

19 March 2020

Energy & | Integrated Oil & Gas

Integrated Oil & Gas

Neutral (Maintained)

Bear Market Blues

Stocks Covered: 7
 Rating (Buy/Neutral/Sell): 3 / 3 / 1
 Last 12m Earnings Revision Trend: Negative

- Maintain NEUTRAL on the sector.** Top Picks are PTT, PTT Exploration & Production (PTTEP) and PTT Global Chemical (PTTGC). In this review, we upgrade PTT to BUY and downgrade Star Petroleum Refining (SPRC) to NEUTRAL. We estimate 1Q20F total sector earnings at THB3.7bn, with stock loss of THB33bn. Recurring net profit is expected at THB29.4bn, with most of the positive earnings coming from PTT and PTTEP. We expect earnings to pick up in 2H20F.
- We have a BUY on PTTEP, as this is a good proxy for crude oil prices.** We believe the current USD20.00-30.00/bbl crude oil prices are not sustainable over a prolonged period. We expect crude oil prices to improve towards the end of the year, either through natural rebalancing – where the highest cost producers curtail production – or through OPEC and its alliance (OPEC+), when Saudi Arabia and Russia can find a compromise. PTTEP's earnings are expected to fall by 30% YoY to THB34bn, but are likely to provide c.5-6% dividend yield.
- Refineries and petrochemicals: NEUTRAL maintained.** The refineries will continue to be pressured with demand for transportation fuels grinding to a halt as countries implement lockdown on their population. Although this may be temporary, we believe that fears of travel and social distancing will remain until containment/signs of peak contagion have passed or a vaccine has been found and distributed to the global population. For petrochemicals, we believe that spreads are near bottom or are bottoming out already. We have PTTGC as a BUY, with recurring earnings expected to grow 18% YoY and dividend yield expected at 4%. Its share price has fallen beyond our worse-case scenario and is trading below -3SD P/BV.
- PTT, upgrade to BUY.** During this bear market rout, we believe the share price has declined to a good entry point. Although crude oil prices and PTT's share price may decline slightly further from this point, we think that investors can start to look at picking up this stock from here on. Our TP of THB32.80/share takes into consideration the price of its listed subsidiaries at distressed valuations, and we have also adjusted the country risk premium to reflect the current market risks.
- For 1Q20F, we expect the entire sector to post net loss of THB3.7bn,** with stock loss of THB33bn. We have assumed that crude oil prices will end the quarter at USD30.00/bbl, with a stock loss of USD30.00/bbl (in absolute terms). Each refinery holds c.5-10m bbls of crude oil inventory. 1Q20F recurring net profit for the sector is expected at THB29.4bn. This is relatively stable QoQ, with positive contributions from PTTEP and PTT.
- 2020F net profit for the entire sector is expected at THB103bn** (-35% YoY), while recurring net profit is expected at THB136bn (-15% YoY), with positive contributions from PTT and PTTEP.

Top Picks

Target Price

PTT (PTT TB) – BUY	THB32.80
PTTEP (PTTEP TB) – BUY	THB91.00
PTT Global Chemical (PTTGC TB) – BUY	THB33.00

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Bear market begins



Source: CNN

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Company Name	Rating	Target Price(THB)	% Upside (Downside)	P/E (x) Dec-20F	P/B (x) Dec-20F	Yield (%) Dec-20F
PTT	BUY	THB32.80	23.8	0.0	0.0	4.2
PTT Exploration & Production	BUY	THB91.00	59.6	6.6	0.6	6.0
PTT Global Chemical	BUY	THB33.00	35.8	17.2	0.4	4.5
Bangchak Corp	NEUTRAL	THB14.50	-	25.3	0.4	1.6
Star Petroleum Refining	NEUTRAL	THB5.00	1.6	na	0.6	5.1
Thai Oil	NEUTRAL	THB29.20	3.4	na	0.5	5.1
IRPC	SELL	THB1.60	(19.2)	na	0.5	2.2

Source: Company data, RHB

How Did We Get Here?

We have been NEUTRAL on the domestic oil & gas sector since 17 Feb, when we downgraded our Thai Oil (TOP) recommendation from Buy, as we believe spreads will not be boosted in any significant way amidst the COVID-19 outbreak, among other things. At that time, crude oil price was USD57.67 per bbl.

On 2 Mar, we published [Regional Oil & Gas : The Price Of Uncertainty](#), where we performed a worst case scenario analysis on the regional oil & gas stocks under our coverage. In the report, we said a USD40.00 per bbl worst case scenario was coming. Under this scenario analysis, we assumed that USD40.00 per bbl will happen when countries around the world closed their borders, global trade slows down, and/or global recession will occur. We assume that this will happen for the duration of the COVID-19 outbreak still being active, and that governments cannot contain the virus from spreading globally. We assume normalcy returning by 2021, as a vaccine is found and distributed globally. The table below shows our best estimate of where share prices under our coverage would be, should we reach that point. For most of the stocks, that is where we are at now.

Figure 1: Worst case scenario: USD40.00/bbl

	Worst case target (THB)
Upstream Exploration & Production	
PTTEP	92.00
Refineries and petrochemicals	
BCP	17.08
IRPC	1.64
PTTGC	32.70
TOP	30.40
SPRC	5.34
Integrated Oil & Gas	
PTT	27.30

Source: RHB

We had not anticipated the worst case scenario happening so suddenly. The current market turmoil, however, was brought about by the collapse in OPEC+ agreement on 6 Mar and exacerbated by COVID-19 having now spread to Europe and the US.

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What Now?

There are two things affecting the oil markets at the moment: COVID-19 and the OPEC+ agreement falling apart. For the pandemic, we believe the markets will be looking for signs of containment/peak contagious period passing or a vaccine that will be available. We believe a vaccine may be available by the beginning of next year. For OPEC+, this is a producer-induced oversupply situation. We believe that all members of OPEC+ will be looking for ways for both Saudi Arabia and Russia to come to a compromise. Otherwise, we will have to wait for natural rebalancing of the oil markets to happen – which can take around a year or so.

We maintain our NEUTRAL recommendation on the Thai oil & gas sector. However, we have downgraded SPRC to NEUTRAL and upgraded PTT to BUY. Here is how we view the markets.

Upstream exploration & production: BUY (maintained)

We have a BUY on PTTEP as this is a good proxy for crude oil price. Our view is that oil prices will be in the range of USD40.00-55.00 in 2H20F. We believe the current USD20.00-30.00 per bbl crude oil is not sustainable over a prolonged period. We expect crude oil prices to improve towards the end of the year, either through natural rebalancing (where the highest cost producers curtail production) or through OPEC+, when Saudi Arabia and Russia can find a compromise.

PTTEP's earnings are likely to fall by 30% YoY to THB34bn, but are expected to provide c.5-6% dividend yield. We note here that PTTEP's unit cost is USD32.00 per bbl, and cash cost is USD15.00 per bbl. This much lower than the US shale oil producers – average breakeven cost of c. USD45.00 per bbl.

Refineries and petrochemicals: NEUTRAL (maintained)

We remain NEUTRAL on this sub-segment. The refineries will continue to be pressured, with demand for transportation fuels grinding to a halt as countries implement lockdowns on their populations. Although this may be temporary, we believe travel fears and social distancing will remain until containment/signs of peak contagion passing or a vaccine has been found and distributed to the global population. For petrochemicals, we believe spreads are near bottom or are bottoming out already. We have PTTGC as a BUY, with recurring earnings expected to grow 18% YoY and dividend yield expected at 4%. Its share price has fallen beyond our worst-case scenario and is trading below -3SD P/BV.

Integrated oil & gas: PTT upgraded to BUY

We downgraded PTT on 5 Aug 2019 – we believed at the time that its share price would be under pressure, as the global economy and oil demand were then impacted by the US-China trade war. During this bear market rout, we believed share price had declined to a good entry price point. Although crude oil prices and PTT's share price may decline slightly further from this point, we believe investors can start looking at picking up this stock from here on. Our THB32.80 TP takes into consideration the price of its listed subsidiaries at distressed valuations – we have also adjusted country risk premium to reflect the current market risks.

Figure 2: Our recommendations

	Recommendation	Target price (THB)	Valuation
Upstream Exploration & Production			
PTTEP	BUY	91.0	DCF, WACC 10.5%
Refineries and petrochemicals			
BCP	NEUTRAL	14.5	0.35x P/BV (lower than -3SD PBV)
IRPC	SELL	1.6	0.4x P/BV (-3SD P/BV)
PTTGC	BUY	33.0	0.5x P/BV (-3SD P/BV)
TOP	NEUTRAL	29.2	0.5x P/BV (-3SD P/BV)
SPRC	NEUTRAL(from Buy)	5.0	0.6x P/BV (near -2SD P/BV)
Integrated Oil & Gas			
PTT	BUY (from Neutral)	32.8	SOP valuation

Source: RHB

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1Q20F Earnings Preview

The listed Thai oil & gas sector under our coverage has a total market cap of USD38bn, accounting for 11% of the SET. This consist of seven oil & gas stocks with the largest market cap of USD23bn. Since the collapse of the OPEC+ agreement on 6 Mar, the global markets have gone into a tailspin, with the Thai oil & gas sector losing 50% of its market value. We have since taken a detailed look at each of the individual stocks under our coverage to see how their respective earnings will be affected and how best to invest in times of uncertainty going forward this year.

For 1Q20F, we expect the entire sector to post net loss of THB3.7bn, with stock loss of THB33bn. We have assumed that crude oil price ends the quarter at USD30.00 per bbl, with stock loss of USD30.00 per bbl (in absolute terms). Each refinery holds a crude oil inventory of c.5-10m bbl.

1Q20F recurring net profit for the sector is expected at THB29.4bn. This is relatively stable QoQ, as most of the positive earnings are from PTTEP and PTT. For the refineries and petrochemicals segment, a total net loss of THB708m is expected. This is with most of the refineries are running at either a loss or near break-even at current spreads.

2020F net profit for the entire sector is expected at THB103bn (-35% YoY), while recurring net profit is expected at THB136bn (-15% YoY):

- i. PTTEP's net profit of THB34bn (-30% YoY) is a result of much lower crude oil price and natural gas price for the year;
- ii. The refineries and petrochemicals segment is expected to post a reported net loss of THB188m, this includes 1Q20F's stock losses. As reported net profit includes stock gain/losses, we believe that more indicative of refineries and petrochemicals earnings potential is the recurring net profit. We expect recurring net profit for this segment to improve to THB23bn (+74% YoY), as we expect 2H20F spreads to improve relative to last year. Apart from this, all the refineries and petrochemicals companies should be running at full capacity, where in 2019, most of the refineries had planned major turnarounds;
- iii. PTT net profit is expected at THB69.1bn, inclusive of 1Q20F stock loss. Stripping out stock loss, net profit is expected at THB78.8bn (-22% YoY), as we expect the core business to be softer (flat growth YoY) while commodity prices and spreads remain muted for the year.

Please note that all companies under coverage will be looking to pay dividends on recurring net profit

Figure 3: Thai oil & gas sector

(THBm)	1Q19	4Q19	1Q20F	QoQ (%)	YoY(%)	2019	2020F	YoY (%)
Total sector earnings								
Net profit	54,699	28,554	-3,778	-113%	-107%	157,489	103,060	-35%
Recurring net profit	42,751	29,963	29,494	-2%	-31%	159,540	136,332	-15%
Non-recurring items	11,948	-1,409	-33,272	2262%	-378%	-2,051	-33,272	1522%
Upstream : PTTEP								
Net profit	12,479	11,619	11,372	-2%	-9%	48,803	34,083	-30%
Recurring net profit	11,833	11,624	11,372	-2%	-4%	44,940	34,083	-24%
Non-recurring items	646	-4	0	N/A	N/A	3,863	-	N/A
Refineries and petrochemicals								
Net profit	12,908	-511	-24,284	4651%	-288%	15,736	-188	-101%
Recurring net profit	6,860	-2,763	-708	-74%	-110%	13,435	23,388	74%
Non-recurring items	6,048	2,252	-23,576	-1147%	-490%	2,301	-23,576	-1125%
Integrated: PTT								
Net profit	29,312	17,446	9,133	-48%	-69%	92,951	69,164	-26%
Recurring net profit	24,058	21,102	18,829	-11%	-22%	101,166	78,860	-22%
Non-recurring items	5,254	-3,656	-9,696	165%	-285%	-8,215	-9,696	

Source: RHB

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Upstream exploration & production: PTTEP

1Q20F net profit is expected at THB11.3bn (-2.2% QoQ). This excludes any extraordinary items. We assume sales volumes at 382kboepd with average natural gas prices at USD6.80 per mmbtu. Liquids prices are expected to be at USD51.00 per bbl. We expect subsequent quarters to be softer, as various fields are shut down for maintenance. Full-year average sales volume is expected at 391bkpd. PTTEP currently expects crude oil prices to average c.USD50 per bbl (Dubai), slightly higher than our expectations of USD45.50 per bbl (Dubai).

We expect earnings to soften in subsequent periods, as sales volumes and average sales prices may have already peaked in 1Q20. We believe the current crude oil prices of USD30.00-plus per bbl are not sustainable over a prolonged period. However, crude oil prices could test new lows in 2Q20F, as Saudi Arabia floods the market with crude oil, but a recovery should be seen in 2H20.

Figure 4: 1Q20F net profit still quite stable QoQ at THB11.3bn (-2.2% QoQ)

FYE Dec (THBm)	1Q19	4Q19	1Q20F	QoQ (%)	YoY (%)
Turnover	42,860	53,893	49,513	(8.1)	15.5
EBIT	15,686	18,180	17,956	(1.2)	14.5
EBIT margin (%)	37%	34%	36%		
Net interest	(947)	(1,479)	(2,083)	40.9	119.8
Pretax profit	15,770	17,154	15,873	(7.5)	0.7
Pretax margin (%)	37%	32%	32%		
Taxation	(3,377)	(5,725)	(4,502)	(21.4)	33.3
Net profit	12,479	11,619	11,372	(2.1)	(8.9)
Net margin (%)	29%	22%	23%		
Recurring net profit	11,833	11,624	11,372	(2.2)	(3.9)
Recurring net profit margin(%)	28%	22%	23%		
EPS (THB)	3.03	2.93	2.86	(2.1)	(5.5)

Source: Company data, RHB

Refineries and petrochemicals

At current GRM of USD1.00-2.00 per bbl, most refineries are not profitable, while the collapse in crude oil prices have further weakened their respective earnings for 1Q20F. Earnings for the quarter will be abysmal.

With Saudi Arabia's price war, Saudi Aramco has offered a USD5.00-6.00 per bbl discount to benchmark crude oil for all grades. As Thailand procures a substantial portion of its crudes from Saudi Aramco, Thai refineries should benefit from this price war, with lower crude premiums.

However, as all refineries will benefit, it is highly plausible for all refineries to ramp up crude runs, which will therefore pressure refined product spreads. As such, we have not factored in any immediate benefit of the current crude oil price war to our forecasts.

We expect 2H20F to improve, as all refineries and petrochemicals plants should be running at optimal rates, while demand and spreads ought to improve.

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Figure 5: 1Q20F refineries and petrochemicals not profitable at current spreads

	1Q19	4Q19	1Q20F	QoQ (%)	YoY(%)	Comment (QoQ)
BCP						
Net profit	214	620	-1,123	-281%	-625%	GRM is expected to be weak at USD1.00-2.00/bbl, assumes the refinery runs at 90% utilisation rate. With unit costs of c. USD4.50-5.00/bbl the refinery is running at a loss.
Recurring net profit	66	223	373	67%	462%	
Non-recurring items	148	396	-1,496	-478%	-1113%	
IRPC						
Net profit	153	-513	-6,560	1178%	-4390%	We assume market GIM at USD7.00/bbl, with cost of USD11.00/bbl, the company is running at a loss.
Recurring net profit	-769	-2,365	-1,952	-17%	154%	
Non-recurring items	922	1,852	-4,608	-349%	-600%	
TOP						
Net profit	4,408	1,984	-7,723	-489%	-275%	We assume GRM at USD1.24/bbl, while TPX and TLB is expected to contribute USD1.20/bbl. Its unit cost is c.USD3.00-plus/bbl.
Recurring net profit	998	460	149	-68%	-85%	
Non-recurring items	3,410	1,524	-7,872	-617%	-331%	
PTTGC						
Net profit	6,443	373	-3,702	-1092%	-157%	We expect GRM at USD2.00/bbl in 1H20F, while HDPE prices at USD850.00-900.00/ton.
Recurring net profit	4,823	-694	906	-231%	-81%	
Non-recurring items	1,620	1,067	-4,608	-532%	-384%	
SPRC						
Net profit	1,690	-2,975	-5,175	74%	-406%	GRM is expected at USD2.80/bbl run at c.95% of total capacity.
Recurring net profit	1,742	-387	-183	-53%	-110%	
Non-recurring items	-51	-2,588	-4,992	93%	9623%	
Total						
Net profit	12,908	-511	-24,284	4651%	-288%	GRM of USD1.00-2.00/bbl is not profitable for most refineries under coverage, while crude oil collapse has further weakened its earnings for the quarter.
Recurring net profit	6,860	-2,763	-708	-74%	-110%	
Non-recurring items	6,048	2,252	-23,576	-1147%	-490%	

Source: RHB

Figure 6: 2020F Refineries and petrochemicals earnings should improve YoY

	2019	2020F	YoY(%)	Comments
BCP				
Net profit	1,732	788	-54%	Assumes refinery run rate at 88%, with GRM at c.USD4.00-5.00/bbl.
Recurring net profit	2,052	2,284	11%	
Non-recurring items	-320	-1,496	368%	
IRPC				
Net profit	-1,146	-2,794	144%	We assume GIM at breakeven of USD11.00/bbl, with utilisation rate of 100%.
Recurring net profit	-2,926	1,814	-162%	
Non-recurring items	1,780	-4,608	-359%	
TOP				
Net profit	6,277	-1,358	-122%	We expect GRM to slowly recover to USD2.60/bbl in 2Q20F and in 2H20F at USD4.00/bbl.
Recurring net profit	3,694	6,514	76%	
Non-recurring items	2,583	-7,872	-405%	
PTTGC				
Net profit	11,682	6,370	-45%	GRM is expected to average USD2.86/bbl and expect the refinery to run at full capacity this year.
Recurring net profit	9,314	10,978	18%	
Non-recurring items	2,369	-4,608	-295%	
SPRC				
Net profit	-2,809	-3,195	14%	We expect GRM to improve to USD4.00-5.00/bbl from 2Q20 onwards, with the refinery running at optimal capacity.
Recurring net profit	1,302	1,797	38%	
Non-recurring items	-4,111	-4,992	21%	
Total				
Net profit	15,736	-188	-101%	Recurring earnings rebound with less planned major shutdowns, with spreads to improve in 2H20F.
Recurring net profit	13,435	23,388	74%	
Non-recurring items	2,301	-23,576	-1,125%	

Source: RHB

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Integrated Oil & Gas: PTT

Preliminary 1Q20F net profit is expected to plunge 47% QoQ to THB9.1bn. This is with the expectation that its subsidiaries (refineries) will recognise a total stock loss of THB9.6bn. Stripping out stock losses, we expect PTT's recurring net profit at THB18.8bn (-10% QoQ), with softer commodity spreads and a planned maintenance shutdown at its gas separation Plant #5 (20 days, total capacity: 580mmbtu).

We expect 2Q20 recurring net profit to be stable QoQ at THB18.3bn, with weak commodity spreads and little growth in sales volume for its core business – this is as activity is expected to slow down on travel fears and social distancing amidst the COVID-19 pandemic. We expect a mild recovery in 2H20, with net profit of c. THB20bn per quarter.

Figure 7: 1Q20F recurring net profit expected at THB18.8bn (-10% QoQ)

FYE Dec (THBm)	1Q19	4Q19	1Q20F	QoQ (%)	YoY (%)
Turnover	550,874	560,106	940,194	67.9	70.7
EBIT	48,432	30,937	27,697	(10.5)	(42.8)
EBIT margin (%)	8.8	5.5	2.9		
Pretax profit	45,419	28,765	20,809	(27.7)	(54.2)
Pretax margin (%)	8.2	5.1	2.2		
Net profit	29,312	17,446	9,133	(47.6)	(68.8)
Net margin (%)	5.3	3.1	1.0		
EPS (THB)	1.0	0.60	0.32	(47.6)	(69.1)
Recurring income	24,058	21,102	18,829	(10.8)	(21.7)

Source: RHB

PTT Exploration & Production (PTTEP TB)

Badly Battered, Waiting For a Recovery

- BUY, new TP of THB91.00 from THB120.00, 60% upside and 6% yield.** 1Q20F earnings indicate that net profit will be at THB11.3bn (-2.2% QoQ). We expect earnings to soften in subsequent periods, as sales volume and average sales price may have already peaked in 1Q20. We believe the current crude oil price levels of \pm USD30.00/bbl are not sustainable over a prolonged period. Crude oil prices could test new lows in 2Q20F, but a recovery should come in 2H20.
- 1Q20 net profit is expected at THB11.3bn (-2.2% QoQ).** This excludes any extraordinary items. We assume sales volume at 382kboepd, and the average natural gas price at USD6.8/mmbtu. The price of liquids is estimated at USD51.00/bbl. Subsequent quarters should be softer, as various fields shut down for maintenance. Full-year average sales volume is expected at 391bkpd. PTTEP currently expects the crude oil price to average USD50.00/bbl (Dubai), which is slightly higher than our expectation of USD45.50/bbl.
- Impairment of assets.** Should its expectations of future crude oil prices be lower than its original estimates (at around USD60.00 for the longer term), then the impairment of some assets are possible. At the moment, there is no clear indication if its long-term expectations have changed.
- Crude oil price and PTTEP's share price.** PTTEP's share price is highly correlated to current, immediate crude oil price trends. As our sensitivity analysis shows, if the price of crude oil is at \pm USD30.00/bbl, its share price should be at THB49.50. This assumes that crude oil prices will stay at this level in perpetuity. As investors' outlook on crude oil prices vary quite significantly, we provide a sensitivity analysis (Figure 4). On the downside, at USD20.00/30.00/40.00/50.00/60.00, our DCF-derived values are at THB36.00/49.00/63.00/77.00/91.00 per share respectively.
- We lower our TP to THB91.00** as we lift WACC to 10.5% (from 9.5%), as we adjust to the latest risk-free rate, beta, and risk premium. PTTEP's current share price of \pm THB60.00 reflects the current crude oil price levels of USD30.00-40.00/bbl into perpetuity. Our TP is based on a long-term DCF calculation. As USD30.00/bbl and below for crude oil prices is a level that implies most of the global oil fields will suffer, we do not believe that this will be sustainable in the longer term. Our long-term crude oil price is maintained at USD60.00/bbl, which is a price point that is able to bring +100mbpd to the global markets, when demand returns.

Forecasts and Valuation	Dec-18	Dec-19	Dec-20F	Dec-21F	Dec-22F
Total turnover (THBm)	171,809	191,053	190,990	212,151	230,381
Recurring net profit (THBm)	36,206	48,803	34,083	44,252	44,563
Recurring net profit growth (%)	3.7	34.8	(30.2)	29.8	0.7
Recurring P/E (x)	6.25	4.64	6.64	5.11	5.08
P/B (x)	0.6	0.6	0.6	0.6	0.5
P/CF (x)	2.01	2.00	2.26	1.91	1.76
Dividend Yield (%)	8.8	10.5	6.0	7.8	7.9
EV/EBITDA (x)	1.17	1.60	1.56	1.28	1.17
Return on average equity (%)	9.5	13.1	9.3	11.3	10.7
Net debt to equity (%)	(17.8)	1.7	(1.2)	(4.3)	(4.8)

Source: Company data, RHB

Buy (Maintained)

Target Price (Return):	THB91.00 (+60%)
Price:	THB57.00
Market Cap:	USD6,984m
Avg Daily Turnover (THB/USD)	1,760m/56.6m

Analyst

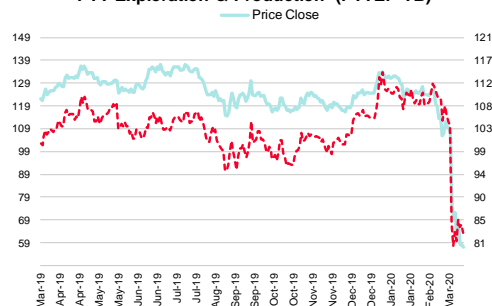
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Share Performance (%)

	YTD	1m	3m	6m	12m
Absolute	(54.2)	(53.9)	(54.2)	(54.0)	(52.5)
Relative	(20.5)	(23.1)	(21.2)	(17.4)	(17.3)
52-wk Price low/high (THB)	57.0 – 137				

PTT Exploration & Production (PTTEP TB)



Source: Bloomberg

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Financial Exhibits

Asia	Financial summary (THB)	Dec-18	Dec-19	Dec-20F	Dec-21F	Dec-22F
Thailand	Recurring EPS	9.12	12.29	8.59	11.15	11.22
Energy & Petrochemicals	DPS	5.00	6.00	3.43	4.46	4.49
PTT Exploration & Production	BVPS	98.13	89.94	95.09	101.78	108.51
PTTEP TB	Return on average equity (%)	9.5	13.1	9.3	11.3	10.7
Buy						
	Valuation metrics	Dec-18	Dec-19	Dec-20F	Dec-21F	Dec-22F
Valuation basis	Recurring P/E (x)	6.25	4.64	6.64	5.11	5.08
DCF valuation	P/B (x)	0.6	0.6	0.6	0.6	0.5
	FCF Yield (%)	30.1	(3.5)	10.5	13.4	9.2
Key drivers	Dividend Yield (%)	8.8	10.5	6.0	7.8	7.9
Our TP is mostly sensitive to:	EV/EBITDA (x)	1.17	1.60	1.56	1.28	1.17
i. Long-term crude oil price assumptions;	EV/EBIT (x)	2.25	2.99	3.61	2.65	2.53
ii. USD/THB exchange rate fluctuations.						
	Income statement (THBm)	Dec-18	Dec-19	Dec-20F	Dec-21F	Dec-22F
Key risks	Total turnover	171,809	191,053	190,990	212,151	230,381
Crude oil price volatility	Gross profit	74,459	84,172	68,721	85,155	88,574
	EBITDA	124,863	135,112	132,212	151,101	162,211
Company Profile	Depreciation and amortisation	(59,809)	(62,811)	(75,138)	(78,043)	(87,144)
PTTEP is the Thai Government's arm for oil & gas exploration. Major assets are predominantly in Thailand, but the company also has exposure to Myanmar, Malaysia, Indonesia, the United Arab Emirates, and Oman.	Operating profit	65,054	72,301	57,074	73,058	75,066
	Net interest	(5,016)	(4,599)	(8,619)	(9,013)	(10,566)
	Pre-tax profit	59,971	69,754	49,582	64,426	64,880
	Taxation	(23,764)	(20,952)	(15,498)	(20,174)	(20,317)
	Reported net profit	36,206	48,803	34,083	44,252	44,563
	Recurring net profit	36,206	48,803	34,083	44,252	44,563
	Cash flow (THBm)	Dec-18	Dec-19	Dec-20F	Dec-21F	Dec-22F
	Change in working capital	16,245	3,641	(7,858)	(3,351)	(2,887)
	Cash flow from operations	112,328	113,203	100,237	118,563	128,440
	Capex	(44,289)	(121,113)	(76,421)	(88,169)	(107,531)
	Cash flow from investing activities	20,417	(139,842)	(74,372)	(87,974)	(107,311)
	Dividends paid	(19,850)	(23,820)	(13,633)	(17,701)	(17,825)
	Cash flow from financing activities	(51,721)	(15,392)	(14,185)	(32,332)	(58,907)
	Cash at beginning of period	49,419	129,820	91,152	101,496	99,606
	Net change in cash	81,024	(42,032)	11,680	(1,743)	(37,779)
	Ending balance cash	129,819	91,152	102,833	99,753	61,827
	Balance sheet (THBm)	Dec-18	Dec-19	Dec-20F	Dec-21F	Dec-22F
	Total cash and equivalents	132,448	97,596	107,940	106,050	68,144
	Tangible fixed assets	408,913	467,215	468,499	478,625	499,012
	Total investments	10,822	16,281	15,357	15,542	15,702
	Total assets	632,256	669,464	690,700	702,768	688,551
	Short-term debt	13,208	551	0	0	0
	Total long-term debt	49,932	103,230	103,230	88,599	47,517
	Total liabilities	242,683	312,405	313,191	298,708	257,753
	Total equity	389,573	357,059	377,509	404,060	430,798
	Total liabilities & equity	632,256	669,464	690,700	702,768	688,551
	Key metrics	Dec-18	Dec-19	Dec-20F	Dec-21F	Dec-22F
	Revenue growth (%)	16.3	11.2	(0.0)	11.1	8.6
	Recurrent EPS growth (%)	3.7	34.8	(30.2)	29.8	0.7
	Gross margin (%)	43.3	44.1	36.0	40.1	38.4
	Operating EBITDA margin (%)	72.7	70.7	69.2	71.2	70.4
	Net profit margin (%)	21.1	25.5	17.8	20.9	19.3
	Dividend payout ratio (%)	54.8	48.8	40.0	40.0	40.0
	Capex/sales (%)	25.8	63.4	40.0	41.6	46.7
	Interest cover (x)	8.44	9.92	5.89	7.25	6.67

Source: Company data, RHB

Figure 1: 1Q20F net profit still quite stable QoQ at THB11.3bn (-2.2% QoQ)

FYE Dec (THBm)	1Q19	4Q19	1Q20F	% QoQ	% YoY
Turnover	42,860	53,893	49,513	(8.1)	15.5
EBIT	15,686	18,180	17,956	(1.2)	14.5
EBIT margin (%)	37%	34%	36%		
Net interest	(947)	(1,479)	(2,083)	40.9	119.8
Pretax profit	15,770	17,154	15,873	(7.5)	0.7
Pretax margin (%)	37%	32%	32%		
Taxation	(3,377)	(5,725)	(4,502)	(21.4)	33.3
Net profit	12,479	11,619	11,372	(2.1)	(8.9)
Net margin (%)	29%	22%	23%		
Recurring net profit	11,833	11,624	11,372	(2.2)	(3.9)
Recurring net profit margin(%)	28%	22%	23%		
EPS (THB)	3.03	2.93	2.86	(2.1)	(5.5)

Source: Company data, RHB

Figure 2: 1Q20F Major operating variables

FYE Dec (THBm)	1Q19	4Q19	1Q20F	% QoQ	% YoY	Comment QoQ
Dubai (average, USD/bbl)	63.41	62.0	51.0	(17.8)	(19.6)	Crude oil price crashed, but the average price remained high, as Jan-Feb 2020 crude oil prices averaged at USD59.30/bbl.
Sales breakdown						
Sales volume (boepd)	319,230	395,028	382,180	(3.3)	19.7	Murphy Oil and Partex Oil & Gas could enter for the full quarter, while most of its fields should run at full capacity.
Average sales price (USD/boe)	46.21	48.28	43.86	(9.2)	(5.1)	Stronger crude oil prices.
Natural gas price (USD/mmbtu)	6.92	6.95	6.80	(2.2)	(1.7)	Natural gas price starts to decline.
Liquid (USD/bbl)	58.82	61.94	51.00	(17.7)	(13.3)	Moves in tandem with crude oil price trends

Source: Company data, RHB

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Energy | Exploration & Production

Figure 3: DCF calculation

	Dec-20	Dec-21	Dec-22	Dec-23	Dec-24	Dec-25	Dec-26	Dec-27	Dec-28	Dec-29
EBITDA	132,212	151,101	162,211	168,269	159,430	159,430	159,430	159,430	159,430	159,430
Taxes	(18,213)	(23,013)	(23,646)	(39,207)	(34,497)	(34,497)	(34,497)	(34,497)	(34,497)	(31,886)
(Changes in WC) (Net capital expenditures)	(9,195)	(3,499)	(3,015)	-	-	-	-	-	-	(73,346)
FCF	23,067	31,567	32,268	40,320	51,908	51,908	51,908	51,908	51,908	54,518
PV of cash flow	20,878	25,861	23,928	27,062	31,534	28,542	25,834	23,383	21,165	20,121
PV of perpetuity	112,750									
Enterprise value - DCF	248,309									
Other projects										
WACC	10.5%									
Total enterprise value	361,059									
(Total debt)	(103,230)									
(PV Off BS Liabilities)	-									
Cash & ST investments	101,496									
Shares, ending (mn)	3,970									
NPV per share	91									
	Current	Prior								
Risk free rate %	1.0%	2.3%								
Beta	1.40	1.41								
Risk premium %	13%	9.2%								
Cost of equity %	14%	12.5%								
% debt - target	50%	50%								
% equity - target	50%	50%								
WACC	10.5%	9.50%								

Source: Company data, RHB

Figure 4: DCF sensitivity to crude oil price

FY21F onwards	Base case							
Crude oil price (USD/bbl)	20.0	30.0	40.0	50.0	60.0	70.0	80.0	90.0
Change	-67%	-50%	-33%	-17%	0%	17%	33%	50%
DCF valuation (THB/share)	35.9	49.5	62.9	77.1	90.5	103.9	118.1	131.7
Change	-60%	-45%	-30%	-15%	0%	15%	30%	45%

Source: Company data, RHB

Figure 5: Valuation comparison

	2020F P/E	2020F P/BV	2020F EV/EBITDA	DCF valuation
Regional peer average	10.0	1.1	6.7	
Multiple used	11.0	1.0	2.7	
EPS/BVS/ WACC	8.6	95.1		10.5%
Implied valuation	94	95	90	91

Source: RHB

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Energy | Exploration & Production

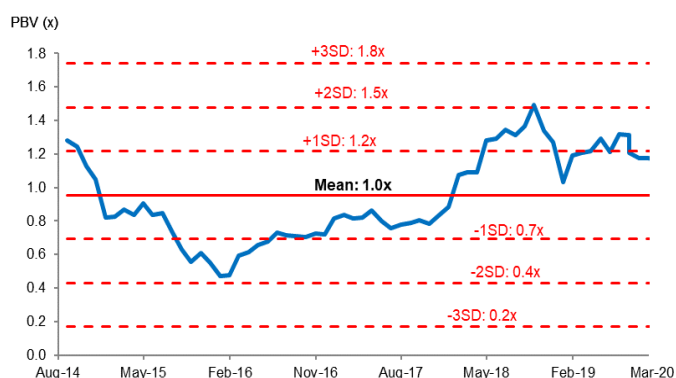
Figure 6: Regional peer comparison

Company	Market cap (USDm)	P/E (x)		P/BV (x)		EV/EBITDA (x)		Div yield (%)		ROE (%)		ROA (%)	
		2020F	2021F	2020F	2021F	2020F	2021F	2020F	2021F	2020F	2021F	2020F	2021F
PTT Exploration & Production	8,198	7.72	7.58	0.67	0.64	2.13	2.11	6.29	6.59	8.89	8.75	5.11	5.33
Saudi Arabian Oil	1,581,891	17.18	15.57	5.20	4.81	8.05	7.21	4.84	4.92	32.01	32.08	19.66	20.82
Oil Search Woodside Petroleum	2,991	10.84	8.46	0.55	0.53	6.15	5.57	3.98	5.10	4.70	6.60	3.58	4.12
Santos	12,060	9.66	9.94	0.71	0.70	4.05	4.02	7.90	7.78	7.53	7.69	5.43	5.28
Xinjiang Goldwind Science & Technology	5,898	8.16	6.52	0.71	0.66	3.66	3.41	4.10	4.45	9.65	10.79	6.30	6.61
Sinopec Oilfield Service	5,809	10.10	8.84	1.28	1.15	10.37	9.55	2.56	2.68	12.61	13.43	4.11	4.28
Guanghui Energy	4,562	25.36	21.09	4.41	3.62	8.49	7.83	0.14	0.14	18.21	17.99	2.11	2.26
CNOOC	2,766	7.74	6.83	1.07	0.97	8.10	7.29	2.99	3.35	13.13	13.27	4.37	5.04
China Oilfield Services	45,268	6.87	5.36	0.67	0.63	2.22	1.96	7.51	8.95	10.56	12.34	6.80	8.01
China Longyuan Power Group Corp	7,719	9.33	7.81	0.83	0.77	8.24	7.45	3.05	3.52	8.95	10.20	4.00	5.19
China Conch Venture	4,550	6.66	5.96	0.57	0.53	6.39	5.94	3.14	3.47	8.83	9.26	3.61	3.83
Offshore Oil Engineering	8,453	8.09	7.26	1.55	1.31	15.32	11.07	2.47	2.99	21.01	19.50	13.71	13.10
Inpex	3,442	26.36	16.76	1.02	0.98	9.67	7.32	1.22	1.92	3.82	6.00	2.72	4.26
Oil & Natural Gas	9,635	7.49	6.25	0.32	0.31	3.62	3.52	4.68	5.70	3.85	4.95	2.87	3.39
Bharat Petroleum	12,144	3.49	3.43	0.39	0.36	2.79	2.67	9.74	9.95	11.47	11.03	5.96	5.95
GAIL India	11,811	12.03	9.43	1.91	1.72	9.95	8.06	3.17	4.11	16.51	19.06	5.77	6.42
Hindustan Petroleum	5,495	6.98	6.32	0.85	0.80	5.05	4.65	5.48	5.38	12.09	12.39	11.18	11.76
Oil India	4,330	7.00	5.05	0.99	0.89	6.30	4.96	5.23	6.85	14.72	17.70	4.11	4.88
SK Innovation	1,240	2.92	3.24	0.30	0.30	3.01	3.48	12.43	11.15	11.37	9.49	6.72	5.62
S-Oil	7,087	11.71	7.64	0.46	0.45	7.23	5.54	4.05	5.28	4.21	5.68	1.88	2.74
GS Holdings	5,506	11.32	8.20	0.97	0.91	8.63	7.21	3.49	5.21	9.27	11.37	3.52	4.95
PetroVietnam Gas JSC	2,936	5.38	4.41	0.38	0.36	6.86	6.13	4.80	4.93	8.04	8.31	3.16	3.60
Vietnam National Petroleum	4,905	10.35	9.36	2.12	1.96	5.64	4.96	6.22	6.05	21.41	22.57	16.21	16.87
Average	1,960	11.11	10.03	2.13	2.18	5.77	5.54	7.21	6.99	19.12	19.54	7.94	7.96
Average		9.95	8.10	1.10	1.00	6.70	5.82	4.80	5.27	11.41	12.23	5.73	6.19

Note: Data as at 18 March 2020

Source: Bloomberg, RHB

Figure 7: PTTEP's forward P/BV and SD levels



Source: Bloomberg, RHB

Figure 8: Thai Oil & Gas Index's forward P/BV and SD levels



Source: Bloomberg, RHB

Figure 9: PTTEP's implied P/BV at different SD levels

	-3SD	-2SD	-1SD	Mean	+1SD	+2SD	+3SD
P/BV (x)	0.20	0.4	0.7	1.0	1.2	1.5	2
Implied valuation (THB/share)	19	38	67	95	114	143	171

Source: RHB

Recommendation Chart



Source: RHB, Bloomberg

Date	Recommendation	Target Price	Price
2020-03-09	Buy	120	75
2020-02-12	Buy	147	128
2020-02-11	Buy	147	126
2020-01-31	Buy	147	125
2020-01-23	Buy	147	129
2019-12-17	Buy	144	123
2019-11-07	Buy	150	125
2019-10-31	Buy	150	121
2019-10-21	Buy	150	117

Source: RHB, Bloomberg

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Energy & Petrochemicals | Refineries & Petrochemicals

Bangchak Corp (BCP TB)

Neutral (Maintained)

Refinery Business Under Pressure

Target Price (Return): THB14.50 (+0%)
 Price: THB14.50
 Market Cap: USD608m
 Avg Daily Turnover (THB/USD) 107m/3.47m

- **Maintain NEUTRAL, with a new TP of THB14.50, from THB25.30.** 2020F will be a challenging year for the refinery business, with 1Q20F running at a loss currently. We expect spreads to improve in 2H20F, but remain weaker YoY. Its retail marketing business is also under pressure as a result of the COVID-19 outbreak negatively impacting transportation fuel demand. On the other hand, the 20% EBITDA improvement from its power plant and bio-based business is a positive.
- **1Q20F net loss of THB1.1bn is expected, with recurring net profit at THB373m.** The current market spreads indicate market GRM of c.USD1.00-2.00/bbl. With all-in costs at c.USD4.50-5.00/bbl, the refinery is running at a loss of c.USD3.00/bbl. Assuming the refinery runs at a 90% utilisation rate in 1Q20, EBITDA loss here would be c.TH950m. We also expect the refinery to record a stock loss of THB1.7bn – if the crude oil price ends the quarter at USD30.00/bbl and Bangchak Corp has 5m bbls of crude oil in stock.
- **We expect full-year average GRM at c.USD4.50/bbl** – as such, the refinery business should break even for the full year. We note that the refinery is expected to run at 106kbbpd (88% utilisation rate) for 2020, with a major turnaround of 40 days scheduled in 3Q20F.
- **Retail marketing business is also challenging this year, as a result of the COVID-19 outbreak.** The retail business is expected to see a slowdown as people tend to travel less via both land and air. The industrial segment is also anticipated to see a slowdown in business as the domestic economy slows down as well. As such, rather than growth, we expect a flat EBITDA contribution this year at THB2.2bn.
- **Power plant business** is expected to see 2020F EBITDA increase by 20% YoY to THB3.5bn, as a result of the full-year recognition of its Lomligor project and the Namsan 3A and 3B hydro power plants.
- **Bio-based business is estimated to see EBITDA improve by 20% YoY to THB1.2bn,** due to improved crude palm oil prices and increased demand as the Government advocates B20 and B10 consumption.
- **Earnings and TP slashed.** We revise 2020F reported net profit to THB788m. Stripping out a stock loss of THB1.7bn, we expect recurrent net profit at THB2.2bn. We note that reported net profit can be quite volatile, as this includes stock gain/losses, which can be quite volatile. Our TP is revised down to THB14.50, implying 0.35x P/BV. We maintain our NEUTRAL call on this counter.

Analyst

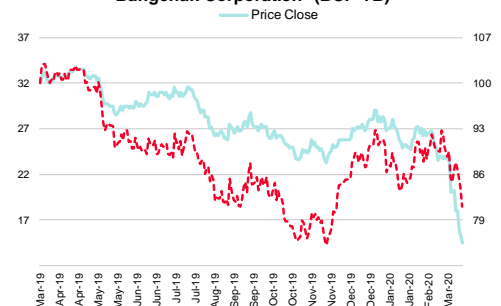
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Share Performance (%)

	YTD	1m	3m	6m	12m
Absolute	(48.2)	(45.3)	(46.8)	(47.3)	(54.3)
Relative	(14.5)	(14.5)	(13.8)	(10.7)	(19.1)
52-wk Price low/high (THB)	14.5 – 33.8				

Bangchak Corporation (BCP TB)



Source: Bloomberg

Forecasts and Valuation	Dec-18	Dec-19	Dec-20F	Dec-21F	Dec-22F
Total turnover (THBm)	192,025	190,489	169,168	174,713	169,501
Recurring net profit (THBm)	4,306	2,052	2,284	5,088	5,343
Recurring net profit growth (%)	(18.5)	(52.4)	11.3	122.8	5.0
Recurring P/E (x)	4.64	9.74	8.75	3.93	3.74
P/B (x)	0.5	0.4	0.4	0.4	0.4
P/CF (x)	3.89	3.70	1.51	1.69	1.83
Dividend Yield (%)	9.3	5.5	1.6	10.2	10.7
EV/EBITDA (x)	5.09	6.08	4.51	2.88	2.53
Return on average equity (%)	6.6	3.7	1.6	10.0	9.9
Net debt to equity (%)	78.0	68.8	63.3	50.5	40.7

Source: Company data, RHB

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Energy & Petrochemicals | Refineries & Petrochemicals

Financial Exhibits

Asia	Financial summary (THB)	Dec-18	Dec-19	Dec-20F	Dec-21F	Dec-22F
Thailand	Recurring EPS	3.13	1.49	1.66	3.69	3.88
Energy & Petrochemicals	DPS	1.35	0.80	0.23	1.48	1.55
Bangchak Corp	BVPS	31.00	37.45	35.80	38.02	40.35
BCP TB	Return on average equity (%)	6.6	3.7	1.6	10.0	9.9
Neutral						
	Valuation metrics	Dec-18	Dec-19	Dec-20F	Dec-21F	Dec-22F
	Recurring P/E (x)	4.64	9.74	8.75	3.93	3.74
	P/B (x)	0.5	0.4	0.4	0.4	0.4
	FCF Yield (%)	(4.4)	(43.6)	44.7	34.6	30.3
	Dividend Yield (%)	9.3	5.5	1.6	10.2	10.7
	EV/EBITDA (x)	5.09	6.08	4.51	2.88	2.53
	EV/EBIT (x)	11.32	17.78	9.54	4.62	3.99
	Income statement (THBm)	Dec-18	Dec-19	Dec-20F	Dec-21F	Dec-22F
	Total turnover	192,025	190,489	169,168	174,713	169,501
	Gross profit	11,386	10,231	11,586	16,023	16,427
	EBITDA	8,912	7,649	9,549	13,347	13,751
	Depreciation and amortisation	(4,902)	(5,032)	(5,032)	(5,032)	(5,032)
	Operating profit	4,010	2,617	4,517	8,315	8,719
	Net interest	(1,545)	(1,701)	(1,498)	(1,633)	(1,719)
	Pre-tax profit	4,169	2,590	1,759	7,182	7,500
	Taxation	(493)	(68)	(214)	(1,336)	(1,400)
	Reported net profit	2,904	1,765	788	5,088	5,343
	Recurring net profit	4,306	2,052	2,284	5,088	5,343
	Cash flow (THBm)	Dec-18	Dec-19	Dec-20F	Dec-21F	Dec-22F
	Change in working capital	(3,182)	(1,749)	7,142	1,435	310
	Cash flow from operations	5,142	5,400	13,219	11,812	10,942
	Capex	(6,029)	(14,118)	(4,291)	(4,891)	(4,891)
	Cash flow from investing activities	(8,476)	(6,521)	(5,096)	(6,048)	(4,551)
	Dividends paid	(3,764)	(2,193)	(1,197)	(315)	(2,035)
	Cash flow from financing activities	5,355	(2,526)	(11,335)	(7,215)	(4,022)
	Cash at beginning of period	10,106	11,551	7,276	4,065	2,614
	Net change in cash	2,021	(3,647)	(3,211)	(1,451)	2,368
	Ending balance cash	11,550	7,276	4,065	2,614	4,982
	Balance sheet (THBm)	Dec-18	Dec-19	Dec-20F	Dec-21F	Dec-22F
	Total cash and equivalents	11,813	7,564	4,353	2,902	5,270
	Tangible fixed assets	57,165	66,251	65,510	65,369	65,228
	Total investments	20,062	21,142	21,142	21,142	21,142
	Total assets	117,369	127,788	116,694	115,490	117,352
	Short-term debt	11,220	10,249	11,951	7,038	7,038
	Total long-term debt	39,244	37,792	28,697	26,710	24,723
	Total liabilities	67,831	68,973	59,394	54,380	52,279
	Total equity	49,538	58,815	57,300	61,110	65,073
	Total liabilities & equity	117,369	127,788	116,694	115,490	117,352
	Key metrics	Dec-18	Dec-19	Dec-20F	Dec-21F	Dec-22F
	Revenue growth (%)	11.6	(0.8)	(11.2)	3.3	(3.0)
	Recurrent EPS growth (%)	(18.5)	(52.4)	11.3	122.8	5.0
	Gross margin (%)	5.9	5.4	6.8	9.2	9.7
	Operating EBITDA margin (%)	4.6	4.0	5.6	7.6	8.1
	Net profit margin (%)	1.5	0.9	0.5	2.9	3.2
	Dividend payout ratio (%)	75.5	67.8	40.0	40.0	40.0
	Capex/sales (%)	3.1	7.4	2.5	2.8	2.9
	Interest cover (x)	2.60	1.54	3.02	5.09	5.07

Source: Company data, RHB

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Energy & Petrochemicals | Refineries & Petrochemicals

Figure 1: 1Q20F net loss of THB1.1bn, with a stock loss of THB1.7bn

(THBm)	1Q19	4Q19	1Q20F	% QoQ	% YoY
Turnover	45,535	50,146	42,292	-16%	-7%
Gross profit	2,176	3,021	2,897	-4%	33%
GRM (%)	5	6	7		
EBIT	566	1,075	-631	-159%	-212%
EBIT margin (%)	1.2	2.1	-1.5		
Net interest	-406	-493	-374	-24%	-8%
Pretax profit	206	885	-1,005	-214%	-588%
Pretax margin (%)	0.5	1.8	-2.4		
Taxation	32	-36	-54	47%	-269%
Tax rate (%)	15.3	-4.1	5.3		
Net profit	214	620	-1,123	-281%	-625%
Net margin (%)	0.5	1.2	-2.7		
Reported EPS (THB)	0.2	0.4	-0.8	-281%	-625%
Recurring profit	66	223	373	67%	462%

Source: RHB

Figure 2: 1Q20F refined product spreads expected to weaken on fear of travel due to the COVID-19 outbreak

Refined products (USD/bbl)	1Q19	4Q19	1Q20F	QoQ	YoY	Comment QoQ
Dubai	63.5	62.1	56.3	-9%	-11%	COVID-19 fears take a toll on travel fuel demand, while the failed OPEC+ meeting causes a collapse in crude oil prices.
Jet-Dubai	13.0	13.9	8.9	-36%	-32%	Winter was warmer than normal, therefore demand softened. Supply remains high. The COVID-19 outbreak resulted in fear of travel.
Gasoil-Dubai	12.8	14.3	10.2	-29%	-21%	Gasoline spreads come under pressure as demand falls and supply remains ample.
Gasoline-Dubai	3.7	13.0	8.3	-36%	124%	Weaker bunkering activity currently due to the COVID-19 outbreak and softer economic activity is pressuring LSFO prices.
LSFO-Dubai	6.6	21.2	19.0	-11%	188%	
HSFO-Dubai	0.5	(18.7)	(9.1)	-51%	-1,851%	

Source: Company data, RHB

Figure 3: Valuation comparison

	P/E	P/BV 2020F	EV/EBITDA	DCF method
Regional multiples	9.9	0.7	6.3	
RHB fair multiple	8.5	0.35	2.0	
EPS/BPV	1.66	41.6		
DCF, WACC used				8.9%
RHB fair estimate	14.1	14.5	13.9	14.9

Source: RHB

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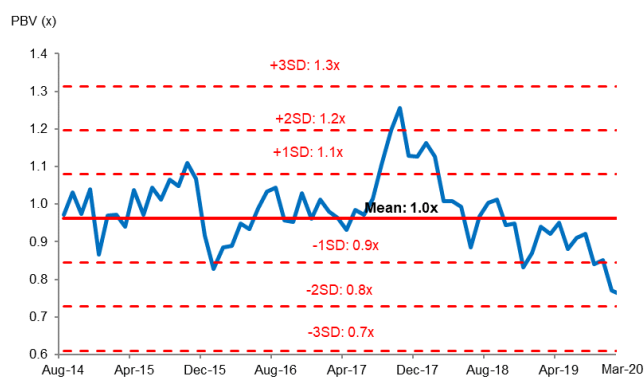
Figure 4: Regional peer comparison

Company	Market Cap (USDm)	P/E (x)		P/BV (x)		EV/EBITDA (x)		Div yield (%)		ROE (%)		ROA (%)	
		2020F	2021F	2020F	2021F	2020F	2021F	2020F	2021F	2020F	2021F	2020F	2021F
Bangchak Corp	821	8.24	6.83	0.51	0.48	6.98	6.58	6.25	7.41	6.22	7.27	2.87	3.36
Esso Thailand	539	6.25	4.76	0.65	0.60	8.05	6.70	6.96	8.92	12.01	13.36	4.43	5.95
IRPC	1,319	15.11	9.76	0.49	0.48	7.37	6.39	4.66	6.03	3.54	5.26	1.88	2.63
Indorama Ventures	3,856	8.22	6.89	0.83	0.77	6.28	5.78	4.81	5.28	10.28	11.23	3.79	4.07
PTT	24,859	8.34	7.32	0.84	0.80	4.89	4.62	6.11	6.74	9.88	10.09	4.55	4.59
PTT Global Chemical	3,869	7.76	6.06	0.41	0.39	5.85	4.98	6.80	9.18	5.28	6.78	3.46	4.43
Star Petroleum Refining	762	9.47	7.33	0.68	0.65	4.94	4.20	6.02	8.32	7.78	9.47	4.70	6.21
Thai Oil	2,195	8.73	6.79	0.55	0.52	5.67	4.81	5.30	6.61	6.66	8.00	3.11	3.69
Reliance Industries China Petroleum & Chemical Corp	98,454	15.49	11.77	1.66	1.49	10.09	7.93	0.67	0.77	11.22	12.81	5.04	6.01
PetroChina	76,300	9.12	7.37	0.53	0.52	4.85	4.48	7.48	8.38	6.32	7.33	3.01	3.52
PetroChina	125,284	12.78	8.52	0.34	0.33	4.87	4.56	4.76	5.83	3.10	3.96	1.53	1.72
Indian Oil	12,282	8.57	5.84	0.77	0.72	6.42	5.00	5.13	7.73	8.98	12.63	5.87	7.08
Average		9.99	7.49	0.70	0.66	6.30	5.40	5.34	6.71	7.73	9.17	3.76	4.54

Note: Data as at 18 March 2020

Source: Bloomberg, RHB

Figure 5: BCP's forward P/BV and SD levels



Source: Bloomberg, RHB

Figure 6: Thai Oil & Gas Index's forward P/BV and SD levels



Source: Bloomberg, RHB

Figure 7: BCP's implied P/BV at different SD levels

	-3SD	-2SD	-1SD	Mean	+1SD	+2SD	+3SD
P/BV (x)	0.7	0.8	0.9	1	1.1	1.2	1.30
Implied valuation (THB/share)	29.6	33.8	38.0	42.2	46.4	50.7	54.9

Source: RHB

Recommendation Chart



Source: RHB, Bloomberg

Date	Recommendation	Target Price	Price
2020-03-05	Neutral	25.3	23.7
2019-08-13	Neutral	30.0	27.0
2019-07-30	Neutral	33.0	30.5
2019-05-10	Buy	40.0	31.3
2019-02-26	Buy	40.0	33.3
2019-02-22	Buy	40.0	33.3
2018-11-09	Buy	41.0	33.0
2018-08-10	Buy	na	35.5
2018-05-14	Buy	na	35.5

Source: RHB, Bloomberg

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IRPC (IRPC TB)

Sell (Maintained)

Difficult Year For Higher-Cost Producers

- Maintain SELL with a new THB1.60 TP from THB2.50, 19% downside.** We expect a 1Q20 net loss of THB7.8bn with a stock loss of THB5.7m. Stripping out the stock loss, a recurring net loss of THB2bn is expected. This year will be an especially difficult one for IRPC, in our view, due to its relatively higher cost base.
- A 1Q20 net loss of THB6.5bn is expected** with a stock loss of THB5.7m. This assumes that crude oil ends the quarter at USD30.00/bbl and IRPC holds crude oil stock of 6mmbbls. Stripping out the stock loss, we expect the company's recurring net loss at THB1.9bn. We have not changed our assumptions, with expected market GIM at c.USD7.00/bbl and costs at USD11.00/bbl. IRPC may not be able to run at full capacity in 1Q20, assuming its utilisation rate is at 85% for this period.
- For the rest of the year, we maintain our expectations.** We are imputing a 100% run rate for the rest of the year, with an optimistic USD11.00/bbl GIM for the rest of 2020, given an improved crude premium, as well as expectations of better prices and spreads. We forecast recurring net profit to be a weak THB1.8bn for this year. We also expect a full-year net loss of THB2.8bn, inclusive of stock losses. We note that reported earnings should be quite volatile, as this includes stock gains, losses, and more.
- For the longer term, plans include land development and sales through its JV with WHA Corp (WHA TB, BUY, TP: THB4.85).** Total land size to be sold: 2,152 *rai* – starting in 2021. IRPC's Ultra Clean Fuels project, which will upgrade its gasoil to the EURO V standard, has a total investment cost of THB9.4bn and is slated for completion this year.
- Further debt financing will be required.** IRPC's total capex for 2020F-2024F is expected to reach THB53.9bn, while debt repayments are expected to hit THB52bn over the 2020-2023+ period. We believe the company will require further debt financing of c.TH10-30bn during this forecasted period. However, IRPC will still be able to remain within its treasury policy – net D/E of <1x – over this timeframe.
- Earnings and TP revised.** 2021F-2022F earnings have been adjusted slightly, given that our revised crude oil price forecast now at USD60.00/bbl, from USD64.00/bbl for this period. We have assumed GIM at c.USD12.00/bbl for the forecasted timeframe. We slash our TP further to THB1.60/share, which is based on 0.4x P/BV, or -3SD of its P/BV. We believe this will be an especially difficult year for IRPC, due to its relatively higher cost base. We maintain our SELL recommendation on this stock.

Target Price (Return): THB1.60 (-19.2%)
 Price: THB1.98
 Market Cap: USD1,249m
 Avg Daily Turnover (THB/USD) 435m/14.1m

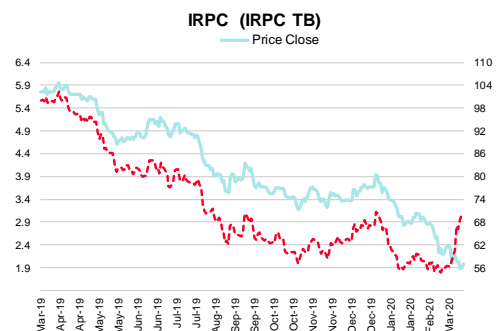
Analyst

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Share Performance (%)

	YTD	1m	3m	6m	12m
Absolute	(46.2)	(31.3)	(44.4)	(49.5)	(65.3)
Relative	(12.5)	(0.5)	(11.4)	(12.9)	(30.1)
52-wk Price low/high (THB)	1.88 – 5.95				



Source: Bloomberg

Forecasts and Valuation	Dec-18	Dec-19	Dec-20F	Dec-21F	Dec-22F
Total turnover (THBm)	280,551	239,315	282,627	257,481	257,481
Recurring net profit (THBm)	7,929	(2,926)	1,814	5,835	5,817
Recurring net profit growth (%)	14.7	(136.9)	-	221.6	(0.3)
Recurring P/E (x)	5.10	na	22.30	6.93	6.96
P/B (x)	0.5	0.5	0.5	0.5	0.5
P/CF (x)	2.56	6.49	4.85	3.87	3.12
Dividend Yield (%)	10.0	(5.1)	2.2	7.2	7.2
EV/EBITDA (x)	5.34	21.71	6.40	5.48	5.88
Return on average equity (%)	8.9	(1.3)	(3.4)	7.2	6.9
Net debt to equity (%)	63.0	67.1	67.1	63.8	70.6

Source: Company data, RHB

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Financial Exhibits

Asia	Financial summary (THB)	Dec-18	Dec-19	Dec-20F	Dec-21F	Dec-22F
Thailand	Recurring EPS	0.39	(0.14)	0.09	0.29	0.28
Energy & Petrochemicals	DPS	0.20	(0.10)	0.04	0.14	0.14
IRPC	BVPS	4.27	4.07	3.89	4.04	4.18
IRPC TB	Return on average equity (%)	8.9	(1.3)	(3.4)	7.2	6.9
Sell						
	Valuation metrics	Dec-18	Dec-19	Dec-20F	Dec-21F	Dec-22F
	Recurring P/E (x)	5.10	na	22.30	6.93	6.96
	P/B (x)	0.5	0.5	0.5	0.5	0.5
	FCF Yield (%)	24.9	1.6	4.9	7.7	(12.8)
	Dividend Yield (%)	10.0	(5.1)	2.2	7.2	7.2
	EV/EBITDA (x)	5.34	21.71	6.40	5.48	5.88
	EV/EBIT (x)	10.27	na	22.92	10.25	10.85
	Income statement (THBm)	Dec-18	Dec-19	Dec-20F	Dec-21F	Dec-22F
	Total turnover	280,551	239,315	282,627	257,481	257,481
	Gross profit	15,914	2,745	11,783	14,977	15,224
	EBITDA	17,178	4,231	13,960	16,197	16,444
	Depreciation and amortisation	(8,237)	(8,542)	(10,062)	(7,534)	(7,534)
	Operating profit	8,941	(4,311)	3,898	8,664	8,910
	Net interest	(1,961)	(1,931)	(1,939)	(2,194)	(2,461)
	Pre-tax profit	8,915	(1,924)	(3,401)	6,870	6,849
	Taxation	(1,147)	779	601	(1,035)	(1,032)
	Reported net profit	7,769	(1,146)	(2,800)	5,835	5,817
	Recurring net profit	7,929	(2,926)	1,814	5,835	5,817
	Cash flow (THBm)	Dec-18	Dec-19	Dec-20F	Dec-21F	Dec-22F
	Change in working capital	491	(795)	1,478	(2,502)	0
	Cash flow from operations	15,818	6,239	8,340	10,467	12,951
	Capex	(5,735)	(5,611)	(6,366)	(7,346)	(18,119)
	Cash flow from investing activities	(8,295)	(3,109)	(3,873)	(8,866)	(17,710)
	Dividends paid	(5,926)	(4,037)	(2,043)	(907)	(2,917)
	Cash flow from financing activities	(7,330)	(2,431)	(4,411)	3,485	4,415
	Cash at beginning of period	2,145	2,338	3,036	3,093	5,160
	Net change in cash	193	698	57	5,086	(344)
	Ending balance cash	2,338	3,036	3,093	8,179	4,816
	Balance sheet (THBm)	Dec-18	Dec-19	Dec-20F	Dec-21F	Dec-22F
	Total cash and equivalents	2,338	3,036	3,093	5,160	4,816
	Tangible fixed assets	126,511	122,554	118,859	118,672	129,257
	Total investments	8,441	9,925	9,667	9,667	9,667
	Total assets	182,446	177,850	172,510	176,423	186,665
	Short-term debt	13,804	15,090	8,170	22,873	16,352
	Total long-term debt	43,561	43,881	48,391	35,061	48,915
	Total liabilities	95,066	94,448	92,772	93,768	101,100
	Total equity	87,380	83,402	79,738	82,656	85,564
	Total liabilities & equity	182,446	177,850	172,510	176,423	186,665
	Key metrics	Dec-18	Dec-19	Dec-20F	Dec-21F	Dec-22F
	Revenue growth (%)	31.0	(14.7)	18.1	(8.9)	0.0
	Recurrent EPS growth (%)	14.7	(136.9)	0.0	221.6	(0.3)
	Gross margin (%)	5.7	1.1	4.2	5.8	5.9
	Operating EBITDA margin (%)	6.1	1.8	4.9	6.3	6.4
	Net profit margin (%)	2.8	(0.5)	(1.0)	2.3	2.3
	Dividend payout ratio (%)	52.0	(178.4)	(32.4)	50.0	50.0
	Capex/sales (%)	2.0	2.3	2.3	2.9	7.0
	Interest cover (x)	4.56	(2.23)	1.92	3.74	3.41

Source: Company data, RHB

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Figure 1: 1Q20 net loss expected at THB6.5bn, with a stock loss of THB5.7bn

(THBm)	1Q19	4Q19	1Q20F	% QoQ	% YoY
Turnover	59,721	55,757	47,425	(14.9)	(20.6)
Gross profit	1,688	(400)	234	(158.5)	(86.1)
Gross profit margin	3%	-1%	0%		
EBIT	541	(532)	(7,497)	1,309.5	(1,484.7)
EBIT margin	1%	-1%	-16%		
Pretax profit	68	(1,011)	(7,918)	682.9	(11,826.8)
Pretax margin	0%	-2%	-17%		
Taxation	9	445	1,267	184.8	14,751.9
Tax rate	13%	-44%	-16%		
Net profit	153	(513)	(6,560)	1,178.4	(4,390.0)
Net margin	0%	-1%	-14%		
Recurring income	(769)	(2,365)	(1,952)	(17.5)	153.8
EPS (THB)	0.01	(0.03)	(0.32)	1,178.4	(4,390.0)

Source: Company data, RHB

Figure 2: : 1Q20F Refined product spreads weaken on fear of travel due to covid-19 outbreak

	1Q19	4Q19	1Q20	QoQ	YoY	Comment QoQ
Refined products (USD/bbl)						
Dubai	63.5	62.1	56.3	(9%)	(11%)	Coronavirus fears takes its toll on travel fuels, while the failed OPEC+ meeting causes a collapse in crude oil prices.
Jet-Dubai	13.0	13.9	8.9	(36%)	(32%)	Winter has been warmer than normal – therefore demand is softer.
Gasoil-Dubai	12.8	14.3	10.2	(29%)	(21%)	Supply is still high. COVID-19 pandemic causes travel fears.
Gasoline-Dubai	3.7	13.0	8.3	(36%)	124%	Gasoline spreads come under pressure, as demand falls and supply remains ample.
LSFO-Dubai	6.6	21.2	19.0	(11%)	188%	Weaker bunkering activity currently due to COVID-19. Economic activity is pressuring LSFO.
HSFO-Dubai	0.5	(18.7)	(9.1)	(51%)	(1,851%)	

Source: Company data, RHB

Figure 3: Earnings and TP revisions, with 2020F adjusted for a stock loss of THB5.7bn

	2020F	2021F	2022F
Net profit (THBm, revised)	(2,803)	5,904	5,897
Net profit (THBm, old)	1,624	6,009	6,051
change	-273%	-2%	-3%
EPS (THB, FD-revised)	(0.14)	0.29	0.29
EPS (THB, FD-old)	0.08	0.29	0.30
% change	-273%	-2%	-3%
TP (revised)	1.6		
TP (old)	2.5		
change	-36.0%		
Bloomberg consensus			
Net profit (THB bn)	2,370.5	3,882.7	5,047.6
TP (THB/share)	3.10		

Source: RHB

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Figure 4: Valuation comparison

	P/E 2020F	P/BV 2020F	EV/EBITDA 2020F	DCF method
Regional peer multiples	9.4	0.7	7.0	
DCF valuation, WACC used				8.0%
THB/share (EPS/BVS)	0.1	4.0		
Fair multiple used	18.0	0.40	2.4	
Implied valuation per share	1.6	1.6	1.6	2.0

Source: RHB

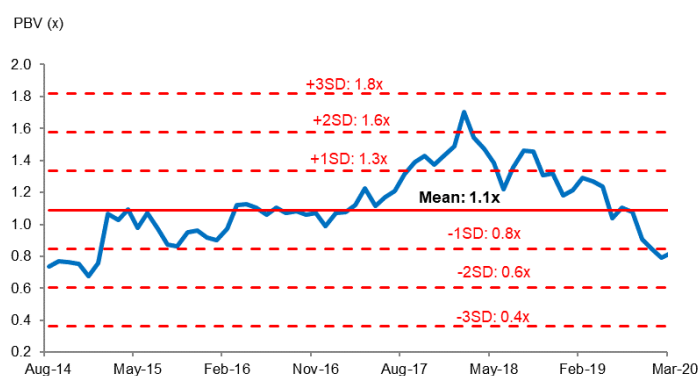
Figure 5: Regional peer comparison

Company	Market cap (USDm)	P/E (x)		P/BV (x)		EV/EBITDA (x)		Div yield (%)		ROE (%)		ROA (%)	
		2020F	2021F	2020F	2021F	2020F	2021F	2020F	2021F	2020F	2021F	2020F	2021F
IRPC	1,319	15.11	9.76	0.49	0.48	7.37	6.39	4.66	6.03	3.54	5.26	1.88	2.63
Bangchak Corp	821	8.24	6.83	0.51	0.48	6.98	6.58	6.25	7.41	6.22	7.27	2.87	3.36
Esso Thailand	539	6.25	4.76	0.65	0.60	8.05	6.70	6.96	8.92	12.01	13.36	4.43	5.95
Indorama Ventures	3,856	8.22	6.89	0.83	0.77	6.28	5.78	4.81	5.28	10.28	11.23	3.79	4.07
PTT	24,859	8.34	7.32	0.84	0.80	4.89	4.62	6.11	6.74	9.88	10.09	4.55	4.59
PTT Global Chemical	3,869	7.76	6.06	0.41	0.39	5.85	4.98	6.80	9.18	5.28	6.78	3.46	4.43
Star Petroleum Refining	762	9.47	7.33	0.68	0.65	4.94	4.20	6.02	8.32	7.78	9.47	4.70	6.21
Thai Oil	2,195	8.73	6.79	0.55	0.52	5.67	4.81	5.30	6.61	6.66	8.00	3.11	3.69
Reliance Industries	98,454	15.49	11.77	1.66	1.49	10.09	7.93	0.67	0.77	11.22	12.81	5.04	6.01
China Petroleum & Chemical	76,300	9.12	7.37	0.53	0.52	4.85	4.48	7.48	8.38	6.32	7.33	3.01	3.52
PetroChina	125,284	12.78	8.52	0.34	0.33	4.87	4.56	4.76	5.83	3.10	3.96	1.53	1.72
Indian Oil Corp	12,282	8.57	5.84	0.77	0.72	6.42	5.00	5.13	7.73	8.98	12.63	5.87	7.08
Average		9.36	7.23	0.71	0.66	6.26	5.42	5.48	6.83	7.97	9.36	3.85	4.60

Note: Data as at 18 March 2020

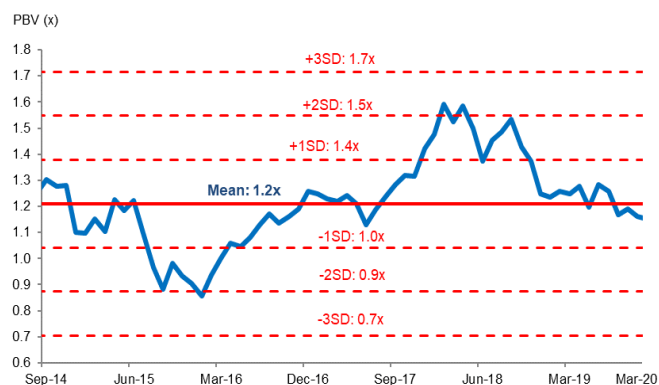
Source: Bloomberg, RHB

Figure 6: IRPC's forward P/BV and SD levels



Source: Bloomberg, RHB

Figure 7: Thai Oil & Gas Index's forward P/BV and SD levels



Source: Bloomberg, RHB

Figure 8: IRPC's implied P/BV at different SD levels

	-3SD	-2SD	-1SD	Mean	+1SD	+2SD	+3SD
P/BV (x)	0.4	0.6	0.8	1.1	1.3	1.6	1.8
Implied valuation (THB/share)	1.6	2.4	3.2	4.4	5.2	6.4	7.2

Source: RHB

Recommendation Chart



Source: RHB, Bloomberg

Date	Recommendation	Target Price	Price
2020-02-19	Sell	2.50	2.84
2020-02-18	Sell	2.50	2.88
2020-02-13	Sell	2.50	2.98
2020-02-13	Sell	2.50	2.98
2020-01-29	Sell	2.40	2.92
2020-01-29	Sell	2.40	2.92
2019-11-13	Sell	2.90	3.56
2019-11-05	Sell	2.90	3.46
2019-10-21	Sell	2.90	3.42

Source: RHB, Bloomberg

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Energy | Refineries & Petrochemicals

PTT Global Chemical (PTTGC TB)

Buy (Maintained)

Extremely Tough Quarters Ahead

Target Price (Return): THB33.00 (+36%)
 Price: THB24.30
 Market Cap: USD3,365m
 Avg Daily Turnover (THB/USD) 1,096m/35.4m

- **Maintain BUY with a new THB33.0 TP from THB59.00, 36% upside plus 4.5% yield.** At current levels, PTT Global Chemical has already surpassed our worst case scenario of THB32.70/share. We slash our forecasts to reflect refining spreads being much weaker than initially expected, while petrochemical prices and spreads are bottoming out. PTTGC will see weaker earnings, but is not under financial distress. Net D/E ratio is 11%, and we expect cash on hand at c.THB21.8bn at the year's end.
- **For 2020F, we revise down our reported net profit to THB6.3bn,** 55% lower than our previous forecast, as we include a stock loss of THB5.7bn. Our GRM assumption is also lower now, at USD2.86/bbl, from c.USD4.50/bbl, as the COVID-19 pandemic continues to hit the demand for transportation fuels hard. Our expectations for the petrochemicals business remains unchanged, as we believe the current prices and spreads already reflect near-bottom levels.
- **2020F recurring net profit to be at THB10.9bn,** indicating a growth of 18% YoY vs 2019's earnings of THB9.3bn, as there are less planned shutdowns and no labour law expenses. This means there is still room for dividends to be paid to shareholders.
- **1Q20F net loss of THB3.7bn, stock loss is expected at THB5.7bn.** This is assuming crude oil ends the month at USD30.00/bbl with crude oil stock at 6m bbls. Stripping out the stock loss, we expect a recurring net profit of THB906m. We expect GRM at USD2.00/bbl for 1H20F and USD3.00/bbl in 2H20F. HDPE prices are expected at USD850.00-900.00/ton for the year. We expect 2Q20 recurring net profit at THB2.6bn, while 2H20F should see earnings improve to THB3bn+.
- **Weak petrochemical prices and spreads.** PE prices have stabilised QTD, while spreads have started to improve, as naphtha prices have dropped slightly. QTD, the HDPE price was at USD845.00/ton (+0% QoQ), while HDPE spreads improved to USD358.00/ton (+19% vs 4Q19) – within our expected uptrend. The regional naphtha crackers' breakeven price is c.USD400.00/ton. As such, several naphtha crackers have already started to shut down or cut their run rates. Spreads should be approaching bottom levels now.
- **Maintain BUY, new THB33.00 TP,** based on 0.5x P/BV, or -3SD P/BV. The current share price has now surpassed our worst case scenario of THB32.70/share. The stock is trading below -3SD PBV. PTTGC will face weaker earnings, but is not under financial distress. DPS on recurring net profit is expected at c.THB1.00 this year. Its net D/E ratio is 11%, and we expect cash at around THB21.8bn.

Analyst

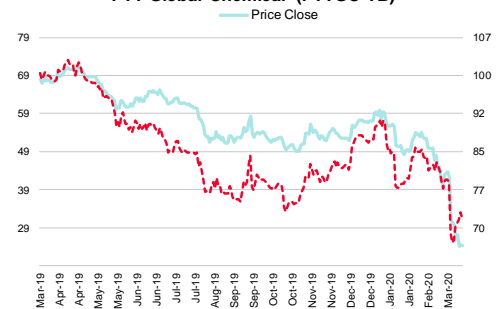
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Share Performance (%)

	YTD	1m	3m	6m	12m
Absolute	(57.4)	(51.4)	(57.0)	(54.8)	(64.0)
Relative	(23.7)	(20.6)	(24.0)	(18.2)	(28.8)
52-wk Price low/high (THB)	24.0 – 71.3				

PTT Global Chemical (PTTGC TB)



Source: Bloomberg

Forecasts and Valuation	Dec-18	Dec-19	Dec-20F	Dec-21F	Dec-22F
Total turnover (THBm)	518,655	412,810	354,123	399,074	399,074
Recurring net profit (THBm)	43,642	9,314	10,978	10,513	11,002
Recurring net profit growth (%)	8.5	(78.7)	17.9	(4.2)	4.6
Recurring P/E (x)	2.48	11.77	9.98	10.43	9.96
P/B (x)	0.4	0.4	0.4	0.4	0.4
P/CF (x)	2.41	3.73	2.38	2.46	3.14
Dividend Yield (%)	17.5	8.2	4.5	4.3	4.5
EV/EBITDA (x)	2.44	7.81	4.76	4.81	5.09
Return on average equity (%)	14.0	4.0	2.2	3.6	3.7
Net debt to equity (%)	17.3	28.7	31.6	30.7	33.5

Source: Company data, RHB

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Energy | Refineries & Petrochemicals

Financial Exhibits

Asia	Financial summary (THB)	Dec-18	Dec-19	Dec-20F	Dec-21F	Dec-22F
Thailand	Recurring EPS	9.78	2.06	2.43	2.33	2.44
Energy & Petrochemicals	DPS	4.25	2.00	1.08	1.04	1.10
PTT Global Chemical	BVPS	66.37	63.37	64.07	65.35	66.69
PTTGC TB	Return on average equity (%)	14.0	4.0	2.2	3.6	3.7
Buy						
	Valuation metrics	Dec-18	Dec-19	Dec-20F	Dec-21F	Dec-22F
	Recurring P/E (x)	2.48	11.77	9.98	10.43	9.96
	P/B (x)	0.4	0.4	0.4	0.4	0.4
	FCF Yield (%)	10.5	16.3	5.9	26.8	17.0
	Dividend Yield (%)	17.5	8.2	4.5	4.3	4.5
	EV/EBITDA (x)	2.44	7.81	4.76	4.81	5.09
	EV/EBIT (x)	3.56	52.52	11.45	11.39	12.35
	Income statement (THBm)	Dec-18	Dec-19	Dec-20F	Dec-21F	Dec-22F
	Total turnover	518,655	412,810	354,123	399,074	399,074
	Gross profit	56,202	19,822	30,732	30,784	30,410
	EBITDA	60,403	22,552	39,058	38,593	38,593
	Depreciation and amortisation	(19,055)	(19,198)	(22,821)	(22,304)	(22,678)
	Operating profit	41,348	3,354	16,237	16,289	15,915
	Net interest	(3,593)	(3,119)	(3,282)	(2,762)	(1,778)
	Pre-tax profit	43,257	12,999	6,887	12,067	12,677
	Taxation	(2,986)	(649)	(517)	(1,553)	(1,675)
	Reported net profit	40,069	11,682	6,370	10,513	11,002
	Recurring net profit	43,642	9,314	10,978	10,513	11,002
	Cash flow (THBm)	Dec-18	Dec-19	Dec-20F	Dec-21F	Dec-22F
	Change in working capital	(8,873)	10,587	10,779	10,214	(234)
	Cash flow from operations	44,950	29,369	46,038	44,492	34,905
	Capex	(33,554)	(11,519)	(39,604)	(15,096)	(16,222)
	Cash flow from investing activities	(42,473)	(30,236)	(41,591)	(38,651)	(40,580)
	Dividends paid	(19,087)	(19,156)	(9,021)	(4,940)	(4,731)
	Cash flow from financing activities	(9,176)	(18,793)	(6,075)	3,560	8,869
	Cash at beginning of period	43,429	36,744	18,840	17,213	26,613
	Net change in cash	(6,698)	(19,659)	(1,628)	9,401	3,194
	Ending balance cash	36,744	18,840	17,213	26,613	29,808
	Balance sheet (THBm)	Dec-18	Dec-19	Dec-20F	Dec-21F	Dec-22F
	Total cash and equivalents	53,562	25,560	17,213	26,613	29,808
	Tangible fixed assets	266,051	280,404	297,188	312,284	328,506
	Total investments	56,906	65,901	65,901	65,901	65,901
	Total assets	469,255	452,514	456,891	481,611	501,262
	Short-term debt	22,387	12,887	22,477	33,877	47,477
	Total long-term debt	83,648	96,918	88,557	85,657	85,657
	Total liabilities	165,773	158,919	160,148	179,086	192,686
	Total equity	303,482	293,595	296,743	302,525	308,576
	Total liabilities & equity	469,255	452,514	456,891	481,611	501,262
	Key metrics	Dec-18	Dec-19	Dec-20F	Dec-21F	Dec-22F
	Revenue growth (%)	17.9	(20.4)	(14.2)	12.7	0.0
	Recurrent EPS growth (%)	8.5	(78.9)	17.9	(4.2)	4.6
	Gross margin (%)	10.8	4.8	8.7	7.7	7.6
	Operating EBITDA margin (%)	11.6	5.5	11.0	9.7	9.7
	Net profit margin (%)	7.7	2.8	1.8	2.6	2.8
	Dividend payout ratio (%)	47.8	77.2	77.6	45.0	45.0
	Capex/sales (%)	6.5	2.8	11.2	3.8	4.1
	Interest cover (x)	11.5	1.1	4.9	5.9	9.0

Source: Company data, RHB

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Energy | Refineries & Petrochemicals

Figure 1: 1Q20F net loss of THB3.7bn, with stock loss of c.TH5.7bn

FYE Dec (THBm)	1Q19	4Q19	1Q20F	QoQ (%)	YoY (%)
Turnover	113,577	85,765	79,280	(7.6)	(30.2)
EBIT	6,558	164	(4,437)	N/A	(167.7)
EBIT margin (%)	6%	0%	-6%		
Net interest	(797)	(765)	(821)	7.2	2.9
Pretax profit	6,135	(661)	(5,257)	N/A	(185.7)
Pretax margin (%)	5%	-1%	-7%		
Taxation	(719)	(0)	631	N/A	(187.7)
Tax rate (%)	-12%	0%	-12%		
Reported net profit	6,443	373	(3,702)	(1,092.2)	(157.5)
Net margin (%)	6%	0%	-5%		
Reported EPS (THB)	1.44	0.08	(0.83)	(1,092.2)	(157.5)
Recurring net profit	4,823	(694)	906	(230.5)	(81.2)

Source: Company data, RHB

Figure 2: 1QTD spreads weakens as transportation fuels demand drop plummets due to covid-19 outbreak

	1Q19	4Q19	1Q20	QoQ	YoY	Comment QoQ
Refined products (USD/bbl)						
Dubai	63.5	62.1	56.3	(9%)	(11%)	COVID-19 fears take a toll on travel fuels, while the failed OPEC+ meeting causes a collapse in crude oil prices.
Jet-Dubai	13.0	13.9	8.9	(36%)	(32%)	Winter was warmer than normal; therefore, demand was softer. Supply remains high and COVID-19 has caused travel fears.
Gasoil-Dubai	12.8	14.3	10.2	(29%)	(21%)	Gasoline spreads come under pressure, as demand falls and supply remains ample.
Gasoline-Dubai	3.7	13.0	8.3	(36%)	124%	Weaker bunkering activity currently, due to COVID-19, while economic activity is pressuring LSFO.
LSFO-Dubai	6.6	21.2	19.0	(11%)	188%	
HSFO-Dubai	0.5	(18.7)	(9.1)	(51%)	(1,851%)	
Polyethylene (USD/ton)						
Naphtha	519	540	487	(10%)	(6%)	In tandem with oil prices.
HDPE	1093	841	845	0%	(23%)	Demand outlook remains weak. Phase 1 of the US-China trade deal had little impact on overall demand. More capacity is to enter this year.
LLDPE	1037	838	858	2%	(17%)	
LDPE	1046	956	960	0%	(8%)	
MEG	833	713	708	(1%)	(15%)	
HDPE-MOPJ	573	301	358	19%	(38%)	PE spreads to remain weak on softer demand and more supply entry.
LLDPE-MOPJ	518	298	371	25%	(28%)	
LDPE-MOPJ	526	416	473	14%	(10%)	
MEG - 0.65 Ethylene	230	232	243	5%	6%	
Aromatics (USD/ton)						
PX-Cond	520	259	247	(5%)	(52%)	Softer demand, as more supply enters.
BZ-Cond	55	130	166	27%	201%	Oversupply situation improves.

Source: Company data, RHB

Figure 3: 2020F planned maintenance shutdown schedule

	Planned shutdown: 2020			
	1Q20	2Q20	3Q20	4Q20
OLE: Cracker	OLE2/1 (Jan-Feb, 39 days)			
OLE: Cracker	OLE2/2 (Jan-Feb, 35 days)			
Oleflex	March (37 days)			
HDPE	HDPE 1/2 (Jan-Feb, 15 days)	HDPE 2 (May, 15 days)		
LDPE	Jan-Feb, 12 days		September (24 days)	
LLDPE I	Jan-Feb (20 days)			
LLDPE II			July (20 days)	
PS			HIPS (20 days), GPPS (13 days)	
TOCGC				
Phenol I				
Phenol II	Jan-Feb (31 days)			
BPA	Jan-Feb (20 days)			
Refinery				
Aromatics I				
Aromatics II		May (19 days)		

Source: Company data, RHB

Figure 4: Earnings and TP revision

	2020F	2021F	2021F
Net profit (THBm, new)	10,978	15,121	15,610
Net profit (THBm, old)	14,117	16,727	17,313
% change	(22.2)	(9.6)	(9.8)
EPS (THB, new)	2.4	3.4	3.5
EPS (THB, old)	3.1	3.7	3.8
% change	(22.2)	(9.6)	(9.8)
Target price (new)	33.0		
Target price (old)	59.1		
% change	(44.2)		

Source: RHB

Figure 5: Valuation comparison

2020F	P/E	P/BV	EV/EBITDA	DCF
Regional peer average	10.3	0.8	6.34	
RHB fair value multiple	10.3	0.50	5.00	
EPS/ BVS/ WACC	2.4	66.0		9.2%
RHB implied valuation (THB/share)	24.7	33.0	37.7	39.3

Source: RHB

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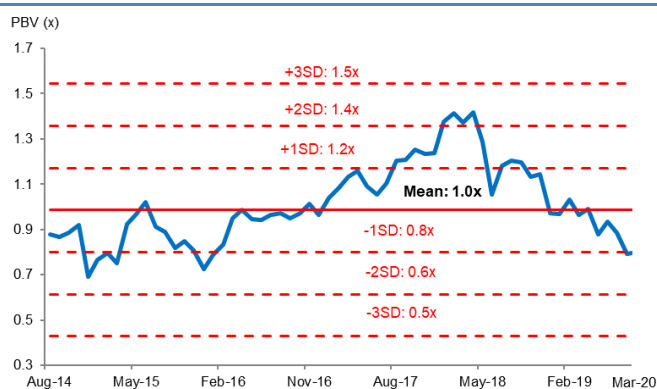
Figure 6: Regional peer comparison

Company	Market cap (USDm)	P/E (x)		P/BV (x)		EV/EBITDA (x)		Div yield (%)		ROE (%)		ROA (%)	
		2020F	2021F	2020F	2021F	2020F	2021F	2020F	2021F	2020F	2021F	2020F	2021F
PTTGC	3,869	7.76	6.06	0.41	0.39	5.85	4.98	6.80	9.18	5.28	6.78	3.46	4.43
Bangchak Corp	821	8.24	6.83	0.51	0.48	6.98	6.58	6.25	7.41	6.22	7.27	2.87	3.36
Esso Thailand	539	6.25	4.76	0.65	0.60	8.05	6.70	6.96	8.92	12.01	13.36	4.43	5.95
IRPC	1,319	15.11	9.76	0.49	0.48	7.37	6.39	4.66	6.03	3.54	5.26	1.88	2.63
Indorama Ventures	3,856	8.22	6.89	0.83	0.77	6.28	5.78	4.81	5.28	10.28	11.23	3.79	4.07
PTT	24,859	8.34	7.32	0.84	0.80	4.89	4.62	6.11	6.74	9.88	10.09	4.55	4.59
Star Petroleum Refining	762	9.47	7.33	0.68	0.65	4.94	4.20	6.02	8.32	7.78	9.47	4.70	6.21
Thai Oil	2,195	8.73	6.79	0.55	0.52	5.67	4.81	5.30	6.61	6.66	8.00	3.11	3.69
Petronas Chemicals	8,594	12.80	11.43	1.16	1.11	5.66	5.16	4.38	4.84	8.92	9.25	7.24	7.92
China Petroleum & Chemical Corp	76,300	9.12	7.37	0.53	0.52	4.85	4.48	7.48	8.38	6.32	7.33	3.01	3.52
PetroChina	125,284	12.78	8.52	0.34	0.33	4.87	4.56	4.76	5.83	3.10	3.96	1.53	1.72
Reliance Industries	98,454	15.49	11.77	1.66	1.49	10.09	7.93	0.67	0.77	11.22	12.81	5.04	6.01
Indian Oil Corp	12,282	8.57	5.84	0.77	0.72	6.42	5.00	5.13	7.73	8.98	12.63	5.87	7.08
Average		10.26	7.88	0.75	0.71	6.34	5.52	5.21	6.40	7.91	9.22	4.00	4.73

Note: Data as at 15 Jan 2020

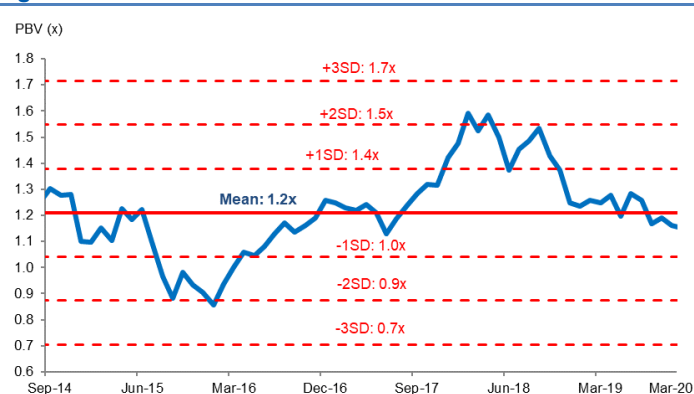
Source: Bloomberg, RHB

Figure 7: PTTGC's forward P/BV and SD levels



Source: Bloomberg, RHB

Figure 8: Thai Oil & Gas Index's forward P/BV and SD levels



Source: Bloomberg, RHB

Figure 9: PTTGC's implied P/BV at different SD levels

	-3SD	-2SD	-1SD	Mean	+1SD	+2SD	+3SD
P/BV (x)	0.5	0.6	0.8	1.0	1.2	1.4	1.5
Implied valuation (THB/share)	33.0	39.6	52.8	66.0	79.2	92.4	99.0

Source: RHB

Recommendation Chart



Source: RHB, Bloomberg

Date	Recommendation	Target Price	Price
2020-02-17	Buy	59	53
2020-02-17	Buy	59	53
2020-01-27	Buy	59	49
2019-11-11	Buy	63	54
2019-11-08	Buy	63	56
2019-10-22	Sell	46	51
2019-08-16	Sell	46	53
2019-08-08	Sell	50	54
2019-07-24	Sell	54	61

Source: RHB, Bloomberg

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Thai Oil (TOP TB)

Neutral (Maintained)

Weak Demand Pressures Spreads

Target Price (Return): THB29.20 (+3%)
 Price: THB28.30
 Market Cap: USD1,779m
 Avg Daily Turnover (THB/USD) 865m/27.9m

- **NEUTRAL, new TP of THB29.20 from THB49.00, 3% upside.** We expect Thai Oil to book a 1Q20 net loss of THB7.7bn, and a stock loss of THB9.6bn. We cut our earnings estimates and TP after imputing the lower crude premium and weaker refined product spreads. 1Q20F results may lead to further pressure on its share price, while demand for transportation fuel remains weak as a result of the COVID-19 outbreak.
- **We expect TOP to report a net loss of THB7.7bn, for 1Q20** as a result of the collapse in the crude oil price. We assume the crude oil price to close at USD30.00/bbl for the quarter, with stock holding at 10m barrels. Stripping out the stock loss, recurring net profit would be THB149m. We estimate GRM at USD1.24/bbl, while Thai PX and Thai lube base are expected to contribute USD1.20/bbl to its gross integrated margin.
- **We expect GRM to recover to USD2.60/bbl in 2Q20**, with a lower crude premium, so net profit should be c.TH1.3bn. In 2H20, GRM is expected to recover to USD4.00/bbl as the crude premium should remain low, while refined product spreads are anticipated to improve from a pick-up in seasonal demand. 2H20 recurring net profit is expected at THB2.5bn per quarter.
- **The aromatics market should remain weak** as a result of new capacity additions, whereby aromatics producers will have to optimise production. Higher-cost producers and non-integrated producers are also expected to lower their PX operating rates. Total additional PX capacity is expected to be 8.4mtpa, while demand is estimated at 0.9mtpa. Additional capacity for BZ is expected at 3.3mtpa, while additional demand is estimated at 1.2mtpa. Downstream PTA plants in China have slashed production due to the COVID-19 outbreak – Sichuan PTA Pengwei Chemicals (900ktpa, cut 20%), Liaoning PTA Hengli 4 (2,500ktpa, cut 50%), Jiangsu PTA Jianguyin Hanbang (600ktpa, shutdown), and Fujian PTA Fujian Fuhau (4,500ktpa, cut 20%).
- **Lube base market should see a more balanced market** with 0.3mtpa additional capacity, which will be similar to the additional demand. The Hainan Handi plant's (1mtpa capacity) COD has been deferred to 2021.
- **Earnings and TP revised down, maintain NEUTRAL.** We now expect a reported net loss of THB1.3bn as we impute a stock loss of THB9.6bn. Recurring net profit is expected at THB6.5bn. We pare down our TP to THB29.20 (-40% lower than our previous forecast), based on 0.5x P/BV or at -3SD PBV. TOP's 1Q20 results may lead to further pressure on its share price, while demand for transportation fuel remains weak as a result of the COVID-19 outbreak. As such, we maintain our NEUTRAL recommendation on this stock.

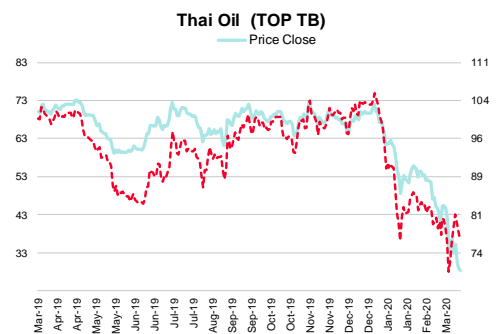
Analyst

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Share Performance (%)

	YTD	1m	3m	6m	12m
Absolute	(59.5)	(45.7)	(59.1)	(59.8)	(58.8)
Relative	(25.8)	(14.9)	(26.1)	(23.2)	(23.6)
52-wk Price low/high (THB)	28.3 – 73.0				



Source: Bloomberg

Forecasts and Valuation	Dec-18	Dec-19	Dec-20F	Dec-21F	Dec-22F
Total turnover (THBm)	392,166	364,327	257,798	313,508	314,836
Recurring net profit (THBm)	14,258	3,694	6,514	9,139	14,614
Recurring net profit growth (%)	(21.9)	(74.1)	76.4	40.3	59.9
Recurring P/E (x)	4.04	15.60	8.85	6.31	3.94
P/B (x)	0.5	0.5	0.5	0.5	0.5
P/CF (x)	2.74	4.66	3.79	7.37	3.15
Dividend Yield (%)	9.4	5.3	5.1	7.1	11.4
EV/EBITDA (x)	2.19	8.29	6.40	9.19	7.22
Return on average equity (%)	8.3	5.2	(1.2)	7.7	11.8
Net debt to equity (%)	(0.2)	33.3	86.7	91.5	93.8

Source: Company data, RHB

Financial Exhibits

Asia	Financial summary (THB)	Dec-18	Dec-19	Dec-20F	Dec-21F	Dec-22F
Thailand	Recurring EPS	6.99	1.81	3.19	4.48	7.16
Energy & Petrochemicals	DPS	2.65	1.50	1.44	2.02	3.22
Thai Oil	BVPS	59.66	58.81	56.71	59.17	62.60
TOP TB	Return on average equity (%)	8.3	5.2	(1.2)	7.7	11.8
Neutral						
	Valuation metrics	Dec-18	Dec-19	Dec-20F	Dec-21F	Dec-22F
	Recurring P/E (x)	4.04	15.60	8.85	6.31	3.94
	P/B (x)	0.5	0.5	0.5	0.5	0.5
	FCF Yield (%)	21.8	(24.9)	(72.3)	(28.8)	2.8
	Dividend Yield (%)	9.4	5.3	5.1	7.1	11.4
	EV/EBITDA (x)	2.19	8.29	6.40	9.19	7.22
	EV/EBIT (x)	3.10	26.06	8.34	13.46	9.40
	Income statement (THBm)	Dec-18	Dec-19	Dec-20F	Dec-21F	Dec-22F
	Total turnover	392,166	364,327	257,798	313,508	314,836
	Gross profit	20,325	5,987	20,061	14,122	20,432
	EBITDA	24,807	10,388	23,031	17,167	23,477
	Depreciation and amortisation	(7,264)	(7,085)	(5,369)	(5,444)	(5,444)
	Operating profit	17,543	3,303	17,662	11,723	18,033
	Net interest	(3,511)	(3,307)	(3,307)	(1,788)	(1,691)
	Pre-tax profit	12,367	7,756	(1,919)	11,125	17,883
	Taxation	(1,983)	(1,239)	561	(1,987)	(3,269)
	Reported net profit	10,149	6,277	(1,358)	9,139	14,614
	Recurring net profit	14,258	3,694	6,514	9,139	14,614
	Cash flow (THBm)	Dec-18	Dec-19	Dec-20F	Dec-21F	Dec-22F
	Change in working capital	1,081	4,417	4,513	(5,571)	(226)
	Cash flow from operations	21,019	12,360	15,197	7,821	18,293
	Capex	(8,435)	(26,737)	(56,839)	(24,444)	(16,668)
	Cash flow from investing activities	(7,471)	(51,001)	(58,145)	(26,816)	(26,116)
	Dividends paid	(10,710)	(5,406)	(2,825)	(2,931)	(4,112)
	Cash flow from financing activities	25,773	8,316	(17,664)	20,404	8,883
	Cash at beginning of period	67,941	107,262	76,937	15,000	15,000
	Net change in cash	39,321	(30,325)	(60,611)	1,409	1,060
	Ending balance cash	107,262	76,937	16,326	16,409	16,060
	Balance sheet (THBm)	Dec-18	Dec-19	Dec-20F	Dec-21F	Dec-22F
	Total cash and equivalents	107,262	76,937	15,000	15,000	15,000
	Tangible fixed assets	83,077	109,814	166,652	191,096	207,764
	Total investments	16,081	34,262	35,461	36,652	38,192
	Total assets	268,613	283,445	270,613	305,718	324,152
	Short-term debt	6,940	2,912	3,476	13,770	24,166
	Total long-term debt	100,120	115,287	115,287	115,287	115,287
	Total liabilities	142,141	159,521	150,979	181,058	191,453
	Total equity	126,472	123,924	119,634	124,661	132,698
	Total liabilities & equity	268,613	283,445	270,613	305,718	324,152
	Key metrics	Dec-18	Dec-19	Dec-20F	Dec-21F	Dec-22F
	Revenue growth (%)	16.2	(7.1)	(29.2)	21.6	0.4
	Recurrent EPS growth (%)	(21.9)	(74.1)	76.4	40.3	59.9
	Gross margin (%)	5.2	1.6	7.8	4.5	6.5
	Operating EBITDA margin (%)	6.3	2.9	8.9	5.5	7.5
	Net profit margin (%)	2.6	1.7	(0.5)	2.9	4.6
	Dividend payout ratio (%)	53.3	45.0	(215.9)	45.0	45.0
	Capex/sales (%)	2.2	7.3	22.0	7.8	5.3
	Interest cover (x)	5.00	1.00	5.34	6.56	10.67

Source: Company data, RHB

Figure 1: 1Q20F net loss of THB7.7bn is expected, with a stock loss of THB9.6bn

FYE Dec (THBm)	1Q19	4Q19	1Q20F	QoQ (%)	YoY (%)
Turnover	91,789	96,940	86,154	(11)	(6)
EBIT	5,683	1,820	-8,958	(592)	(258)
EBIT margin (%)	6.2	1.9	-10.4		
Pretax profit	5,120	2,100	-9,784	(566)	(291)
Pretax margin (%)	5.6	2.2	-11.4		
Taxation	-1,000	-345	1,761	(611)	(276)
Tax rate (%)	-19.5	-16.4	-18.0		
Net profit	4,408	1,984	-7,723	(489)	(275)
Net margin (%)	4.8	2.0	-9.0		
Recurring Net Profit	998	460	149	(68)	(85)
EPS (THB)	2.16	0.97	-3.79	(489)	(275)

Source: Company data, RHB

Figure 2: 1Q20F refined product spreads have softened on fear of travel due to the COVID-19 pandemic

	1Q19	4Q19	1Q20	QoQ	YoY	Comment QoQ
Refined products (USD/bbl)						
Dubai	63.5	62.1	56.3	-9%	-11%	COVID-19 fears have taken a toll on travel fuel demand, while the OPEC+ failed meeting led to a collapse in crude oil prices.
Jet-Dubai	13.0	13.9	8.9	-36%	-32%	The winter was warmer than usual, therefore demand softened. Meanwhile, supply remained high. The COVID-19 outbreak also led to travel fears.
Gasoil-Dubai	12.8	14.3	10.2	-29%	-21%	Gasoline spreads are under pressure as demand has declined, while supply remains ample.
Gasoline-Dubai	3.7	13.0	8.3	-36%	124%	Weaker bunkering activity currently due to the COVID-19 pandemic and softer economic activity is pressuring LSFO.
LSFO-Dubai	6.6	21.2	19.0	-11%	188%	
HSFO-Dubai	0.5	(18.7)	(9.1)	-51%	-1,851%	

Source: Company data, RHB

Figure 3: Earnings and TP revision

	2020F	2021F	2022F
Net profit (THBm, revised)	(1,358)	9,154	14,629
Net profit (THBm, old)	7,435	9,154	14,629
% change	(118.3)	(0.0)	0.0
EPS (THB, revised)	(0.67)	4.49	7.17
EPS (THB, old)	3.64	4.49	7.17
% change	(118.3)	(0.0)	0.0
Target price (THB/share, revised)	29.2		
Target price (THB/share, old)	48.7		
% change	(39.9)		
<i>Bloomberg consensus</i>			
Net profit	7,571	10,186	10,631
TP	56.5		

Source: RHB

Figure 4: Valuation comparison

	P/E 2020	P/BV 2020	EV/EBITDA 2020	DCF method
Regional peer multiples	9.9	0.7	6.4	
Fair multiple (used)	8.0	0.5	4.5	
DCF valuation, WACC used				9.2%
THB/share (EPS/BVS)	3.2	58.4		
Implied valuation per share	25.5	29.2	33.4	32.3

Source: RHB

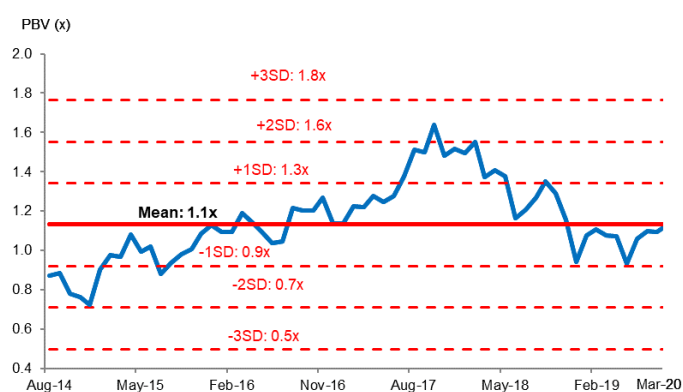
Figure 5: Regional peer comparison

Company	P/E (x)		P/BV (x)		EV/EBITDA (x)		Div yield (%)		ROE (%)		ROA (%)	
	2020F	2021F	2020F	2021F	2020F	2021F	2020F	2021F	2020F	2021F	2020F	2021F
Thai Oil	8.73	6.79	0.55	0.52	5.67	4.81	5.30	6.61	6.66	8.00	3.11	3.69
Bangchak Corp	8.24	6.83	0.51	0.48	6.98	6.58	6.25	7.41	6.22	7.27	2.87	3.36
Esso Thailand	6.25	4.76	0.65	0.60	8.05	6.70	6.96	8.92	12.01	13.36	4.43	5.95
IRPC	15.11	9.76	0.49	0.48	7.37	6.39	4.66	6.03	3.54	5.26	1.88	2.63
Indorama Ventures	8.22	6.89	0.83	0.77	6.28	5.78	4.81	5.28	10.28	11.23	3.79	4.07
PTT	8.34	7.32	0.84	0.80	4.89	4.62	6.11	6.74	9.88	10.09	4.55	4.59
PTT Global Chemical	7.76	6.06	0.41	0.39	5.85	4.98	6.80	9.18	5.28	6.78	3.46	4.43
Star Petroleum Refining	9.47	7.33	0.68	0.65	4.94	4.20	6.02	8.32	7.78	9.47	4.70	6.21
Reliance Industries	15.49	11.77	1.66	1.49	10.09	7.93	0.67	0.77	11.22	12.81	5.04	6.01
China Petroleum & Chemical	9.12	7.37	0.53	0.52	4.85	4.48	7.48	8.38	6.32	7.33	3.01	3.52
PetroChina	12.78	8.52	0.34	0.33	4.87	4.56	4.76	5.83	3.10	3.96	1.53	1.72
Indian Oil	8.57	5.84	0.77	0.72	6.42	5.00	5.13	7.73	8.98	12.63	5.87	7.08
Average	9.94	7.50	0.70	0.66	6.42	5.57	5.42	6.78	7.69	9.11	3.74	4.50

Note: Data as at 18 March 2020

Source: Bloomberg, RHB

Figure 6: TOP's forward P/BV and SD levels



Source: Bloomberg, RHB

Figure 7: Thai Oil & Gas Index's forward P/BV and SD levels



Source: Bloomberg, RHB

Figure 8: TOP's implied P/BV at different SD levels

	-3SD	-2SD	-1SD	Mean	+1SD	+2SD	+3SD
P/BV (x)	0.5	0.7	0.9	1.1	1.3	1.5	2.5
Implied valuation (THB/share)	29.2	42.4	54.5	66.6	78.7	90.8	151.4

Source: RHB

Recommendation Chart



Source: RHB, Bloomberg

Date	Recommendation	Target Price	Price
2020-02-17	Neutral	49	54
2020-02-16	Neutral	49	53
2020-01-24	Buy	70	53
2020-01-16	Buy	70	62
2019-11-11	Buy	84	70
2019-10-22	Buy	78	68
2019-08-15	Buy	80	64
2019-08-13	Buy	80	64
2019-07-23	Buy	80	71

Source: RHB, Bloomberg

Star Petroleum Refining (SPRC TB)

A Challenging Year Ahead

- Downgrade to NEUTRAL, with a new TP of THB5.00 from THB10.70, 2% upside.** We expect a 1Q20 net loss of THB5.1bn, with a stock loss of THB6.2bn. Star Petroleum Refining's performance in the subsequent quarters should improve, helped by lower crude premium and improving spreads. 2020F recurring net profit is expected at THB1.8bn (+38% YoY).
- A 1Q20 net loss of THB5.1bn is projected,** with a stock loss of THB6.2bn. This is on the assumption that the crude oil price will end the quarter at USD30.00/bbl and Star Petroleum will have 6.5mmbbls of inventory. The gross refining margin is expected at USD2.80/bbl for the quarter. Stripping out stock loss, the company is estimated to report a net loss of THB183m.
- We estimate gross refining margins** to improve from 2Q20 onwards to around USD4.50-5.00/bbl. This would be on lower crude premium as well as improving spreads. This should result in a quarterly net profit of c.THB600m – excluding stock gains and losses.
- M&A or expansion plans** have been pushed to 2021, as SPRC is carrying out further detailed studies into available opportunities. The company is looking into producing petrochemicals feedstock to sell in the domestic market. However, details still need to be finalised before obtaining board approval.
- Email compromise case still under investigation.** We remain concerned on the email compromise case that occurred late last year, which resulted in the payment of invoice to an incorrect account amounting to USD22.4m. The investigation, which involved internal and external IT security and forensic experts, found that the incident was perpetrated by external actors and there was no evidence of insider involvement by any company personnel. The company has informed us that the investigation is still ongoing. Once the perpetrator has been found, the case could be adjudicated in court. Therefore, it could take quite a long time to conclude.
- Earnings and TP revision.** We cut 2020F earnings to reflect the latest 1Q20F net loss. We also lower our gross refining margin assumption to an average of USD4.44/bbl, from USD4.90/bbl. We forecast a 2020 net loss of THB3.1bn, which includes a stock loss in 1Q20F. 2020 recurring net profit is expected at THB1.8bn (from THB3.9bn). We also pare down numbers for 2021F-2022F to reflect softer gross refining margins, with net profit at THB3.4bn-THB3.8bn respectively. Our TP drops to THB5.00 from THB10.70, to reflect the current bear market. Our TP is based on 0.6x 2020 P/BV, or near -2SD P/BV. We downgrade this stock to NEUTRAL.

Forecasts and Valuation	Dec-18	Dec-19	Dec-20F	Dec-21F	Dec-22F
Total turnover (THBm)	209,159	168,840	200,478	223,563	223,563
Recurring net profit (THBm)	3,454	1,302	1,797	3,418	3,854
Recurring net profit growth (%)	(32.9)	(62.3)	38.1	90.2	12.8
Recurring P/E (x)	6.18	16.39	11.87	6.24	5.53
P/B (x)	0.6	0.7	0.6	0.6	0.6
P/CF (x)	3.29	na	4.63	2.59	3.16
Dividend Yield (%)	12.0	3.7	5.1	9.6	10.8
EV/EBITDA (x)	4.51	na	6.18	3.53	2.75
Return on average equity (%)	5.3	(7.9)	(9.3)	9.3	10.1
Net debt to equity (%)	(0.2)	20.9	27.3	10.7	(0.3)

Source: Company data, RHB

Neutral (from Buy)

Target Price (Return):	THB5.00 (+2%)
Price:	THB4.92
Market Cap:	USD658m
Avg Daily Turnover (THB/USD)	207m/6.70m

Analyst

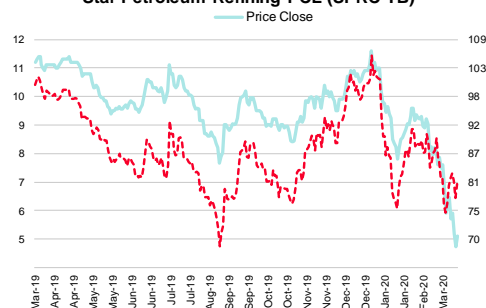
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Share Performance (%)

	YTD	1m	3m	6m	12m
Absolute	(54.0)	(43.8)	(53.6)	(48.8)	(53.6)
Relative	(20.3)	(13.0)	(20.6)	(12.2)	(18.4)
52-wk Price low/high (THB)	4.54 – 11.4				

Star Petroleum Refining PCL (SPRC TB)



Source: Bloomberg

19 March 2020

Energy | Refineries & Petrochemicals

Financial Exhibits

Asia	Financial summary (THB)	Dec-18	Dec-19	Dec-20F	Dec-21F	Dec-22F
Thailand	Recurring EPS	0.80	0.30	0.41	0.79	0.89
Energy & Petrochemicals	DPS	0.59	0.18	0.25	0.47	0.53
Star Petroleum Refining	BVPS	8.89	7.49	8.27	8.59	8.95
SPRC TB	Return on average equity (%)	5.3	(7.9)	(9.3)	9.3	10.1
Neutral						
	Valuation metrics	Dec-18	Dec-19	Dec-20F	Dec-21F	Dec-22F
	Recurring P/E (x)	6.18	16.39	11.87	6.24	5.53
	P/B (x)	0.6	0.7	0.6	0.6	0.6
	FCF Yield (%)	27.5	(15.4)	(18.6)	36.6	29.8
	Dividend Yield (%)	12.0	3.7	5.1	9.6	10.8
	EV/EBITDA (x)	4.51	na	6.18	3.53	2.75
	EV/EBIT (x)	10.76	na	13.41	5.94	4.41
	Income statement (THBm)	Dec-18	Dec-19	Dec-20F	Dec-21F	Dec-22F
	Total turnover	209,159	168,840	200,478	223,563	223,563
	Gross profit	2,972	(3,211)	5,888	8,149	8,694
	EBITDA	4,713	(2,343)	5,034	7,172	7,717
	Depreciation and amortisation	(2,737)	(2,565)	(2,713)	(2,906)	(2,906)
	Operating profit	1,976	(4,908)	2,321	4,265	4,810
	Net interest	(50)	(46)	(74)	8	8
	Pre-tax profit	2,804	(3,693)	(3,993)	4,273	4,818
	Taxation	(541)	885	799	(855)	(964)
	Reported net profit	2,263	(2,809)	(3,195)	3,418	3,854
	Recurring net profit	3,454	1,302	1,797	3,418	3,854
	Cash flow (THBm)	Dec-18	Dec-19	Dec-20F	Dec-21F	Dec-22F
	Change in working capital	2,356	(1,245)	(1,150)	1,920	0
	Cash flow from operations	6,478	(2,750)	4,609	8,245	6,761
	Capex	(615)	(533)	(8,582)	(435)	(412)
	Cash flow from investing activities	3,386	(2,140)	(7,943)	(403)	(362)
	Dividends paid	(4,955)	(2,570)	(792)	(1,078)	(2,051)
	Cash flow from financing activities	(11,170)	6,062	3,814	(7,842)	(6,399)
	Cash at beginning of period	2,171	74	20	500	500
	Net change in cash	(1,305)	1,171	480	0	0
	Ending balance cash	73	20	500	500	500
	Balance sheet (THBm)	Dec-18	Dec-19	Dec-20F	Dec-21F	Dec-22F
	Total cash and equivalents	74	20	500	500	500
	Tangible fixed assets	28,843	26,810	32,678	30,207	27,712
	Total assets	55,011	54,294	59,682	57,588	55,094
	Short-term debt	0	6,819	10,277	4,486	400
	Total liabilities	16,482	21,818	23,805	20,344	16,308
	Total equity	38,529	32,476	35,877	37,244	38,786
	Total liabilities & equity	55,011	54,294	59,682	57,588	55,094
	Key metrics	Dec-18	Dec-19	Dec-20F	Dec-21F	Dec-22F
	Revenue growth (%)	22.6	(19.3)	18.7	11.5	0.0
	Recurrent EPS growth (%)	(32.9)	(62.3)	38.1	90.2	12.8
	Gross margin (%)	1.4	(1.9)	2.9	3.6	3.9
	Operating EBITDA margin (%)	2.3	(1.4)	2.5	3.2	3.5
	Net profit margin (%)	1.1	(1.7)	(1.6)	1.5	1.7
	Dividend payout ratio (%)	113.6	(28.2)	(33.8)	60.0	60.0
	Capex/sales (%)	0.3	0.3	4.3	0.2	0.2
	Interest cover (x)	39.6	(106.5)	31.4		

Source: Company data, RHB

19 March 2020

Energy | Refineries & Petrochemicals

Figure 1: 1Q20F net loss of THB5.1bn, with a stock loss of THB6.2bn

FYE Dec (THBm)	1Q19	4Q19	1Q20F	QoQ (%)	YoY (%)
Turnover	47,397	27,804	31,838	14.5	(32.8)
EBIT	1,740	(3,886)	(6,450)	66.0	(470.7)
EBIT margin (%)	3.7	(8.2)	(13.6)		
Pretax profit	2,063	(3,746)	(6,469)	72.7	(413.5)
Pretax margin (%)	4.4	(7.9)	(13.6)		
Taxation	(373)	771	1,294	67.8	(446.6)
Tax rate (%)	(18.1)	(20.6)	(20.0)		
Net profit	1,690	(2,975)	(5,175)	74.0	(406.2)
Net margin (%)	3.6	(6.3)	(10.9)		
Recurring net profit	1,742	(387)	(183)	(52.8)	(110.5)
EPS (THB)	0.39	(0.69)	(1.19)	74.0	(406.2)

Source: RHB

Figure 2: 1Q20F refined product spreads weaken on fear of travel due to the COVID-19 pandemic

	1Q19	4Q19	1Q20	QoQ	YoY	Comment QoQ
Refined products (USD/bbl)						
Dubai	63.5	62.1	56.3	(9%)	(11%)	Coronavirus fears take a toll on travel fuel demand, while OPEC+'s failed meeting led to a collapse in crude oil prices.
Jet-Dubai	13.0	13.9	8.9	(36%)	(32%)	Winter warmer than normal, resulting in softer demand. Supply still high. COVID-19 outbreak causes travel fears.
Gasoil-Dubai	12.8	14.3	10.2	(29%)	(21%)	
Gasoline-Dubai	3.7	13.0	8.3	(36%)	124%	Gasoline spreads come under pressure as demand falls and supply remains ample.
LSFO-Dubai	6.6	21.2	19.0	(11%)	188%	Weaker bunkering activity currently due to the COVID-19 pandemic and economic activity are pressuring LSFO prices.
HSFO-Dubai	0.5	(18.7)	(9.1)	(51%)	(1851%)	

Source: Company data, RHB

Figure 3: Valuation comparison

	P/E 2020	P/BV 2020	EV/EBITDA 2020	DCF method
Regional peer average (x)	9.9	0.7	6.5	
Fair multiple (x)	12.0	0.6	4.3	
DCF valuation, WACC used				7.9%
EPS/BVS (THB/share)	0.4	8.3		
Implied valuation (THB/share)	5.0	5.0	5.0	5.6

Source: RHB

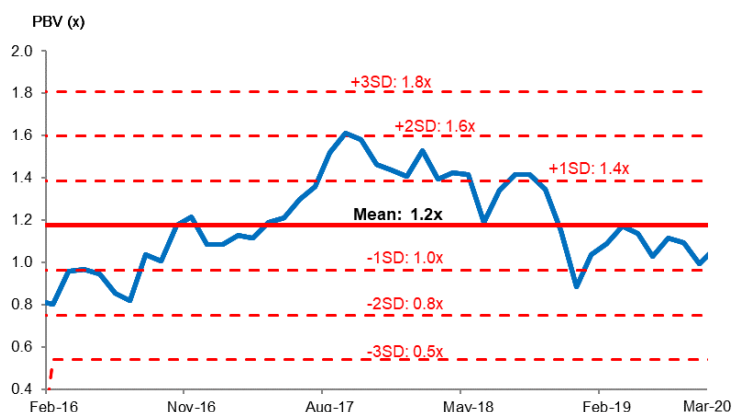
Figure 4: Regional peer comparison

Company	Market Cap (USDm)	P/E (x)		P/BV (x)		EV/EBITDA (x)		Div yield (%)		ROE (%)		ROA (%)	
		2020F	2021F	2020F	2021F	2020F	2021F	2020F	2021F	2020F	2021F	2020F	2021F
Star Petroleum Refining	762	9.47	7.33	0.68	0.65	4.94	4.20	6.02	8.32	7.78	9.47	4.70	6.21
Bangchak Corp	821	8.24	6.83	0.51	0.48	6.98	6.58	6.25	7.41	6.22	7.27	2.87	3.36
Esso Thailand	539	6.25	4.76	0.65	0.60	8.05	6.70	6.96	8.92	12.01	13.36	4.43	5.95
IRPC	1,319	15.11	9.76	0.49	0.48	7.37	6.39	4.66	6.03	3.54	5.26	1.88	2.63
Indorama Ventures	3,856	8.22	6.89	0.83	0.77	6.28	5.78	4.81	5.28	10.28	11.23	3.79	4.07
PTT	24,859	8.34	7.32	0.84	0.80	4.89	4.62	6.11	6.74	9.88	10.09	4.55	4.59
PTT Global Chemical	3,869	7.76	6.06	0.41	0.39	5.85	4.98	6.80	9.18	5.28	6.78	3.46	4.43
Thai Oil	2,195	8.73	6.79	0.55	0.52	5.67	4.81	5.30	6.61	6.66	8.00	3.11	3.69
Reliance Industries	98,454	15.49	11.77	1.66	1.49	10.09	7.93	0.67	0.77	11.22	12.81	5.04	6.01
China Petroleum & Chemical	76,300	9.12	7.37	0.53	0.52	4.85	4.48	7.48	8.38	6.32	7.33	3.01	3.52
PetroChina	125,284	12.78	8.52	0.34	0.33	4.87	4.56	4.76	5.83	3.10	3.96	1.53	1.72
Indian Oil	12,282	8.57	5.84	0.77	0.72	6.42	5.00	5.13	7.73	8.98	12.63	5.87	7.08
Average		9.87	7.45	0.69	0.65	6.48	5.62	5.36	6.63	7.59	8.97	3.59	4.28

Note: Data as at 18 March 2020

Source: Bloomberg, RHB

Figure 5: SPRC's forward P/BV and SD levels



Source: Bloomberg, RHB

Figure 6: Thai Oil & Gas Index's forward P/BV and SD levels



Source: Bloomberg, RHB

Figure 7: SPRC's implied P/BV at different SD levels

	-3SD	-2SD	-1SD	Mean	+1SD	+2SD	+3SD
P/BV (x)	0.50	0.80	1.00	1.20	1.40	1.60	1.80
Implied valuation (THB/share)	4.14	6.62	8.27	9.93	11.58	13.24	14.89

Source: RHB

Recommendation Chart



Source: RHB, Bloomberg

Date	Recommendation	Target Price	Price
2020-02-23	Buy	10.7	8.9
2020-01-28	Buy	10.3	8.0
2019-11-26	Buy	12.7	9.9
2019-11-06	Buy	10.0	9.1
2019-10-24	Buy	10.0	8.6
2019-08-08	Neutral	10.0	9.0
2019-07-31	Neutral	10.5	9.9
2019-05-15	Neutral	10.2	9.8
2019-03-18	Trading Buy	na	10.6

Source: RHB, Bloomberg

19 March 2020

Energy | Integrated Oil & Gas

PTT (PTT TB)

Buy (from Neutral)

Bear Market Opportunity

- **Upgrade to BUY from Neutral, new TP of THB32.80, from THB43.30, 24% upside with c.4% yield.** Our revised TP already takes into consideration the depressed valuations of PTT's subsidiaries. The bear market rout may not yet be over, but we believe current price levels are a good entry point for long-term value investors. 1Q20F net profit is expected at THB9.1bn (-47% YoY), with recurring net profit of THB18.8bn. We anticipate a mild recovery in 2H20.
- **Preliminary 1Q20F net profit expected to plunge 47% QoQ to THB9.1bn.** This is with the anticipation that its subsidiaries (refineries) will recognise a total stock loss of THB9.6bn. Stripping out stock losses, we expect its recurring net profit at THB18.8bn (-10% QoQ) with softer commodity spreads and a planned maintenance shutdown at its gas separation plant #5 (20 days, total capacity: 580mmbtu).
- **We expect 2Q20 recurring net profit to be stable QoQ at THB18.3bn,** with weak commodity spreads and little growth in sales volume for its core business as activity is expected to slow down on fear of travel and social distancing amidst the COVID-19 outbreak. We expect a mild recovery in 2H20, with net profit of c.TH20bn per quarter.
- **The current bear market is a result of the rapid COVID-19 spread globally,** which has caused countries to lock down on population movements. This has resulted in a demand shock for everything from toilet paper to crude oil. This is compounded by the collapse of the OPEC+ meeting, and led to countries producing at will – creating a supply shock. In our view, the global meltdown fears are valid. However, we also believe that a vaccine will be available by next year, and crude oil market rebalancing will occur sometime in the future.
- **Upgrade to BUY.** We cut our TP for 2020F to reflect the latest quarterly estimates, taking into consideration our earnings revisions for its listed companies as well. Our TP drops to THB32.80 from THB43.30, based on a SOP valuation. Even with the depressed valuations of its subsidiaries and risk premium adjustment to PTT's discounted cash flow, our revised TP still provides an upside of 24%. Although the bear market rout may not be over yet, we believe that, at current prices, it may be worth looking at for longer-term value investors. We upgrade our call on the stock to BUY.

Target Price (Return): THB32.80 (+24%)
 Price: THB26.50
 Market Cap: USD23,360m
 Avg Daily Turnover (THB/USD) 2,983m/95.8m

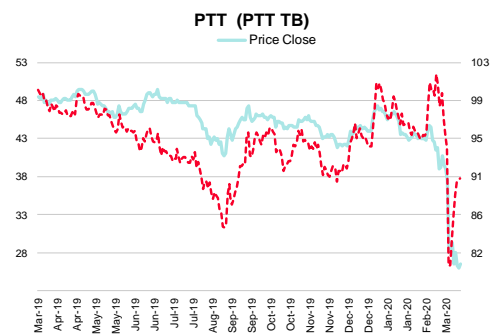
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Share Performance (%)

	YTD	1m	3m	6m	12m
Absolute	(39.8)	(38.0)	(40.8)	(42.1)	(44.5)
Relative	(6.1)	(7.2)	(7.8)	(5.5)	(9.3)
52-wk Price low/high (THB)	26.0 – 49.5				



Source: Bloomberg

Forecasts and Valuation	Dec-18	Dec-19	Dec-20F	Dec-21F	Dec-22F
Total turnover (THBb)	2,336,155	2,219,739	2,116,071	2,201,027	2,242,311
Recurring net profit (THBb)	135,462	101,166	78,860	89,503	100,331
Recurring net profit growth (%)	9.3	(25.3)	(22.0)	13.5	12.1
Recurring P/E (x)	0.01	0.01	0.01	0.01	0.01
P/B (x)	0.0	0.0	0.0	0.0	0.0
P/CF (x)	0.00	0.00	0.00	0.00	0.00
Dividend Yield (%)	7.5	7.5	4.2	4.7	5.3
EV/EBITDA (x)	1.63	2.73	2.98	2.62	2.54
Return on average equity (%)	14.1	10.6	7.9	10.2	11.4
Net debt to equity (%)	8.3	25.2	23.0	23.7	23.4

Source: Company data, RHB

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Financial Exhibits

Asia	Financial summary (THB)	Dec-18	Dec-19	Dec-20F	Dec-21F	Dec-22F
Thailand	Recurring EPS	4,742.57	3,541.86	2,760.93	3,133.55	3,512.61
Energy & Petrochemicals	DPS	2.00	2.00	1.10	1.25	1.41
PTT	BVPS	30,610.42	30,760.22	30,760.22	30,760.22	30,760.22
PTT TB	Return on average equity (%)	14.1	10.6	7.9	10.2	11.4
Buy						
	Valuation metrics	Dec-18	Dec-19	Dec-20F	Dec-21F	Dec-22F
Valuation basis	Recurring P/E (x)	0.01	0.01	0.01	0.01	0.01
SOP	P/B (x)	0.0	0.0	0.0	0.0	0.0
	FCF Yield (%)	43,635.3	10,370.9	24,965.6	29,201.3	32,703.0
	Dividend Yield (%)	7.5	7.5	4.2	4.7	5.3
Key drivers	EV/EBITDA (x)	1.63	2.73	2.98	2.62	2.54
i. Domestic and global economic growth;	EV/EBIT (x)	2.57	5.30	6.49	4.94	4.67
ii. Crude oil and its derivatives prices;						
iii. Demand and supply for its products						
	Income statement (THBb)	Dec-18	Dec-19	Dec-20F	Dec-21F	Dec-22F
Key risks	Total turnover	2,336,155	2,219,739	2,116,071	2,201,027	2,242,311
i. Crude oil prices;	Gross profit	296,718	234,327	205,497	246,879	259,420
ii. USD/THB fluctuations;	EBITDA	338,437	274,955	246,126	288,735	303,209
iii. Demand & supply for products	Depreciation and amortisation	(123,556)	(133,204)	(133,204)	(135,359)	(138,225)
	Operating profit	214,881	141,751	112,921	153,377	164,983
	Net interest	(27,628)	(27,971)	(25,150)	(22,635)	(20,371)
	Pre-tax profit	219,057	155,080	113,856	154,226	170,520
	Taxation	(53,647)	(32,989)	(23,844)	(32,778)	(36,383)
	Reported net profit	119,684	92,951	69,164	89,503	100,331
	Recurring net profit	135,462	101,166	78,860	89,503	100,331
	Cash flow (THBb)	Dec-18	Dec-19	Dec-20F	Dec-21F	Dec-22F
	Change in working capital	101,045	104,107	(19,472)	11,747	11,765
	Cash flow from operations	375,142	338,082	197,636	262,446	278,019
	Capex	(44,858)	(259,582)	(8,667)	(41,415)	(30,484)
	Cash flow from investing activities	(208,343)	(402,924)	(150,496)	(238,774)	(238,216)
	Dividends paid	(57,140)	(57,679)	(58,094)	(31,544)	(35,801)
	Cash flow from financing activities	(47,158)	49,888	(169,628)	(81,844)	(81,071)
	Cash at beginning of period	166,189	292,184	292,542	170,056	111,884
	Net change in cash	119,642	(14,955)	(122,487)	(58,172)	(41,268)
	Ending balance cash	292,184	292,542	170,056	111,884	70,616
	Balance sheet (THBb)	Dec-18	Dec-19	Dec-20F	Dec-21F	Dec-22F
	Total cash and equivalents	434,605	330,806	246,092	184,119	139,239
	Tangible fixed assets	1,315,553	1,575,135	1,583,802	1,625,217	1,655,701
	Total investments	117,395	112,277	112,085	111,895	111,707
	Total assets	2,353,682	2,484,439	2,394,999	2,371,663	2,354,546
	Short-term debt	88,670	96,223	94,740	89,710	85,183
	Total long-term debt	454,964	562,746	452,695	407,426	366,683
	Total liabilities	1,036,117	1,183,399	1,085,621	1,049,507	1,018,866
	Total equity	1,317,566	1,301,040	1,309,379	1,322,157	1,335,679
	Total liabilities & equity	2,353,682	2,484,439	2,394,999	2,371,663	2,354,546
	Key metrics	Dec-18	Dec-19	Dec-20F	Dec-21F	Dec-22F
	Revenue growth (%)	17.1	(5.0)	(4.7)	4.0	1.9
	Recurrent EPS growth (%)	9.3	(25.3)	(22.0)	13.5	12.1
	Gross margin (%)	12.7	10.6	9.7	11.2	11.6
	Operating EBITDA margin (%)	14.5	12.4	11.6	13.1	13.5
	Net profit margin (%)	5.1	4.2	3.3	4.1	4.5
	Dividend payout ratio (%)	48.2	62.5	45.6	40.0	40.0
	Capex/sales (%)	1.9	11.7	0.4	1.9	1.4
	Interest cover (x)	7.78	5.07	4.49	6.78	8.10

Source: Company data, RHB

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Figure 1: 1Q20F recurring net profit expected at THB18.8bn (-10% QoQ)

FYE Dec (THBm)	1Q19	4Q19	1Q20F	QoQ (%)	YoY (%)
Turnover	550,874	560,106	940,194	67.9	70.7
EBIT	48,432	30,937	27,697	(10.5)	(42.8)
EBIT margin (%)	8.8	5.5	2.9		
Pretax profit	45,419	28,765	20,809	(27.7)	(54.2)
Pretax margin (%)	8.2	5.1	2.2		
Net profit	29,312	17,446	9,133	(47.6)	(68.8)
Net margin (%)	5.3	3.1	1.0		
EPS (THB)	1.0	0.60	0.32	(47.6)	(69.1)
Recurring income	24,058	21,102	18,829	(10.8)	(21.7)

Source: RHB

Figure 2: 1Q20F refined product spreads should weaken, while petrochemicals spreads improve on lower feedstock costs

	1Q19	4Q19	1Q20	QoQ	YoY	Comment (QoQ)
Refined products (USD/bbl)						
Dubai	63.5	62.1	56.3	-9%	-11%	COVID-19 fears took a toll on travel fuel demand, while the OPEC+ failed meeting led to a collapse in crude oil prices.
Jet-Dubai	13.0	13.9	8.9	-36%	-32%	Winter was warmer than normal, which softened demand. Supply remained high. The COVID-19 pandemic caused travel fears.
Gasoil-Dubai	12.8	14.3	10.2	-29%	-21%	
Gasoline-Dubai	3.7	13.0	8.3	-36%	124%	Gasoline spreads came under pressure, as demand fell and supply remained ample.
LSFO-Dubai	6.6	21.2	19.0	-11%	188%	Weaker bunkering activity currently due to COVID-19 and economic activity is pressuring LSFO prices.
HSFO-Dubai	0.5	(18.7)	(9.1)	-51%	-1851%	
Polyethylene (USD/ton)						
Naphtha	519	540	487	-10%	-6%	In tandem with oil prices.
HDPE	1093	841	845	0%	-23%	
LLDPE	1037	838	858	2%	-17%	Demand outlook remains weak. Phase 1 US-China trade deal had little impact on overall demand. More capacity to enter this year.
LDPE	1046	956	960	0%	-8%	
MEG	833	713	708	-1%	-15%	
HDPE-MOPJ	573	301	358	19%	-38%	
LLDPE-MOPJ	518	298	371	25%	-28%	PE spreads to remain weak on softer demand and more supply entering.
LDPE-MOPJ	526	416	473	14%	-10%	
MEG - 0.65Ethylene	230	232	243	5%	6%	
Aromatics (USD/ton)						
PX-Cond	520	259	247	-5%	-52%	Softer demand as more supply enters.
BZ-Cond	55	130	166	27%	201%	Oversupply situation expected to improve.

Source: Company data, RHB

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Figure 3: Earnings and TP revision

(THBm)	Dec-20F	Dec-21F	Dec-22F
Net profit (revised)	69,164	89,503	100,331
Net profit (prior to revision)	99,199	100,957	103,961
% change	(30.3)	(11.3)	(3.5)
EPS (THB, revised)	2.4	3.1	3.5
EPS (THB, prior to revision)	3.5	3.5	3.6
% change	(30.3)	(11.3)	(3.5)
Target price (THB/share, revised)	32.8		
Target price (THB/share, prior to revision)	43.3		
% change	(23.9)		
Bloomberg consensus			
TP	41		
Net profit	89,716	105,169	113,966

Source: RHB

Figure 4: SOP valuation

	PTT's % stake	TP (THB/share)	Entity value to PTT (THBm)
Upstream E&P			
PTTEP	64.8%	91.0	235,859
Refineries & petrochemicals			
TOP	47.0%	30.0	30,049
IRPC	47.6%	1.6	15,712
PTTGC	47.7%	33.0	72,743
Utilities :			
GPSC	22.8%	80.0	27,061
Listed subsidiary/affiliates/associates			381,424
PTT, DCF valuation (WACC 10.4%)			620,147
Less net debt, PTT only			(63,342)
Entity value			938,229
Intrinsic value (THB/share)			32.8

Source: RHB

Figure 5: PTT (only) – DCF calculation

(THBm)	Dec-20	Dec-21	Dec-22	Dec-23	Dec-24	Dec-25	Dec-26	Dec-27	Dec-28	Dec-29
EBITDA	78,760	95,283	95,511	95,462	95,249	96,600	90,166	85,309	85,245	85,245
(Changes in WC)	(5,935)	(5,934)	(5,933)	(5,932)	(5,931)	(5,930)	(5,929)	(5,928)	(5,927)	(5,926)
(Other non-CF items)										
(Net capital expenditures)	(17,408)	(9,272)	(4,423)	(1,405)	-	-	-	-	-	-
Non-recurring income										
Taxes on EBIT	(17,429)	(21,086)	(21,136)	(21,125)	(21,078)	(21,377)	(19,953)	(18,878)	(18,864)	(18,864)
FCF	37,988	58,991	64,019	67,000	68,240	69,293	64,284	60,502	60,454	60,455
PV of cash flow	31,187	43,881	43,148	40,916	37,759	34,740	29,202	24,903	22,546	20,428
PV of perpetuity	291,437									
Enterprise value - DCF	328,710									
Enterprise value, PTT only	620,147									
WACC assumptions										
	Current	Prior								
Risk free rate %	1.0%	2.3%								
Beta	1.162	1.2								
Risk premium %	13.1%	8.8%								
Cost of equity %	14.2%	11.5%								
WACC	10.37%	9.01%								

Source: RHB

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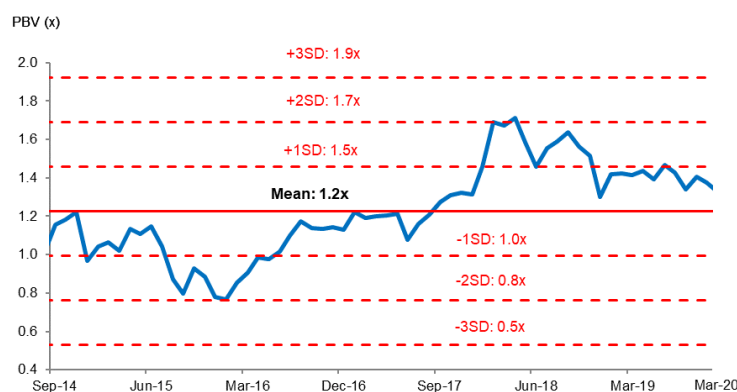
Figure 6: Regional peer comparison

Company	Market Cap (USDm)	P/E (x)		P/BV (x)		EV/EBITDA (x)		Div yield (%)		ROE (%)		ROA (%)	
		2020F	2021F	2020F	2021F	2020F	2021F	2020F	2021F	2020F	2021F	2020F	2021F
PTT	24,859	8.34	7.32	0.84	0.80	4.89	4.62	6.11	6.74	9.88	10.09	4.55	4.59
Saudi Arabian Oil	1,581,891	17.18	15.57	5.20	4.81	8.05	7.21	4.84	4.92	32.01	32.08	19.66	20.82
PetroChina	125,284	12.78	8.52	0.34	0.33	4.87	4.56	4.76	5.83	3.10	3.96	1.53	1.72
Equinor ASA	36,929	8.14	6.72	0.88	0.85	2.02	1.91	9.78	10.16	10.70	13.00	4.39	5.46
Chevron	156,040	13.91	12.72	1.11	1.14	5.36	5.02	6.15	6.44	7.20	9.07	4.14	3.49
Exxon Mobil	177,667	15.72	12.15	0.95	0.96	5.92	5.34	8.50	8.82	5.17	8.03	4.50	1.05
Royal Dutch Shell	132,848	7.76	6.39	0.72	0.70	3.99	3.65	11.03	11.12	8.79	10.45	5.20	6.37
TOTAL	91,146	8.24	7.07	0.74	0.72	3.82	3.55	8.74	9.11	9.91	10.61	3.74	3.01
Repsol	14,737	5.34	5.11	0.45	0.43	3.68	3.38	12.09	12.37	8.36	8.94	3.43	3.13
BP	82,371	9.04	7.82	0.84	0.83	4.08	3.82	10.30	10.45	8.94	10.63	4.97	6.27
MOL Hungarian Oil & Gas	5,273	5.87	4.81	0.80	0.74	3.72	3.30	6.71	7.52	10.72	11.03	6.00	5.00
Galp Energia SGPS	8,817	11.03	9.72	1.63	1.59	4.54	4.04	7.87	8.67	16.71	17.55	4.37	4.67
OMV	10,433	6.77	5.86	0.70	0.66	3.70	3.46	7.46	8.03	11.20	12.38	3.57	4.03
Eni SpA	33,096	8.98	7.23	0.59	0.58	2.88	2.59	10.98	11.18	6.86	8.31	1.93	2.03
SK Innovation	7,087	11.71	7.64	0.46	0.45	7.23	5.54	4.05	5.28	4.21	5.68	1.88	2.74
Petron Corp	542	5.33	6.15	0.39	0.38	6.12	6.06	5.08	5.08	6.45	7.77	0.85	1.24
China Petroleum & Chemical	76,300	9.12	7.37	0.53	0.52	4.85	4.48	7.48	8.38	6.32	7.33	3.01	3.52
Average		9.72	7.96	0.76	0.74	4.54	4.13	8.09	8.58	8.11	9.55	3.63	3.42

Note: Data as at 18 March 2020

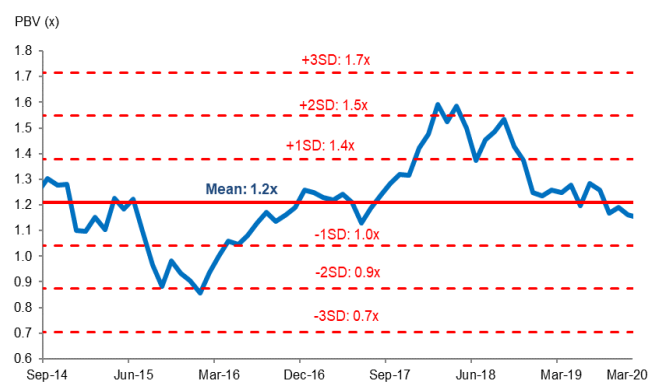
Source: Bloomberg, RHB

Figure 7: PTT's forward P/BV and SD levels



Source: Bloomberg, RHB

Figure 8: Thai Oil & Gas Index's forward P/BV and SD levels



Source: Bloomberg, RHB

Figure 9: PTT's implied P/BV at different SD levels

	-3SD	-2SD	-1SD	Mean	+1SD	+2SD	+3SD
P/BV (x)	0.5	0.80	1.00	1.20	1.50	1.70	2.70
Implied valuation	23	36	46	55	68	77	123

Source: RHB

Recommendation Chart



Source: RHB, Bloomberg

Date	Recommendation	Target Price	Price
2020-02-21	Neutral	43.3	44.5
2020-02-21	Neutral	43.3	44.5
2020-02-10	Neutral	44.5	43.5
2020-02-10	Neutral	44.5	43.5
2020-01-17	Neutral	46.0	46.0
2019-11-18	Neutral	46.0	44.5
2019-11-13	Neutral	44.5	45.3
2019-11-04	Neutral	44.5	45.5
2019-10-02	Neutral	45.0	45.8

Source: RHB, Bloomberg

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Trading Buy:	Share price may exceed 15% over the next 3 months, however longer-term outlook remains uncertain
Neutral:	Share price may fall within the range of +/- 10% over the next 12 months
Take Profit:	Target price has been attained. Look to accumulate at lower levels
Sell:	Share price may fall by more than 10% over the next 12 months
Not Rated:	Stock is not within regular research coverage

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