

**BUY** (Unchanged)  
Change in Numbers

**TP: Bt 42.00** (From: Bt 46.00 )  
**Upside : 12.0%**

**20 APRIL 2022**

# PTT Public Co Ltd (PTT TB)

## Peaking out gas cost

We cut our forecasts for PTT's earnings by 8/7/3% in 2022-24F to reflect higher gas costs and revised profits from its group companies. However, we reiterate our BUY call on PTT on its cheap valuation and peaking gas cost with ramping up of lower-priced domestic gas production.



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### Earnings revisions

We lower our earnings forecasts by 8/7/3% in 2022-24F. The cuts reflect: 1) higher-than-expected average gas cost due to a jump in spot LNG price; and 2) revised earnings contributions from its group companies (see *Energy Sector – Passing its peak*, dated 1 April 2022). We lower our DCF-based TP to Bt42 (from Bt46). But we reiterate our BUY call on PTT due to its undemanding valuation, in our view, at 1.0x P/BV and 5.0% yield, declining average gas cost trend and earnings growth of 4/8% in 2023-24F.

### Gas cost to peak in 1H22F

PTT's gas cost is a mix of domestic gas, Myanmar gas, contracted LNG imports and spot LNG imports. Among its mix, domestic gas price is the cheapest (currently US\$6/mmbtu) and spot LNG is the most expensive (US\$25). Two key reasons for the jump in PTT's average gas cost in 1H22F are the jump in spot LNG price and the rising amount of spot LNG imports to replace a temporary fall in domestic gas production from the Erawan field, which produced 867mmcsfd in 2021, and is expected to produce 250-300mmcsfd in 2022F. Erawan's production drop is due to a change of operator from Chevron to PTTEP (PTTEP, HOLD, Bt148.5) in April 2022. We expect PTT's average gas cost to start falling from 2H22F due to a formula change in pool gas price and falling LNG price from the end of the Russia-Ukraine war. We expect the cost to further drop in 2023-24F due to higher Erawan production (500mmcsfd) which would lead to a lower requirement for expensive spot LNG imports.

### New gas pool price formula to help

Effective from 1 April 2022, the pool gas price formula has been adjusted to include alternative fuels used in the country's power production and was renamed as the Energy Pool Price (EPP). Since the end of last year, EGAT has replaced some of its spot LNG with diesel, which is cheaper than spot LNG. We expect the blending of diesel into PTT's gas pool to lower PTT's gas cost as this will reduce PTT's burden on spot LNG imports. We estimate gas cost will fall by 8% to US\$13/mmbtu after the formula change (Exhibit 9). The lower gas cost benefits PTT as it helps expand margins on sales to industrial users (IUs) and NGV. PTT's gas sales breakdown is 59% to power plants on cost-plus pricing, 9% to IUs on fuel-oil linked pricing and 3% NGV sales on the government's price ceiling basis.

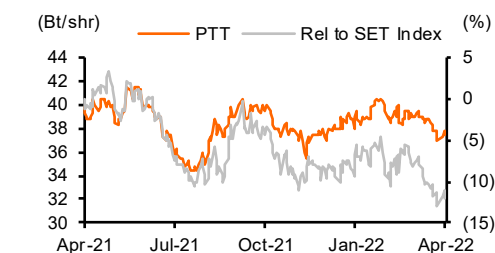
### Earnings drivers

We forecast 4/8% EPS growth in 2022-23F. Key drivers are: falling average gas cost (Exhibit 6), profit recovery from chemical subsidiaries (IRPC and PTTGC) as well as improving marketing margins for oil retail subsidiary, PTTOR.

### COMPANY VALUATION

Y/E Dec (Bt m)	2021A	2022F	2023F	2024F
Sales	2,258,818	2,701,745	2,482,572	2,443,659
Net profit	108,363	93,493	88,055	94,943
Consensus NP	—	111,744	114,294	120,847
Diff frm cons (%)	—	(16.3)	(23.0)	(21.4)
Norm profit	88,796	84,361	88,055	94,943
Prev. Norm profit	—	101,252	94,758	97,709
Chg frm prev (%)	—	(16.7)	(7.1)	(2.8)
Norm EPS (Bt)	3.1	3.0	3.1	3.3
Norm EPS grw (%)	133.3	(5.0)	4.4	7.8
Norm PE (x)	12.1	12.7	12.2	11.3
EV/EBITDA (x)	4.0	4.7	4.4	3.9
P/BV (x)	1.1	1.0	1.0	1.0
Div yield (%)	5.3	5.3	5.3	6.7
ROE (%)	9.4	8.2	8.3	8.7
Net D/E (%)	35.6	45.7	38.9	31.1

### PRICE PERFORMANCE



### COMPANY INFORMATION

Price as of 20-Apr-22 (Bt)	37.50
Market Cap (US\$ m)	31,752.7
Listed Shares (m shares)	28,563.0
Free Float (%)	48.9
Avg Daily Turnover (US\$ m)	63.5
12M Price H/L (Bt)	41.50/34.50
Sector	Energy
Major Shareholder	Ministry of Finance 51.11%

Sources: Bloomberg, Company data, Thanachart estimates

**Factoring in a spike in spot LNG price**

## Earnings revisions

We revise down our earnings forecasts on PTT by 8/7/3% in 2022-24F. The cuts reflect the impact from higher-than-expected spot LNG price but offset by higher profit contributions from its group companies (see *Energy Sector – Passing its peak*, dated 1 April 2022). For a detailed breakdown of gas cost assumption, please see Exhibit 6. We lower our DCF-based TP to Bt42 (from Bt46).

### Ex 1: Key Assumption Changes

	Unit	2021	2022F	2023F	2024F
<b>New</b>					
Brent	(US\$/bbl)	69.00	88.00	73.00	71.00
PTT's pool gas	(US\$/mmbtu)	6.80	10.70	8.80	7.70
<b>Old</b>					
Brent	(US\$/bbl)	69.00	80.00	73.00	71.00
PTT's pool gas	(US\$/mmbtu)	6.80	8.00	7.50	6.90
<b>Change</b>					
Brent	(%)	0.0	10.0	0.0	0.0
PTT's pool gas	(%)	0.0	33.8	17.3	11.6

Sources: Company data, Bloomberg, Thanachart estimates

### Ex 2: Earning Revisions

(Bt m)	2021	2022F	2023F	2024F
<b>Net Profit</b>				
New	108,363	93,493	88,055	94,943
Old	108,363	101,252	94,758	97,709
Change (%)	0.0	(7.7)	(7.1)	(2.8)
<b>Normalized profit</b>				
New	88,796	84,361	88,055	94,943
Old	88,796	101,252	94,758	97,709
Change (%)	0.0	(16.7)	(7.1)	(2.8)

Sources: Company data, Thanachart estimates

**PTT has to bear the burden of importing expensive LNG**

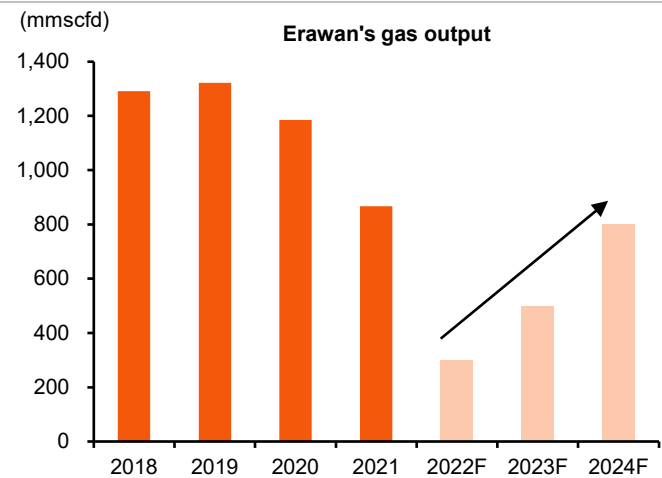
## Gas cost to peak in 1H22F

PTT is currently in a tough spot of bearing high spot LNG cost, which is the most expensive source of gas. This is due to lower Erawan gas output this year while the global LNG price is surging due to the Russia-Ukraine conflict. Recall that the government aims to promote competition in the domestic gas market and has granted LNG import quotas to power producers. However, with the surge in spot LNG price, it is not feasible for power producers to import LNG or lock in long-term LNG contracts, and thus this leaves PTT to bear the burden of importing LNG to fill the gas shortfall in the domestic market.

We estimate spot LNG to increase to 14% of the total gas supply in 2022F from only 2% in 2021. However, this should drop to 9% in 2023F and 0% in 2024F as Erawan gas output will increase and more long-term LNG contracts will be secured (see Exhibit 2). We estimate a total spot LNG demand of 4.5mt in 2022F vs. demand of only 1.3mt in 2021. PTT is the sole importer of spot LNG in 3M22 and has already imported 1.2mt of spot LNG during 3M22. Looking forward, we expect PTT's gas cost to peak in 2022F due to: 1) lower-cost diesel replacing spot LNG under the new pool gas price system, 2) higher Erawan production which has a lower price relative to LNG, 3) more long-term LNG contracts being locked in by non-PTT

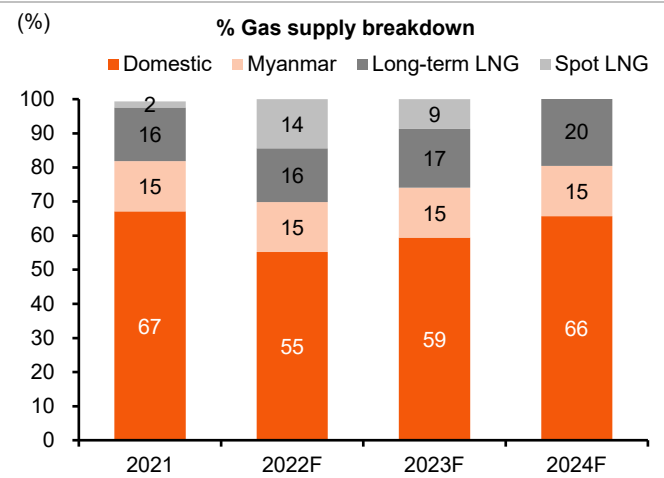
shippers, and 4) an easing in global LNG prices as the Russia-Ukraine conflict comes to an end.

**Ex 3: Erawan Output Temporarily Drops In 2022F**



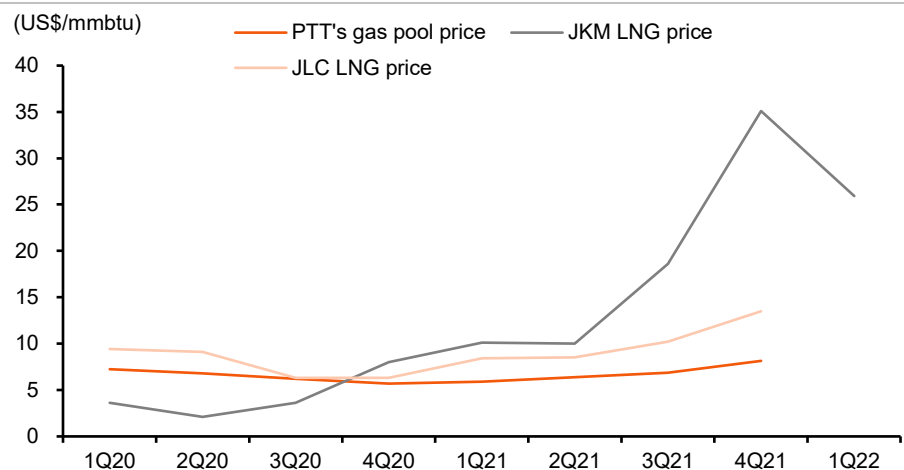
Sources: EPPO, Thanachart estimates

**Ex 4: Less Spot LNG Needed Once Erawan Output Rises**



Sources: EPPO, Thanachart estimates

**Ex 5: Global Spot LNG Rally Due To Russian War; Should Normalize Once War Ends**



Sources: Company data, Thanachart estimates

**Ex 6: We Expect PTT's Average Gas Cost To Peak In 2022F**

	2021		2022F		2023F		2024F	
	Price (US\$/mmbtu)	Mix (%)	Price (US\$/mmbtu)	Mix (%)	Price (US\$/mmbtu)	Mix (%)	Price (US\$/mmbtu)	Mix (%)
Domestic	5.6	67.10	6.4	55.20	6.2	59.40	6.1	65.70
Myanmar	7.2	14.70	10	14.70	9.5	14.70	9.1	14.70
Long-term LNG	10.2	15.80	13.7	15.80	12.8	17.30	11.8	20.30
Spot LNG	18.5	1.80	30.5	3.60	25	0.00	19.7	0.00
Diesel/fuel oil		0.00	22.7	10.80	18	8.70	17.6	0.00
<b>Total cost</b>	<b>6.8</b>		<b>10.7</b>		<b>8.8</b>		<b>7.7</b>	

Source: Thanachart estimates

## New gas pool price formula to help

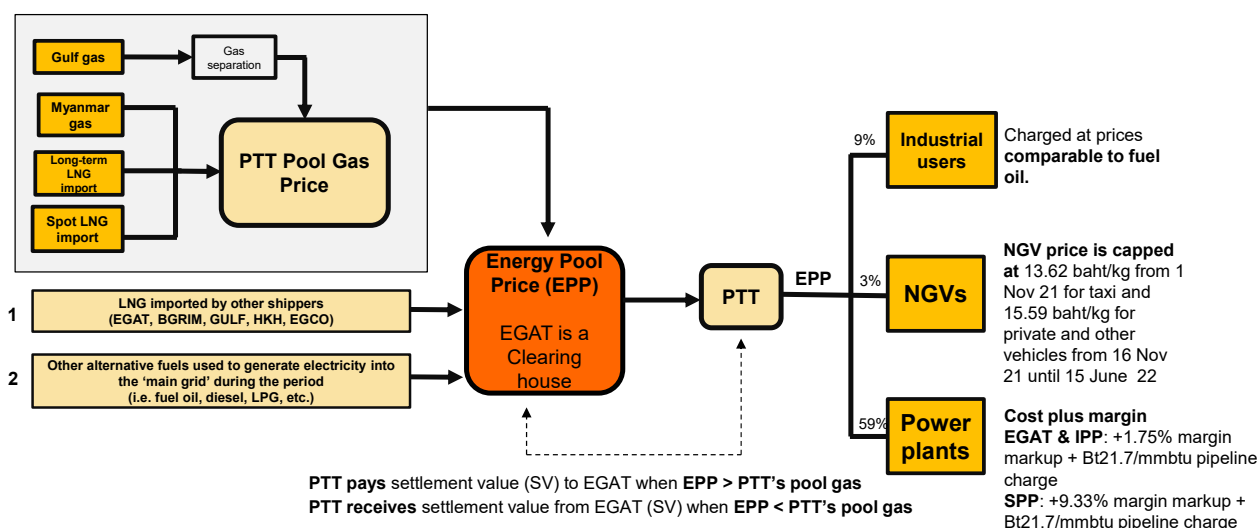
**EPP price will replace PTT's gas pool price**

On 31 March 2022, the National Energy Policy Committee (NEPC) approved a new Energy Pool Price (EPP) system to replace PTT's gas pool price system, with effect from 1 April. The new formula will include fuel costs from LNG imports from non-PTT shippers, and temporarily include diesel and fuel oil prices given they are currently used as an alternative source in power generation. Note that this only includes power generation for the grid.

**PTT's cost curve will shift lower with diesel replacing spot LNG imports**

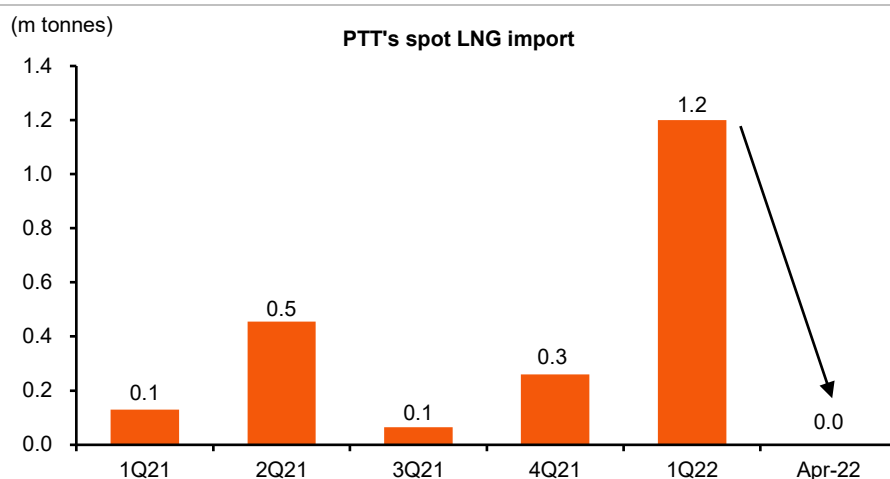
Under the EPP, PTT will have to share diesel and fuel oil burdens with EGAT, but this also means PTT's burden for spot LNG will also be lower. Our estimates show that the net impact will be positive to PTT's overall gas cost, as diesel will likely replace potential spot LNG imports for the remainder of 2022F and diesel price is currently 44% cheaper than spot LNG import. As mentioned above, remaining LNG spot demand for 2022F is at 3.3mt, which is equivalent to 12.75m liters per day. This is in line with the Energy Regulatory Commission's (ERC) guidance of 15-20m liters per day of additional diesel demand from power generation. According to PTT, the company also stopped importing spot LNG in April 2022. We estimate PTT's gas cost to fall by 8%, which translates to gas cost saving of Bt4.5bn.

## Ex 7: New Gas Pool Price Formula Or Energy Pool Price (EPP)



Sources: Company data, Royal Gazette

## Ex 8: Diesel Replaces All Spot LNG Import In April



Source: PTT

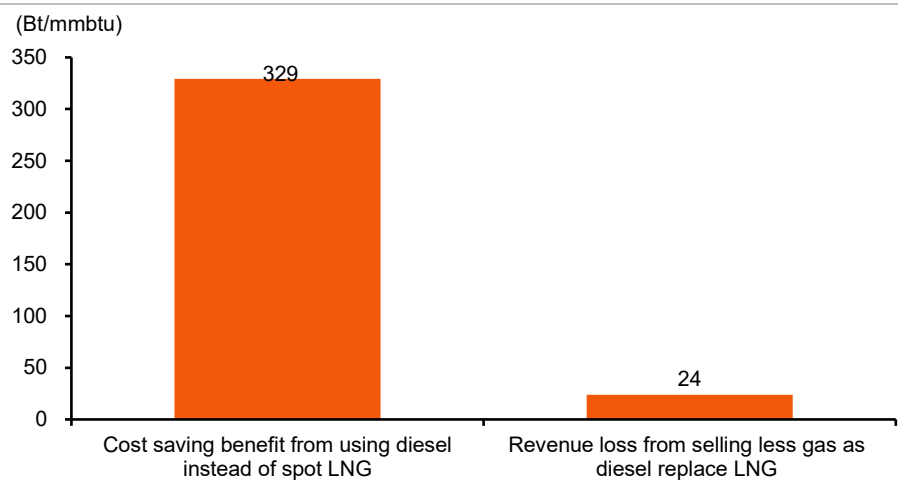
**Ex 9: Gas Cost Falls 8% From Lower Use Of Spot LNG Import**

PTT's cost in each scenario	— PTT's gas cost without diesel/fuel oil —			— PTT's gas cost with diesel/fuel oil —		
	Volume (mmscfd)	Price (US\$/mmbtu)	Amount (Bt m)	Volume (mmscfd)	Price (US\$/mmbtu)	Amount (Bt m)
PTT's existing gas cost	3,873	12	45,136	3,873	12	45,136
Remain spot LNG demand in 2022F	462	32	14,814	0	32	0
Diesel to replace spot LNG in 2022F	0	22	0	462	22	10,253
<b>Total</b>	<b>4,335</b>	<b>14</b>	<b>59,950</b>	<b>4,335</b>	<b>13</b>	<b>55,389</b>

Sources: Thanachart estimates

**Cost saving from EPP  
outweighs impact from  
lower gas sales volume**

Additionally, the benefit from cost saving from buying less spot LNG far outweighs the potential revenue loss from selling less gas. The JKM spot LNG price is now Bt329/mmbtu higher than diesel. The margin saving from buying less LNG is much higher compared to the pipeline margin gain of only Bt24/mmbtu from selling more gas in Exhibit 10. We estimate profit lost from lower gas demand of only Bt327m vs. cost saving from replacing LNG with diesel of Bt4.5bn.

**Ex 10: PTT's Cost Saving From EPP Outweighs Revenue Loss From Falling Gas Sales**

Source: Thanachart estimates

**In the longer term, the EPP  
impact on PTT is mixed**

In the longer term, the EPP pricing system will have a mixed impact on PTT. The EPP pricing mechanism will mean that the cost of LNG purchased by power producers will be passed on in the gas pool price, which will persuade power producers to sign more long-term LNG contracts. While this means that PTT will have to share LNG import cost with non-PTT shippers, it also means that PTT is not exposed to the volatility of spot LNG prices. On the other hand, the EPP pricing system will also set a benchmark for non-PTT shippers to import LNG at a competitive price relative to the EPP.

**Ex 11: 12-month DCF-derived SOTP-based TP Calculation Using A Base Year Of 2023F**

(Bt m)	2023F	2024F	2025F	2026F	2027F	2028F	2029F	2030F	2031F	2032F	2033F	Terminal Value
EBITDA	73,193	75,712	75,465	76,863	75,757	74,701	73,661	72,637	71,628	70,633	69,652	
Free cash flow	48,467	49,090	59,752	68,011	68,281	67,463	66,674	65,898	65,124	64,371	63,630	740,395
PV of free cash flow	40,893	38,032	42,517	43,639	40,092	36,239	32,774	29,642	26,806	23,285	20,985	244,182
Risk-free rate (%)	2.5											
Market risk premium (%)	8.0											
Beta	1.0											
WACC (%)	8.9											
Terminal growth (%)	1.0											
Enterprise value - add investments	619,085											
Net debt	4,540											
Minority interest	0											
Equity value	614,545											
# of shares (m)	28,563											
Equity value/sh (Bt)	22.00											

Sum-of-the-parts valuation	Value (Bt m)	Per share (Bt/shr)	% of total	Methodology
Gas and other core operation	614,545	21.52	51%	DCF
Oil & retail	195,360	6.84	16%	EV/EBITDA
Upstream	381,913	13.37	32%	DCF
Refining & chemical	213,292	7.47	18%	DCF
Power	46,190	1.62	4%	DCF
Other investments	26,424	0.93	2%	Earnings multiples
Holding company discount		20%		
<b>Total equity value</b>	<b>1,199,646</b>	<b>42</b>	<b>100%</b>	<b>SOTP</b>

Sources: Thanachart estimates

## Valuation Comparison

## Ex 12: Comparison With Regional Peers

Company	Code	Country	EPS Growth		— PE —		— P/BV —		EV/EBITDA		Div. Yield		— ROE —	
			22F	23F	22F	23F	22F	23F	22F	23F	22F	23F	22F	23F
			(%)	(%)	(x)	(x)	(x)	(x)	(x)	(x)	(%)	(%)	(%)	(%)
<b><u>Refining &amp; Marketing</u></b>														
Caltex Australia	CTX AU	Australia	33.9	12.9	na	na	na	na	na	na	na	na	12.0	14.7
BPCL	BPCL IN	India	(2.6)	2.9	8.5	8.3	1.5	1.4	7.4	7.1	5.4	5.9	24.7	18.5
HPCL	HPCL IN	India	(14.4)	10.4	6.6	6.0	1.1	0.9	7.1	6.1	6.2	5.7	24.1	16.5
IOCL	IOCL IN	India	47.0	(16.1)	5.6	6.7	1.0	0.9	5.3	5.8	6.2	8.5	14.6	18.4
Reliance Industries	RIL IN	India	31.5	27.4	29.8	23.4	2.3	2.2	18.3	14.7	0.3	0.3	8.6	8.0
SK Energy	096770 KS	S.Korea	105.5	1.0	13.9	13.7	1.0	1.0	7.5	7.1	0.9	1.5	4.4	8.1
S-OIL	010950 KS	S.Korea	17.2	(23.9)	6.9	9.1	1.4	1.3	5.0	6.2	3.7	4.1	23.5	22.7
Petron	PCOR PM	Philippines	152.9	na	7.7	na	0.7	na	7.6	na	na	3.0	4.1	8.8
Formosa Petrochemical	6505 TT	Taiwan	(9.1)	(1.6)	18.8	19.1	2.4	2.4	11.5	11.8	4.4	3.7	15.3	13.0
Bangchak *	BCP TB	Thailand	38.2	(33.6)	6.9	10.4	0.8	0.7	4.4	7.0	5.7	3.8	11.5	7.2
ESSO (Thailand) *	ESSO TB	Thailand	na	320.8	43.0	10.2	1.1	1.0	9.2	6.8	0.0	0.0	3.0	10.4
IRPC Pcl *	IRPC TB	Thailand	(70.7)	489.1	62.8	10.7	0.8	0.8	13.0	7.5	4.3	4.7	1.3	7.3
PTG Pcl *	PTG TB	Thailand	50.8	19.5	14.5	12.2	2.4	2.2	6.7	6.3	3.4	4.1	17.6	18.8
PTT Global Chemicals *	PTTGC TB	Thailand	(19.4)	5.4	9.8	9.3	0.7	0.6	7.6	7.1	5.1	4.8	7.0	7.1
Star Petroleum Refining *	SPRC TB	Thailand	na	(23.1)	11.8	15.3	1.1	1.0	4.7	5.5	5.0	3.2	9.8	6.8
SUSCO Pcl	SUSCO TB	Thailand	35.0	30.1	12.1	9.3	0.8	0.8	5.1	4.2	4.1	5.4	7.0	8.9
Thai Oil *	TOP TB	Thailand	53.9	(24.2)	12.9	17.1	0.8	0.8	13.0	17.5	5.5	2.3	6.5	4.5
<b>Average</b>			<b>30.0</b>	<b>49.8</b>	<b>17.0</b>	<b>12.0</b>	<b>1.2</b>	<b>1.2</b>	<b>8.3</b>	<b>8.0</b>	<b>4.0</b>	<b>3.8</b>	<b>11.5</b>	<b>11.7</b>
<b><u>Integrated oils</u></b>														
PetroChina	857 HK	China	15.5	(8.6)	6.9	7.5	0.6	0.5	3.4	3.5	6.2	6.3	7.3	7.9
Sinopec	386 HK	China	(1.3)	(0.7)	6.7	6.8	0.6	0.6	3.9	3.8	9.1	9.5	9.6	8.8
Total	FP	France	71.7	(13.7)	na	na	na	na	na	na	na	na	15.3	21.7
Eni	ENI IM	Italy	93.6	(13.1)	6.1	7.0	1.0	1.0	2.9	3.2	6.1	6.2	10.7	16.6
RD/Shell A	RDSA NA	Netherlands	47.5	(9.9)	na	na	na	na	4.0	4.3	na	na	11.2	16.9
Repsol	REP SM	Spain	68.6	(10.3)	5.5	6.1	0.8	0.7	3.4	3.7	4.4	4.6	11.1	14.9
Chevron Texaco	CVX US	USA	71.5	(10.4)	11.7	13.1	2.2	2.2	6.0	6.5	3.1	3.3	11.7	17.5
Exxon Mobil	XOM US	USA	70.3	(13.5)	9.8	11.4	2.1	1.9	5.1	6.0	4.0	4.1	13.5	19.7
Conoco Philips	COP US	USA	109.2	(16.7)	8.0	9.7	2.4	2.2	4.5	4.9	1.7	2.0	20.8	29.8
PTT Pcl *	PTT TB	Thailand	(5.0)	4.4	12.7	12.2	1.0	1.0	4.7	4.4	5.3	5.3	8.2	8.3
<b>Average</b>			<b>54.2</b>	<b>(9.3)</b>	<b>8.4</b>	<b>9.2</b>	<b>1.4</b>	<b>1.3</b>	<b>4.2</b>	<b>4.5</b>	<b>5.0</b>	<b>5.2</b>	<b>11.9</b>	<b>16.2</b>
<b><u>Exploration and Production</u></b>														
Santos	STO AU	Australia	98.8	(15.4)	10.1	12.0	1.8	1.6	4.7	5.4	1.3	2.2	11.0	17.8
Woodside	WPL AU	Australia	106.6	(23.6)	9.9	13.0	2.1	2.0	4.4	5.0	3.4	6.8	11.4	24.0
Suncor Energy	SU US	Canada	173.7	(10.4)	4.8	5.3	1.2	1.1	3.9	4.3	3.1	5.0	10.9	20.2
ONGC	ONGC IN	India	na	25.6	5.0	4.0	0.9	0.8	4.2	3.3	1.8	6.9	6.1	18.2
RIL	RIL IN	India	31.5	27.4	29.8	23.4	2.3	2.2	18.3	14.7	0.3	0.3	8.6	8.0
Apache	APA US	USA	112.5	(2.8)	5.1	5.3	na	9.9	3.8	4.1	0.3	1.1	(104.6)	(76.5)
Devon Energy	DVN US	USA	126.5	(8.0)	8.2	8.9	2.8	2.3	5.0	5.3	1.6	0.9	38.1	45.3
PTTEP *	PTTEP TB	Thailand	42.9	(23.8)	9.4	12.3	1.3	1.2	3.0	3.5	4.0	4.7	14.2	10.0
<b>Average</b>			<b>98.9</b>	<b>(3.9)</b>	<b>10.3</b>	<b>10.5</b>	<b>1.8</b>	<b>2.6</b>	<b>5.9</b>	<b>5.7</b>	<b>2.0</b>	<b>3.5</b>	<b>(0.5)</b>	<b>8.4</b>

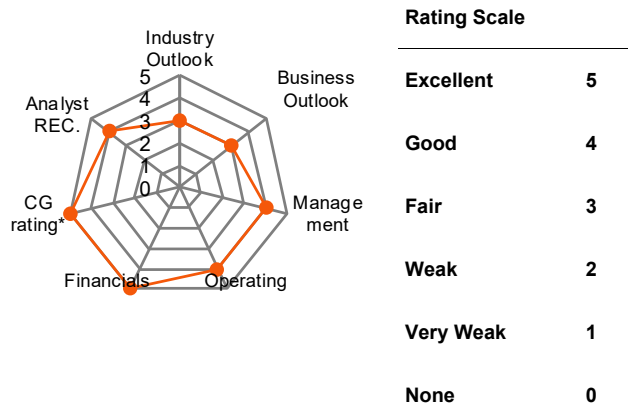
Sources: Bloomberg, \* Thanachart estimates  
Based on 20 April 2022 closing prices

## COMPANY DESCRIPTION

PTT Pcl (PTT) is a fully integrated oil and gas company and has the biggest market capitalization on the Stock Exchange of Thailand (SET). The government owns directly and indirectly 66% in PTT. Its businesses can be mainly grouped into seven segments: 1) Exploration & Production – operated by its key subsidiary, 65%-owned PTTEP; 2) petrochemicals with its flagship PTTGC; 3) refinery via SET-listed ie, TOP and IRPC; 4) oil marketing business through its 75%-owned PTTOR; 5) power flagship through its 43%-owned GPSC; 6) gas pipeline and GSP businesses operated by PTT, the parent firm, and 7) coal and international trading.

Source: Thanachart

## COMPANY RATING



Source: Thanachart; \*CG Rating

## THANACHART'S SWOT ANALYSIS

## S — Strength

- Sole gas distributor in Thailand that operates Thailand's gas pipeline and gas separation plants.
- Integrated business model: upstream E&P, gas processing, chemical, refining and retailing.

## O — Opportunity

- Strong free cash to expand into new products and abroad.
- M&As within the group or overseas to strengthen business structure.

## W — Weakness

- PTT is heavily reliant on the Thailand market, which has limited growth opportunities for its legacy O&G businesses.
- PTT, being a state-owned enterprise, is heavily regulated and the company may from time to time be called upon to do national service (i.e., provide energy price subsidies).

## T — Threat

- The government is allowing third-party imports of LNG and could soon deregulate PTT's exclusive gas distributorship.
- Depleting domestic gas reserves which could be a threat to its gas separation plants' earnings.
- Potential investments that could lead to value destruction.

## CONSENSUS COMPARISON

	Consensus	Thanachart	Diff
Target price (Bt)	47.93	42.00	-12%
Net profit 22F (Bt m)	111,744	93,493	-16%
Net profit 23F (Bt m)	114,294	88,055	-23%
Consensus REC	BUY: 21	HOLD: 4	SELL: 0

## HOW ARE WE DIFFERENT FROM THE STREET?

- Our 2022-23F earnings are 16-23% lower than consensus due to our lower profit assumptions in downstream subsidiaries and higher gas cost.
- Our TP is also lower than consensus.

## RISKS TO OUR INVESTMENT CASE

- Lower-than-expected oil prices would be the key downside risk to our call.
- High oil price could trigger the implementation of adverse regulatory measures.
- Another secondary downside risk would come from lower-than-expected refining/chemical margins.

Sources: Bloomberg consensus, Thanachart estimates

Source: Thanachart



## INCOME STATEMENT

FY ending Dec (Bt m)	2020A	2021A	2022F	2023F	2024F
Sales	1,615,665	2,258,818	2,701,745	2,482,572	2,443,659
Cost of sales	1,437,093	1,882,252	2,335,836	2,137,584	2,086,909
<b>Gross profit</b>	<b>178,572</b>	<b>376,567</b>	<b>365,908</b>	<b>344,988</b>	<b>356,750</b>
% gross margin	11.1%	16.7%	13.5%	13.9%	14.6%
Selling & administration expenses	109,389	128,269	153,421	140,975	138,765
<b>Operating profit</b>	<b>69,183</b>	<b>248,298</b>	<b>212,488</b>	<b>204,013</b>	<b>217,985</b>
% operating margin	4.3%	11.0%	7.9%	8.2%	8.9%
Depreciation & amortization	139,880	146,790	170,068	183,456	193,781
<b>EBITDA</b>	<b>209,063</b>	<b>395,088</b>	<b>382,556</b>	<b>387,469</b>	<b>411,766</b>
% EBITDA margin	12.9%	17.5%	14.2%	15.6%	16.9%
Non-operating income	20,579	2,904	13,509	12,413	12,218
Non-operating expenses	0	(31,958)	(9,133)	0	0
Interest expense	(28,536)	(28,163)	(29,237)	(33,855)	(31,182)
<b>Pre-tax profit</b>	<b>61,225</b>	<b>191,080</b>	<b>187,627</b>	<b>182,571</b>	<b>199,021</b>
Income tax	25,166	67,591	61,731	57,474	62,409
<b>After-tax profit</b>	<b>36,059</b>	<b>123,490</b>	<b>125,896</b>	<b>125,097</b>	<b>136,612</b>
% net margin	2.2%	5.5%	4.7%	5.0%	5.6%
Shares in affiliates' Earnings	4,178	9,010	9,010	9,010	9,010
Minority interests	(2,184)	(43,704)	(50,545)	(46,052)	(50,679)
Extraordinary items	(287)	19,568	9,133	0	0
<b>NET PROFIT</b>	<b>37,766</b>	<b>108,363</b>	<b>93,493</b>	<b>88,055</b>	<b>94,943</b>
<b>Normalized profit</b>	<b>38,053</b>	<b>88,796</b>	<b>84,361</b>	<b>88,055</b>	<b>94,943</b>
EPS (Bt)	1.3	3.8	3.3	3.1	3.3
Normalized EPS (Bt)	1.3	3.1	3.0	3.1	3.3

Profit set to decline due to weaker gas profit in 2022F

## BALANCE SHEET

FY ending Dec (Bt m)	2020A	2021A	2022F	2023F	2024F
<b>ASSETS:</b>					
Current assets:	720,930	853,406	1,048,324	999,016	988,531
Cash & cash equivalent	416,921	361,637	450,990	450,990	450,990
Account receivables	110,528	196,243	234,724	215,682	212,301
Inventories	129,779	210,410	261,115	238,953	233,288
Others	63,703	85,116	101,496	93,391	91,952
Investments & loans	85,312	137,403	137,403	137,403	137,403
Net fixed assets	1,292,717	1,425,414	1,542,979	1,580,627	1,558,104
Other assets	445,224	661,796	863,162	820,711	813,174
<b>Total assets</b>	<b>2,544,183</b>	<b>3,078,019</b>	<b>3,591,869</b>	<b>3,537,756</b>	<b>3,497,212</b>
<b>LIABILITIES:</b>					
Current liabilities:	298,026	493,654	585,859	547,850	522,124
Account payables	108,189	213,784	265,302	242,785	237,029
Bank overdraft & ST loans	4,223	11,743	15,462	14,465	13,099
Current LT debt	73,778	87,649	115,406	107,968	97,768
Others current liabilities	111,837	180,478	189,689	182,631	174,228
<b>Total LT debt</b>	<b>664,732</b>	<b>786,224</b>	<b>1,035,209</b>	<b>968,491</b>	<b>876,999</b>
Others LT liabilities	295,579	325,201	404,437	378,071	373,389
<b>Total liabilities</b>	<b>1,258,338</b>	<b>1,605,079</b>	<b>2,025,505</b>	<b>1,894,412</b>	<b>1,772,512</b>
Minority interest	403,805	466,243	516,789	562,841	613,520
Preferreds shares	0	0	0	0	0
Paid-up capital	28,563	28,563	28,563	28,563	28,563
Share premium	29,211	29,211	29,211	29,211	29,211
Warrants	0	0	0	0	0
Surplus	(49,116)	22,700	29,211	29,211	29,211
<b>Retained earnings</b>	<b>873,383</b>	<b>926,222</b>	<b>962,589</b>	<b>993,518</b>	<b>1,024,194</b>
Shareholders' equity	882,040	1,006,696	1,049,574	1,080,503	1,111,179
<b>Liabilities &amp; equity</b>	<b>2,544,183</b>	<b>3,078,019</b>	<b>3,591,869</b>	<b>3,537,756</b>	<b>3,497,212</b>

Sources: Company data, Thanachart estimates

## CASH FLOW STATEMENT

FY ending Dec (Bt m)	2020A	2021A	2022F	2023F	2024F
Earnings before tax	61,225	191,080	187,627	182,571	199,021
Tax paid	(36,073)	(53,397)	(59,087)	(58,604)	(63,841)
Depreciation & amortization	139,880	146,790	170,068	183,456	193,781
Chg In working capital	26,980	(60,751)	(37,668)	18,686	3,290
Chg In other CA & CL / minorities	(19,719)	51,189	(2,341)	11,187	3,477
<b>Cash flow from operations</b>	<b>172,293</b>	<b>274,912</b>	<b>258,599</b>	<b>337,297</b>	<b>335,728</b>
Capex	(137,617)	(279,487)	(287,633)	(221,104)	(171,259)
Right of use	(70,831)	(8,589)	0	0	0
ST loans & investments	951	139	0	0	0
LT loans & investments	2,345	(52,091)	0	0	0
Adj for asset revaluation	0	0	0	0	0
Chg In other assets & liabilities	58,927	(142,873)	(111,460)	16,085	2,856
<b>Cash flow from investments</b>	<b>(146,225)</b>	<b>(482,902)</b>	<b>(399,093)</b>	<b>(205,018)</b>	<b>(168,403)</b>
Debt financing	94,377	136,414	280,462	(75,152)	(103,059)
Capital increase	0	0	(0)	0	0
Dividends paid	(51,624)	(78,469)	(57,126)	(57,126)	(64,267)
Warrants & other surplus	17,295	94,762	6,511	0	0
<b>Cash flow from financing</b>	<b>60,047</b>	<b>152,706</b>	<b>229,846</b>	<b>(132,278)</b>	<b>(167,325)</b>
<b>Free cash flow</b>	<b>34,675</b>	<b>(4,575)</b>	<b>(29,034)</b>	<b>116,193</b>	<b>164,470</b>

Free cash flows positive despite heavy capex for downstream subsidiaries

## VALUATION

FY ending Dec	2020A	2021A	2022F	2023F	2024F
Normalized PE (x)	28.1	12.1	12.7	12.2	11.3
Normalized PE - at target price (x)	31.5	13.5	14.2	13.6	12.6
PE (x)	28.4	9.9	11.5	12.2	11.3
PE - at target price (x)	31.8	11.1	12.8	13.6	12.6
EV/EBITDA (x)	6.7	4.0	4.7	4.4	3.9
EV/EBITDA - at target price (x)	7.3	4.4	5.0	4.7	4.2
P/BV (x)	1.2	1.1	1.0	1.0	1.0
P/BV - at target price (x)	1.4	1.2	1.1	1.1	1.1
P/CFO (x)	6.2	3.9	4.1	3.2	3.2
Price/sales (x)	0.7	0.5	0.4	0.4	0.4
Dividend yield (%)	2.7	5.3	5.3	5.3	6.7
FCF Yield (%)	3.2	(0.4)	(2.7)	10.8	15.4
<b>(Bt)</b>					
Normalized EPS	1.3	3.1	3.0	3.1	3.3
EPS	1.3	3.8	3.3	3.1	3.3
DPS	1.0	2.0	2.0	2.0	2.5
BV/share	30.9	35.2	36.7	37.8	38.9
CFO/share	6.0	9.6	9.1	11.8	11.8
FCF/share	1.2	(0.2)	(1.0)	4.1	5.8

Sources: Company data, Thanachart estimates

## FINANCIAL RATIOS

FY ending Dec	2020A	2021A	2022F	2023F	2024F
<b>Growth Rate</b>					
Sales (%)	(27.2)	39.8	19.6	(8.1)	(1.6)
Net profit (%)	(59.4)	186.9	(13.7)	(5.8)	7.8
EPS (%)	(59.4)	186.9	(13.7)	(5.8)	7.8
Normalized profit (%)	(51.0)	133.3	(5.0)	4.4	7.8
Normalized EPS (%)	(51.0)	133.3	(5.0)	4.4	7.8
Dividend payout ratio (%)	75.6	52.7	61.1	64.9	75.2
<b>Operating performance</b>					
Gross margin (%)	11.1	16.7	13.5	13.9	14.6
Operating margin (%)	4.3	11.0	7.9	8.2	8.9
EBITDA margin (%)	12.9	17.5	14.2	15.6	16.9
Net margin (%)	2.2	5.5	4.7	5.0	5.6
D/E (incl. minor) (x)	0.6	0.6	0.7	0.7	0.6
Net D/E (incl. minor) (x)	0.3	0.4	0.5	0.4	0.3
Interest coverage - EBIT (x)	2.4	8.8	7.3	6.0	7.0
Interest coverage - EBITDA (x)	7.3	14.0	13.1	11.4	13.2
ROA - using norm profit (%)	1.5	3.2	2.5	2.5	2.7
ROE - using norm profit (%)	4.3	9.4	8.2	8.3	8.7
<b>DuPont</b>					
ROE - using after tax profit (%)	4.1	13.1	12.2	11.7	12.5
- asset turnover (x)	0.6	0.8	0.8	0.7	0.7
- operating margin (%)	5.6	9.7	8.0	8.7	9.4
- leverage (x)	2.9	3.0	3.2	3.3	3.2
- interest burden (%)	68.2	87.2	86.5	84.4	86.5
- tax burden (%)	58.9	64.6	67.1	68.5	68.6
WACC (%)	8.9	8.9	8.9	8.9	8.9
ROIC (%)	3.4	13.3	9.3	7.9	8.7
NOPAT (Bt m)	40,745	160,468	142,577	139,789	149,629
invested capital (Bt m)	1,207,853	1,530,675	1,764,662	1,720,438	1,648,056

Sources: Company data, Thanachart estimates

ROE to drop in 2022F due to the absence of one-off gains

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