.3	29.5	19.5	12.5
Current ratio (x)	2.6	1.5	1.9	2.4	2.3
CF interest cover (x)	2.6	30.0	(1.9)	36.3	23.8

Valuation	2021	2022	2023E	2024E	2025E
Recurring P/E (x) *	7.0	2.8	6.9	6.5	5.1
Recurring P/E @ target price (x) *	10.0	4.0	9.8	9.3	7.4
Reported P/E (x)	7.0	2.8	6.9	6.5	5.1
Dividend yield (%)	6.0	8.6	7.3	7.7	9.7
Price/book (x)	0.7	0.6	0.6	0.6	0.5
Price/tangible book (x)	0.7	0.6	0.6	0.6	0.5
EV/EBITDA (x) **	7.5	4.1	7.9	6.7	4.0
EV/EBITDA @ target price (x) **	8.7	4.9	9.4	8.2	5.1
EV/invested capital (x)	0.8	0.7	0.7	0.6	0.5

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

Sources: Thai Oil; FSSIA estimates

Public disclosures related to sustainable development evaluation of Thai listed companies

[Rating](#) regarding the sustainable development of Thai listed companies, both on the SET and MAI, are publicly available on the website of the Securities and Exchange Commission of Thailand (SEC). Currently, ratings available are 1) "**CG Score**" by the Thai Institute of Directors Association (Thai IOD); 2) "**AGM Checklist**" by the Thai Investors Association (TIA), a "**CAC certified member**" of the Thai Private Sector Collective Action Against Corruption (CAC); and 3) **Sustainability Investment List (THSI)** by the Stock Exchange of Thailand. The ratings are updated on an annual basis. FSS International Investment Advisory Company Limited does not confirm nor certify the accuracy of such ratings.

CG Score by the Thai Institute of Directors Association (Thai IOD)¹

The [CG Score](#) indicates corporate governance (CG) strength in the sustainable development of Thai listed companies. Annually, the Thai IOD, with support from the Stock Exchange of Thailand (SET), surveys and assesses the CG practices of companies and publishes the results on the [Thai IOD website](#) in a bid to promote and enhance the CG of Thai listed companies in order to promote compliance with international standards for better investment decisions. The results are from the perspective of a third party, not an evaluation of operations, as of the date appearing in the report, and may be changed after that date.

The [five underlying categories and weighting](#) used for the CG scoring in 2022 include the rights of shareholders and equitable treatment of shareholders (weight 25% combined), the role of stakeholders (25%), disclosure and transparency (15%), and board responsibilities (35%).

The CGR report rates CG in six categories: 5 for Excellent (score range 90-100), 4 for Very Good (score range 80-89), 3 for Good (Score range 70-79), 2 for Fair (score range 60-69), 1 for Pass (score range 60-69), and not rated (score below 50).

AGM Checklist by the Thai Investors Association (TIA)²

The "[AGM Checklist](#)" quantifies the extent to which shareholders' rights and equitable treatment are incorporated into business operations and the extent to which information is sufficiently disclosed and the level of its transparency. All the considered factors form important elements of two out of five the CG components. Annually, the TIA, with support from the SEC, leads the project to evaluate the quality of Annual General Meetings of Shareholders (AGMs) and to rate quality of the meetings.

The [Checklist](#) contains the minimum requirements under law that companies must comply with, or best practices according to international CG guidance. Representatives of the TIA will attend the meetings and perform the evaluation. The assessment criteria cover AGM procedures before the meeting (45%), at the meeting date (45%), and after the meeting (10%). The first assesses 1) advance circulation of sufficient information for voting; and 2) facilitating of how voting rights can be exercised. The second assesses 1) the ease of attending meetings; 2) transparency and verifiability; and 3) openness for Q&A. The third involves the meeting minutes that should contain discussion issues, resolutions and voting results.

The results are classified into four categories: 5 for Excellent (score 100), 4 for Very Good (score 90-99), 3 for Fair (score 80-89), and not rated (score below 79).

CAC certified member by the Thai Private Sector Collective Action Against Corruption (CAC)³

A [CAC certified member](#) is a listed company whose Checklist satisfies the CAC Certification's criteria and is approved by the CAC Council. The core elements of the Checklist include corruption risk assessment, establishment of key controls, and the monitoring and developing of policies. Note that the CAC does not certify the behaviour of the employees nor whether the companies have engaged in bribery, and Certification is good for three years.

Companies deciding to become a CAC certified member [start with](#) by submitting a Declaration of Intent signed by the Chairman of the Board to kick off the 18-month deadline for companies to submit the CAC Checklist for Certification. The 18-month provision is for risk assessment, in place of policy and control, training of managers and employees, establishment of whistleblowing channels, and communication of policies to all stakeholders.

The checklist document will be reviewed by the CAC Certification Committee for adequate information and evidence. It is worth noting that the committee consists of nine professionals in business law, corporate governance, internal audit, financial audit and experienced representatives from certified members.

A passed Checklist will move on to the [CAC Council](#) for granting certification approvals. The CAC Council consists of twelve prominent individuals who are highly respected in professionalism and ethical achievements. Among them are former ministers, a former central bank governor, the former head of the Thai Listed Companies Association, Chairman of Anti-Corruption Organizations (Thailand), Chairman of Thai Institute of Directors, and reputable academic scholars.

Sustainability Investment (THSI)⁴ by the Stock Exchange of Thailand (SET)

Thailand Sustainability Investment ([THSI](#)) quantifies responsibility in [Environmental](#), and [Social](#) issues, by managing business with transparency in [Governance](#). The THSI serves as another choice for investors who desire to adopt a responsible investment approach, according to the SET.

Annually, the SET will announce the voluntary participation of the company candidates which pass the preemptive criteria, and whose two key crucial conditions are met, i.e. no irregular trading of the board members and executives and a free float of >150 by the number of shareholders, and combined holding must >15% of paid-up capital. Some key disqualifying criteria include a CG score of below 70%; independent directors and free float violation; executives' wrongdoing related to CG, social and environmental impacts, equity in negative territory, and earnings in the red for more than three years in the last five years. To become eligible for THSI, the candidate must pass three indicators in data declaration: [Economic](#) (CG, risk management, customer relation management, supply chain management, and innovation); [Environmental](#) (environmental management, eco-efficiency, and climate risk); [Social](#) (human rights, talent attraction, operational health & safety, community development, and stakeholder engagement); and the incorporation of ESG in business operations.

To be approved for THSI inclusion, verified data must be scored at a 50% minimum for each indicator, unless the company is a part of the Dow Jones Sustainability Indices⁵ (DJSI) during the assessment year. The scoring will be fairly weighted against the nature of the relevant industry and materiality.

Note that, from the [THSI list](#), the SET further developed a sustainability [SETTHSI Index](#) in June 2018 from selected THSI companies whose 1) market capitalisation > THB5b (~USD150b); 2) free float >20%; and 3) liquidity >0.5% of paid-up capital for at least 9 out of 12 months. The SETTHSI Index is a market capitalisation-weighted index, cap 5% quarterly weight at maximum, and no cap for number of stocks.

Sources: [SEC](#); [Thai IOD](#); [Thai CAC](#); [SET](#); FSSIA's compilation

Disclaimer:

¹ Thai Institute of Directors Association ([Thai IOD](#)) was established in December 1999 and is a membership organisation that strives to promote professionalism in directorship. The Thai IOD offers directors certification and professional development courses, provides a variety of seminars, forums and networking events, and conducts research on board governance issues and practices. Membership comprises board members from companies ranging from large publicly listed companies to small private firms.

² Thai Investors Association ([TIA](#)) was established in 1983 with a mission to promote investment knowledge and to protect the investment rights of Thai investors. In 2002, the association was appointed by the Securities and Exchange Commission (SEC) to represent individual shareholders. To obtain information for evaluation, the association recruits volunteer investors to join AGMs and score the meetings. Weightings for each meeting are at a 45:45:10 ratio. They have been applied since 2017 and subject to change.

³ Thai Private Sector Collective Action against Corruption ([CAC](#)) was founded in 2010 and is 100% privately funded. It is an initiative by the Thai private sector to take part in tackling corruption problems via collective action. The CAC promotes the implementation of effective anti-corruption policies in order to create a transparent business ecosystem by developing a unique certification program for large/medium/small companies to apply for and to control corruption risk systematically and efficiently. The CAC's operations are sponsored by the US-based Center for Private Enterprise (CIPE) and the UK Prosperity Fund.

⁴ Sustainability Investment List ([THSI](#)), created by the Stock Exchange of Thailand in 2015, comprises the listed companies that conduct sustainable business operations.

⁵ Dow Jones Sustainability Indices – [Wikipedia](#) – Launched in 1999, DJSI evaluates the sustainability performance of companies based on corporate economic, environmental, and social performance.

GENERAL DISCLAIMER

ANALYST(S) CERTIFICATION

Kwanwaree Apichartsatoporn FSS International Investment Advisory Securities Co., Ltd

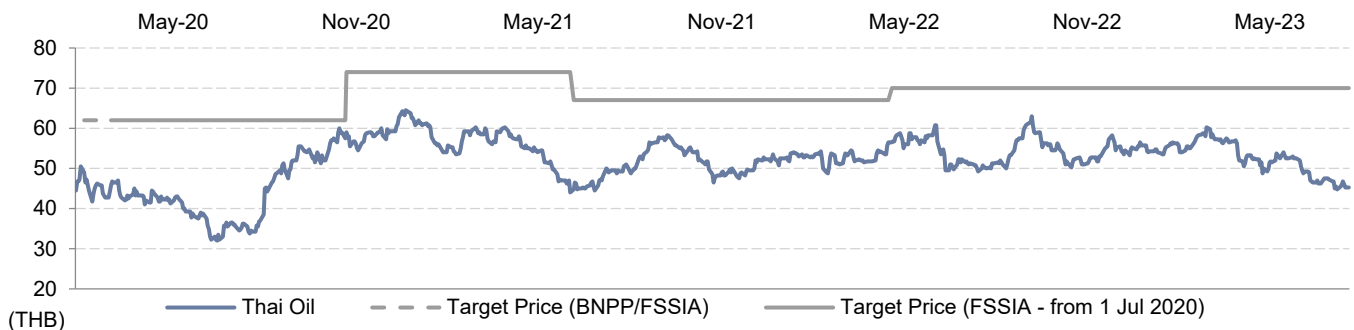
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History of change in investment rating and/or target price

Thai Oil (TOP TB)



Date	Rating	Target price	Date	Rating	Target price	Date	Rating	Target price
08-Jun-2020	BUY	62.00	30-Jul-2021	BUY	67.00	-	-	-
18-Jan-2021	BUY	74.00	29-Apr-2022	BUY	70.00			

Kwanwaree Apichartsatoporn started covering this stock from 01-Jun-2023

Price and TP are in local currency

Source: FSSIA estimates

Company	Ticker	Price	Rating	Valuation & Risks
Thai Oil	TOP TB	THB 43.25	BUY	Downside risks to our P/BV-based TP are 1) a sharp fall in oil prices; 2) weak demand for refined oil products; 3) GRM volatility; and 4) unplanned refinery shutdowns.

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 31-May-2023 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.