

28 SEPTEMBER 2021

THAILAND / AIRPORT SERVICES

BANGKOK AVIATION FUEL SERVICES

BAFS TB

BUY

UNCHANGED

TARGET PRICE	THB40.00
CLOSE	THB29.25
UP/DOWNSIDE	+36.8%
PRIOR TP	THB40.00
CHANGE IN TP	UNCHANGED
TP vs CONSENSUS	+11.9%

On the brink of a turnaround

A turnaround is around the corner

We turn more positive on BAFS' net profit growth outlook in 4Q21-22, based on an expected demand recovery for BAFS' aviation refuelling services following the resumption of a number of airlines' domestic flights since 1 Sep-21 after the Thai government eased restrictions in high-risk provinces. While we think BAFS will continue to see quarterly net losses in 3Q-4Q21, we estimate that the refuelling demand for jet fuel should improve from 4.4m litres per day (mlpd) in 2Q21 to 6-7mlpd by 1Q22.

Four reopening phases to boost demand for aviation refuelling

We project BAFS' net profit to recover in 2022-23, driven by 1) a demand recovery for its jet fuel sales volume via its aviation refuelling services, mainly from domestic flights under Thailand's four-phase plan to reopen the borders of 43 provinces; 2) diversification into solar power plants to ensure sustainable net profit contributions; and 3) rising oil sales volumes for its two oil pipeline networks. Under the staggered four-phase reopening, we estimate that the number of flights at Suvarnabhumi (BKK) and Don Mueang (DMK) airports will gradually recover from 38,000 in 2Q21 to 60,000 in 2Q22 and 100,000 flights by 4Q22, sufficiently driving up the demand for aviation refuelling and allowing BAFS to become profitable.

RATCH's ownership likely to strengthen BAFS' power business

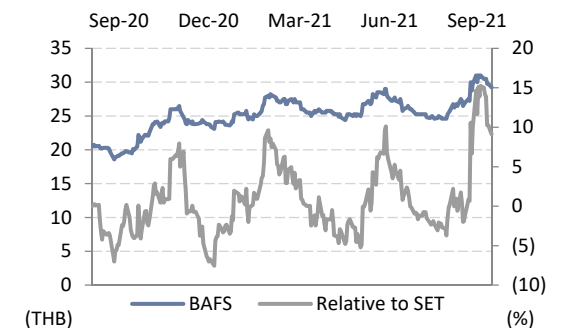
We think RATCH's majority ownership of BAFS should allow BAFS to see three key benefits: 1) a stronger power business; 2) synergy from the connectivity of its two-pipeline network under FPT, owned by EGAT's subsidiary EGCO, and BAFS' NFPT to connect to east coast refinery plants in 2027; and 3) access to lower funding costs, as RATCH's cost of debt is only 2.5-4%. As Thailand's largest independent power producer (IPP), RATCH has long established itself as one of the leading power companies in Thailand and regional markets, including ASEAN, Australia, and North Asia, and RATCH's funding cost is among the lowest in Thailand thanks to its secured cash flow and operations.

Attractive Buy with long-term growth from U-Tapao Airport

We maintain BUY and our SoTP-based TP of THB40. In our view, BAFS' JV with OR to provide the aviation fuel service system at U-Tapao International Airport, located in the Eastern Economic Corridor, should be a long-term growth driver.

KEY STOCK DATA

YE Dec (THB m)	2020	2021E	2022E	2023E
Revenue	1,804	1,651	4,338	5,884
Net profit	(372)	(107)	1,103	1,580
EPS (THB)	(0.58)	(0.17)	1.73	2.48
vs Consensus (%)	-	nm	123.8	34.1
EBITDA	481	664	2,363	2,881
Core net profit	(374)	(107)	1,103	1,580
Core EPS (THB)	(0.59)	(0.17)	1.73	2.48
Chg. In EPS est. (%)	nm	nm	-	-
EPS growth (%)	nm	nm	nm	43.2
Core P/E (x)	(49.8)	(174.0)	16.9	11.8
Dividend yield (%)	4.1	-	2.4	3.4
EV/EBITDA (x)	60.2	41.7	10.9	8.4
Price/book (x)	3.4	3.8	3.1	2.5
Net debt/Equity (%)	133.2	125.1	79.2	48.7
ROE (%)	(6.2)	(2.1)	20.0	23.5



Share price performance	1 Month	3 Month	12 Month
Absolute (%)	10.4	5.4	42.0
Relative to country (%)	8.1	3.2	9.3
Mkt cap (USD m)	556		
3m avg. daily turnover (USD m)	2.2		
Free float (%)	45		
Major shareholder	RATCH Group PCL (16%)		
12m high/low (THB)	31.50/18.60		
Issued shares (m)	637.50		

Sources: Bloomberg consensus; FSSIA estimates



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Investment thesis

We project BAFS' revenue to increase from THB1,804m in 2020 to THB4,338m in 2022, with a CAGR of 50%. Our projection is based on the assumption that tourism activities and flights will resume after the vaccination rollout, which could potentially increase BAFS' refuelling volume from 2,123m in 2020 to 5,488m litres in 2022. Additionally, we estimate that the company should see additional revenue from its solar power plants of around THB300m yearly.

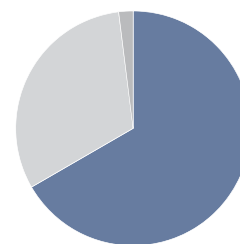
Company profile

BAFS provides aviation fuel storage and refuelling system services at five airports. Its main subsidiary is a pipeline transportation company, and it has recently ventured into the renewable energy sector by acquiring solar power plants.

www.bafsthai.com

Principal activities (revenue, 2020)

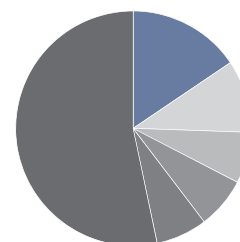
- Aviation refuelling - 66.7 %
- Fuel transportation (FPT) - 31.4 %
- Others - 2.0 %



Source: Bangkok Aviation Fuel Services

Major shareholders

- RATCH Group PCL - 15.5 %
- Bangkok Airways PCL - 10.0 %
- PTT Oil and Retail Business PCL - 7.1 %
- Thai Airways International PCL - 7.1 %
- The Shell Company of Thailand Limited - 7.1 %



Source: Bangkok Aviation Fuel Services

Catalysts

- 1) A recovery of the tourism industry and jet fuel demand;
- 2) The completion of the Northern Fuel Pipeline Transportation Project (NFPT) phase 2, which will cover a wider area and capture more market share;
- 3) A substantial amount of revenue from its solar power plants.

Risks to our call

Downside risks to our SoTP-based target price include a slower than expected vaccination rate, leading to slower demand in tourism activities, plus uncertainty in the fuel volume demand in the north which could lead to volatility in Fuel Pipeline Transportation Limited (FPT)'s income.

Event calendar

Date	Event
Nov 2021	3Q21 results announcement

Key assumptions

	2021E	2022E	2023E
	(m litres)	(m litres)	(m litres)
Aviation refuelling volume	1,153	5,488	8,021
BKK refuelling volume	486	4,093	6,228
DMK refuelling volume	667	1,395	1,793
FPT volume	2,872	2,901	2,930
NFPT volume	297	371	445

Source: FSSIA estimates

Earnings sensitivity

- For every 10% increase in refuelling volume for both airports, we project 2022 earnings to rise by 5.6%, and vice versa, all else being equal.
- For every 10% increase in FPT and NFPT's volume, we project 2022 earnings to rise by 2.85%, and vice versa, all else being equal.

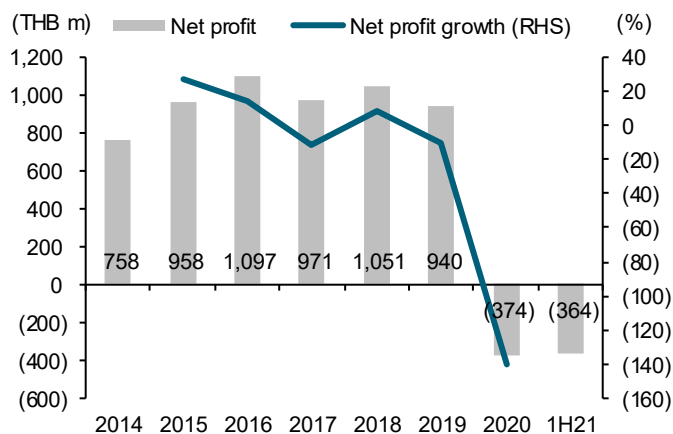
Source: FSSIA estimates

On the road to a turnaround

We turn more positive on BAFS' net profit growth outlook in 4Q21-22, based on an expected demand recovery for BAFS' aviation refuelling services following the resumption of a number of airlines' domestic flights since 1 September 2021 after the Thai government eased restrictions in high-risk provinces.

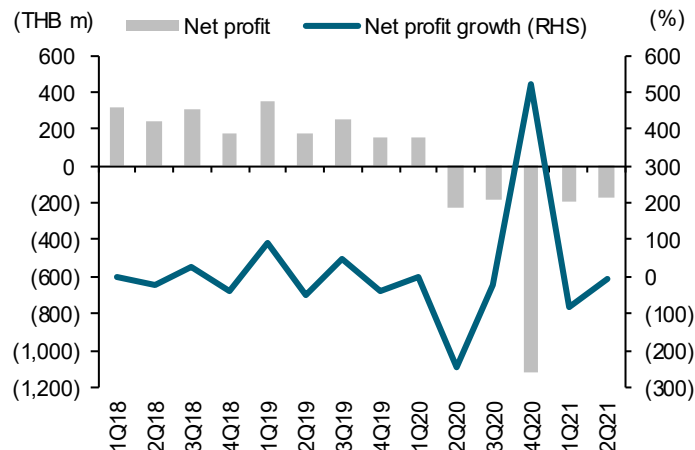
We project BAFS' net profit to recover in 2022-23 after suffering from the Covid-19 pandemic in 2020-21, driven by 1) a demand recovery for its jet sales volume via its aviation refuelling services, mainly from domestic flights; 2) diversification into solar power plants to ensure sustainable net profit contributions; and 3) rising oil sales volumes for its two oil pipeline networks.

Exhibit 1: Annual net profit vs net profit growth



Source: BAFS

Exhibit 2: Quarterly net profit vs net profit growth

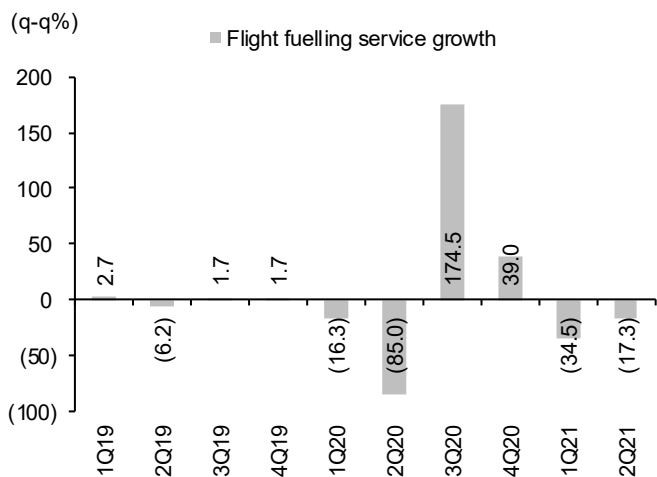


Source: BAFS

Quarterly net losses should turn into profit by 1Q22. While we think BAFS will continue to see quarterly net losses in 3Q-4Q21, we estimate that the refuelling demand for jet fuel should improve from 4.4mlpd in 2Q21 to 6-7mlpd by 1Q22.

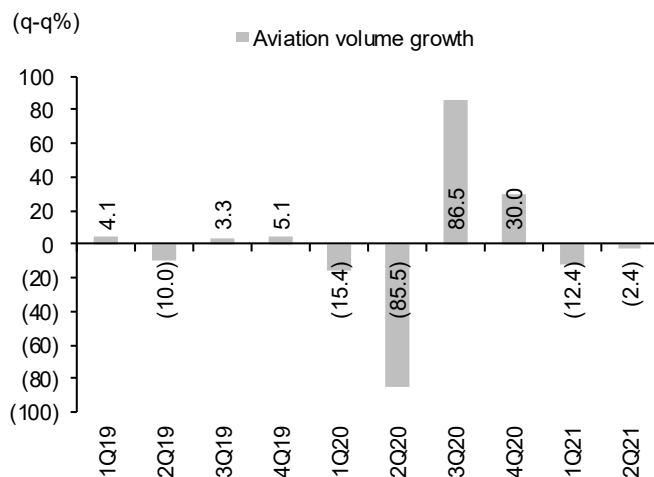
As Thailand's tourism industry is now poised to gradually recover, in our view, thanks to the higher vaccination rate and a decline in the new infection rate of Covid-19, we expect domestic passengers to gradually ramp up to 60-80% of the pre-Covid level in 4Q21-1Q22. This should be driven by the pent-up demand from Thai travellers and the stimulus packages from the government to boost domestic tourism.

Exhibit 3: Flight fuelling service growth by BAFS at BKK & DMK



Source: BAFS

Exhibit 4: Aviation refuelling volume growth by BAFS at BKK & DMK



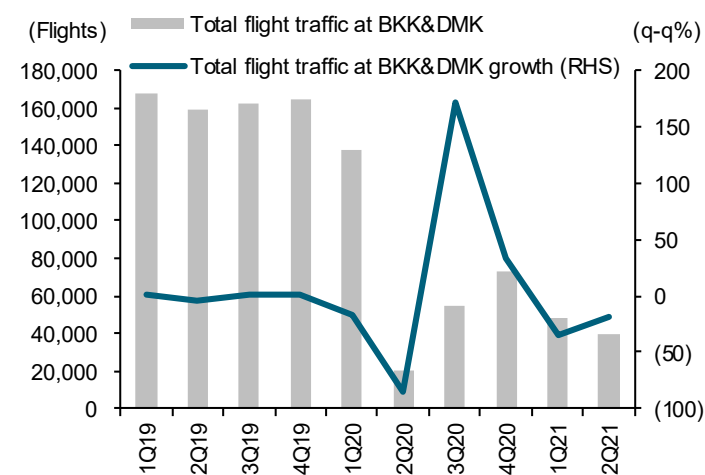
Source: BAFS

Four reopening phases in Thailand from Jul-21 to Jan-22. Thailand plans to reopen the borders of 43 provinces with a four-phase timeline. The first phase has consisted of the reopening of four major tourism provinces: Phuket, Surat Thani, Krabi and Phang-Nga. The second phase will include major cities like Bangkok, Chiang Mai, Chon Buri, Phetchaburi, and Prachuap Khiri Khan from 1 Oct-21.

The third phase is the reopening of 21 provinces around mid-October. For the fourth phase in Jan-22, 12 border provinces are scheduled to reopen under travel bubbles with neighbouring countries. All four phases will cover up to 43 out of 77 provinces in Thailand.

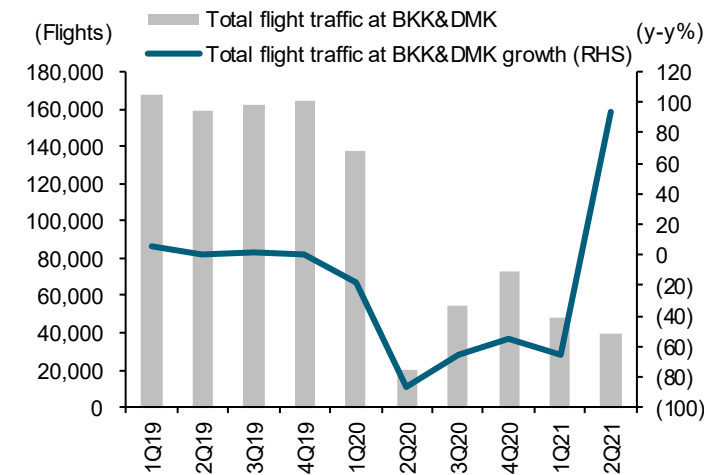
Under the staggered four-phase reopening, we estimate that the number of flights at BKK and DMK airports will gradually recover from 38,000 in 2Q21 to 60,000 in 2Q22 and 100,000 flights by 4Q22, sufficiently driving up the demand for aviation refuelling and allowing BAFS to become profitable.

Exhibit 5: Total flight traffic at BKK & DMK (q-q)



Source: BAFS

Exhibit 6: Total flight traffic at BKK & DMK (y-y)



Source: BAFS

Turnaround from net profit loss

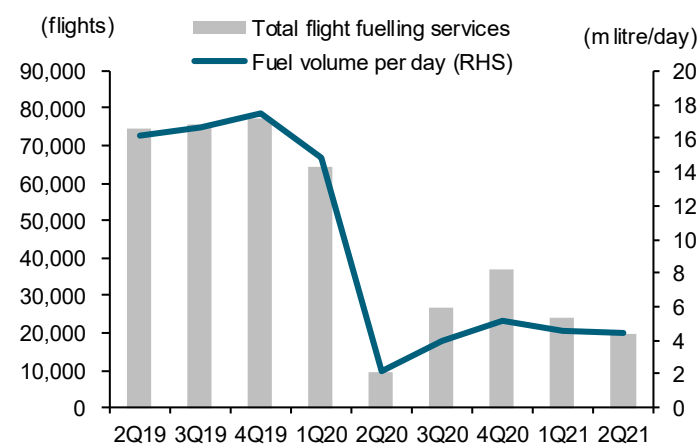
Among BAFS’ three key businesses, we think that the revenue and net profit from the jet fuel refuelling unit will be the key driver, given that it accounted for two-thirds of BAFS’ revenue and around three-quarters of its net profit in 2020.

Aviation refuelling business: We believe that BAFS’ refuelling revenue growth will be significant in 2022, projecting it to grow by 300% y-y, as we estimate that its aviation refuelling volume has already bottomed in 2Q20 and should return to its pre-Covid level by 4Q22. In 2023 onward, we expect the demand growth to normalise, slowing down to a sustainable growth rate of 2-4% p.a. in 2024-25.

BAFS already saw an improving aviation refuelling volume at its two key airports, BKK and DMK, rising to 400m litres (ml) in 2Q21, up 106% y-y but down 2.4% q-q, thanks to the y-y higher number of flights serviced to 19,968 flights (+107% y-y, -17% q-q). The fuel volume per day recovered to 4.4mlpd in 2Q21 (including 3ml from cargo refuelling) from the bottom at 2.1mlpd in 2Q20, compared to its breakeven level at 8mlpd.

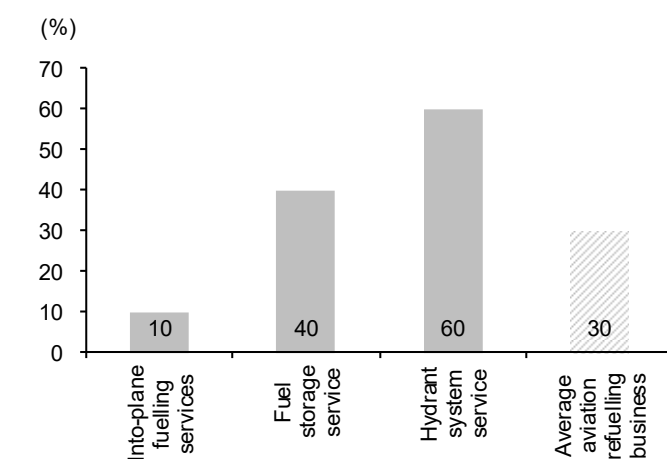
A fee-based, volume-driven refuelling business. Considering the average THB0.55/litre fee for BAFS’ refuelling business, this means the higher refuelling volume serviced would directly boost BAFS’ net profit once the volume surpasses the breakeven level of 8mlpd (720m litres per quarter).

Exhibit 7: Total flights serviced for aviation refuelling



Source: BAFS

Exhibit 8: Aviation net profit margin breakdown as of 2020

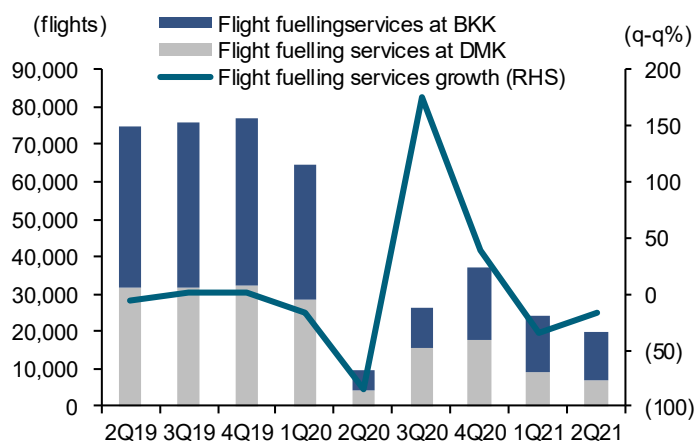


Source: BAFS

Prior to the advent of the Covid-19 pandemic, BAFS’ aviation refuelling business had been mostly steady and was highly dependent upon the tourist volume. In the aviation business, this meant that the hydrant system service was the most prominent business that generated the highest net profit margin (NPM) of 60%, followed by the fuel storage service’s NPM of 40% and the into-plane fuelling service’s NPM of 10%.

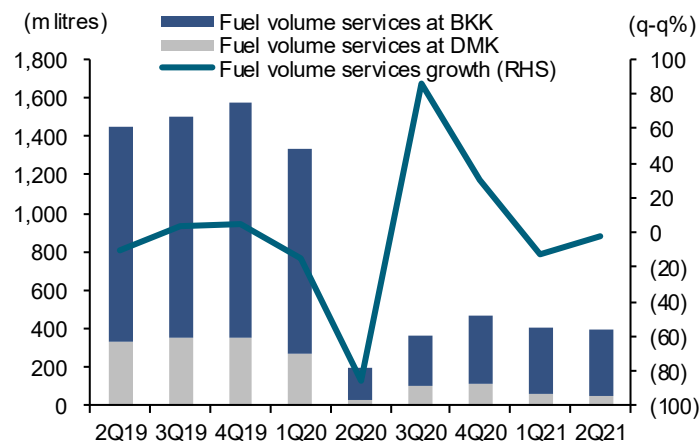
Medium-term growth from the expansion of DMK phase 3 in 2023. We also see an upside from the DMK phase 3 expansion, which is expected to be completed by 2023. The expansion is meant to increase the capacity from 30m to 40m passengers to cope with the steadily increasing number of passengers flying with low-cost airlines. We believe this will boost BAFS’ aviation refuelling volume at DMK by 10-20% from 1,200m litres per annum.

Exhibit 9: Flight fuelling services by BAFS at BKK & DMK



Source: BAFS

Exhibit 10: Fuel volume services by BAFS at BKK & DMK



Source: BAFS

More diversification and sustainable earnings

Solar power plants: BAFS’ diversification into renewable energy via its seven acquired 38MW operating solar power plants from Padaeng Industry (PDI TB, not rated) is the first step in its diversification strategy to move into the renewable energy sector. The total investment cost in 1Q21 came to THB1,705m. We estimate that BAFS’ seven acquired solar farms will generate a net profit of THB120m annually.

Exhibit 11: BAFS’ solar power plants

Project	Location	Installed capacity/PPA (MW)	COD	Years left (as of 1/1/2021)	Schemes	(Baht/kWh)	Solar panel types	Performance ratio (2019) (%)
ATCE1	Prachinburi	8.0/8.0	Dec-15	20 yrs	FIT	5.66	Conergy PE 310 (310 W)	78.3
ATCE2								77.7
ATCE3								77.6
ATCE4	Samutsakorn	6.0/6.0	Dec-15	20 yrs			First solar PS4110 (110 MW)	85.3
ATCE5								85.8
PDIMR	Tak	6.3/5.25	Dec-13	18 yrs	Adder	6.5 for 10 yrs	JA Solar (JAP60-250W)	72.8
PPS	Khon Khaen	1.102/0.98	Jul-13	17 yrs 6 months	Adder	8 for 10 yrs	First solar FS Series 3 (85W)	74.7

Source: BAFS

In 3Q21, BAFS also acquired a 12MW solar power plant in Japan from PDI for a total investment cost of THB768m. It is expected to be completed and consolidated with an estimated annual net profit of THB20m starting in 4Q21. We believe this should enhance BAFS’ asset portfolio, effectively improving its earnings sustainability on top of its refuelling and oil pipeline businesses.

Exhibit 12: Past performance ratio of each solar power plant

Performance ratio	2017 (%)	2018 (%)	2019 (%)
ATCE 1,2	82.91/85.59	80.62/79.74	78.3/77.68
ATCE 3	81.68	78.78	77.60
ATCE 4,5	86.05/86.93	84.61/85.83	85.27/85.77
PDIMR	n/a	71.33	72.78
PPS	n/a	76.74	74.70

Source: BAFS

Exhibit 13: Capacity factor of each solar power plant

Capacity factor	2019 (%)	2020 (%)	2021E (%)
ATCE 1	17.7	17.4	17.0
ATCE 2	17.6	17.2	17.0
ATCE 3	16.7	16.6	17.0
ATCE 4	18.9	18.8	18.0
ATCE 5	19.0	18.9	18.0
PDIMR	14.6	14.6	15.0
PPS	16.9	16.8	16.0

Sources: BAFS; FSSIA estimates

Final countdown to profitability in 2025

Pipeline network business: Besides BAFS' long-operating oil pipeline network connecting eastern refinery plants to the two major airports, BKK and DMK, the company has invested in an oil pipeline project, the Northern Fuel Pipeline Transportation Project (NFPT) phase 1 & 2, with an initial total capacity of 3,200m litres per year. The project could be expanded to a maximum of 9,000m litres per year if BAFS decides to add pumps to increase the speed of the oil moving through the pipelines from 3 metres per second to 7 metres per second.

Exhibit 14: Comparison of BAFS' and Thai Pipeline Network (TPN)'s oil pipeline projects, based on our forecasts

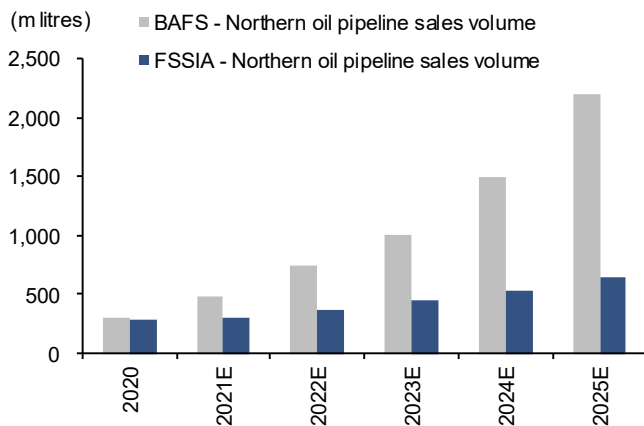
Project area	Northeast (TPN)	North (BAFS)	Unit
2022E demand		3,000	m litres per year
Original estimated investment cost	12,000	7,500	THB m
Final investment cost	9,800	11,000	THB m
Cost change	(28)	29	%
Pipeline cost per km	29	19	THB m/km
COD	4Q21E	3Q18-4Q19	
Construction method	Open cut	Horizontal directional drill	
Storage capacity	140	250	m litres
Pipeline			
Pipeline distance	343	585	km
Sararaburi - Kon Kaen (16 inches)	343		km
Bangpa-in - Phichit (14 inches)		365	km
Kamphaengphetch - Lampang (12 inches)		220	km
Capacity			
Sararaburi - Kon Kaen (16 inches)	5,700		m litres per year
Bangpa-in - Phichit (14 inches)		9,000	m litres per year
Kamphaengphetch - Lampang (12 inches)		5,000	m litres per year
Demand (2021E)	3,992	3,250	m litres per year
Northeast	2,792		m litres per year
North		3,000	m litres per year
Laos	1,200		m litres per year
Myanmar - Maesod		250	m litres per year
Financial			
Estimated NPV	13,107	1,492	THB m
IRR			
Original	12.2	9.5	%
Current	13.2	8.3	%
Payback period			
Original	13	14	years
Current	11	19	years

Sources: PSTC; FSSIA estimates

In 2021-25, we think that the new NFPT will not likely generate much revenue, as oil demand growth typically requires a few years to gain market share and oil volume. According to management, BAFS expects the oil demand for its NFPT to gradually increase after the operational start-up of NFPT phase 2 in Sep-21, going from 300m litres in 2020 to 500m litres in 2021, 700m litres in 2022, 1,000m litres in 2023, 1,500m litres in 2024, and eventually reaching 2,200m litres, surpassing the 2,000m-litre breakeven level and becoming profitable in 2025 when the eastern pipeline network should be connected with NFPT.

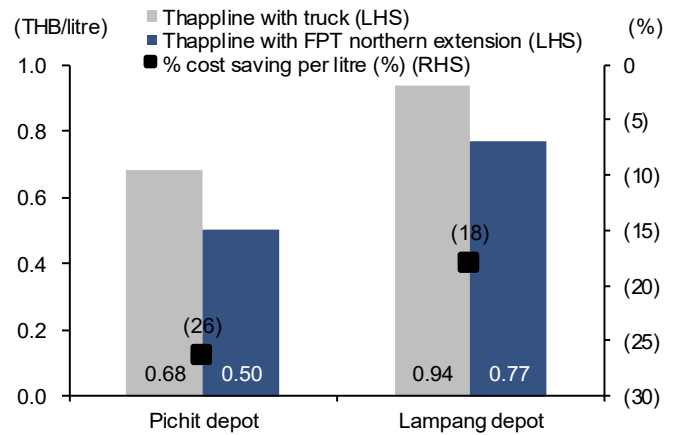
We think that by 2025, NFPT could emerge as BAFS' long-term net profit growth engine due to its high net profit margin of 39% and EBITDA margin of 75%. This is due to its low variability and high fixed cost structure; comprising an THB11b investment cost and a THB300m interest expense, leading to THB350m in depreciation annually for 40 years of useful life.

Exhibit 15: NFPT oil pipeline sales volume



Sources: BAFS; FSSIA estimates

Exhibit 16: Oil transportation fees (FPT's NFPT vs trucks)



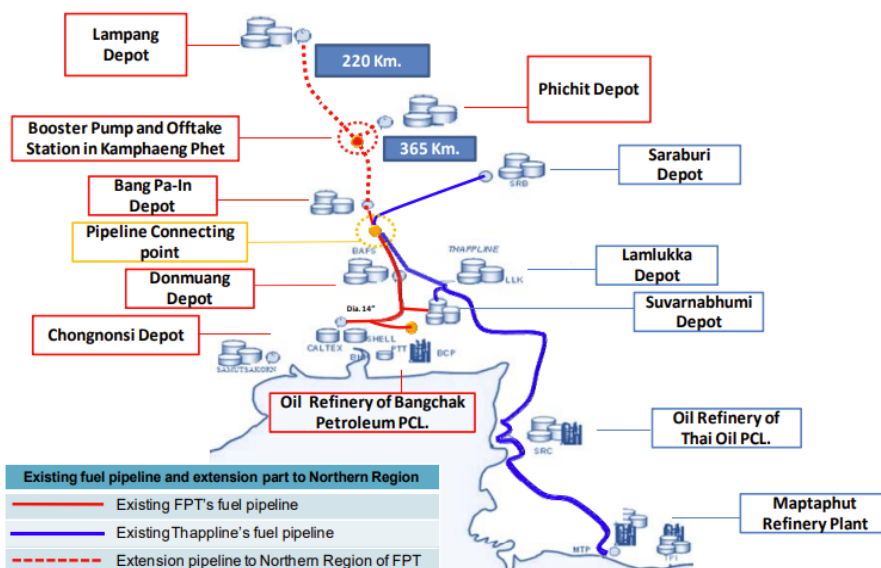
Source: BAFS

Opportunity from RATCH's acquisition of NFPT

On 19 Jan-21, Ratch Group (RATCH TB, BUY, TP THB60), 45%-owned by the Electricity Generating Authority of Thailand (EGAT), announced the acquisition of a 15.53% stake, or 98.98m shares, in BAFS from Thai Airways International (THAI TB, HOLD, TP THB3.4; note that the trading of THAI has been suspended since 16 Aug-21 while the company is implementing a rehabilitation plan). The transaction was completed on 19 Dec-20 and the acquisition cost was THB2.7b, implying THB27.4/shr.

As Thailand's largest IPP, RATCH has long established itself as one of the leading power companies in Thailand and regional markets, including ASEAN, Australia, and North Asia. As a result, we think RATCH's majority ownership of BAFS should allow BAFS to see three key benefits: 1) a stronger power business; 2) synergy from the connectivity of its two-pipeline network under Fuel Pipeline Transportation (FPT, not listed), owned by EGAT's subsidiary Electricity Generating (EGCO TB, BUY, TP THB245), and BAFS' NFPT, to connect to east coast refinery plants in 2027; and 3) access to lower funding costs, as RATCH's cost of debt is only 2.5-4%.

Exhibit 17: FPT's fuel transportation system with northern extension



Source: BAFS

Potential upside from U-Tapao Airport venture

In Jul-21, BAFS, via a joint venture with PTT Oil and Retail Business (OR TB, BUY, TP THB36), owned 55% by BAFS and 45% by OR, under the name Global Aero Associates Company Limited, won the bidding to provide the aviation fuel service system at U-Tapao International Airport (UTI), located in the Eastern Economic Corridor (EEC).

Exhibit 18: Major transportation hubs in Eastern Economic Corridor



Source: [U-Tapao](#)

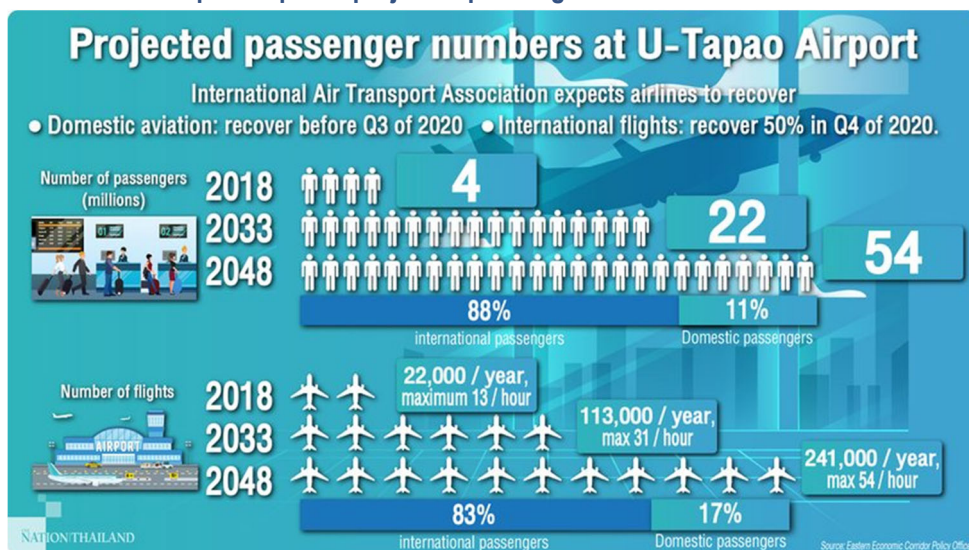
Exhibit 19: U-Tapao Rayong Pattaya International Airport



Source: [U-Tapao](#)

UTI is one of Thailand’s fastest-growing airports under the EEC investment campaign. The EEC is being promoted by the Thai government to encourage foreign direct investment in 12 focus industries that are expected to transform Thailand’s export industries from automobiles, electronics, and refinery and petrochemical products to new industries such as EVs, medical healthcare, and aircraft. With the projected 12m passengers per year at UTI at an IRR of 12%, according to management, we think UTI could be BAFS’ next growth driver together with BKK and DMK as the three major airports in Thailand.

Exhibit 20: U-Tapao Airport’s projected passenger numbers



Source: [Thailand Construction News](#)

Financial Statements

Bangkok Aviation Fuel Services

Profit and Loss (THB m) Year Ending Dec	2019	2020	2021E	2022E	2023E
Revenue	3,872	1,804	1,651	4,338	5,884
Cost of goods sold	(1,185)	(735)	(723)	(1,281)	(2,061)
Gross profit	2,688	1,070	928	3,057	3,823
Other operating income	-	-	-	-	-
Operating costs	(701)	(589)	(264)	(694)	(941)
Operating EBITDA	1,986	481	664	2,363	2,881
Depreciation	(645)	(794)	(750)	(980)	(909)
Goodwill amortisation	0	0	0	0	0
Operating EBIT	1,342	(313)	(86)	1,383	1,972
Net financing costs	(196)	(281)	(97)	(123)	(135)
Associates	(1)	(2)	(4)	(4)	(4)
Recurring non-operating income	83	88	76	76	76
Non-recurring items	1	2	0	0	0
Profit before tax	1,229	(505)	(107)	1,336	1,913
Tax	(261)	88	0	(233)	(333)
Profit after tax	968	(417)	(107)	1,103	1,580
Minority interests	(27)	45	0	0	0
Preferred dividends	0	0	0	0	0
Other items	-	-	-	-	-
Reported net profit	941	(372)	(107)	1,103	1,580
Non-recurring items & goodwill (net)	(1)	(2)	0	0	0
Recurring net profit	940	(374)	(107)	1,103	1,580
Per share (THB)					
Recurring EPS *	1.47	(0.59)	(0.17)	1.73	2.48
Reported EPS	1.48	(0.58)	(0.17)	1.73	2.48
DPS	1.25	1.20	0.00	0.69	0.99
Diluted shares (used to calculate per share data)	637	637	637	637	637
Growth					
Revenue (%)	3.1	(53.4)	(8.5)	162.7	35.6
Operating EBITDA (%)	(2.8)	(75.8)	38.1	256.0	21.9
Operating EBIT (%)	(9.6)	nm	nm	nm	42.6
Recurring EPS (%)	(10.5)	nm	nm	nm	43.2
Reported EPS (%)	(10.4)	nm	nm	nm	43.2
Operating performance					
Gross margin inc. depreciation (%)	52.8	15.3	10.8	47.9	49.5
Gross margin of key business (%)	-	-	-	-	-
Operating EBITDA margin (%)	51.3	26.6	40.2	54.5	49.0
Operating EBIT margin (%)	34.7	(17.4)	(5.2)	31.9	33.5
Net margin (%)	24.3	(20.7)	(6.5)	25.4	26.9
Effective tax rate (%)	21.2	17.4	17.4	17.4	17.4
Dividend payout on recurring profit (%)	84.8	(204.4)	-	40.0	40.0
Interest cover (X)	7.3	(0.8)	(0.1)	11.8	15.2
Inventory days	13.9	23.2	20.9	13.1	10.2
Debtor days	36.2	55.3	37.0	16.6	15.4
Creditor days	108.2	113.8	86.0	85.4	102.3
Operating ROIC (%)	8.9	(1.8)	(0.5)	7.9	11.8
ROIC (%)	8.0	(1.1)	0.0	7.2	10.5
ROE (%)	14.5	(6.2)	(2.1)	20.0	23.5
ROA (%)	6.7	(1.1)	(0.2)	6.8	9.2
* Pre-exceptional, pre-goodwill and fully diluted					
Revenue by Division (THB m)					
Aviation refuelling	3,140	1,203	716	3,286	4,793
Fuel transportation (FPT)	728	566	594	711	750
Others	5	35	0	0	0
Solar powerplants	0	0	341	341	341

Sources: Bangkok Aviation Fuel Services; FSSIA estimates

Financial Statements

Bangkok Aviation Fuel Services

Cash Flow (THB m) Year Ending Dec	2019	2020	2021E	2022E	2023E
Recurring net profit	940	(374)	(107)	1,103	1,580
Depreciation	645	794	750	980	909
Associates & minorities	(2)	(4)	(4)	(4)	0
Other non-cash items	-	-	-	-	-
Change in working capital	(95)	(796)	254	787	258
Cash flow from operations	1,488	(380)	893	2,866	2,747
Capex - maintenance	(408)	(516)	(500)	(467)	(433)
Capex - new investment	-	-	-	-	-
Net acquisitions & disposals	(29)	(44)	1,008	(151)	(309)
Other investments (net)	0	0	0	0	0
Cash flow from investing	(437)	(560)	508	(617)	(742)
Dividends paid	(873)	(778)	(637)	(166)	(513)
Equity finance	0	0	0	0	0
Debt finance	1,088	2,111	(1,396)	(1,022)	(1,000)
Other financing cash flows	(1,406)	(1,627)	466	(130)	133
Cash flow from financing	(1,192)	(293)	(1,568)	(1,317)	(1,380)
Non-recurring cash flows	-	-	-	-	-
Other adjustments	0	0	0	0	0
Net other adjustments	0	0	0	0	0
Movement in cash	(141)	(1,233)	(166)	932	625
Free cash flow to firm (FCFF)	1,247.27	(659.34)	1,498.30	2,372.48	2,140.17
Free cash flow to equity (FCFE)	732.80	(455.75)	471.22	1,097.27	1,138.04
Per share (THB)					
FCFF per share	1.96	(1.03)	2.35	3.72	3.36
FCFE per share	1.15	(0.71)	0.74	1.72	1.79
Recurring cash flow per share	2.48	0.65	1.00	3.26	3.90
Balance Sheet (THB m) Year Ending Dec					
Tangible fixed assets (gross)	19,809	21,718	22,509	23,300	24,091
Less: Accumulated depreciation	(7,112)	(7,651)	(8,701)	(9,521)	(10,412)
Tangible fixed assets (net)	12,697	14,066	13,808	13,779	13,679
Intangible fixed assets (net)	61	1,334	73	73	73
Long-term financial assets	-	-	-	-	-
Invest. in associates & subsidiaries	89	133	133	133	133
Cash & equivalents	2,038	805	638	1,571	2,196
A/C receivable	388	159	175	219	278
Inventories	50	43	40	53	62
Other current assets	116	893	635	150	204
Current assets	2,593	1,900	1,489	1,992	2,739
Other assets	1,906	2,033	2,033	2,033	2,033
Total assets	17,346	19,466	17,535	18,009	18,656
Common equity	6,518	5,493	4,948	6,086	7,354
Minorities etc.	1,346	1,274	1,274	1,274	1,274
Total shareholders' equity	7,864	6,767	6,223	7,361	8,628
Long term debt	7,180	9,396	8,000	7,000	6,000
Other long-term liabilities	1,280	2,640	2,640	2,640	2,640
Long-term liabilities	8,460	12,036	10,640	9,640	8,640
A/C payable	296	162	178	421	734
Short term debt	526	422	422	400	400
Other current liabilities	200	78	71	187	254
Current liabilities	1,022	662	672	1,008	1,388
Total liabilities and shareholders' equity	17,346	19,466	17,534	18,009	18,656
Net working capital	59	855	601	(187)	(445)
Invested capital	14,812	18,421	16,647	15,830	15,472
* Includes convertibles and preferred stock which is being treated as debt					
Per share (THB)					
Book value per share	10.22	8.62	7.76	9.55	11.54
Tangible book value per share	10.13	6.52	7.65	9.43	11.42
Financial strength					
Net debt/equity (%)	72.1	133.2	125.1	79.2	48.7
Net debt/total assets (%)	32.7	46.3	44.4	32.4	22.5
Current ratio (x)	2.5	2.9	2.2	2.0	2.0
CF interest cover (x)	4.7	(0.6)	5.9	9.9	9.4
Valuation					
Recurring P/E (x) *	19.8	(49.8)	(174.0)	16.9	11.8
Recurring P/E @ target price (x) *	27.1	(68.1)	(238.0)	23.1	16.1
Reported P/E (x)	19.8	(50.1)	(174.0)	16.9	11.8
Dividend yield (%)	4.3	4.1	-	2.4	3.4
Price/book (x)	2.9	3.4	3.8	3.1	2.5
Price/tangible book (x)	2.9	4.5	3.8	3.1	2.6
EV/EBITDA (x) **	12.9	60.2	41.7	10.9	8.4
EV/EBITDA @ target price (x) **	16.4	74.4	52.1	13.8	10.8
EV/invested capital (x)	1.7	1.6	1.7	1.6	1.6
* Pre-exceptional, pre-goodwill and fully diluted ** EBITDA includes associate income and recurring non-operating income					

Sources: Bangkok Aviation Fuel Services; 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	PAP	PCSGH	PDJ	PG	PHOL	PLANB
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	TSC	TSR	TSTE	TSTH	TTA
TTCL	TTW	TU	TVD	TVI	TVO	TWPC	U	UAC	UBIS	UV
VGI	VIH	WACOAL	WAVE	WHA	WHAUP	WICE	WINNER	TRUE		

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

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

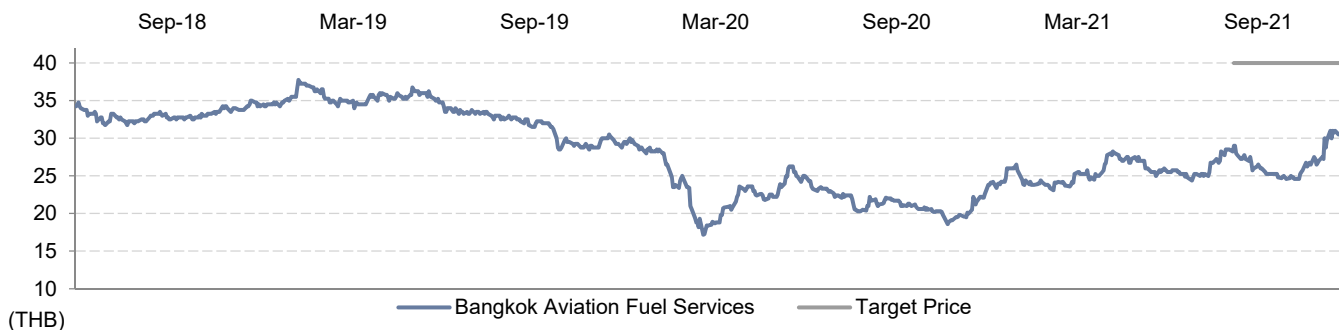
The individual(s) identified above certify(ies) that (i) all views expressed in this report accurately reflect the personal view of the analyst(s) with regard to any and all of the subject securities, companies or issuers mentioned in this report; and (ii) no part of the compensation of the analyst(s)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

Bangkok Aviation Fuel Services (BAFS TB)



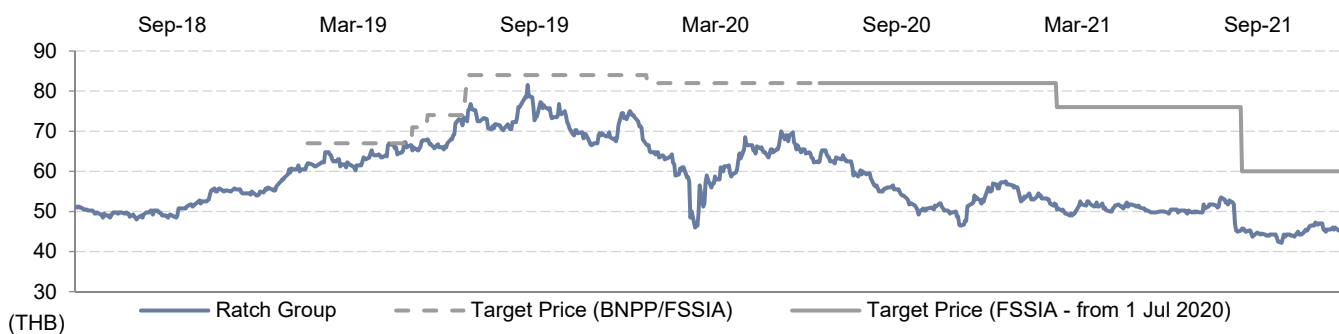
Date	Rating	Target price	Date	Rating	Target price	Date	Rating	Target price
21-Jun-2021	BUY	40.00	-	-	-	-	-	-

Suwat Sinsadok started covering this stock from 21-Jun-2021

Price and TP are in local currency

Source: FSSIA estimates

Ratch Group (RATCH TB)



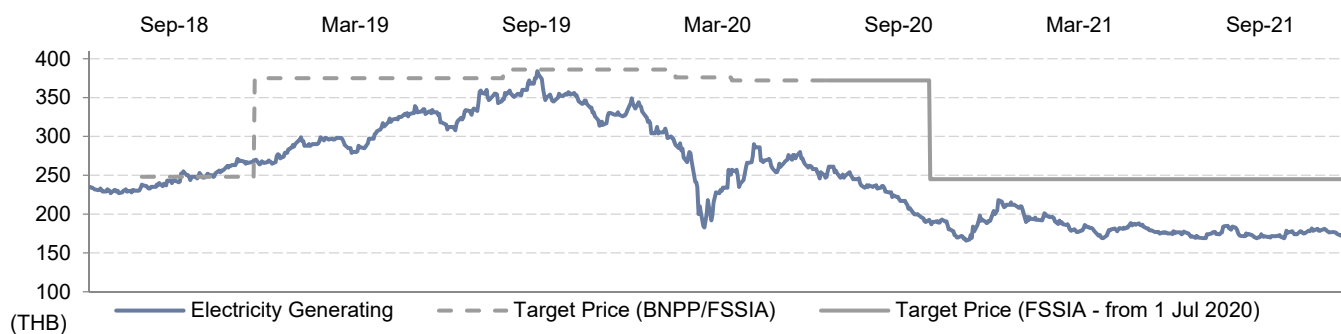
Date	Rating	Target price	Date	Rating	Target price	Date	Rating	Target price
18-Apr-2019	BUY	67.00	04-Feb-2020	BUY	82.00	16-Feb-2021	BUY	76.00
17-Jul-2019	HOLD	71.00	26-Jun-2020	BUY	82.00	28-Jun-2021	BUY	60.00
30-Jul-2019	HOLD	74.00	14-Aug-2020	BUY	82.00			
02-Sep-2019	BUY	84.00	20-Jan-2021	BUY	76.00			

Suwat Sinsadok started covering this stock from 18-Apr-2019

Price and TP are in local currency

Source: FSSIA estimates

Electricity Generating (EGCO TB)



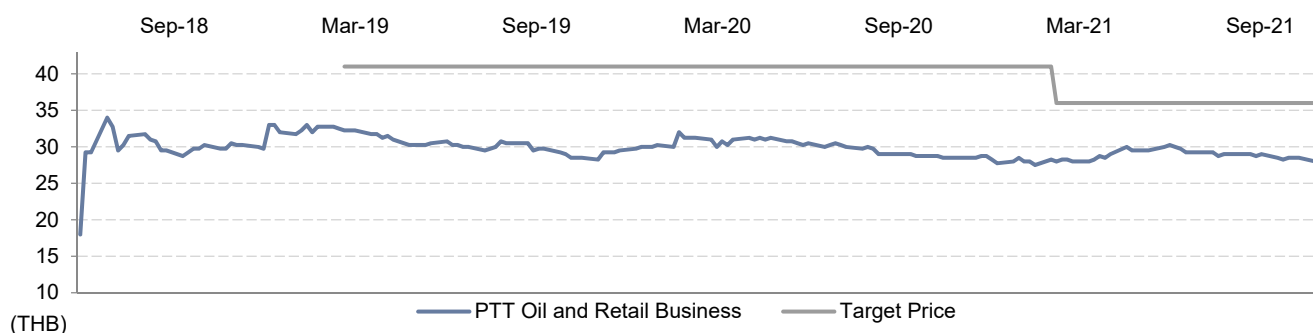
Date	Rating	Target price	Date	Rating	Target price	Date	Rating	Target price
15-Nov-2018	HOLD	248.00	21-Feb-2020	BUY	376.00	28-Sep-2020	BUY	245.00
21-Feb-2019	BUY	375.00	10-Apr-2020	BUY	372.00			
25-Sep-2019	BUY	386.00	10-Apr-2020	BUY	372.00			

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

Price and TP are in local currency

Source: FSSIA estimates

PTT Oil and Retail Business (OR TB)



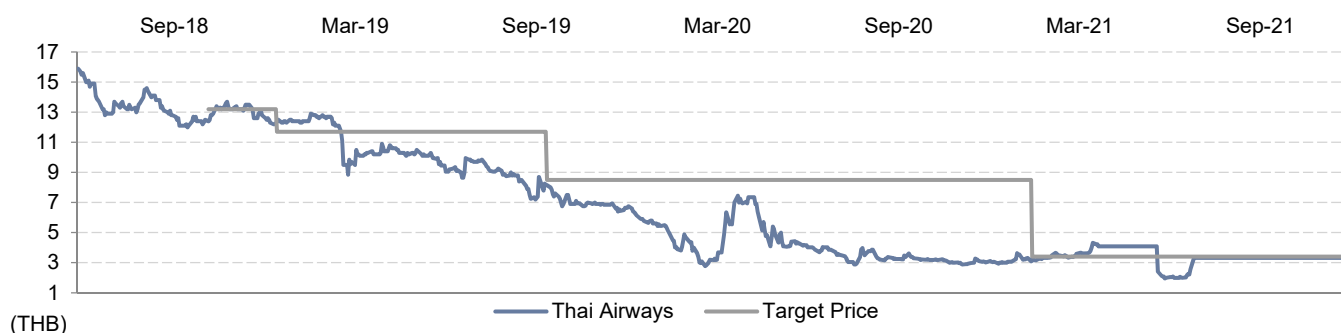
Date	Rating	Target price	Date	Rating	Target price	Date	Rating	Target price
30-Mar-2021	BUY	41.00	17-Jun-2021	BUY	41.00	09-Aug-2021	BUY	36.00

Suwat Sinsadok started covering this stock from 30-Mar-2021

Price and TP are in local currency

Source: FSSIA estimates

Thai Airways (THAI TB)



Date	Rating	Target price	Date	Rating	Target price	Date	Rating	Target price
19-Jan-2019	HOLD	13.20	08-Nov-2019	HOLD	8.50	28-Dec-2020	HOLD	3.40
21-Mar-2019	HOLD	11.70	02-Apr-2020	HOLD	8.50			

Teerapol Udomvej, CFA started covering this stock from 28-Dec-2020

Price and TP are in local currency

Source: FSSIA estimates

Company	Ticker	Price	Rating	Valuation & Risks
Bangkok Aviation Fuel Services	BAFS TB	THB 29.25	BUY	Downside risks to our SoTP-based target price include a slower than expected vaccination rate, leading to slower demand in tourism activities, plus uncertainty in the fuel volume demand in the north which could lead to volatility in Fuel Pipeline Transportation Limited (FPT)'s income.
Ratch Group	RATCH TB	THB 45.50	BUY	The downside risks to our SoTP-based TP include 1) lower-than-expected demand for electricity in Thailand; 2) lower crude price; and 3) delays in starting new projects.
Electricity Generating	EGCO TB	THB 175.50	BUY	Downside risks to our SoTP-based TP include 1) lower-than expected demand for electricity in Thailand; 2) delays in project commencement or commercial operation dates (COD); and 3) government intervention in electricity tariff subsidies.
PTT Oil and Retail Business	OR TB	THB 28.00	BUY	The downside risks to our SOTP-based TP include: 1) lower-than-expected demand for petroleum products; 2) a lower marketing margin; and 3) weaker-than-expected jet demand.
Thai Airways	THAI TB	THB 3.32	HOLD	Downside risks to our DCF-based target price include 1) extraordinary events such as political turmoil and natural disasters; 2) higher-than-expected fuel expenses following an increase in oil prices; and 3) the slower-than-expected recovery of international tourist numbers. The upside risk is the availability of a COVID-19 vaccine.

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 27-Sep-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.