

6 OCTOBER 2021

THAILAND / OIL & GAS

PTT EXPLOR & PROD PTTEP TB

BUY

UNCHANGED

| | |
|-----------------|-----------|
| TARGET PRICE | THB158.00 |
| CLOSE | THB120.50 |
| UP/DOWNSIDE | +31.1% |
| PRIOR TP | THB158.00 |
| CHANGE IN TP | UNCHANGED |
| TP vs CONSENSUS | +14.2% |

Dancing with the crude

Hedging losses to curb the oil price upsides in 3Q21

We project PTTEP to post a strong 3Q21 net profit of THB9.8b, up 37% q-q and 36% y-y. We expect its core net profit to rise to THB12.6b, up 13% q-q and 104% y-y. We see the key drivers as 1) a higher average selling price (ASP) to USD44.4/boe, driven by the higher gas price to USD5.76/mmbtu and liquid price to USD69.9/bbl – a small discount to the average Dubai oil price of USD71.9/bbl in 3Q21; 2) a 6.5% q-q lower sales volume to 414kboed, but still higher than the previously guided 405kboed, due to the higher-than-expected sales volumes from Bongkot and Erawan to offset the planned shutdown impacts of the Arthit and MTJDA gas fields and S1 oil field; 3) a higher cost to USD29.38/boe, higher than our previously projected USD28.5/boe due to the higher write-off expense of USD27m for the gas wells at the Zawtika field in Myanmar and USD18m for the gas well in the SK415 area in Malaysia; and 4) a hedging loss of USD40m as a result of the collar hedging of 12m bbls at a USD60/bbl oil price.

Upsides from the rising oil and gas prices

As Thailand's leading producer of oil & gas, PTTEP is poised to benefit from the global energy crunch that has boosted commodity prices since 3Q21. With a production volume mix of 70% gas and 30% oil, PTTEP should benefit more from the oil price hike thanks to its small discount to the Dubai crude oil price due to PTTEP's comparable crude quality to Dubai. However, it should benefit less from the gas price increase, which has spiked to over USD20/mmbtu (spot LNG price), as PTTEP's gas price formula has a 6-month delay to the oil price changes and only around 1/3 of its gas price is linked to the change in high sulphur fuel oil.

Volume downside from Erawan delay

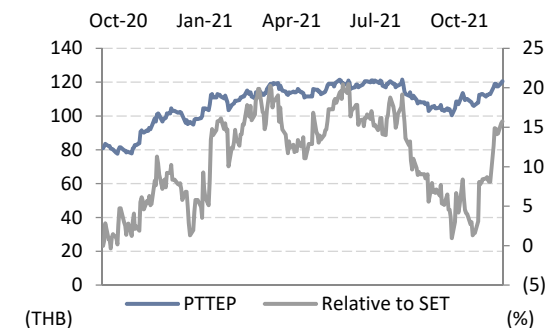
In 2022, we think the production volume downside of up to 300mmscfd from the 6-month delay in the Erawan (contract 4) gas field's production as a result of the dispute between the Department of Mineral Fuel and the soon-to-exit Chevron, should be more than offset by the production growth from new projects, including the 5kbpd Algeria phase 1 (COD in 1Q22, 50% stake) and higher production levels from existing fields.

Top pick in Thai energy sector for oil play

Maintain BUY and our target price of THB158, based on 6.1x 2021E EV/EBITDA, reflecting our positive view on the oil price outlook.

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 (%) | - | 9.2 | (4.1) | (0.6) |
| 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) | 20.2 | 10.7 | 10.4 | 10.4 |
| Dividend yield (%) | 3.5 | 5.6 | 5.8 | 5.7 |
| EV/EBITDA (x) | 6.6 | 4.8 | 5.2 | 4.8 |
| Price/book (x) | 1.3 | 1.3 | 1.2 | 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 (%) | 9.5 | 1.3 | 57.0 |
| Relative to country (%) | 11.3 | (1.5) | 20.2 |
| Mkt cap (USD m) | | | 14,166 |
| 3m avg. daily turnover (USD m) | | | 31.0 |
| Free float (%) | | | 35 |
| Major shareholder | | | PTT Plc. (65%) |
| 12m high/low (THB) | | | 125.00/75.50 |
| Issued shares (m) | | | 3,969.99 |

Sources: Bloomberg consensus; FSSIA estimates



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Investment thesis

PTTEP could see a negative impact from declining gas prices in 2021, reflecting the low oil prices in 2020, as PTTEP's gas price is linked to the average past 6-month oil price.

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.

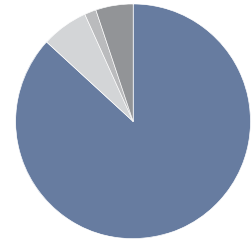
Company profile

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

Principal activities (revenue, 2020)

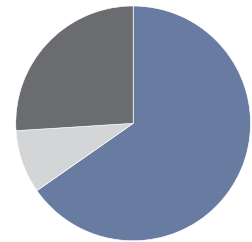
- Exploration and production - 96.7 %
- Pipeline - 7.2 %
- Others - 1.8 %
- Inter company eliminations - -5.7 %



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 |
|----------|---------------------------|
| Nov 2021 | 3Q21 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 2021 earnings would rise 1.3%, and vice versa, all else being equal.
- For every 1% increase in gas price, we estimate 2021 earnings would rise 1.2%, and vice versa.
- For every 1% increase in sales volume, we estimate 2021 earnings would rise 1.1%, and vice versa.

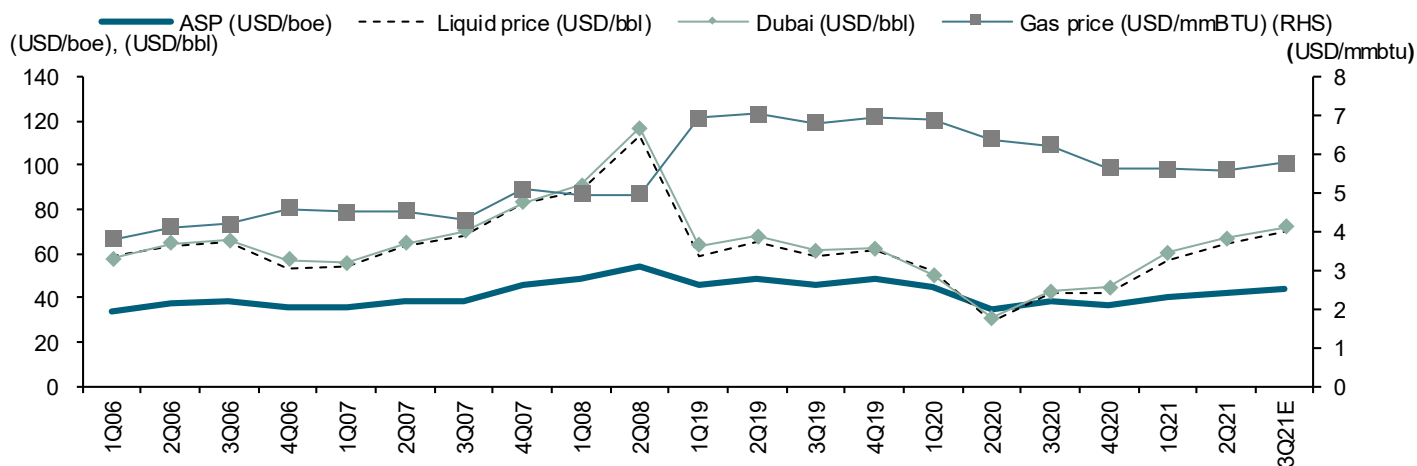
Source: FSSIA estimates

Exhibit 1: 3Q21E/9M21E preview

| | 3Q20 | 2Q21 | ----- 3Q21E ----- | | | 9M20 | 9M21E | Change |
|---------------------|---------------|---------------|-------------------|-------------|--------------|----------------|----------------|-------------|
| | (THB m) | (THB m) | (THB m) | (q-q%) | (y-y%) | (THB m) | (THB m) | (y-y%) |
| Revenue | 38,475 | 54,209 | 60,587 | 11.8 | 57.5 | 117,952 | 156,932 | 33.0 |
| Operating costs | (11,415) | (12,460) | (15,329) | 23.0 | 34.3 | (41,152) | (48,870) | 18.8 |
| EBITDA | 27,059 | 41,750 | 45,258 | 8.4 | 67.3 | 76,800 | 108,062 | 40.7 |
| EBITDA margin (%) | 70.3 | 77.0 | 74.7 | nm | nm | 65.1 | 68.9 | nm |
| Depn & amort. | (16,123) | (19,747) | (20,475) | 3.7 | 27.0 | (48,476) | (56,779) | 17.1 |
| EBIT | 10,937 | 22,003 | 24,783 | 12.6 | 126.6 | 28,324 | 51,283 | 81.1 |
| Interest expense | (1,936) | (1,611) | (1,752) | 8.8 | (9.5) | (5,910) | (4,816) | (18.5) |
| Interest & invt inc | 1,327 | 793 | 852 | 7.4 | (35.8) | 10,308 | 12,925 | 25.4 |
| Associates' contrib | 144 | 88 | 120 | 37.0 | (16.7) | 530 | 272 | (48.8) |
| Exceptionals | 1,108 | (4,070) | (1,650) | nm | nm | 3,195 | (2,774) | nm |
| Pretax profit | 11,579 | 17,203 | 22,353 | 29.9 | 93.1 | 36,448 | 56,890 | 56.1 |
| Tax | (4,377) | (10,063) | (12,554) | 24.8 | 186.8 | (16,310) | (28,418) | 74.2 |
| Tax rate (%) | 37.8 | 58.5 | 56 | nm | nm | 44.8 | 50.0 | nm |
| Minority interests | 0 | 0 | 0 | nm | nm | 0 | 0 | nm |
| Net profit | 7,202 | 7,140 | 9,799 | 37.2 | 36.1 | 20,137 | 28,472 | 41.4 |
| Non-recurring | 1,028 | (4,046) | (2,790) | (31.0) | (371.4) | 1,499 | (4,140) | (376.1) |
| Core profit | 6,174 | 11,185 | 12,589 | 12.5 | 103.9 | 18,638 | 32,612 | 75.0 |
| EPS (THB) | 1.81 | 1.80 | 2.47 | 37.2 | 36.1 | 5.07 | 7.17 | 41.4 |
| Core EPS (THB) | 1.56 | 2.82 | 3.17 | 12.5 | 103.9 | 4.69 | 8.21 | 75.0 |

Sources: PTTEP; FSSIA estimates

Exhibit 2: ASP and prices of liquid and gas for PTTEP vs Dubai crude oil price



Sources: PTTEP; FSSIA estimates

Financial Statements

PTT Explor & 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) |
| Gross profit | 172,107 | 145,607 | 169,174 | 176,877 | 178,493 |
| Other operating income | - | - | - | - | - |
| Operating costs | (74,681) | (75,004) | (54,588) | (65,459) | (65,080) |
| Operating EBITDA | 97,426 | 70,603 | 114,586 | 111,417 | 113,413 |
| Depreciation | (25,124) | (26,100) | (28,948) | (31,819) | (34,276) |
| Goodwill amortisation | 0 | 0 | 0 | 0 | 0 |
| Operating EBIT | 72,301 | 44,503 | 85,638 | 79,599 | 79,137 |
| 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 |
| Profit before tax | 69,754 | 41,428 | 74,444 | 76,766 | 76,304 |
| Tax | (20,952) | (18,764) | (29,778) | (30,706) | (30,522) |
| Profit after tax | 48,803 | 22,664 | 44,667 | 46,059 | 45,782 |
| Minority interests | 0 | 0 | 0 | 0 | 0 |
| Preferred dividends | 0 | 0 | 0 | 0 | 0 |
| Other items | - | - | - | - | - |
| Reported net profit | 48,803 | 22,664 | 44,667 | 46,059 | 45,782 |
| Non-recurring items & goodwill (net) | (4,252) | 1,021 | 0 | 0 | 0 |
| Recurring net profit | 44,550 | 23,685 | 44,667 | 46,059 | 45,782 |
| Per share (THB) | | | | | |
| 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 |
| Growth | | | | | |
| 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) |
| Operating performance | | | | | |
| 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 | | | | | |
| Revenue by Division (THB m) | | | | | |
| 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 & Prod; FSSIA estimates

Financial Statements

PTT Explor & 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 |
| Cash flow from operations | 139,303 | 66,891 | 81,636 | 100,805 | 122,276 |
| 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 |
| Cash flow from investing | (115,314) | (115,329) | (114,350) | (113,969) | (80,969) |
| 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 |
| Cash flow from financing | (42,061) | 74,574 | (46,104) | (9,508) | (32,664) |
| Non-recurring cash flows | - | - | - | - | - |
| Other adjustments | 0 | 0 | 0 | 0 | 0 |
| Net other adjustments | 0 | 0 | 0 | 0 | 0 |
| Movement in cash | (18,072) | 26,136 | (78,818) | (22,672) | 8,643 |
| 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) |
| Tangible fixed assets (net) | 321,501 | 295,491 | 337,927 | 373,187 | 369,303 |
| Intangible fixed assets (net) | 0 | 0 | 0 | 0 | 0 |
| 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 |
| Current assets | 142,125 | 152,716 | 76,286 | 90,410 | 91,901 |
| Other assets | 192,163 | 213,908 | 238,677 | 204,189 | 194,359 |
| Total assets | 669,464 | 675,637 | 666,881 | 682,247 | 670,493 |
| Common equity | 357,059 | 354,411 | 372,280 | 390,703 | 409,016 |
| Minorities etc. | 0 | 0 | 0 | 0 | 0 |
| Total shareholders' equity | 357,059 | 354,411 | 372,280 | 390,703 | 409,016 |
| 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 |
| Long-term liabilities | 250,564 | 264,969 | 261,865 | 258,777 | 230,689 |
| 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 |
| Current liabilities | 61,841 | 56,257 | 32,736 | 32,766 | 30,788 |
| Total liabilities and shareholders' equity | 669,464 | 675,637 | 666,881 | 682,247 | 670,493 |
| 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 |
|---|-------------|-------------|-------------|-------------|-------------|
| Recurring P/E (x) * | 10.7 | 20.2 | 10.7 | 10.4 | 10.4 |
| Recurring P/E @ target price (x) * | 14.1 | 26.5 | 14.0 | 13.6 | 13.7 |
| Reported P/E (x) | 9.8 | 21.1 | 10.7 | 10.4 | 10.4 |
| Dividend yield (%) | 6.8 | 3.5 | 5.6 | 5.8 | 5.7 |
| Price/book (x) | 1.3 | 1.3 | 1.3 | 1.2 | 1.2 |
| Price/tangible book (x) | 1.3 | 1.3 | 1.3 | 1.2 | 1.2 |
| EV/EBITDA (x) ** | 5.0 | 6.6 | 4.8 | 5.2 | 4.8 |
| 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 & 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 | PCSGH | PDJ | PG | PHOL | PLANB | PLANET |
| PLAT | PORT | PPS | PR9 | PREB | PRG | PRM | PSH | PSL | PTG | PTT |
| PTTEP | PTTGC | PYLON | Q-CON | QH | QTC | RATCH | RS | S | S & J | SAAM |
| SABINA | SAMART | SAMTEL | SAT | SC | SCB | SCC | SCCC | SCG | SCN | SDC |
| SEAFCO | SEOIL | SE-ED | SELIC | SENA | SIRI | SIS | SITHAI | SMK | SMPC | SNC |
| SONIC | SORKON | SPALI | SPI | SPRC | SPVI | SSSC | SST | STA | SUSCO | SUTHA |
| SVI | SYMC | SYNTEC | TACC | TASCO | TCAP | TFMAMA | THANA | THANI | THCOM | THG |
| THIP | THRE | THREL | TIP | TIPCO | TISCO | TK | TKT | TTB | TMILL | TNDT |
| TNL | TOA | TOP | TPBI | TQM | TRC | 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 | AMANAH | 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 | MITISB | MK | MODERN | MTI | MVP |
| NETBAY | NEX | NINE | NTV | NWR | OCC | OGC | OSP | PATO | PB | PDG |
| PDI | PICO | PIMO | PJW | PL | PM | PPP | PRIN | PRINC | PSTC | PT |
| QLT | RCL | RICHY | RML | RPC | RWI | S11 | SALEE | SAMCO | SANKO | SAPPE |
| SAWAD | SCI | SCP | SE | SEG | SFP | SGF | SHR | SIAM | SINGER | SKE |
| SKR | SKY | SMIT | SMT | SNP | SPA | SPC | SPCG | SR | SRICHA | SSC |
| SSF | STANLY | STI | STPI | SUC | SUN | SYNEX | T | TAE | TAKUNI | TBSP |
| TCC | TCMC | TEAM | TEAMG | TFG | TIGER | TITLE | TKN | TKS | TM | TMC |
| TMD | TMI | TMT | TNITY | TNP | TNR | TOG | TPA | TPAC | TPCORP | TPOLY |
| TPS | TRITN | TRT | TRU | TSE | TVT | TWP | UEC | UMI | UOBKH | UP |
| UPF | UPOIC | UT | UTP | UWC | VL | VNT | VPO | WIJK | WP | XO |
| YUASA | ZEN | ZIGA | ZMICO | | | | | | | |

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

Description

Score Range

Excellent

90-100

Very Good

80-89

Good

70-79

Disclaimer:

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

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

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

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

Anti-corruption Progress Indicator 2020

| CERTIFIED | | | | | | | | | | |
|-----------|--------|--------|--------|-------|--------|--------|---------|--------|--------|--------|
| 2S | ADVANC | AI | AIE | AIRA | AKP | AMA | AMANAHA | AP | AQUA | ARROW |
| ASK | ASP | AYUD | B | BAFS | BANPU | BAY | BBL | BCH | BCP | BCPG |
| BGC | BGRIM | BJCHI | BKI | BLA | BPP | BROOK | BRR | BSBM | BTS | BWG |
| CEN | CENTEL | CFRESH | CGH | CHEWA | CHOTI | CHOW | CIG | CIMBT | CM | CMC |
| COL | COM7 | CPALL | CPF | CPI | CPN | CSC | DCC | DELTA | DEMCO | DIMET |
| DRT | DTAC | DTC | EASTW | ECL | EGCO | FE | FNS | FPI | FPT | FSS |
| FTE | GBX | GC | GCAP | GEL | GFPT | GGC | GJS | GPSC | GSTEEL | GUNKUL |
| HANA | HARN | HMPRO | HTC | ICC | ICHI | IFS | INET | INSURE | INTUCH | IRPC |
| ITEL | IVL | K | KASET | KBANK | KBS | KCAR | KCE | KGI | KKP | KSL |
| KTB | KTC | KWC | L&E | LANNA | LHFG | LHK | LPN | LRH | M | MAKRO |
| MALEE | MBAX | MBK | MBKET | MC | MCOT | MFC | MFEC | MINT | MONO | MOONG |
| MPG | MSC | MTC | MTI | NBC | NEP | NINE | NKI | NMG | NNCL | NSI |
| NWR | OCC | OCEAN | OGC | ORI | PAP | PATO | PB | PCSGH | PDG | PDI |
| PDJ | PE | PG | PHOL | PL | PLANB | PLANET | PLAT | PM | PPP | PPPM |
| PPS | PREB | PRG | PRINC | PRM | PSH | PSL | PSTC | PT | PTG | PTT |
| PTTEP | PTTGC | PYLON | Q-CON | QH | QLT | QTC | RATCH | RML | RWI | S & J |
| SABINA | SAT | SC | SCB | SCC | SCCC | SCG | SCN | SEAOIL | SE-ED | SELIC |
| SENA | SGP | SIRI | SITHAI | SMIT | SMK | SMPC | SNC | SNP | SORKON | SPACK |
| SPC | SPI | SPRC | SRICHA | SSF | SSSC | SST | STA | SUSCO | SVI | SYNTEC |
| TAE | TAKUNI | TASCO | TBSP | TCAP | TCMC | TFG | TFI | TFMAMA | THANI | THCOM |
| THIP | THRE | THREL | TIP | TIPCO | TISCO | TKT | TTB | TMD | TMILL | TMT |
| TNITY | TNL | TNP | TNR | TOG | TOP | TPA | TPCORP | TPP | TRU | TSC |
| TSTH | TTCL | TU | TVD | TVI | TVO | TWPC | U | UBIS | UEC | UKEM |
| UOBKH | UWC | VGI | VIH | VNT | WACOAL | WHA | WHAUP | WICE | WIIC | XO |
| ZEN | TRUE | | | | | | | | | |

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

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

Disclaimer:

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

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

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

GENERAL DISCLAIMER

ANALYST(S) CERTIFICATION

Suwat Sinsadok FSS International Investment Advisory Securities Co., Ltd

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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 |
|-------------|--------|--------------|-------------|--------|--------------|-------------|--------|--------------|
| 09-Oct-2018 | BUY | 193.00 | 26-Mar-2020 | BUY | 81.00 | 30-Dec-2020 | BUY | 116.00 |
| 14-Dec-2018 | BUY | 160.00 | 30-Apr-2020 | BUY | 85.00 | 29-Jan-2021 | BUY | 116.00 |
| 29-Oct-2019 | HOLD | 123.00 | 12-Jun-2020 | BUY | 101.00 | 11-Feb-2021 | BUY | 136.00 |
| 11-Mar-2020 | HOLD | 81.00 | 12-Jun-2020 | BUY | 101.00 | 05-Jul-2021 | BUY | 158.00 |

Suwat Sinsadok started covering this stock from 09-Oct-2018

Price and TP are in local currency

Source: FSSIA estimates

| Company | Ticker | Price | Rating | Valuation & Risks |
|-------------------|----------|------------|--------|---|
| PTT Explor & Prod | PTTEP TB | THB 120.50 | 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 Finansia Syrus Securities Public Company Limited

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All share prices are as at market close on 05-Oct-2021 unless otherwise stated.

RECOMMENDATION STRUCTURE

Stock ratings

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

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

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

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

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

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

Industry Recommendations

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

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

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

Country (Strategy) Recommendations

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

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

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