September 1, 2023

Maybank Securities

Energy

Thailand

Thailand Energy Sector

Quantifying subsidy risks

POSITIVE *[Unchanged]*

PTT, PTG, BGRIM, and GPSC most at risk

We see high likelihood that the government will quickly carry out its promise of lowering electricity, diesel, and other energy prices. Among the listed energy and utilities companies in Thailand, we see the highest potential downside risks for PTT, PTG, BGRIM and GPSC. We estimate potential consensus earnings downside risks ranging from about 20% for PTT in 2024E to as much as 47% for GPSC. On the other hand, we see limited downside risks for refiners and much smaller earnings impacts on other oil retailers. Our Top Picks in the sector remain BCP and PTTEP.

Diesel subsidy to impact oil retailers, not refineries

We see limited downside risks for Thai refineries from the potential diesel price subsidy. This is because by law, fuel prices ex-refineries in Thailand are linked to international prices. On the other hand, we see potential marketing margin squeeze for oil retailers. The company most likely to be impacted is PTG given its high exposure to retail sales and that nearly all of its stations are company-owned, company-operated (COCO) which is most sensitive to margin movements. We estimate a THB 0.1/L decline in marketing margin could hurt PTG's consensus EPS estimates by 10% and 32% in 2023-24E, respectively.

Utilities could face a margin squeeze

The potential electricity tariff reduction would negatively impact small power producer (SPP) power companies (chiefly BGRIM and GPSC). We estimate the current power tariff is THB 0.38/kWh higher than the prevailing fuel cost. If the government were to roll back the tariff by this amount, we estimate potential downside risks to Bloomberg earnings estimates for BGRIM of 14% and 43% in 2023-24E. Comparable figures for GPSC are 17% and 47%.

Risks of extra LPG, NGV subsidies for PTT

While this is not yet in the news, we see risks that PTT may eventually be called on to provide additional subsidies for LPG and NGV (natural gas for vehicles). For LPG, we see risk PTT may have to lower its sales price to match with its feed gas cost. This entails around USD125/ton downside risk, or about THB11bn pa of potential subsidy burden. For NGV, the company is providing around THB8-10b in annual subsidy now but it provided as much as THB20bn in NGV subsidy during the last Pheu Thai-led government (before 2015). As such, we see potential downside risk of another THB10-12bn for PTT from an NGV subsidy. Combined, these potential subsidies are about 20-23% of 2024E consensus earnings for PTT.

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Abbreviations explained

LPG - liquefied petroleum gas
NGV - natural gas for vehicles
ULG - unleaded gasoline
LNG - liquefied natural gas
JKM LNG - Japan Korea Marker LNG price
Ft - fuel tariff
EGAT - Electricity Generating Authority of Thailand
EPPO - Energy Policy & Planning Office
GSP - gas separation plant
bbl - barrel
mmbtu - millions of British thermal unit
kWh - kilowatt-hours
mmcfd - millions of cubic feet per day

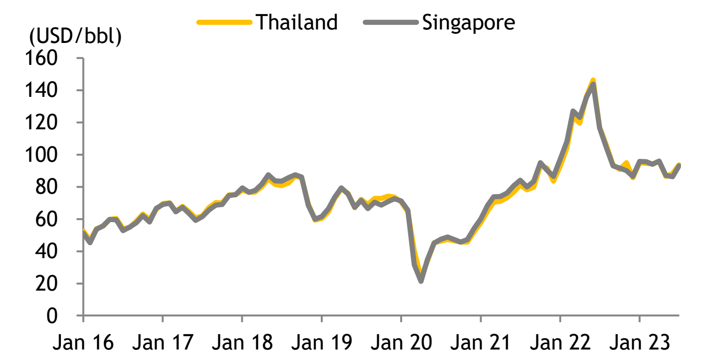
Stock	Bloomberg code	Mkt cap (USD'm)	Rating	Price (LC)	TP (LC)	Upside (%)	P/E (x) 23E	P/E (x) 24E	P/B (x) 23E	P/B (x) 24E	Div yld (%) 23E	Div yld (%) 24E
PTT E&P	PTTEP TB	17,969	Buy	158.50	194.00	28	8.1	8.3	1.3	1.2	6.4	6.2
Thai Oil	TOP TB	3,283	Buy	51.50	59.00	18	8.8	8.9	0.7	0.7	2.9	2.8
BCP	BCP TB	1,524	Buy	38.75	49.00	32	8.8	6.5	1.0	0.9	5.7	7.7
IRPC	IRPC TB	1,366	Buy	2.34	2.90	31	11.0	8.7	0.6	0.6	6.4	8.0
Star Petroleum	SPRC TB	1,133	Buy	9.15	12.40	42	11.0	7.9	1.0	1.0	5.7	5.7

1. Diesel subsidy would impact oil retailers, not refineries

1.1 Refineries would not be impacted by the subsidy

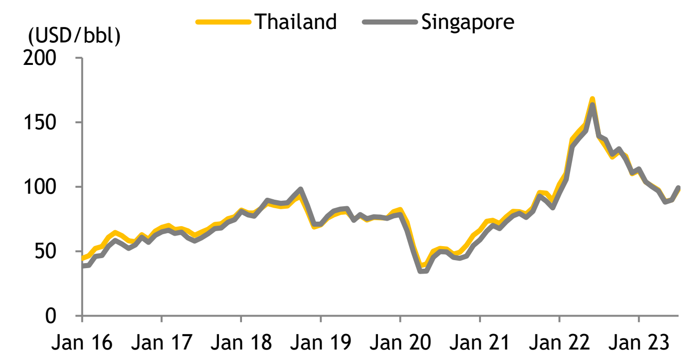
We see very limited downside risks for Thai refiners from any energy price subsidy that might be introduced by the new government. By law, refined product prices in Thailand ex-refinery are based on international prices, typically Singapore benchmark prices. If we look back, we see that the ex-refinery prices in Thailand have always tracked prices in Singapore. On our estimates, the average difference between the ULG price in Thailand and in Singapore since January 2016 is USD 0/bbl. A similar calculation for diesel shows a difference of USD2/bbl.

Fig 1: Ex-refinery gasoline price Thailand vs Singapore



Source: Bloomberg, EPPO, MST

Fig 2: Ex-refinery diesel price Thailand vs Singapore



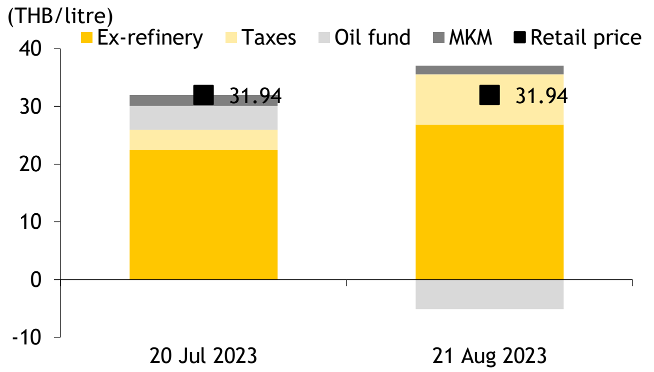
Source: Bloomberg, EPPO, MST

1.2 Oil Fund, excise tax the main subsidy mechanisms

Given that the government cannot regulate ex-refinery prices, typically it will employ other mechanisms to cap retail pump prices. The easiest mechanism is the Oil Fund which is a price-smoothing vehicle. When the government wants to lower retail fuel prices, the Oil Fund will borrow money from the financial market and use the proceeds to subsidise oil retailers. This usually happens when we have a rapid increase in fuel prices. However, the money borrowed by Oil Fund must be returned. This is typically done when global fuel prices decline and the Oil Fund adds an extra charge to the ex-refinery price. In that scenario, the oil retailers will keep retail prices elevated and the extra margin is paid to the Oil Fund.

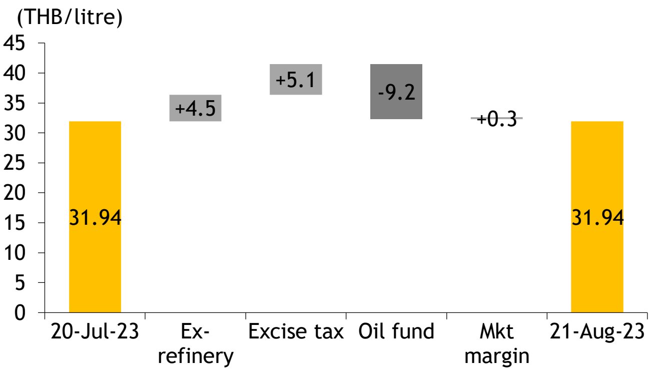
Another way the government can subsidise fuel prices is a direct reduction in excise tax. This was the mechanism employed during Feb 2022 – Jul 2023 when diesel excise tax was cut by THB 5/litre to help reduce the impact of a diesel price spike. However, the measure was phased out starting 21 July 2023.

Fig 3: Diesel oil price structure



Source: EPPO, MST
Note: MKM – retail marketing margin

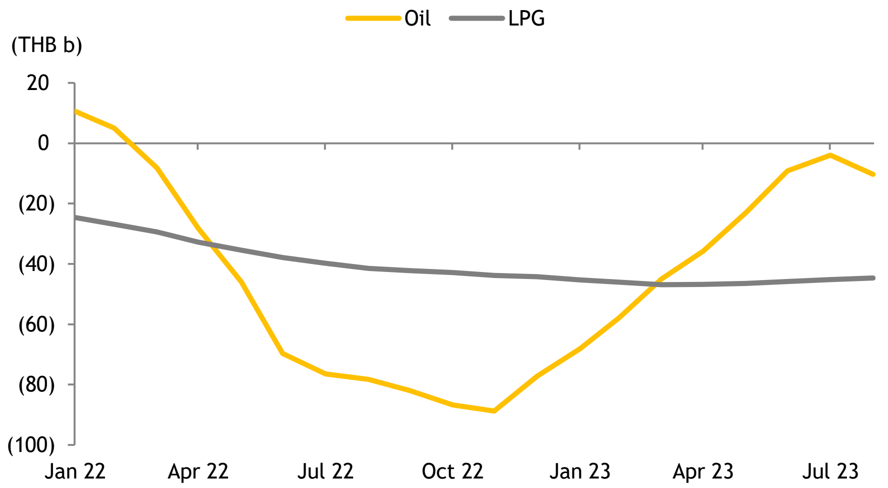
Fig 4: Change in composition of diesel pump price



Source: EPPO, MST

At present, the Oil Fund's oil account (which is distinct and separate from its LPG account) has a net deficit position of THB10b. This represents a marked improvement from a net deficit of THB90b in Nov of last year. We believe the government will ask the Oil Fund to shoulder the extra diesel subsidy burden at least for the next few months until an excise tax reduction can be passed by the new Cabinet.

Fig 5: Oil Fund positions for oil account and LPG account

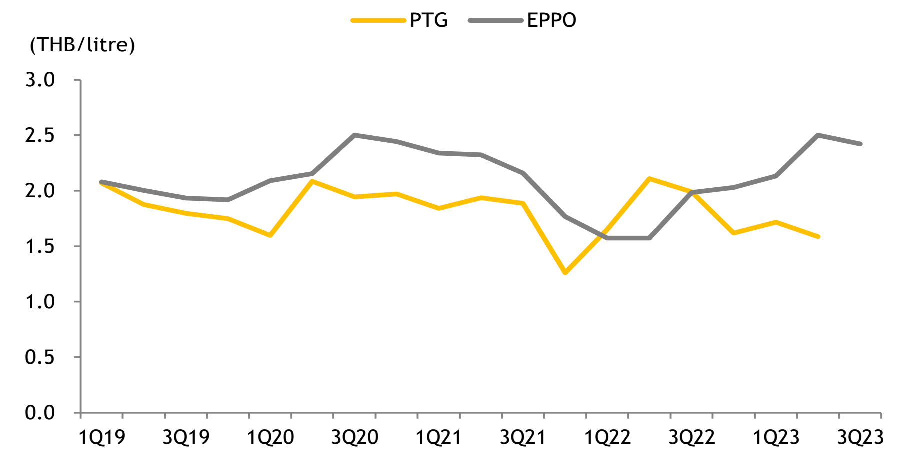


Source: OFFO, MST

1.3 Oil retailers could see marketing margin squeeze

While oil retailers are usually not directly responsible for fuel price subsidies, they invariably get impacted whenever retail pump prices are lowered. This was observed throughout the past 2 years. In 4Q21, when global oil prices began to climb but the government wanted to maintain diesel prices at THB 25/litre, marketing margins were squeezed severely to the point where all operators other than PTT and BCP decided to lift their prices. With the phase-out of the Oil Fund subsidy, oil retailers once again faced marketing margin squeeze for much of 1H23.

Fig 6: Marketing margins

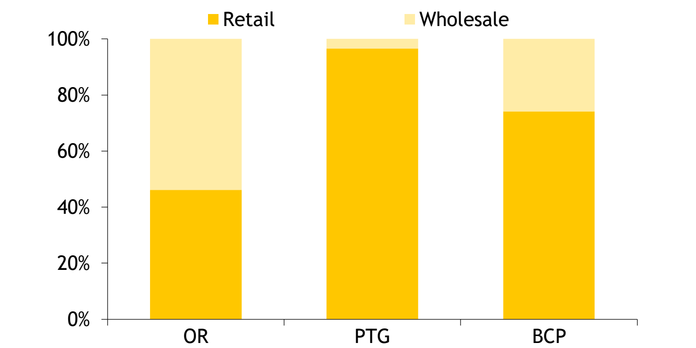


Source: Company data, MST

Among the major oil retailers, we believe PTG (PTG TB, CP THB 10.70, not rated) is likely to be the most impacted by any marketing margin reduction. This is because the company has a very high retail sales portion and operates nearly all of its own service stations. These are called 'company-owned, company-operated' or 'COCO' stations whereby the oil company receives the marketing margin in full but is also responsible for all costs. As such, when marketing margin is lowered, the oil company absorbs all the reduction directly. By contrast, most other operators such as PTTOR (OR TB, CP THB 20.40, not rated) and BCP, do not directly own or operate their service stations themselves. Instead, they let dealers (usually SMEs) operate the stations. In this 'dealer-owned, dealer-operated' or 'DODO' model, the marketing margin is split between the oil companies and its dealers. As such, when we have a marketing squeeze, the impact is shared by the two parties and these listed oil companies are not as severely impacted as PTG. Additionally, PTG sells nearly all of its products via retail channels which are subjected to the potential marketing margin squeeze. By contrast, most other operators will have a relatively high portion of wholesale volumes (26% for BCP and 54% for OR).

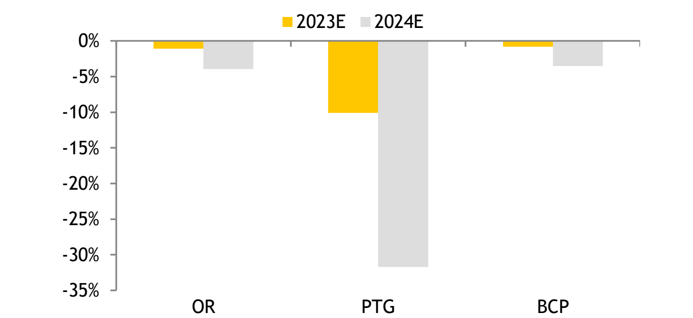
By our estimates, if retail marketing margin (MKM) is lowered by THB 0.1/litre in 4Q23, PTG's full-year 2023E earnings could be cut by 10% relative to Bloomberg consensus estimates. If the margin squeeze extends into the entire 2024E, earnings could be negatively impacted by 32% relative to Bloomberg consensus. By contrast, we estimate the impacts to be only -1.1% and -4.0% in 2023-24E for PTTOR (relative to consensus estimates) and -0.8% and -3.5% for BCP (MST estimates) over the same period.

Fig 7: PTG has high portion of sales via retail channel



Source: Company data, MST

Fig 8: Potential EPS impact if MKM is lowered by THB 0.1/L



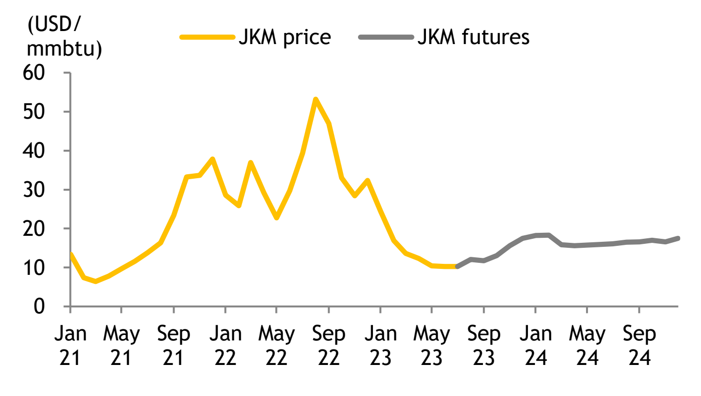
Source: Company data, Bloomberg, MST

2. Utilities could face margin squeeze

2.1 Burden eased from 2022

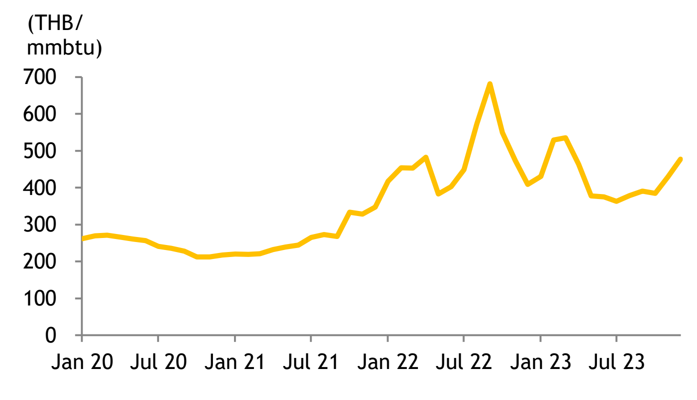
Thailand's utilities companies faced a severe margin squeeze in 2022 due to the sharp increases in global LNG prices and the decline in cheap local gas output. Due to the Russia-Ukraine war in early-2022, the market was concerned about a global LNG shortage. This drove regional LNG prices (based on JKM benchmark) to jump from USD10/mmbtu in 2021 to USD30-60/mmbtu in 2022. To make matters worse for Thailand, the high global LNG price came at a time when the country needed to rely increasingly on LNG imports due to the production shortfall at Erawan gas field during the operatorship transition. These two factors combined drove the domestic SPP natural gas pool price from c. THB250/mmbtu to THB467/mmbtu in 2022. Meanwhile, the Ft rate (variable fuel tariff for electricity) remained low as the government tried to lessen the impact of high energy costs. As a result, we saw a very low spark spread (difference between electricity price and gas cost used in the power generation), especially in 3Q22 when the spark spread went negative. During this period, the bulk of electricity subsidy burden was borne by state power company EGAT with the implicit promise from the government that EGAT will be repaid in future periods when fuel prices decline. At the same time, private power companies which sell electricity to industrial users (through their SPP or Small Power Producer projects) also suffer similar margin squeezes because they price their electricity on par with grid prices.

Fig 9: Global LNG prices and futures



Source: Bloomberg, MST

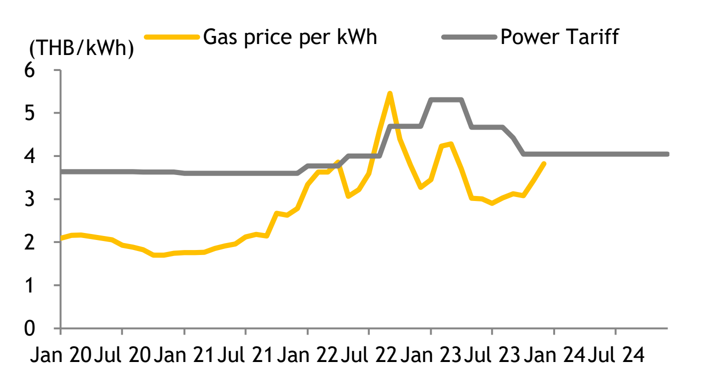
Fig 10: Thailand domestic gas price for SPP



Source: EPPO, MST

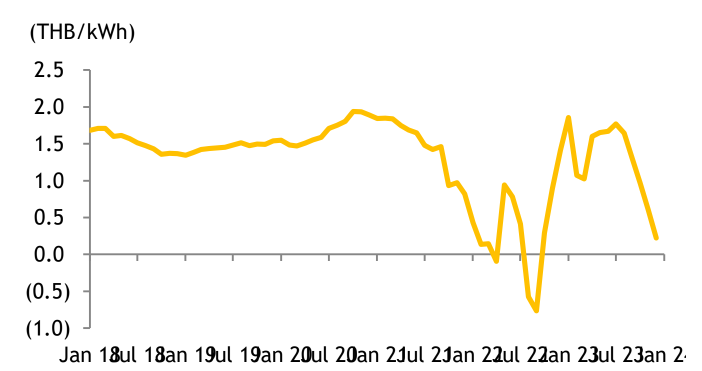
Since the beginning of this year, the situation has reversed. The global LNG demand/supply situation has improved which led to a sharp decline in the JKM LNG price to nearly USD10/mmbtu in 2Q23. In addition, gas production at the Erawan field in Thailand is also being ramped up. As a result, we saw the SPP natural gas pool price decline to THB375/mmbtu in June 2023. At the same time, the Energy Regulatory Commission (ERC) has lifted its Ft rate during 4Q22-1Q23 to Bt1.55/kWh for the first round of adjustment (Jan-Apr 2023). This led to a significant recovery in spark spreads for SPP utilities companies during 1H23.

Fig 11: Gas prices vs electricity tariffs



Source: EPPO, MST

Fig 12: Our estimates for Spark spread



Source: EPPO, MST

2.2 Potential electricity price cut amid rising global LNG prices

One of the main policies of the new Thai government is to lower power tariffs. The current Ft rate (Sep-Dec 2023) of Bt0.67/kWh consists of 1) energy cost of Bt0.28/kWh, and 2) repayment for EGAT's past subsidy burden of Bt0.38/kWh. We believe that the government may choose to lower the Ft rate again but not exceeding the extra Bt0.38/kWh which EGAT is earning.

To capture the potential downside risks to earnings for SPP operators, BGRIM and GPSC, we assume the 2023-24E Ft rates decrease by Bt0.10/kWh (impact only in 4Q23E) and Bt0.38/kWh (full year 2024E), respectively. Based on these assumptions, we see potential downside risks to Bloomberg consensus' earnings forecasts for BGRIM of 14% and 43% in 2023-24E, respectively. The comparable figures for GPSC are 17% and 47% in 2023-24E.

Fig 13: Potential downside risks to BGRIM and GPSC 2023-24E earnings

Company	2022 Sale volume to IU (GWh)	Decrease Ft rate (THB /kWh)		Earnings consensus (THB m)		Downside risks (%)	
		2023E	2024E	2023E	2024E	2023E	2024E
BGRIM	3,386	-0.10	-0.38	2,395	3,024	-13.5%	-42.9%
GPSC	7,896	-0.10	-0.38	4,474	6,476	-16.9%	-46.7%

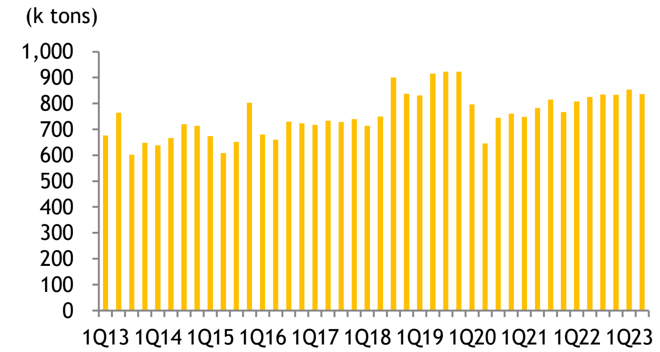
Source: Company data, Bloomberg, MST

3. PTT may be at risk of extra LPG, NGV subsidies

3.1 LPG subsidy could be introduced

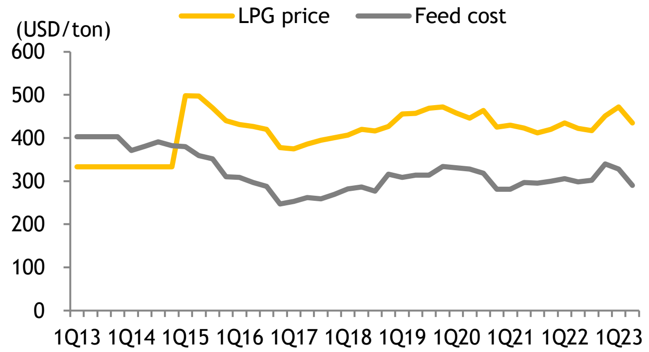
We believe that if the new government wants to win popularity from the grass-roots population, one of the quickest ways is to reduce the cost of LPG which is widely used as cooking gas in Thailand. With this view, we see risks that PTT may be called upon to provide an LPG subsidy. At present, PTT is selling LPG output from its gas separation plant at cost, which is below the global market price. This means the company is doing a national service but its bottom line is not hurt; the only thing it loses is lost profit opportunity. However, we see risk that this may change. Pre-2015, during the term of Prime Minister Yingluck Shinawatra, PTT was subjected to a capped LPG price. Back then, the LPG price ex-GSP was capped at just USD333/ton even though the feed gas cost for PTT was as high was USD 410/ton and the global market price hovered around USD1,000/ton. We estimate that the actual loss incurred by PTT during those years was in excess of USD270m, or almost THB10b.

Fig 14: PTT's quarterly LPG production from GSP



Source: Company data, MST

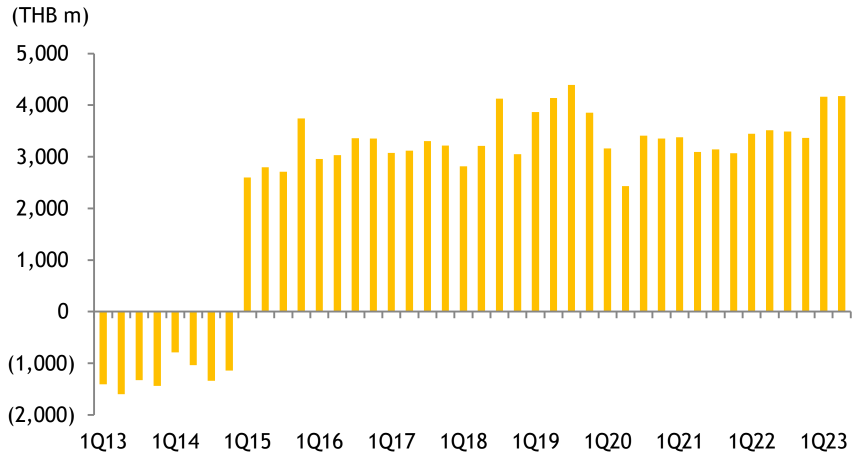
Fig 15: PTT's LPG sales price vs gas feed cost



Source: Company data, MST

At present, PTT's LPG sales price is about USD125/ton higher than its gas feed cost (using average prices for the past 8 quarters). We believe much of this difference is used to cover the fixed expenses such as depreciation and SG&A. As such, it is plausible that the government may ask PTT to lower LPG prices to match with its gas feed cost. This could lower LPG prices for consumers by around THB4.4/kg, or 15% compared to the current retail price. On the other hand, it would mean PTT's earnings could be negatively impacted by THB2.9b in 2023E (assuming 4Q23 impact) and THB11.7b in 2024E. These figures are equivalent to 3% and 11% of Bloomberg consensus EPS estimates for these two years.

Fig 16: PTT's quarterly gross margin from LPG

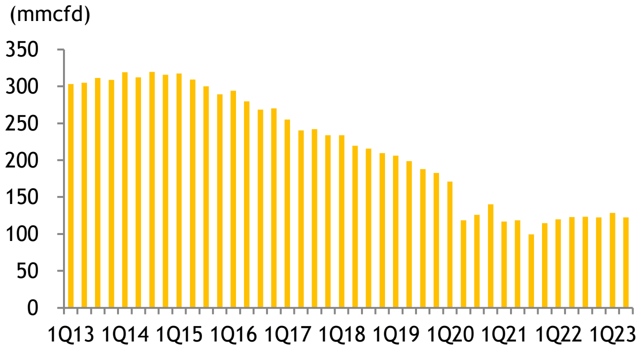


Source: Company data, MST

3.2 NGV subsidy could increase

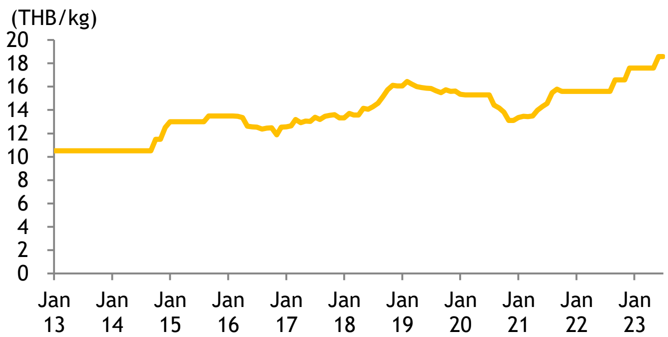
Another fuel that could be politically sensitive is NGV, or natural gas for vehicles. This is essentially compressed natural gas (CNG), which is mostly consumed by taxis in Bangkok. As taxi drivers constitute a large voter base for the Pheu Thai party, we think appeasing this group will be crucial for the party to win back its key supporters. Note that the volume of NGV consumption has significantly declined over the years, from about 300-320mmcfd in 2013-14 to about 120-130mmcfd in 1H23. On the other hand, NGV prices have continued to increase, especially for households. Taxis still receive subsidised CNG prices although by-and-large, the price has also been on an upward trend.

Fig 17: NGV consumption has declined over the years



Source: Company data, MST

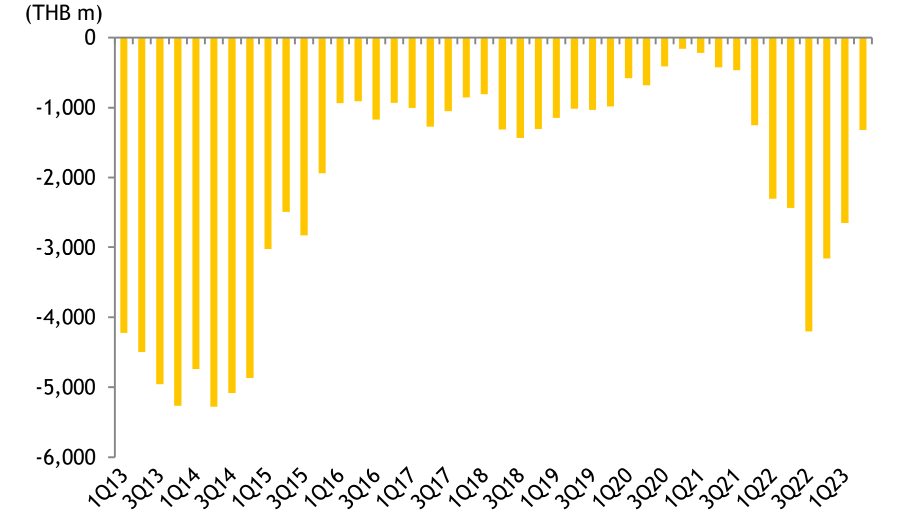
Fig 18: NGV price



Source: Company data, MST

As of 1H23, PTT is already subsidising NGV to the tune of THB 2.0-2.5b per quarter. However, this subsidy burden used to run as high as THB 5-6b per quarter or double the current rate. As such, reverting back to the previous subsidy rate would add another THB10b pa to PTT's national service burden.

Fig 19: PTT's quarterly EBITDA from NGV



Source: Company data, MST

Fig 20: Companies mentioned

Bloomberg code	Mkt cap (USDm)	Rating	Price (THB)	Fair value (THB)	Upside (%)	P/E (x) 23E	P/E (x) 24E	P/B (x) 23E	P/B (x) 24E	ROE (%) 23E	ROE (%) 24E	Div yld (%) 23E	Div yld (%) 24E
BCP TB	1,597	BUY	38.75	49.00	26.5	8.8	6.5	1.0	0.9	11.2	14.2	5.7	7.7
PTT TB	28,365	NR*	34.75	38.3	10.2	10.0	9.6	0.9	0.9	9.0	8.9	5.6	5.4
OR TB	6,996	NR*	20.40	24.9	22.2	20.4	18.3	2.2	2.1	11.0	11.2	2.2	2.4
PTG TB	511	NR*	10.70	12.8	19.4	16.7	12.8	2.0	1.8	12.2	14.7	2.6	3.3
BGRIM TB	2,533	NR*	34.00	43.5	27.9	37.2	30.1	2.1	2.0	6.7	7.4	1.2	1.6
GPSC TB	4,251	NR*	52.75	70.2	33.2	30.2	22.2	1.3	1.3	4.3	5.9	1.9	2.5

*Note: * NR = Not Rated estimates and TP based on Bloomberg, Source: Bloomberg, MST*

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