

**HOLD** (Unchanged)

Change in Numbers

**TP: Bt 170.00** (From: Bt 159.00)

**Upside : 2.4%**

**3 FEBRUARY 2023**

# PTT Exp & Production Pcl (PTTEP TB)

## Lacking catalysts

We maintain HOLD on PTTEP but raise our TP to Bt170 from Bt159 as we factor in 2022 numbers and lower our unit cost assumptions. We see PTTEP's valuation of 1.3x 2023F P/BV as already reflecting the elevated oil price environment while 2023-25F profit looks set to fall.



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### Fairly valued; maintain HOLD

We maintain our HOLD rating on PTTEP but raise our DCF-based 12-month TP (2023F base year) to Bt170 from Bt159 as we factor in 2022 numbers and lower our unit cost assumptions. Firstly, we think PTTEP's current valuation already reflects the elevated oil price environment. PTTEP now trades at what we see as a fair valuation of 1.3x 2023F P/BV, which is above its five-year historical average of 1.2x. Second, oil prices are likely to be range-bound with OPEC+ proactively maintaining oil market stability. Third, we believe PTTEP's earnings growth peaked in 2022 with growth of 112% from a jump in oil prices and expect earnings to contract by 27% in 2023F on a falling price trend.

### A more stable oil market

We expect the oil market to be more stable this year after three turbulent years. On 1 February 2023, the Joint Ministerial Monitoring Committee of the OPEC+ group recommended that no changes be made to oil production quotas. We believe this implies OPEC+ is targeting a more stable market. We expect the group to remain proactive in reducing volatility in the crude oil market and cut output further if needed or raise output if demand recovers. On the demand side, growth looks set to fall from 2022's level despite China's demand recovering this year. This follows a slower post-COVID demand recovery elsewhere as well as a potential economic slowdown in European countries. Consequently, we keep our Brent assumptions for 2024-25F unchanged at US\$85/80/75/bbl.

### Falling profit trend

We expect PTTEP's profit to fall by 27/0/12% over 2023-25F due mainly to our lower oil price assumptions. We expect PTTEP's selling price to fall by 10/5/6% y-y over 2023-25F. Additionally, PTTEP will see a higher mix of lower-priced gas output under the production-sharing contract (PSC) for Bongkot and Erawan. We estimate contribution from lower gas prices under the new PSC to rise to 30% of total output in 2023F from 10% in 2022.

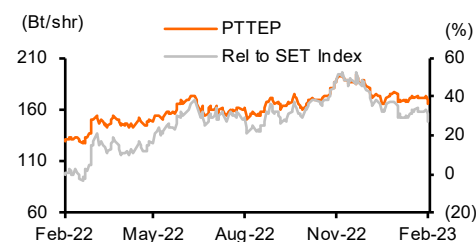
### Muted volume growth

We expect PTTEP's volume to be flat at 470k boed in 2023F as higher Erawan output is offset by falling Bongkot output and Oman Block 61. PTTEP targets Erawan output to reach 400mmscf by mid-2023, 600mmscf by the end of this year, and 800mmscf by April 2024. Meanwhile, Bongkot production is set to fall to 700mmscf from the current production rate of more than 800mmscf. Volume growth should resume in 2024F with growth of 9% to 510k boed as Erawan output fully ramps up. However, we expect the growth to be offset by falling prices in 2024F.

### COMPANY VALUATION

Y/E Dec (Bt m)	2022A	2023F	2024F	2025F
Sales	331,350	283,861	290,665	287,608
Net profit	70,901	66,625	66,827	58,643
Consensus NP	—	70,334	64,055	58,765
Diff frm cons (%)	—	(5.3)	4.3	(0.2)
Norm profit	90,721	66,625	66,827	58,643
Prev. Norm profit	—	65,879	62,045	51,722
Chg frm prev (%)	—	1.1	7.7	13.4
Norm EPS (Bt)	22.9	16.8	16.8	14.8
Norm EPS grw (%)	111.5	(26.6)	0.3	(12.2)
Norm PE (x)	7.3	9.9	9.9	11.2
EV/EBITDA (x)	2.7	2.7	2.8	2.9
P/BV (x)	1.4	1.3	1.2	1.2
Div yield (%)	5.6	5.1	4.5	4.2
ROE (%)	20.6	13.8	12.9	10.6
Net D/E (%)	(1.8)	(17.4)	(15.7)	(13.8)

### PRICE PERFORMANCE



### COMPANY INFORMATION

Price as of 3-Feb-23 (Bt)	166.00
Market Cap (US\$ m)	19,996.9
Listed Shares (m shares)	3,970.0
Free Float (%)	34.7
Avg Daily Turnover (US\$ m)	68.4
12M Price H/L (Bt)	193.50/127.00
Sector	Energy
Major Shareholder	PTT Pcl 63.79%

Sources: Bloomberg, Company data, Thanachart estimates

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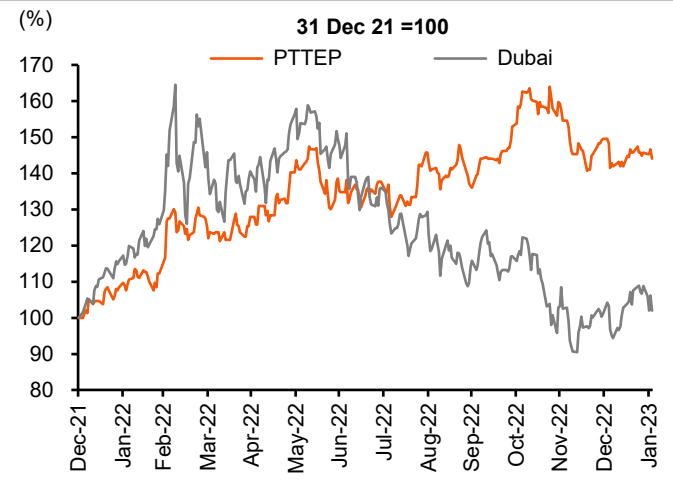


## Fairly valued, in our view

**PTTEP's current price reflects the elevated oil price environment**

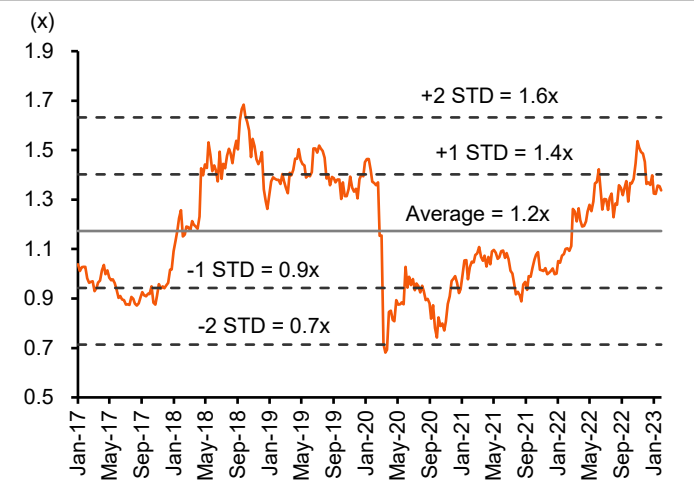
PTT Exploration & Production Pcl's (PTTEP) share price outperformed the oil price by 47% in 2022. Relative to peers, the company is also trading at a premium at 1.3x 2023F P/BV vs. peers' average of 0.8x. With the falling profit trend, we see PTTEP's stock price offering limited potential upside and maintain our HOLD call with a higher DCF-based 12-month TP, using a 2023F base year, of Bt170/share (from Bt159 previously).

**Ex 1: PTTEP's Price Performance Vs. Oil Price**



Source: Bloomberg

**Ex 2: P/BV Band**



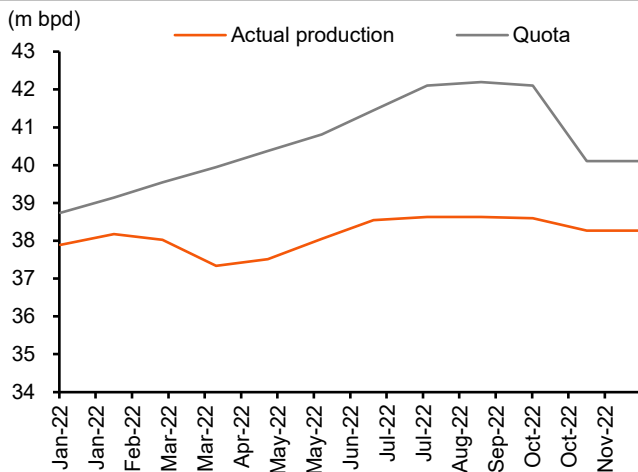
Sources: Bloomberg, Thanachart estimates

## OPEC+ likely to target a stable market

**OPEC+ targeting to maintain oil prices at US\$80-90/bbl**

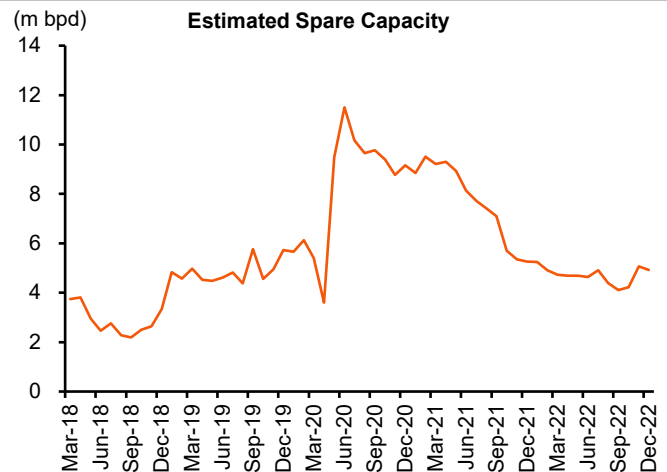
On 1 February 2023, the Joint Ministerial Monitoring Committee of the OPEC+ group recommended that no changes be made to oil production quotas, which reduced the targeted output by 2m bpd from November onwards. We expect the OPEC+ group to continue to target a more stable market and it is likely to aim for a price range of around US\$80-90 per bbl. With the oil market seemingly entering calmer waters after three turbulent years, OPEC+ has reverted to a less frequent schedule of meetings, with only two full ministerial meetings a year. We expect the group to remain proactive in reducing volatility in the crude oil market and cut output further if needed or raise output if demand recovers. OPEC has held meaningful spare capacity since the pandemic. The abundance of available supply has therefore made a sudden oil-price surge less likely. According to Bloomberg data, the largest shares of OPEC's 5.3m bpd of spare capacity are held by Saudi Arabia (30%), Iran (25%), the United Arab Emirates (20%) and Nigeria (9%)

**Ex 3: OPEC+ Output Vs. Quota**



Source: Bloomberg

**Ex 4: OPEC's Spare Capacity**



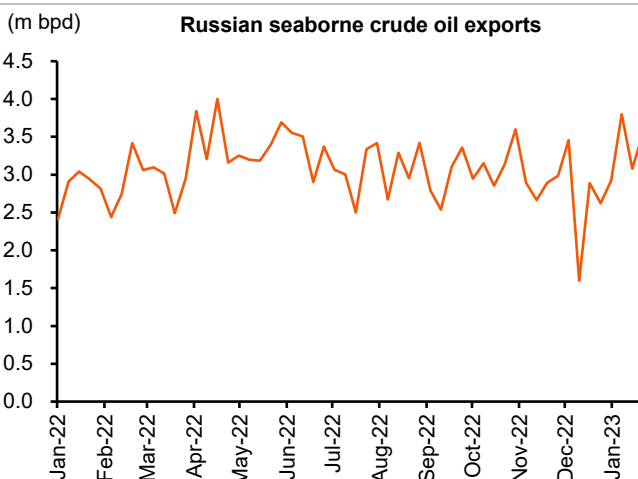
Source: Bloomberg

**Russian exports hold up well**

*Flow shifts and price cap lead to resilient Russian crude exports*

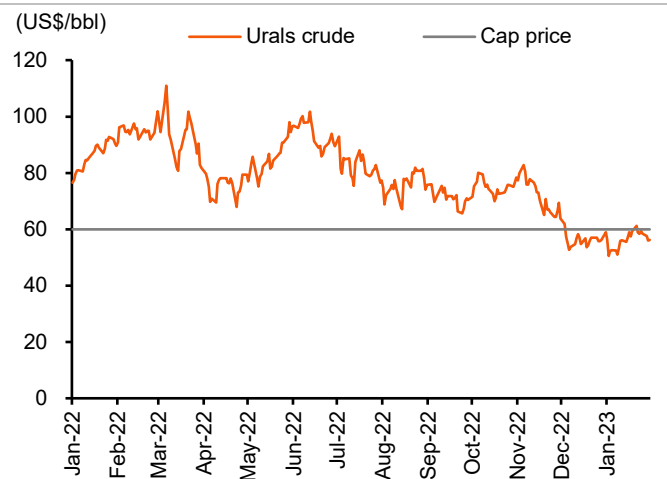
We see Russian oil output as the biggest wild card. The country produced about 11% of the world's oil in 2022. However, Russian crude oil exports have been more resilient than the market had expected because of a shift in trade flows and the European Union's (EU) policy to cap purchases of Russian crude at US\$60/bbl. The bulk of Russia's oil now goes to just three destinations, namely China, India and Turkey while European countries have already reduced imports from Russia substantially. Meanwhile, Russian Urals crude is now trading at US\$52/bbl, which is well below the price cap of US\$60/bbl. This would provide legitimacy for the import of Russian crude and keep the supplies flowing. Based on Bloomberg data, Russian crude oil exports stood at 3.6m bpd at the end of January 2023, which is above the pre-Ukraine-Russia conflict level of 2.8m bpd in January 2022.

**Ex 5: Resilient Russian Crude Oil Exports**



Source: Bloomberg

**Ex 6: Russian Urals Crude Trades Below EU's Cap Price**



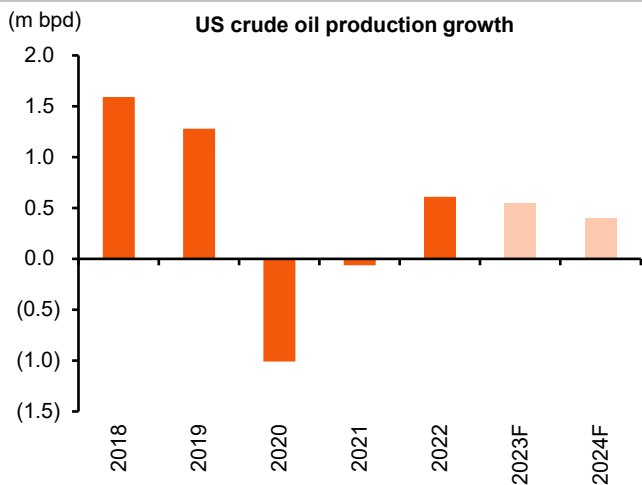
Source: Investing.com

### Muted US oil production

*US oil output growth looks set to stay limited*

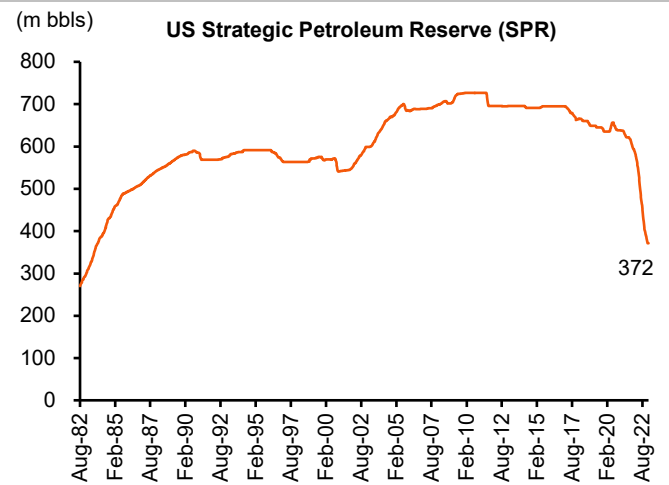
US oil production looks set to be the largest source of production growth in 2023F, but that growth will likely be limited given relatively low capital investment from oil producers. The US Energy Information Administration’s (EIA) forecasts indicate that US shale production will not reach the pre-pandemic high of 13m bpd in 2023F and grow by only 0.5m bpd to 12.4m bpd, a decline from the growth of 0.6m bpd in 2022. Meanwhile, potential pressure from the US Strategic Petroleum Reserves (SPR) is unlikely to lead to further pressure this year. The Biden administration announced the release of 189m bbl of the SPR in April 2022, which had already ended in January this year. With the average release at 620k bpd, the ending SPR as of January 2023 was 372m bbl, the lowest level since 1984.

**Ex 7: Limited US Oil Production Growth**



Source: EIA

**Ex 8: US SPR Release Is Ending**



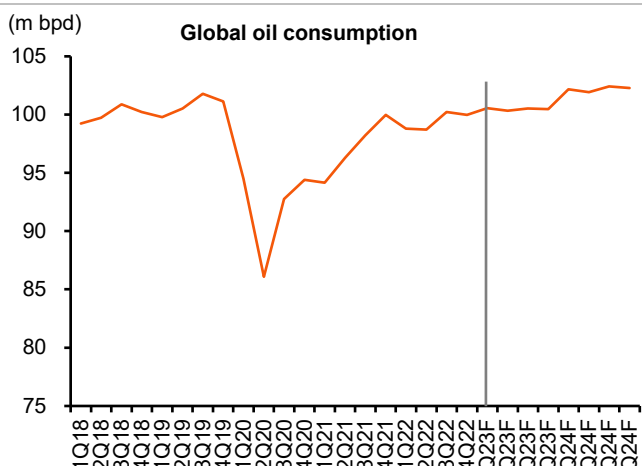
Source: EIA

### Slower oil demand growth

*China demand recovering, but growth in other regions is slowing down*

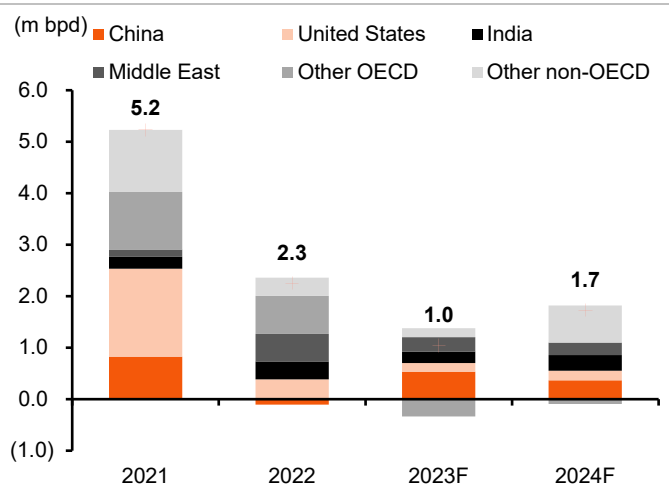
On the demand side, growth looks set to fall from the 2022 level despite China demand recovering this year. This is following slower post-COVID demand recovery elsewhere as well as a potential economic slowdown in European countries. Based on International energy Agency (IEA) data, the agency forecasts oil demand to continue to grow to 100.5m bpd in 2023. This implies 2023 growth of 1.1 m bpd globally with around 500,000 bpd of that coming from China. This is lower than the growth of 2.3m bpd in 2022.

**Ex 9: Global Oil Demand To Return To Pre-COVID Level**



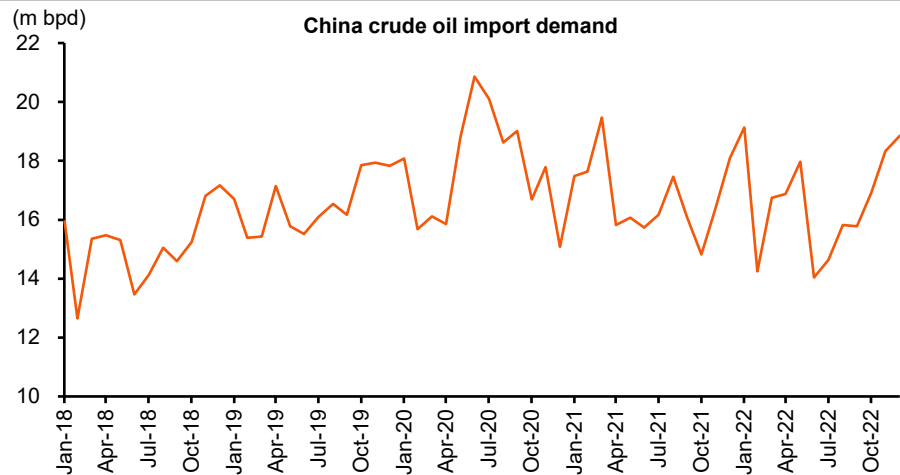
Source: EIA

**Ex 10: Global Oil Demand Growth Forecasts**



Sources: EIA

**Ex 11: Chinese Oil Demand Is Recovering**



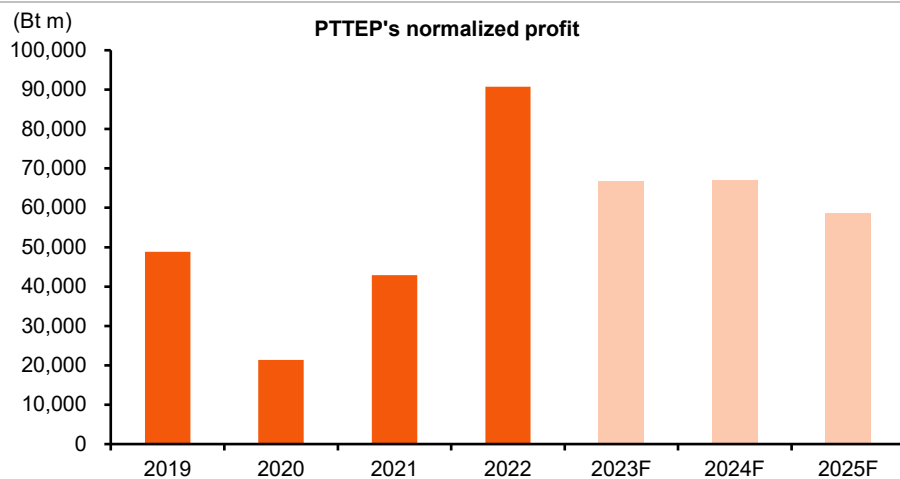
Source: Bloomberg

### Falling profit trend

*Profit set to decline due to lower selling prices*

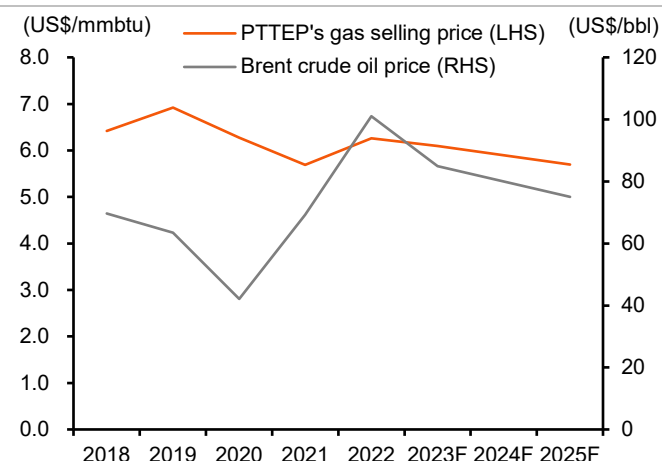
We expect PTTEP’s profit to fall by 27/0/12% over 2023-25F due mainly to our lower oil selling price assumptions. We estimate PTTEP’s selling price to fall by 10/5/6% y-y over 2023-25F. Additionally, PTTEP will likely see a higher mix of lower-priced gas output under the production-sharing contract (PSC) for Bongkot and Erawan. We estimate the contribution from the lower-priced gas under the new PSC to increase to 30% of the company’s total output in 2023F from 10% in 2022.

**Ex 12: PTTEP’s Profit On The Decline**



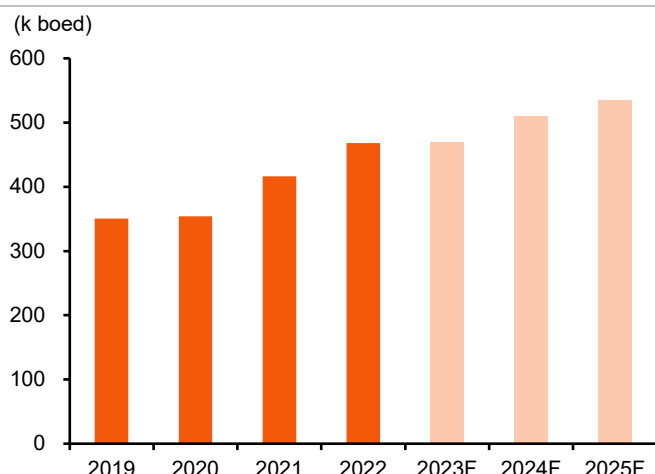
Sources: Company data, Thanachart estimates

Ex 13: ASP Drives Lower Profit...



Sources: Bloomberg, Company data, Thanachart estimates

Ex 14: ...Given The Limited Volume Growth Outlook



Sources: Company data, Thanachart estimates

## Earnings revisions

**We revise up our profit forecasts as we factor in 2022A**

We revise up our profit estimates for PTTEP in 2023-25F by 1/8/13% as we fine-tune our assumptions and factor in 2022 numbers. We also incorporate PTTEP's latest volume guidance and lower unit cost assumptions given that the costs were lower we'd than anticipated in 2022A. We make no changes to our oil price and gas price forecasts.

Ex 15: Profit Revisions

	2019	2020	2021	2022	2023F	2024F	2025F
<b>Normalized profit (Bt m)</b>							
- New	48,844	21,397	42,888	90,721	66,625	66,827	58,643
- Old					65,879	62,045	51,722
- Change (%)					1.1	7.7	13.4
<b>Reported profit (Bt m)</b>							
- New	48,803	22,664	38,864	70,901	66,625	66,827	58,643
- Old					65,879	62,045	51,722
- Change (%)					1.1	7.7	13.4
<b>Volume ('000 bpd)</b>							
- New	351	354	416	468	470	510	535
- Old					480	507	520
- Change (%)					(2.1)	0.6	2.9
<b>Brent oil (US\$/bbl)</b>							
- New	64	42	69	101	85	80	75
- Old					85	80	75
- Change (%)					-	-	-
<b>Gas price (US\$/mmbtu)</b>							
- New	6.9	6.3	5.7	6.3	6.1	5.9	5.7
- Old					6.0	5.9	5.7
- Change (%)					1.7	-	-
<b>Unit cost (US\$/BOE)</b>							
- New	30	29	27	28	28	28	28
- Old					29	28	28
- Change (%)					(2.1)	(1.9)	(0.6)

Sources: Company data, Thanachart estimates

**Ex 16: 12-month DCF-based TP Calculation, Using A Base Year Of 2023F**

(Bt m)	2023F	2024F	2025F	2026F	2027F	2028F	2029F	2030F	2031F	2032F	2033F	2034F	Terminal Value
EBITDA	209,360	207,598	201,320	191,518	203,215	202,276	201,330	200,378	199,420	198,457	197,490	196,519	
Free cash flow	62,975	30,380	23,161	30,092	68,671	56,977	59,597	62,102	64,603	67,104	69,603	72,100	822,986
PV of free cash flow	62,803	25,105	17,399	20,549	41,738	31,340	29,673	27,990	26,357	24,776	22,212	20,740	236,742
Risk-free rate (%)	2.5												
Market risk premium (%)	8.0												
Beta	1.2												
Wacc (%)	10.0												
Terminal growth (%)	2.0												
Enterprise value	587,423												
Net debt	(86,988)												
Minority interest	0												
Equity value	674,411												
# of shares	3,970												
Equity value / share	<b>170</b>												

Sources: Company data, Thanachart estimates

## Valuation Comparison

### Ex 17: Comparison With Regional Peers

Company	Code	Country	EPS Growth		PE		P/BV		EV/EBITDA		Div. Yield		ROE	
			23F (%)	24F (%)	23F (x)	24F (x)	23F (x)	24F (x)	23F (x)	24F (x)	23F (%)	24F (%)	23F (%)	24F (%)
<b>Refining &amp; Marketing</b>														
Ampol	ALD AU	Australia	(15.0)	3.3	11.3	10.9	1.9	1.9	7.2	7.2	5.5	5.8	17.9	17.8
BPCL	BPCL IN	India	(82.1)	na	39.1	8.2	1.3	1.2	14.7	8.2	2.7	4.7	6.0	16.0
HPCL	HPCL IN	India	(100.0)	na	na	5.0	1.1	1.2	na	8.6	2.8	6.3	na	17.1
IOCL	IOCL IN	India	(84.5)	na	28.2	6.2	0.8	0.8	11.2	6.9	4.3	7.1	4.2	11.5
Reliance Industries	RIL IN	India	16.0	18.7	22.1	18.6	1.8	1.7	13.2	11.6	0.4	0.5	8.4	9.0
SK Energy	096770 KS	S.Korea	(22.6)	9.9	8.5	7.7	0.7	0.6	6.0	5.4	2.1	2.3	8.3	9.1
S-OIL	010950 KS	S.Korea	(27.9)	(11.7)	6.0	6.8	1.0	1.0	4.9	5.3	5.1	4.6	18.2	14.2
Formosa Petrochemical	6505 TT	Taiwan	20.4	12.2	22.8	20.4	2.2	2.1	15.1	13.1	3.1	3.6	8.7	10.5
Bangchak *	BCP TB	Thailand	(50.4)	13.9	7.0	6.1	0.7	0.6	5.2	5.9	4.3	4.6	10.3	10.9
ESSO (Thailand) *	ESSO TB	Thailand	(48.3)	0.1	6.0	6.0	1.1	1.0	4.9	4.6	8.3	7.0	18.7	17.5
IRPC Pcl *	IRPC TB	Thailand	489.1	35.0	9.2	6.8	0.7	0.6	6.9	5.4	5.4	7.3	7.3	9.4
PTT Oil And Retail *	OR TB *	Thailand	(14.0)	4.8	22.3	21.3	2.3	2.1	11.1	10.3	1.3	1.3	10.5	10.3
PTG Pcl *	PTG TB	Thailand	24.5	16.5	19.2	16.4	2.4	2.3	6.1	5.4	2.6	3.0	13.2	14.3
PTT Global Chemicals *	PTTGC TB	Thailand	(17.5)	21.3	12.8	10.6	0.7	0.7	8.5	8.1	3.7	4.1	5.6	6.5
Star Petroleum Refining *	SPRC TB	Thailand	(34.4)	(10.2)	8.2	9.1	1.2	1.1	4.3	4.2	6.1	4.6	14.5	12.5
SUSCO Pcl	SUSCO TB	Thailand	12.2	2.6	9.1	8.8	0.9	0.9	4.8	4.5	6.6	6.8	10.5	10.3
Thai Oil *	TOP TB	Thailand	(48.3)	(9.5)	7.9	8.7	0.7	0.7	10.4	11.2	5.3	4.8	9.6	8.3
<b>Average</b>			<b>1.0</b>	<b>7.6</b>	<b>15.0</b>	<b>10.5</b>	<b>1.3</b>	<b>1.2</b>	<b>8.4</b>	<b>7.4</b>	<b>4.1</b>	<b>4.6</b>	<b>10.7</b>	<b>12.1</b>
<b>Integrated oils</b>														
PetroChina	857 HK	China	(14.9)	(12.0)	6.1	6.9	0.5	0.5	3.0	3.1	7.4	6.5	8.7	6.9
Sinopec	386 HK	China	1.2	0.0	7.1	7.1	0.6	0.6	3.6	3.6	9.0	8.8	8.7	8.2
Total	FP	France	(18.9)	(14.5)	na	na	na	na	na	na	na	na	20.5	16.1
Eni	ENI IM	Italy	(25.2)	(18.2)	5.0	6.1	0.8	0.7	2.6	2.9	6.4	6.3	15.3	11.4
Repsol	REP SM	Spain	(29.6)	(16.5)	4.9	5.9	0.7	0.6	2.7	3.1	4.8	5.1	13.2	10.0
Chevron Texaco	CVX US	USA	(18.2)	(6.4)	10.8	11.6	1.9	1.8	5.5	5.9	3.5	3.7	18.2	15.7
Exxon Mobil	XOM US	USA	(24.1)	(6.0)	10.5	11.2	2.2	2.0	5.7	6.1	3.3	3.5	21.2	17.3
Conoco Philips	COP US	USA	(16.3)	(6.1)	9.6	10.3	2.5	2.3	4.9	5.2	2.4	2.3	26.8	22.2
PTT Pcl *	PTT TB	Thailand	(20.9)	(4.5)	11.3	11.8	0.9	0.9	4.1	3.8	6.1	7.6	7.9	7.4
<b>Average</b>			<b>(18.5)</b>	<b>(9.4)</b>	<b>8.2</b>	<b>8.8</b>	<b>1.3</b>	<b>1.2</b>	<b>4.0</b>	<b>4.2</b>	<b>5.4</b>	<b>5.5</b>	<b>15.6</b>	<b>12.8</b>
<b>Exploration and Production</b>														
Santos	STO AU	Australia	(16.3)	(19.0)	10.5	13.0	1.4	1.3	4.1	4.7	3.2	2.8	12.9	9.8
Woodside	WDS AU	Australia	(27.4)	(9.9)	13.2	14.6	1.9	1.9	4.3	4.4	5.7	5.1	16.9	14.1
Suncor Energy	SU US	Canada	(24.4)	3.4	5.1	5.0	1.0	0.9	3.9	4.0	6.4	6.7	20.5	18.0
ONGC	ONGC IN	India	13.2	(2.3)	3.7	3.7	0.6	0.6	3.3	3.2	10.5	9.8	18.1	15.7
RIL	RIL IN	India	16.0	18.7	22.1	18.6	1.8	1.7	13.2	11.6	0.4	0.5	8.4	9.0
Apache	APA US	USA	(8.3)	0.8	5.7	5.6	7.8	4.7	3.3	3.3	2.4	2.5	na	na
Devon Energy	DVN US	USA	(5.2)	(3.9)	7.6	7.9	3.1	2.7	4.8	4.9	2.3	2.4	41.0	31.6
PTTEP *	PTTEP TB	Thailand	(26.6)	0.3	9.9	9.9	1.3	1.2	2.7	2.8	5.1	4.5	13.8	12.9
<b>Average</b>			<b>(9.9)</b>	<b>(1.5)</b>	<b>9.7</b>	<b>9.8</b>	<b>2.4</b>	<b>1.9</b>	<b>5.0</b>	<b>4.9</b>	<b>4.5</b>	<b>4.3</b>	<b>18.8</b>	<b>15.9</b>

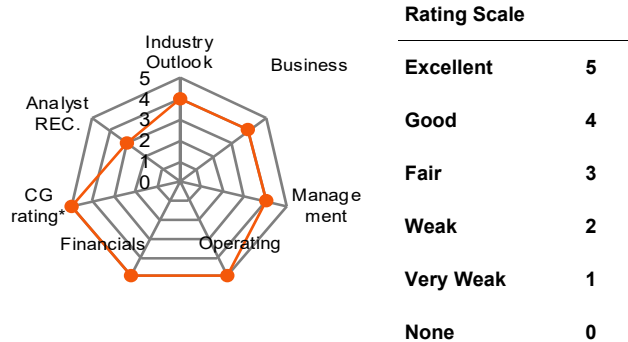
Sources: Bloomberg, \* Thanachart estimates  
Based on 3 February 2023 closing prices

## COMPANY DESCRIPTION

PTT Exploration and Production (PTTEP) is a pure upstream exploration and production (E&P) company with production of c.300,000 barrels of oil equivalent (boe) per day. Some 70% of its production is natural gas and almost all of its production comes from fields in Thailand and other Southeast Asian countries. It has proven and probable reserves of 2,123m boe with a reserve life of 11.7 years. PTTEP is the upstream arm of PTT Pcl (PTT TB, Bt33.00, SELL), which owns 65% of PTTEP.

Source: Thanachart

## COMPANY RATING



Source: Thanachart; \*CG Rating

## THANACHART'S SWOT ANALYSIS

### S — Strength

- The parent company PTT is the country's sole gas buyer and PTTEP's biggest client.
- Secured off-take agreements limit downside risks to production volume.

### O — Opportunity

- Significant resources on its balance sheet are still undeveloped.
- Potential investment overseas or expansion into new businesses.

### W — Weakness

- Reserves in the Gulf of Thailand are being depleted with a reserve life index of only eight years.
- Limited experience and a lack of technical skills in running operations abroad compared to major international peers.

### T — Threat

- Threat of low-cost LNG imports.
- Potential impairment risk on overseas business.
- Competition from international peers for projects abroad.
- Political and regulatory risks concerning its concessions, especially those about to expire.
- Overpaying for acquisitions, leading to a lower ROI.

## CONSENSUS COMPARISON

	Consensus	Thanachart	Diff
Target price (Bt)	182.84	170.00	-7%
Net profit 23F (Bt m)	70,334	66,625	-5%
Net profit 24F (Bt m)	64,055	66,827	4%
<b>Consensus REC</b>	<b>BUY: 11</b>	<b>HOLD: 12</b>	<b>SELL: 3</b>

## HOW ARE WE DIFFERENT FROM THE STREET?

- Our 2023F net profit estimate is 5% below the Bloomberg consensus number, which we attribute mainly to us having a lower oil price assumption.
- Our DCF-based TP is also below the Street's, likely due to our lower oil price assumptions from 2023F onward.

Sources: Bloomberg consensus, Thanachart estimates

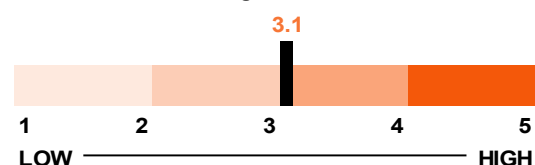
## RISKS TO OUR INVESTMENT CASE

- The key downside risk to our call would come from lower oil and/or gas prices.
- A secondary downside risk would be higher-than-expected operating costs.
- An upside risk would be if high oil prices are sustained for longer than we currently forecast. This could be driven by a complete ban on purchases of Russian crude oil.

Source: Thanachart

PTTEP is PTT’s oil and gas exploration arm. Its oil and gas product mix is around 30:70 with gas emitting less carbon than oil. Despite its business nature of emitting large amounts of greenhouse gas, our ESG score for PTTEP is decent at 3.1 due to the company’s strong commitment with clear targets to achieve improvements in ESG issues. PTTEP also plans to diversify into non-E&P businesses.

Thanachart ESG Rating



	SETTHSI Index	THSI Index	DJSI Index	MSCI (CCC-AAA)	Arabesque S-Ray (0-100)	Refinitiv (0-100)	S&P Global (0-100)	Moody's (0-100)	CG Rating (0-5)
PTTEP	YES	YES	-	AA	59.81	55.64	78.44	43.0	5.0

Sources: SETTRADE, SETTHSI Index, Thailand Sustainability Investment (THSI), The Dow Jones Industrial Average (DJSI), MSCI ESG Research LLC, Arabesque S-Ray®, Refinitiv ESG Information, S&P Global Market Intelligence, Moody's ESG Solutions, Thai IOD (CG rating)  
 Note: Please see third party on "term of use" toward the back of this report.

**Factors Our Comments**

**ENVIRONMENT**

- Environmental Policies & Guidelines
- Energy Management
- Carbon Management
- Water Management
- Waste Management

- PTTEP released 5.1m tonnes of CO2 equivalent in 2021, up 25% from 2018’s level due to new project acquisitions. However, its carbon emission intensity fell 11% to 224kg/BOE (barrel of oil equivalent) of CO2 from 2018’s level. We believe the reduction was due to hydrocarbon recovery and energy efficiency improvements. PTTEP’s carbon emission intensity is below the Thai energy sector’s average of 280kg/BOE due to 70% of its sales volume being gas which emits less carbon than oil.
- PTTEP targets to achieve net-zero greenhouse gas (GHG) emissions by 2050. Its medium-term goal is to cut GHG intensity by 30% by 2030 and 50% by 2040 from 2020’s level. The company has also expressed an interest in investing in non-E&P businesses with the aim of reducing carbon emissions.
- PTTEP is the first company in Thailand to have laid out a plan for capex to invest in Carbon Capture and Storage (CCS), an important move toward decarbonization. That said, it is also continuing with its capex plan for its core E&P business. Its capex plan is US\$16bn over 2022-26, of which US\$490-500m is for ESG-related projects.

**SOCIAL**

- Human Rights
- Staff Management
- Health & Safety
- Product Safety & Quality
- Social Responsibility

- PTTEP’s human rights policy is aligned with international human rights standards. The company also provides training programs to prepare its employees for rapid changes in the business environment.
- For production safety, PTTEP delivers an above-average performance level against the average rate of the International Association of Oil and Gas Producers (IOGP).
- PTTEP allocates a part of its budget to engage in community activities and services. The company has 145 social development projects in four areas – basic needs, education, environment and culture.

**GOVERNANCE & SUSTAINABILITY**

- Board
- Ethics & Transparency
- Business Sustainability
- Risk Management
- Innovation

- PTTEP’s board comprises 15 directors who possess a range of expertise and an appropriate mix of skills suitable for the E&P industry, in our view. There are ten independent directors and two female directors.
- PTTEP is in a net-cash position with strong cash flow generation. Although it has a high customer concentration (it mainly sells gas to its parent PTT, Thailand’s sole gas buyer), the selling price is market-based and linked to oil prices.
- As for business sustainability, PTTEP faces the risk of long-term depletion of domestic energy resources. The company is aiming to diversify into new non-E&P businesses to tackle this issue. Those businesses so far include its AI and Robotics Venture and renewable power business.

Source: Thanachart

## INCOME STATEMENT

FY ending Dec (Bt m)	2021A	2022A	2023F	2024F	2025F
Sales	219,068	331,350	283,861	290,665	287,608
Cost of sales	122,122	148,949	142,398	148,003	157,479
<b>Gross profit</b>	<b>96,946</b>	<b>182,401</b>	<b>141,463</b>	<b>142,662</b>	<b>130,128</b>
% gross margin	44.3%	55.0%	49.8%	49.1%	45.2%
Selling & administration expenses	11,416	20,386	16,983	21,500	22,554
<b>Operating profit</b>	<b>85,530</b>	<b>162,015</b>	<b>124,480</b>	<b>121,162</b>	<b>107,574</b>
% operating margin	39.0%	48.9%	43.9%	41.7%	37.4%
Depreciation & amortization	70,294	83,168	84,881	86,436	93,746
<b>EBITDA</b>	<b>155,824</b>	<b>245,183</b>	<b>209,360</b>	<b>207,598</b>	<b>201,320</b>
% EBITDA margin	71.1%	74.0%	73.8%	71.4%	70.0%
Non-operating income	4,869	8,552	2,736	2,698	3,127
Non-operating expenses	0	0	0	0	0
Interest expense	(6,472)	(8,218)	(6,380)	(2,656)	(4,377)
<b>Pre-tax profit</b>	<b>83,927</b>	<b>162,348</b>	<b>120,836</b>	<b>121,204</b>	<b>106,323</b>
Income tax	41,528	72,295	54,511	54,677	47,981
<b>After-tax profit</b>	<b>42,399</b>	<b>90,053</b>	<b>66,325</b>	<b>66,527</b>	<b>58,343</b>
% net margin	19.4%	27.2%	23.4%	22.9%	20.3%
Shares in affiliates' Earnings	489	668	300	300	300
Minority interests	0	0	0	0	0
Extraordinary items	(4,024)	(19,820)	0	0	0
<b>NET PROFIT</b>	<b>38,864</b>	<b>70,901</b>	<b>66,625</b>	<b>66,827</b>	<b>58,643</b>
<b>Normalized profit</b>	<b>42,888</b>	<b>90,721</b>	<b>66,625</b>	<b>66,827</b>	<b>58,643</b>
EPS (Bt)	9.8	17.9	16.8	16.8	14.8
Normalized EPS (Bt)	10.8	22.9	16.8	16.8	14.8

*We expect 2022 EBITDA to peak, driven by a short-term oil price spike*

## BALANCE SHEET

FY ending Dec (Bt m)	2021A	2022A	2023F	2024F	2025F
<b>ASSETS:</b>					
Current assets:	139,584	196,842	153,855	185,637	216,217
Cash & cash equivalent	85,528	122,369	90,046	120,046	150,046
Account receivables	33,430	42,166	36,123	36,989	36,599
Inventories	14,069	19,115	16,386	17,030	18,121
Others	6,557	13,192	11,302	11,573	11,451
Investments & loans	15,795	9,609	3,423	(2,763)	(8,950)
Net fixed assets	380,307	410,614	429,749	473,697	519,574
Other assets	247,850	252,799	216,313	218,538	217,538
<b>Total assets</b>	<b>783,536</b>	<b>869,864</b>	<b>803,340</b>	<b>875,109</b>	<b>944,379</b>
<b>LIABILITIES:</b>					
Current liabilities:	104,502	114,616	102,962	88,224	111,813
Account payables	36,660	52,940	50,612	52,604	55,972
Bank overdraft & ST loans	12,738	16,887	0	0	0
Current LT debt	0	0	15,840	1,432	19,800
Others current liabilities	55,105	44,789	36,510	34,188	36,040
<b>Total LT debt</b>	<b>102,661</b>	<b>97,095</b>	<b>(12,782)</b>	<b>34,372</b>	<b>52,119</b>
Others LT liabilities	161,022	191,033	212,443	216,728	214,802
<b>Total liabilities</b>	<b>368,186</b>	<b>402,744</b>	<b>302,623</b>	<b>339,324</b>	<b>378,734</b>
Minority interest	0	0	0	0	0
Preferred shares	0	0	0	0	0
Paid-up capital	3,970	3,970	3,970	3,970	3,970
Share premium	105,418	105,418	105,418	105,418	105,418
Warrants	0	0	0	0	0
Surplus	18,955	28,668	30,873	30,873	30,873
<b>Retained earnings</b>	<b>287,007</b>	<b>329,065</b>	<b>360,456</b>	<b>395,524</b>	<b>425,384</b>
Shareholders' equity	415,350	467,121	500,717	535,785	565,645
<b>Liabilities &amp; equity</b>	<b>783,536</b>	<b>869,864</b>	<b>803,340</b>	<b>875,109</b>	<b>944,379</b>

Sources: Company data, Thanachart estimates

## CASH FLOW STATEMENT

FY ending Dec (Bt m)	2021A	2022A	2023F	2024F	2025F
Earnings before tax	83,927	162,348	120,836	121,204	106,323
Tax paid	(30,528)	(70,801)	(53,371)	(56,600)	(46,970)
Depreciation & amortization	70,294	83,168	84,881	86,436	93,746
Chg In working capital	(3,775)	2,499	6,444	481	2,667
Chg In other CA & CL / minorities	14,010	(17,612)	(7,228)	(370)	1,264
<b>Cash flow from operations</b>	<b>133,928</b>	<b>159,601</b>	<b>151,562</b>	<b>151,151</b>	<b>157,030</b>
Capex	(155,110)	(113,475)	(104,016)	(130,383)	(139,623)
Right of use	(2,867)	(16,319)	0	0	0
ST loans & investments	0	0	0	0	0
LT loans & investments	(21)	6,186	6,186	6,186	6,186
Adj for asset revaluation	0	0	0	0	0
Chg In other assets & liabilities	(33,877)	24,675	57,896	2,060	(926)
<b>Cash flow from investments</b>	<b>(191,876)</b>	<b>(98,934)</b>	<b>(39,934)</b>	<b>(122,137)</b>	<b>(134,362)</b>
Debt financing	7,139	(4,695)	(110,924)	32,746	36,115
Capital increase	(0)	0	0	0	0
Dividends paid	(19,325)	(28,670)	(35,234)	(31,760)	(28,782)
Warrants & other surplus	41,400	9,539	2,205	0	0
<b>Cash flow from financing</b>	<b>29,214</b>	<b>(23,826)</b>	<b>(143,952)</b>	<b>986</b>	<b>7,332</b>
<b>Free cash flow</b>	<b>(21,182)</b>	<b>46,126</b>	<b>47,546</b>	<b>20,768</b>	<b>17,407</b>

*PTTEP continues to generate high cash flows from operations*

## VALUATION

FY ending Dec	2021A	2022A	2023F	2024F	2025F
Normalized PE (x)	15.4	7.3	9.9	9.9	11.2
Normalized PE - at target price (x)	15.7	7.4	10.1	10.1	11.5
PE (x)	17.0	9.3	9.9	9.9	11.2
PE - at target price (x)	17.4	9.5	10.1	10.1	11.5
EV/EBITDA (x)	4.4	2.7	2.7	2.8	2.9
EV/EBITDA - at target price (x)	4.5	2.7	2.8	2.8	3.0
P/BV (x)	1.6	1.4	1.3	1.2	1.2
P/BV - at target price (x)	1.6	1.4	1.3	1.3	1.2
P/CFO (x)	4.9	4.1	4.3	4.4	4.2
Price/sales (x)	3.0	2.0	2.3	2.3	2.3
Dividend yield (%)	3.0	5.6	5.1	4.5	4.2
FCF Yield (%)	(3.2)	7.0	7.2	3.2	2.6
<b>(Bt)</b>					
Normalized EPS	10.8	22.9	16.8	16.8	14.8
EPS	9.8	17.9	16.8	16.8	14.8
DPS	5.0	9.3	8.5	7.5	7.0
BV/share	104.6	117.7	126.1	135.0	142.5
CFO/share	33.7	40.2	38.2	38.1	39.6
FCF/share	(5.3)	11.6	12.0	5.2	4.4

Sources: Company data, Thanachart estimates

*At 1.3x 2023F P/BV, we see PTTEP's valuation as fair*

## FINANCIAL RATIOS

FY ending Dec	2021A	2022A	2023F	2024F	2025F
<b>Growth Rate</b>					
Sales (%)	36.6	51.3	(14.3)	2.4	(1.1)
Net profit (%)	71.5	82.4	(6.0)	0.3	(12.2)
EPS (%)	71.5	82.4	(6.0)	0.3	(12.2)
Normalized profit (%)	100.4	111.5	(26.6)	0.3	(12.2)
Normalized EPS (%)	100.4	111.5	(26.6)	0.3	(12.2)
Dividend payout ratio (%)	51.1	51.8	50.6	44.6	47.4
<b>Operating performance</b>					
Gross margin (%)	44.3	55.0	49.8	49.1	45.2
Operating margin (%)	39.0	48.9	43.9	41.7	37.4
EBITDA margin (%)	71.1	74.0	73.8	71.4	70.0
Net margin (%)	19.4	27.2	23.4	22.9	20.3
D/E (incl. minor) (x)	0.3	0.2	0.0	0.1	0.1
Net D/E (incl. minor) (x)	0.1	(0.0)	(0.2)	(0.2)	(0.1)
Interest coverage - EBIT (x)	13.2	19.7	19.5	45.6	24.6
Interest coverage - EBITDA (x)	24.1	29.8	32.8	78.2	46.0
ROA - using norm profit (%)	5.9	11.0	8.0	8.0	6.4
ROE - using norm profit (%)	11.1	20.6	13.8	12.9	10.6
<b>DuPont</b>					
ROE - using after tax profit (%)	11.0	20.4	13.7	12.8	10.6
- asset turnover (x)	0.3	0.4	0.3	0.3	0.3
- operating margin (%)	41.3	51.5	44.8	42.6	38.5
- leverage (x)	1.9	1.9	1.7	1.6	1.7
- interest burden (%)	92.8	95.2	95.0	97.9	96.0
- tax burden (%)	50.5	55.5	54.9	54.9	54.9
WACC (%)	10.0	10.0	10.0	10.0	10.0
ROIC (%)	12.4	20.2	14.9	16.1	13.1
NOPAT (Bt m)	43,209	89,868	68,325	66,504	59,029
invested capital (Bt m)	445,221	458,733	413,730	451,543	487,519

Sources: Company data, Thanachart estimates

*We see room for ROE improvement on higher gearing and margin expansion*

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2. Arabesque S-Ray (0-100)
3. Refinitiv (0-100)
4. S&P Global (0-100)
5. Moody's ESG Solutions (0-100)

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Nowadays, long-term investment tends to be more focused on sustainable companies. The financial statement performance and the consideration in environmental, social and governance (ESG) perspective are keys aspects for analysis.

SET has created a Thailand Sustainability Investment (THSI) list since 2015 for using as an alternative investment in the high performance ESG stocks for investors while, supporting the sustainable Thai companies. SET defines the sustainable companies as the companies that embrace risk management, supply chain management and innovations together with responsibility for environmental, social and governance aspects

As a result, SET has created the SETTHSI for the purpose of indicating the price of these sustainable companies that pass the market capital size and liquidity criteria.

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Score range	Description
CCC - B	<b>LAGGARD:</b> A company lagging its industry based on its high exposure and failure to manage significant ESG risks
BB - BBB - A	<b>AVERAGE :</b> A company with a mixed or unexceptional track record of managing the most significant ESG risks and opportunities relative to industry peers
AA - AAA	<b>LEADER:</b> A company leading its industry in managing the most significant ESG risks and opportunities

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The Dow Jones Sustainability Indices (DJSI) are a family of best-in-class benchmarks for investors who have recognized that sustainable business practices are critical to generating long-term shareholder value and who wish to reflect their sustainability convictions in their investment portfolios. The family was launched in 1999 as the first global sustainability benchmark and tracks the stock performance of the world's leading companies in terms of economic, environmental and social criteria. Created jointly by S&P Dow Jones Indices and SAM, the DJSI combine the experience of an established index provider with the expertise of a specialist in Sustainable Investing to select the most sustainable companies from across 61 industries. The indices serve as benchmarks for investors who integrate sustainability considerations into their portfolios, and provide an effective engagement platform for investors who wish to encourage companies to improve their corporate sustainability practices.

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ESG risk combines the concepts of management and exposure to arrive at an absolute assessment of ESG risk. We identify five categories of ESG risk severity that could impact a company's enterprise value

### Moody's ESG Solutions

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90-100	▲▲▲▲▲	Excellent
80-89	▲▲▲▲	Very Good
70-79	▲▲▲	Good
60-69	▲▲	Satisfactory
50-59	▲	Pass
Below		N/A

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