

# PTT EXPLOR & PROD

# PTTEP TB

THAILAND / OIL &amp; GAS

## BUY

UNCHANGED

TARGET PRICE	THB158.00
CLOSE	THB124.00
UP/DOWNSIDE	+27.4%
PRIOR TP	THB158.00
CHANGE IN TP	UNCHANGED
TP vs CONSENSUS	+10.1%

## Myanmar risk from Total's exit

- We see both sales volume upside and cost downside risks to PTTEP from the withdrawal of TotalEnergies from Yadana.
- We think PTTEP may acquire more than the pro rata-based stake of 25% for Yetagun in order to ensure gas supply security.
- Maintain BUY with TP of THB158.

### Total's exit from Yadana poses risks to PTTEP

On 21 January 2022, PTTEP announced that TotalEnergies EP Myanmar, an operator and a major shareholder of the Yadana gas field project with a 31.24% stake, intends to withdraw both as a shareholder and operator of Yadana within six months, citing the political instability in Myanmar. We see both sales volume upside and cost downside risks to PTTEP from the withdrawal of TotalEnergies from Yadana, given that seven years remain in the field's concession.

### Sales volume upside from additional stake acquired

Under the current concession for Yadana, PTTEP is eligible to acquire an additional 25% stake based on its remaining stake in Yadana on a pro rata basis of 36.6% (25% out of remaining 68.25% stake, excluding the 31.24% stake of TotalEnergies). This could bring PTTEP's stake to 50%. If PTTEP acquires an additional 25% stake to own a 50% stake in total, we estimate that Yadana's gas production and sales volume would contribute up to 7-10k barrels of oil equivalent (boed), or 2-3% of PTTEP's total sales volume in 2022-23, which could translate to a 3-5% earnings upside to PTTEP, thanks to Yadana's low-cost structure.

### Cost downside from cost structure and decommissioning

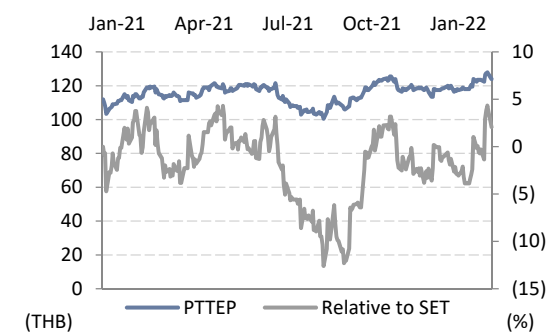
Since the concession for Yadana gas field will expire by 2028 and Yetagun's gas production is approaching the end of its production life due to natural depletion, we think that PTTEP, as a state-owned enterprise, may acquire more than the pro rata-based stake of 25% for Yadana in order to ensure gas supply security. Thus, we think PTTEP could see risks from 1) cost structure changes to Yadana during 2022-28; and 2) the potential downside from ballooning decommission costs at end-2028.

### Top pick in Thailand's upstream oil & gas sector

PTTEP is our top pick in the upstream oil & gas sector for its highest leverage to change oil and gas prices. We estimate that every 1% change in oil price would increase its earnings by 1.3-20%, depending on the oil volume sold. While there is a potential downside from the recent change in Yadana's shareholding, we believe PTTEP's net profit growth will remain sanguine in 2022 based on its strong sales volume growth and the oil and gas price uptrend.

### KEY STOCK DATA

YE Dec (THB m)	2020	2021E	2022E	2023E
Revenue	160,401	218,352	261,837	260,318
Net profit	22,664	44,667	46,059	45,782
EPS (THB)	5.71	11.25	11.60	11.53
vs Consensus (%)	-	8.8	(9.6)	(4.6)
EBITDA	70,603	114,586	111,417	113,413
Core net profit	23,685	44,667	46,059	45,782
Core EPS (THB)	5.97	11.25	11.60	11.53
Chg. In EPS est. (%)	-	-	-	-
EPS growth (%)	(46.8)	88.6	3.1	(0.6)
Core P/E (x)	20.8	11.0	10.7	10.8
Dividend yield (%)	3.4	5.4	5.6	5.6
EV/EBITDA (x)	6.8	4.9	5.3	5.0
Price/book (x)	1.4	1.3	1.3	1.2
Net debt/Equity (%)	(3.7)	19.0	25.2	17.1
ROE (%)	6.7	12.3	12.1	11.4



Share price performance	1 Month	3 Month	12 Month
Absolute (%)	5.5	(1.2)	11.2
Relative to country (%)	5.3	(1.0)	1.5
Mkt cap (USD m)	14,898		
3m avg. daily turnover (USD m)	34.0		
Free float (%)	35		
Major shareholder	PTT Plc. (65%)		
12m high/low (THB)	129.50/100.50		
Issued shares (m)	3,969.99		

Sources: Bloomberg consensus; FSSIA estimates



**Suwat Sinsadok, CFA, FRM, ERP**  
 suwat.sin@fssia.com  
 +66 2611 3558

**Siriluck Pinthusoonthorn**  
 siriluck.pin@fssia.com  
 +66 2611 3562

## Investment thesis

PTTEP's net profit growth should remain sanguine in 2022 based on its strong sales volume growth and the oil and gas price uptrend.

We believe PTTEP's average selling price will rise in tandem with the higher oil price, given PTTEP's high exposure to the oil price via its liquid price, which accounts for 30% of its production volume and 50% of its revenue. Gas constitutes 70% of its total sales volume but only 50% of its revenue.

PTTEP's cost structure remains highly competitive compared with its regional peers due to its low-cost gas fields and strict cost control strategy implemented in 2015.

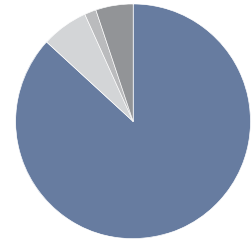
## Company profile

Established by PTT Plc (formerly Petroleum Authority of Thailand) in 1985, PTTEP is Thailand's premier oil & gas exploration and production company. Most of its petroleum assets are in the Gulf of Thailand. It was listed on the Stock Exchange of Thailand in 1992.

[www.pttep.com](http://www.pttep.com)

## Principal activities (revenue, 2020)

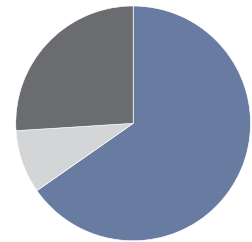
- Exploration and production - 96.7 %
- Pipeline - 7.2 %
- Others - 1.8 %
- Inter company eliminations - -5.7 %



Source: PTT Explor & Prod

## Major shareholders

- PTT Plc. - 65.3 %
- Thai NDVR - 8.7 %
- Others - 26.0 %



Source: PTT Explor & Prod

## Catalysts

Potential catalysts for PTTEP are rising oil and gas prices and potential M&A that could further drive its production and reserves higher.

## Risks to our call

Risks our TP, which is based on EV/EBITDA, are a sharp decline in oil price and a potential earnings downside from government intervention.

## Event calendar

Date	Event
Jan 2022	4Q21/2021 results announcement

## Key assumptions

	2021E	2022E	2023E
Brent oil price (USD/bbl)	68	65	60
Sales volume (boed)	424,740	513,890	533,890
ASP (USD/boe)	41.9	41.5	39.8
Gas price (USD/mmbtu)	5.5	5.6	5.5
Cost (USD/boe)	32.5	32.4	33.4

Source: FSSIA estimates

## Earnings sensitivity

- For every 1% increase in Dubai oil price, we project 2022 earnings would rise 1.3%, and vice versa, all else being equal.
- For every 1% increase in gas price, we estimate 2022 earnings would rise 1.2%, and vice versa.
- For every 1% increase in sales volume, we estimate 2022 earnings would rise 1.1%, and vice versa.

Source: FSSIA estimates

## Myanmar risk from Total's exit

On 21 January 2022, PTTEP announced that TotalEnergies EP Myanmar, an operator and a major shareholder of the Yadana gas field project with a 31.24% stake, intends to withdraw both as a shareholder and operator of Yadana within six months, citing the political instability in Myanmar.

### Exhibit 1: Yadana project

Project	Yadana
Concessions	Blocks M5 and M6
Area	26,140 square kilometres
Location	Gulf of Moattama, Republic of the Union of Myanmar
Operator	TotalEnergies EP Myanmar
Petroleum Fields	Yadana, Badamyar and Sein
Type of Petroleum	Natural Gas
Effective Date	9-Jul-92
Production Start-up	1-Jul-98
Partners	
- TotalEnergies EP Myanmar	31.24 %
- Unocal Myanmar Offshore (UMOL)	28.26%
- PTTEP International Limited (PTTEPI)	25.50%
- Myanmar Oil and Gas Enterprise (MOGE)	15.00%

Source: PTTEP

### Exhibit 2: Yadana project location



Source: Total Energy

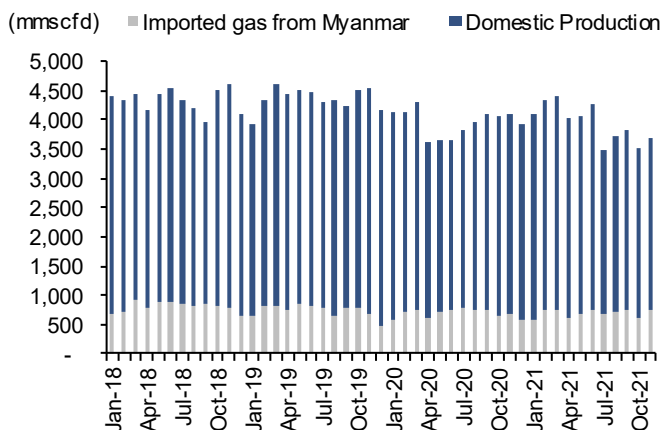
As the third largest shareholder after TotalEnergies (31.2375%) and Unocal Myanmar Offshore Company (UMOCL), a subsidiary of Chevron (28.2625%), PTTEP is now considering whether to take control of TotalEnergies' stake, which will be distributed on a pro rata basis under the current concession.

## Volume upside vs cost downside

We see both upside and downside risks to PTTEP from the withdrawal of TotalEnergies from Yadana.

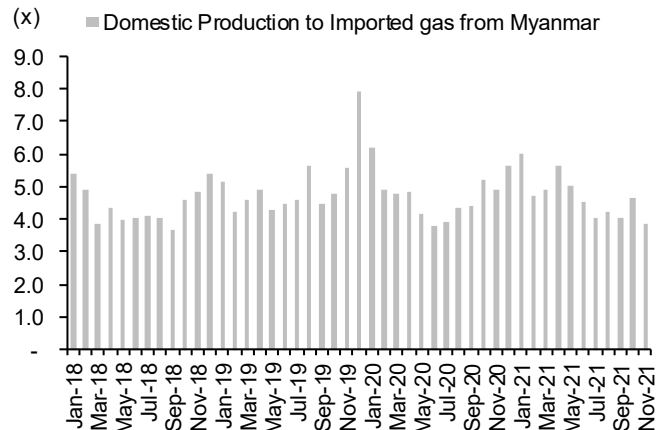
**Potential upside.** Under the current concession for Yadana, PTTEP is eligible to acquire an additional 25% stake based on its remaining stake in Yadana on a pro rata basis of 36.6% (25% out of remaining 68.25% stake, excluding the 31.24% stake of TotalEnergies). This could bring PTTEP's stake to 50% (current 25% plus 25% (36.6% of TotalEnergies' 31.24%).

### Exhibit 3: Thailand gas production and imports



Source: EPPO

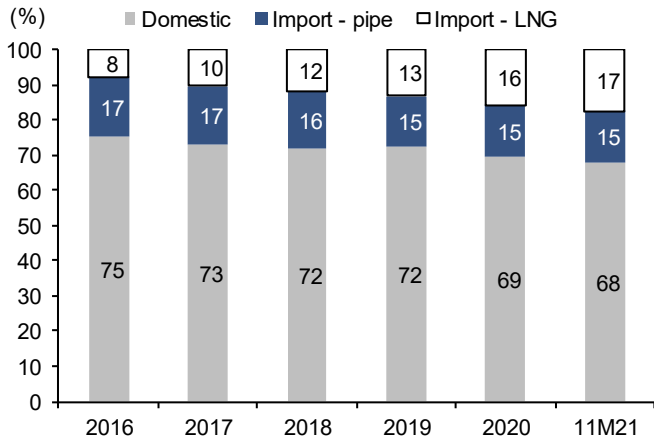
### Exhibit 4: Domestic production to imported gas from Myanmar



Source: EPPO

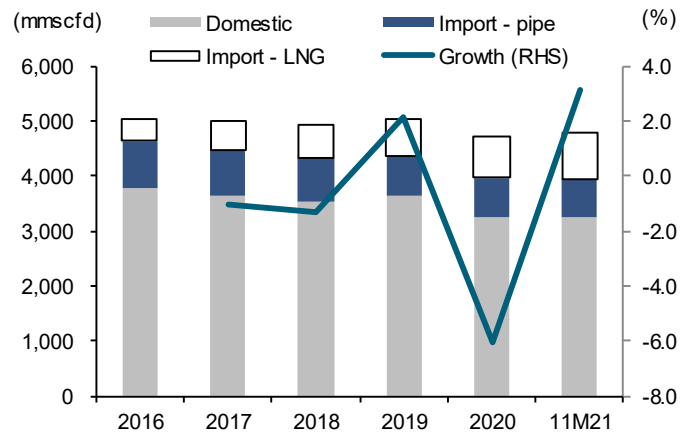
Yadana is one of the three gas fields currently owned by PTTEP in Myanmar, with the other two fields being Yetagun and Zawtika. The combined gas supply delivered via pipeline from Myanmar to Thailand ranges between 600-980mmscfd, representing around 20% of Thailand's total average gas supply from 2018 to Nov-21, according to the Energy Planning and Policy Office (EPPO).

**Exhibit 5: Thailand's gas supply breakdown by source (%)**



Source: EPPO

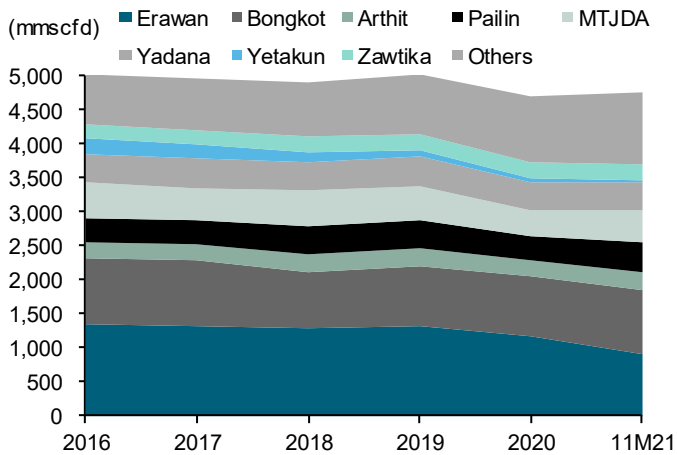
**Exhibit 6: Thailand's gas supply breakdown by source**



Source: EPPO

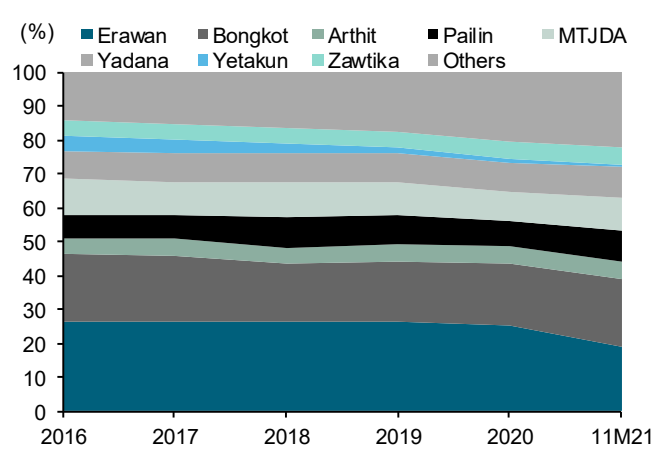
While Yadana produces around 700-800mmscfd of gas and around 400-500mmscfd is exported to Thailand at 50-75% of total production under the current gas sales agreement, the remaining two gas fields of Yetagun and Zawtika have seen much lower gas production levels than Yadana's at 60-100mmscfd for Yetagun (19.3% owned by PTTEP) and 200-300mmscfd from Zawtika (80% owned by PTTEP).

**Exhibit 7: Thailand's gas supply breakdown by field**



Source: EPPO

**Exhibit 8: Thailand's gas supply breakdown by field (%)**



Source: EPPO

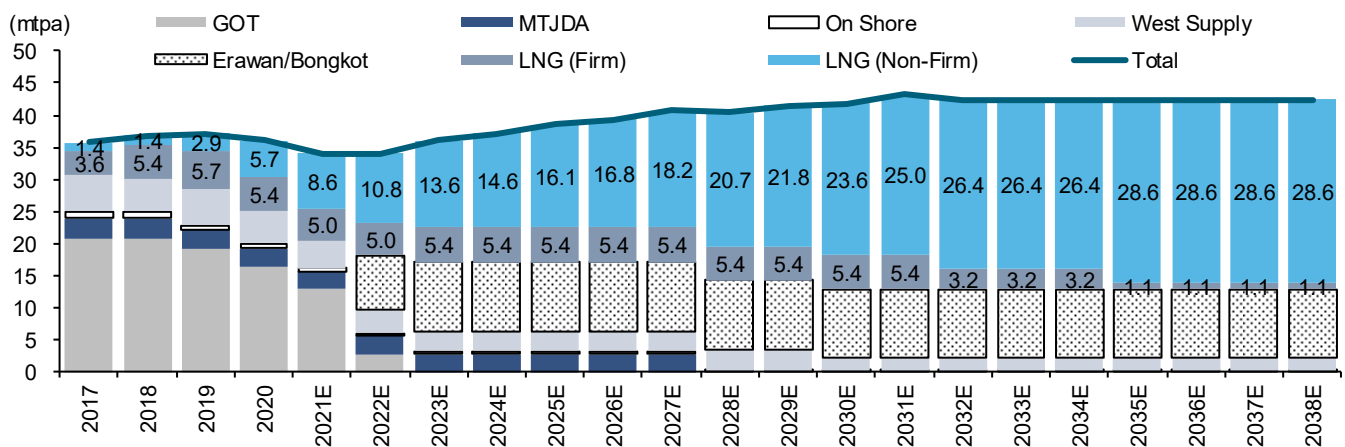
Hence, Yadana is the most important field for gas supply to Thailand from Myanmar. If PTTEP acquires an additional 25% stake to own a 50% stake in total, we estimate that Yadana's gas production and sales volume would contribute up to 7-10k boed, or 2-3% of PTTEP's total sales volume in 2022-23, which could translate to a 3-5% earnings upside to PTTEP, thanks to Yadana's low-cost structure.

**Potential downside.** However, given that the concession for Yadana gas field will expire by 2028 and Yetagun’s gas production is now approaching the end of its production life due to natural depletion, we think it is likely that PTTEP, as a state-owned enterprise, may acquire more than the pro rata-based stake of 25% for Yadana in order to ensure gas supply security.

According to [The Maritime Executive](#), Yadana has been controversial ever since TotalEnergies partnered with MOGE to develop the Yadana gas field in the 1990s. After the February 2021 military coup, Total indicated that Myanmar had seen much worsening human rights abuses and a deterioration of the rule of law, leading to Total walking away from the country.

Chevron, the second largest major shareholder of Yadana, under the increasing pressure of the US government’s sanctions against Myanmar’s junta government, is now considering exiting the country. If Chevron exits Yadana, we think it is likely that PTTEP may have to take the additional 28.26% stake owned by UMOL, bringing PTTEP’s stake up to 78.26% and becoming the major shareholder and operator of Yadana.

**Exhibit 9: Gas supply projection under Gas Plan 2018**



Source: EPPO

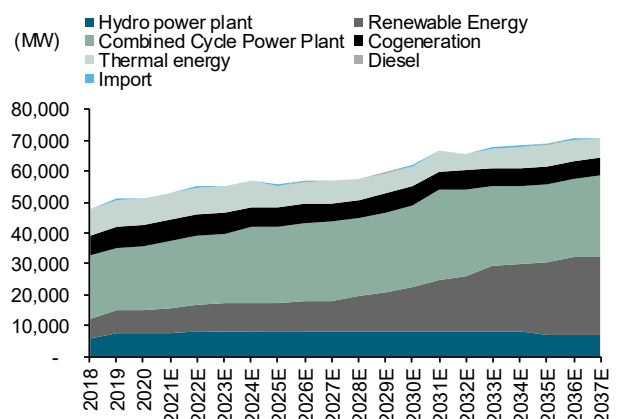
While we see a limited risk for PTTEP as a key operator of Zawtika gas field, we think PTTEP could see risks from 1) cost structure changes to Yadana during 2022-28, its expiration period, as there is no clear law governing the cost methodologies for the field; and 2) the potential downside from ballooning decommission costs at end-2028. The case in place is the long dispute over decommissioning costs between Chevron, a former operator and major shareholder of Erawan gas field, and PTTEP during the transition period to PTTEP as a new operator of Erawan, leading to a delay in PTTEP’s entry to Erawan in preparation to operate and invest in the field.

**Exhibit 10: Yetagun project**

Project	Yetagun
Concessions	Blocks M12, M13 and M14
Area	24,130 square kilometres
Location	Gulf of Martaban, Republic of the Union of Myanmar
Operator	Petronas Carigali Myanmar (Hong Kong) Ltd.
Petroleum Fields	Yetagun
Type of Petroleum	Natural gas and condensate
Production Start-up	1-Apr-00
<b>Partners</b>	
- Petronas Carigali Myanmar (Hong Kong) Ltd.	40.91%
- Myanmar Oil and Gas Enterprise (MOGE)	20.45%
- Nippon Oil Exploration (Myanmar) Ltd.	19.32%
- PTTEP International Limited (PTTEPI)	19.31%

Source: PTTEP

**Exhibit 11: Thailand’s power capacity by power plant type**



Source: EPPO

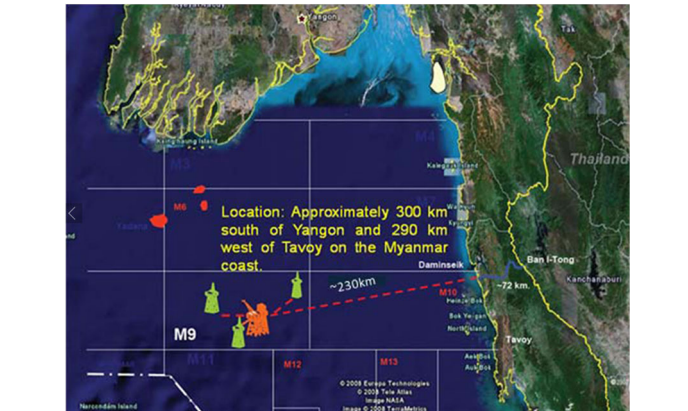
In addition, Thailand has continued to rely on gas-fired power plants as a major power source for the country, accounting for over 60% of total capacity, including combined cycle, cogeneration, and thermal power plants. Hence, any potential gas supply disruption from the gas imported from Myanmar may require PTTEP to invest more in Yadana, effectively increasing the risk for uncertain concession and decommissioning costs, in our view.

**Exhibit 12: Zawtika project**

Project	Zawtika
Concessions	Blocks M9 and Small North East Part of M11
Area	12,306 square kilometer
Location	Gulf of Moattama, Republic of the Union of Myanmar
Operator	PTTEP International Limited (PTTEPI)
Petroleum Fields	Zawtika, Kakonna and Gawthaka
Type of Petroleum	Natural Gas
Effective Date	12-Nov-03
Partners	
- PTTEP International Limited (PTTEPI)	80.00%
- Myanmar Oil and Gas Enterprise (MOGE)	20.00%

Source: PTTEP

**Exhibit 13: Zawtika project location**



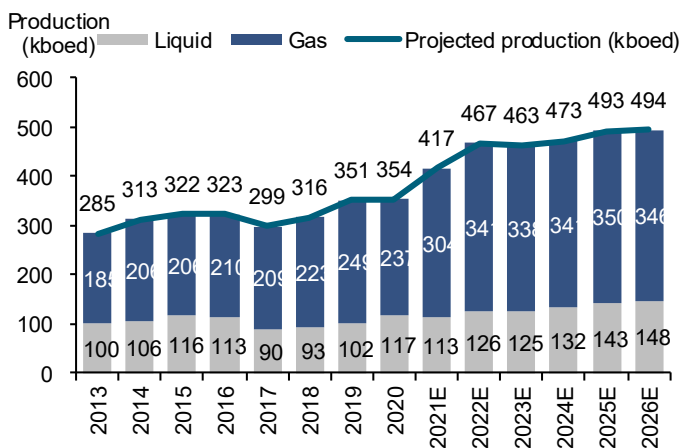
Source: [Offshore-technology](http://Offshore-technology)

**Top pick in Thailand's oil & gas sector**

PTTEP is our top pick in the upstream oil & gas sector for its highest leverage to change oil and gas prices. We estimate that every 1% change in oil price would increase its earnings by 1.3-20%, depending on the oil volume sold.

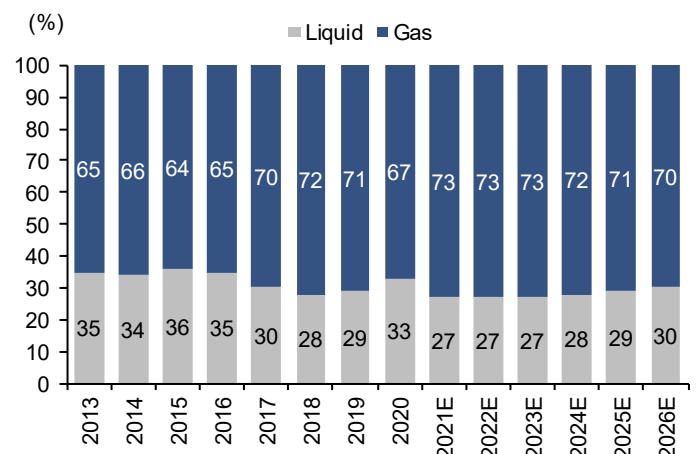
While there is a potential downside from the recent change in Yadana's shareholding, we believe PTTEP's net profit growth will remain sanguine in 2022 based on its strong sales volume growth and the oil and gas price uptrend.

**Exhibit 14: Production volume breakdown by gas and liquid**



Sources: PTTEP; FSSIA estimates

**Exhibit 15: Production volume breakdown by gas and liquid (%)**



Sources: PTTEP; FSSIA estimates



## Financial Statements

PTT Explor &amp; Prod

Profit and Loss (THB m) Year Ending Dec	2019	2020	2021E	2022E	2023E
Revenue	191,053	160,401	218,352	261,837	260,318
Cost of goods sold	(18,946)	(14,793)	(49,178)	(84,961)	(81,826)
<b>Gross profit</b>	<b>172,107</b>	<b>145,607</b>	<b>169,174</b>	<b>176,877</b>	<b>178,493</b>
Other operating income	-	-	-	-	-
Operating costs	(74,681)	(75,004)	(54,588)	(65,459)	(65,080)
<b>Operating EBITDA</b>	<b>97,426</b>	<b>70,603</b>	<b>114,586</b>	<b>111,417</b>	<b>113,413</b>
Depreciation	(25,124)	(26,100)	(28,948)	(31,819)	(34,276)
Goodwill amortisation	0	0	0	0	0
<b>Operating EBIT</b>	<b>72,301</b>	<b>44,503</b>	<b>85,638</b>	<b>79,599</b>	<b>79,137</b>
Net financing costs	(1,235)	(5,987)	(14,000)	(5,640)	(5,640)
Associates	380	1,307	1,307	1,307	1,307
Recurring non-operating income	(5,564)	3,933	2,807	2,807	2,807
Non-recurring items	4,252	(1,021)	0	0	0
<b>Profit before tax</b>	<b>69,754</b>	<b>41,428</b>	<b>74,444</b>	<b>76,766</b>	<b>76,304</b>
Tax	(20,952)	(18,764)	(29,778)	(30,706)	(30,522)
<b>Profit after tax</b>	<b>48,803</b>	<b>22,664</b>	<b>44,667</b>	<b>46,059</b>	<b>45,782</b>
Minority interests	0	0	0	0	0
Preferred dividends	0	0	0	0	0
Other items	-	-	-	-	-
<b>Reported net profit</b>	<b>48,803</b>	<b>22,664</b>	<b>44,667</b>	<b>46,059</b>	<b>45,782</b>
<b>Non-recurring items &amp; goodwill (net)</b>	<b>(4,252)</b>	<b>1,021</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Recurring net profit</b>	<b>44,550</b>	<b>23,685</b>	<b>44,667</b>	<b>46,059</b>	<b>45,782</b>
<b>Per share (THB)</b>					
Recurring EPS *	11.22	5.97	11.25	11.60	11.53
Reported EPS	12.29	5.71	11.25	11.60	11.53
DPS	8.25	4.25	6.75	6.96	6.92
Diluted shares (used to calculate per share data)	3,970	3,970	3,970	3,970	3,970
<b>Growth</b>					
Revenue (%)	11.2	(16.0)	36.1	19.9	(0.6)
Operating EBITDA (%)	9.5	(27.5)	62.3	(2.8)	1.8
Operating EBIT (%)	11.1	(38.4)	92.4	(7.1)	(0.6)
Recurring EPS (%)	23.0	(46.8)	88.6	3.1	(0.6)
Reported EPS (%)	34.8	(53.6)	97.1	3.1	(0.6)
<b>Operating performance</b>					
Gross margin inc. depreciation (%)	76.9	74.5	64.2	55.4	55.4
Gross margin of key business (%)	76.9	74.5	64.2	55.4	55.4
Operating EBITDA margin (%)	51.0	44.0	52.5	42.6	43.6
Operating EBIT margin (%)	37.8	27.7	39.2	30.4	30.4
Net margin (%)	23.3	14.8	20.5	17.6	17.6
Effective tax rate (%)	30.0	45.3	40.0	40.0	40.0
Dividend payout on recurring profit (%)	73.5	71.2	60.0	60.0	60.0
Interest cover (X)	54.1	8.1	6.3	14.6	14.5
Inventory days	184.2	248.2	80.9	55.0	62.1
Debtor days	63.4	58.4	40.5	58.4	78.0
Creditor days	143.2	475.6	152.5	46.0	52.0
Operating ROIC (%)	13.5	8.6	15.7	12.0	11.0
ROIC (%)	7.6	5.5	9.3	7.8	7.6
ROE (%)	11.9	6.7	12.3	12.1	11.4
ROA (%)	6.9	4.1	7.9	7.3	7.3
* Pre-exceptional, pre-goodwill and fully diluted					
<b>Revenue by Division (THB m)</b>					
Exploration and production	194,999	155,181	222,543	266,029	264,510
Pipeline	11,439	11,513	11,513	11,513	11,513
Others	2,653	2,875	2,875	2,875	2,875
Inter company eliminations	(18,039)	(9,168)	(18,579)	(18,579)	(18,579)

Sources: PTT Explor &amp; Prod; FSSIA estimates

## Financial Statements

PTT Explor &amp; Prod

Cash Flow (THB m) Year Ending Dec	2019	2020	2021E	2022E	2023E
Recurring net profit	44,550	23,685	44,667	46,059	45,782
Depreciation	25,124	26,100	28,948	31,819	34,276
Associates & minorities	-	-	-	-	-
Other non-cash items	35,065	35,065	35,066	35,066	35,066
Change in working capital	34,563	(17,958)	(27,045)	(12,139)	7,152
<b>Cash flow from operations</b>	<b>139,303</b>	<b>66,891</b>	<b>81,636</b>	<b>100,805</b>	<b>122,276</b>
Capex - maintenance	-	-	-	-	-
Capex - new investment	(115,506)	(115,506)	(114,807)	(114,807)	(81,807)
Net acquisitions & disposals	192	176	457	838	838
Other investments (net)	0	1	0	0	0
<b>Cash flow from investing</b>	<b>(115,314)</b>	<b>(115,329)</b>	<b>(114,350)</b>	<b>(113,969)</b>	<b>(80,969)</b>
Dividends paid	(21,655)	(20,986)	(26,800)	(27,636)	(27,469)
Equity finance	0	0	0	0	0
Debt finance	31,659	3,457	4,984	5,000	(20,000)
Other financing cash flows	(52,064)	92,102	(24,288)	13,128	14,805
<b>Cash flow from financing</b>	<b>(42,061)</b>	<b>74,574</b>	<b>(46,104)</b>	<b>(9,508)</b>	<b>(32,664)</b>
Non-recurring cash flows	-	-	-	-	-
Other adjustments	0	0	0	0	0
<b>Net other adjustments</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Movement in cash</b>	<b>(18,072)</b>	<b>26,136</b>	<b>(78,818)</b>	<b>(22,672)</b>	<b>8,643</b>
Free cash flow to firm (FCFF)	31,279.40	(40,482.25)	(25,923.41)	(6,373.71)	48,098.11
Free cash flow to equity (FCFE)	3,582.99	47,121.57	(52,018.40)	4,964.02	36,112.84

### Per share (THB)

FCFF per share	7.88	(10.20)	(6.53)	(1.61)	12.12
FCFE per share	0.90	11.87	(13.10)	1.25	9.10
Recurring cash flow per share	26.38	21.37	27.38	28.45	29.00

Balance Sheet (THB m) Year Ending Dec	2019	2020	2021E	2022E	2023E
Tangible fixed assets (gross)	1,061,295	1,100,534	1,215,341	1,330,148	1,411,955
Less: Accumulated depreciation	(739,794)	(805,044)	(877,415)	(956,961)	(1,042,652)
<b>Tangible fixed assets (net)</b>	<b>321,501</b>	<b>295,491</b>	<b>337,927</b>	<b>373,187</b>	<b>369,303</b>
<b>Intangible fixed assets (net)</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
Long-term financial assets	-	-	-	-	-
Invest. in associates & subsidiaries	13,675	13,523	13,992	14,461	14,929
Cash & equivalents	85,122	111,257	32,439	9,767	18,411
A/C receivable	27,599	23,752	24,657	59,135	52,064
Inventories	9,961	10,156	11,639	13,957	13,876
Other current assets	19,443	7,551	7,551	7,551	7,551
<b>Current assets</b>	<b>142,125</b>	<b>152,716</b>	<b>76,286</b>	<b>90,410</b>	<b>91,901</b>
Other assets	192,163	213,908	238,677	204,189	194,359
<b>Total assets</b>	<b>669,464</b>	<b>675,637</b>	<b>666,881</b>	<b>682,247</b>	<b>670,493</b>
Common equity	357,059	354,411	372,280	390,703	409,016
Minorities etc.	0	0	0	0	0
<b>Total shareholders' equity</b>	<b>357,059</b>	<b>354,411</b>	<b>372,280</b>	<b>390,703</b>	<b>409,016</b>
Long term debt	81,559	85,016	90,000	95,000	75,000
Other long-term liabilities	169,005	179,953	171,865	163,777	155,689
<b>Long-term liabilities</b>	<b>250,564</b>	<b>264,969</b>	<b>261,865</b>	<b>258,777</b>	<b>230,689</b>
A/C payable	7,194	31,356	9,746	11,687	11,620
Short term debt	13,208	13,208	13,208	13,208	13,208
Other current liabilities	41,440	11,693	9,782	7,871	5,960
<b>Current liabilities</b>	<b>61,841</b>	<b>56,257</b>	<b>32,736</b>	<b>32,766</b>	<b>30,788</b>
<b>Total liabilities and shareholders' equity</b>	<b>669,464</b>	<b>675,637</b>	<b>666,881</b>	<b>682,247</b>	<b>670,493</b>
Net working capital	8,369	(1,591)	24,318	61,084	55,910
Invested capital	535,709	521,330	614,913	652,921	634,502

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

### Per share (THB)

Book value per share	89.94	89.27	93.77	98.41	103.03
Tangible book value per share	89.94	89.27	93.77	98.41	103.03

### Financial strength

Net debt/equity (%)	2.7	(3.7)	19.0	25.2	17.1
Net debt/total assets (%)	1.4	(1.9)	10.6	14.4	10.4
Current ratio (x)	2.3	2.7	2.3	2.8	3.0
CF interest cover (x)	97.5	28.2	5.5	22.2	21.9

Valuation	2019	2020	2021E	2022E	2023E
<b>Recurring P/E (x) *</b>	<b>11.0</b>	<b>20.8</b>	<b>11.0</b>	<b>10.7</b>	<b>10.8</b>
<b>Recurring P/E @ target price (x) *</b>	<b>14.1</b>	<b>26.5</b>	<b>14.0</b>	<b>13.6</b>	<b>13.7</b>
Reported P/E (x)	10.1	21.7	11.0	10.7	10.8
Dividend yield (%)	6.7	3.4	5.4	5.6	5.6
Price/book (x)	1.4	1.4	1.3	1.3	1.2
Price/tangible book (x)	1.4	1.4	1.3	1.3	1.2
EV/EBITDA (x) **	5.2	6.8	4.9	5.3	5.0
EV/EBITDA @ target price (x) **	6.5	8.7	6.1	6.5	6.1
EV/invested capital (x)	0.9	0.9	0.9	0.9	0.9

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

Sources: PTT Explor &amp; Prod; FSSIA estimates



## Corporate Governance report of Thai listed companies 2020

EXCELLENT LEVEL										
AAV	ADVANC	AF	AIRA	AKP	AKR	ALT	AMA	AMATA	AMATAV	ANAN
AOT	AP	ARIP	ARROW	ASP	BAFS	BANPU	BAY	BCP	BCPG	BDMS
BEC	BEM	BGRIM	BIZ	BKI	BLA	BOL	BPP	BRR	BTS	BWG
CENTEL	CFRESH	CHEWA	CHO	CIMBT	CK	CKP	CM	CNT	COL	COMAN
COTTO	CPALL	CPF	CPI	CPN	CSS	DELTA	DEMCO	DRT	DTAC	DTC
DV8	EA	EASTW	ECF	ECL	EGCO	EPG	ETE	FNS	FPI	FPT
FSMART	GBX	GC	GCAP	GEL	GFPT	GGC	GPSC	GRAMMY	GUNKUL	HANA
HARN	HMPRO	ICC	ICHI	III	ILINK	INTUCH	IRPC	IVL	JKN	JSP
JWD	K	KBANK	KCE	KKP	KSL	KTB	KTC	LANNA	LH	LHFG
LIT	LPN	MAKRO	MALEE	MBK	MBKET	MC	MCOT	METCO	MFEC	MINT
MONO	MOONG	MSC	MTC	NCH	NCL	NEP	NKI	NOBLE	NSI	NVD
NYT	OISHI	ORI	OTO	PAP	PAP	PCSGH	PDJ	PG	PHOL	PLANB
PLAT	PORT	PPS	PR9	PREB	PRG	PRM	PSH	PSH	PTG	PTT
PTTEP	PTTGC	PYLON	Q-CON	QH	QTC	RATCH	RS	S	S & J	SAAM
SABINA	SAMART	SAMTEL	SAT	SC	SCB	SCC	SCCC	SCG	SCN	SDC
SEAFCO	SEOIL	SE-ED	SELIC	SENA	SIRI	SIS	SITHAI	SMK	SMPC	SNC
SONIC	SORKON	SPALI	SPI	SPRC	SPVI	SSSC	SST	STA	SPSCO	SUTHA
SVI	SYMC	SYNTEC	TACC	TASCO	TCAP	TFMAMA	THANA	THANI	THCOM	THG
THIP	THRE	THREL	TIP	TIPCO	TISCO	TK	TKT	TTB	TMILL	TNDT
TNL	TOA	TOP	TPBI	TQM	TRC	TSC	TSR	TSTE	TSTH	TTA
TTCL	TTW	TU	TVD	TVI	TVO	TWPC	U	UAC	UBIS	UV
VGI	VIH	WACOAL	WAVE	WHA	WHAUP	WICE	WINNER	TRUE		

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

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

## Description

## Score Range

Excellent

90-100

Very Good

80-89

Good

70-79

## Disclaimer:

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

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

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

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

## Anti-corruption Progress Indicator 2020

CERTIFIED										
2S	ADVANC	AI	AIE	AIRA	AKP	AMA	AMANAHA	AP	AQUA	ARROW
ASK	ASP	AYUD	B	BAFS	BANPU	BAY	BBL	BCH	BCP	BCPG
BGC	BGRIM	BJCHI	BKI	BLA	BPP	BROOK	BRR	BSBM	BTS	BWG
CEN	CENTEL	CFRESH	CGH	CHEWA	CHOTI	CHOW	CIG	CIMBT	CM	CMC
COL	COM7	CPALL	CPF	CPI	CPN	CSC	DCC	DELTA	DEMCO	DIMET
DRT	DTAC	DTC	EASTW	ECL	EGCO	FE	FNS	FPI	FPT	FSS
FTE	GBX	GC	GCAP	GEL	GFPT	GGC	GJS	GPSC	GSTEEL	GUNKUL
HANA	HARN	HMPRO	HTC	ICC	ICHI	IFS	INET	INSURE	INTUCH	IRPC
ITEL	IVL	K	KASET	KBANK	KBS	KCAR	KCE	KGI	KKP	KSL
KTB	KTC	KWC	L&E	LANNA	LHFG	LHK	LPN	LRH	M	MAKRO
MALEE	MBAX	MBK	MBKET	MC	MCOT	MFC	MFEC	MINT	MONO	MOONG
MPG	MSC	MTC	MTI	NBC	NEP	NINE	NKI	NMG	NNCL	NSI
NWR	OCC	OCEAN	OGC	ORI	PAP	PATO	PB	PCSGH	PDG	PDI
PDJ	PE	PG	PHOL	PL	PLANB	PLANET	PLAT	PM	PPP	PPPM
PPS	PREB	PRG	PRINC	PRM	PSH	PSL	PSTC	PT	PTG	PTT
PTTEP	PTTGC	PYLON	Q-CON	QH	QLT	QTC	RATCH	RML	RWI	S & J
SABINA	SAT	SC	SCB	SCC	SCCC	SCG	SCN	SEAOIL	SE-ED	SELIC
SENA	SGP	SIRI	SITHAI	SMIT	SMK	SMPC	SNC	SNP	SORKON	SPACK
SPC	SPI	SPRC	SRICHA	SSF	SSSC	SST	STA	SUSCO	SVI	SYNTEC
TAE	TAKUNI	TASCO	TBSP	TCAP	TCMC	TFG	TFI	TFMAMA	THANI	THCOM
THIP	THRE	THREL	TIP	TIPCO	TISCO	TKT	TTB	TMD	TMILL	TMT
TNITY	TNL	TNP	TNR	TOG	TOP	TPA	TPCORP	TPP	TRU	TSC
TSTH	TTCL	TU	TVD	TVI	TVO	TWPC	U	UBIS	UEC	UKEM
UOBKH	UWC	VGI	VIH	VNT	WACOAL	WHA	WHAUP	WICE	WIJK	XO
ZEN	TRUE									
DECLARED										
7UP	ABICO	AF	ALT	AMARIN	AMATA	AMATAV	ANAN	APURE	B52	BKD
BM	BROCK	BUI	CHO	CI	COTTO	DDD	EA	EFORL	EP	ERW
ESTAR	ETE	EVER	FSMART	GPI	ILINK	IRC	J	JKN	JMART	JMT
JSP	JTS	KWG	LDC	MAJOR	META	NCL	NOBLE	NOK	PK	PLE
ROJNA	SAAM	SAPPE	SCI	SE	SHANG	SINGER	SKR	SPALI	SSP	STANLY
SUPER	SYNEX	THAI	TKS	TOPP	TRITN	TTA	UPF	UV	WIN	ZIGA

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

**Disclaimer:**

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

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

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

## GENERAL DISCLAIMER

### ANALYST(S) CERTIFICATION

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

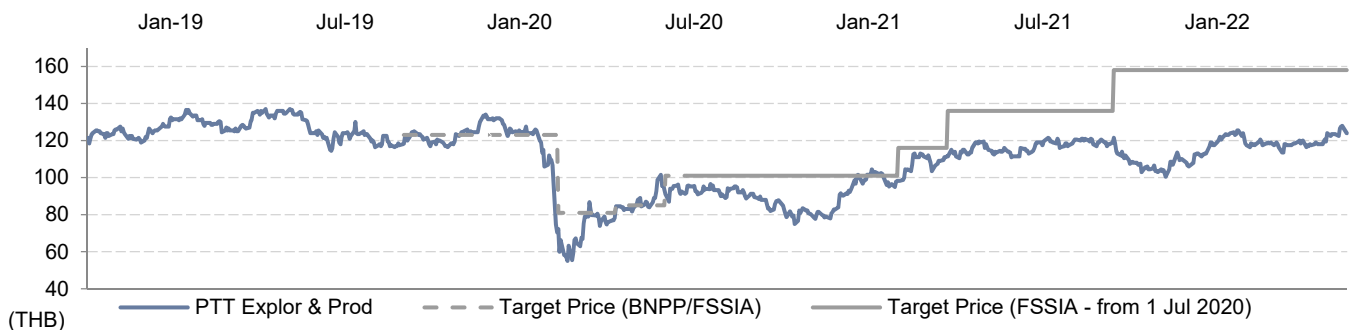
The individual(s) identified above certify(ies) that (i) all views expressed in this report accurately reflect the personal view of the analyst(s) with regard to any and all of the subject securities, companies or issuers mentioned in this report; and (ii) no part of the compensation of the analyst(s)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

This report has been prepared by FSS International Investment Advisory Company Limited (FSSIA). The information herein has been obtained from sources believed to be reliable and accurate; however FSS makes no representation as to the accuracy and completeness of such information. Information and opinions expressed herein are subject to change without notice. FSS has no intention to solicit investors to buy or sell any security in this report. In addition, FSS does not guarantee returns nor price of the securities described in the report nor accept any liability for any loss or damage of any kind arising out of the use of such information or opinions in this report. Investors should study this report carefully in making investment decisions. All rights are reserved.

This report may not be reproduced, distributed or published by any person in any manner for any purpose without permission of FSSIA. Investment in securities has risks. Investors are advised to consider carefully before making investment decisions.

### History of change in investment rating and/or target price

#### PTT Explor & Prod (PTTEP TB)



Date	Rating	Target price	Date	Rating	Target price	Date	Rating	Target price
29-Oct-2019	HOLD	123.00	30-Apr-2020	BUY	85.00	11-Feb-2021	BUY	136.00
11-Mar-2020	HOLD	81.00	12-Jun-2020	BUY	101.00	05-Jul-2021	BUY	158.00
26-Mar-2020	BUY	81.00	30-Dec-2020	BUY	116.00			

Suwat Sinsadok, CFA, FRM, ERP started covering this stock from 12-Jun-2020

Price and TP are in local currency

Source: FSSIA estimates

Company	Ticker	Price	Rating	Valuation & Risks
PTT Explor & Prod	PTTEP TB	THB 124.00	BUY	Risks our TP, which is based on EV/EBITDA, are a sharp decline in oil price and a potential earnings downside from government intervention.

Source: FSSIA estimates

### Additional Disclosures

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

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

All share prices are as at market close on 24-Jan-2022 unless otherwise stated.

## RECOMMENDATION STRUCTURE

### Stock ratings

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

**BUY (B).** The upside is 10% or more.

**HOLD (H).** The upside or downside is less than 10%.

**REDUCE (R).** The downside is 10% or more.

Unless otherwise specified, these recommendations are set with a 12-month horizon. Thus, it is possible that future price volatility may cause a temporary mismatch between upside/downside for a stock based on market price and the formal recommendation.

\* In most cases, the target price will equal the analyst's assessment of the current fair value of the stock. However, if the analyst doesn't think the market will reassess the stock over the specified time horizon due to a lack of events or catalysts, then the target price may differ from fair value. In most cases, therefore, our recommendation is an assessment of the mismatch between current market price and our assessment of current fair value.

### Industry Recommendations

**Overweight.** The analyst expects the fundamental conditions of the sector to be positive over the next 12 months.

**Neutral.** The analyst expects the fundamental conditions of the sector to be maintained over the next 12 months.

**Underweight.** The analyst expects the fundamental conditions of the sector to be negative over the next 12 months.

### Country (Strategy) Recommendations

**Overweight (O).** Over the next 12 months, the analyst expects the market to score positively on two or more of the criteria used to determine market recommendations: index returns relative to the regional benchmark, index sharpe ratio relative to the regional benchmark and index returns relative to the market cost of equity.

**Neutral (N).** Over the next 12 months, the analyst expects the market to score positively on one of the criteria used to determine market recommendations: index returns relative to the regional benchmark, index sharpe ratio relative to the regional benchmark and index returns relative to the market cost of equity.

**Underweight (U).** Over the next 12 months, the analyst does not expect the market to score positively on any of the criteria used to determine market recommendations: index returns relative to the regional benchmark, index sharpe ratio relative to the regional benchmark and index returns relative to the market cost of equity.