

PTT Global Chemical

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Public Company Limited

PTTGC

Bloomberg PTTGC TB
Reuters PTTGC.BK

2Q23F: weak performance expected

Bearish sentiment toward the petrochemical industry has sent PTTGC's share price down 22% YTD vs. the SET's -9% and SETPETRO's -18%. We expect a poor showing in 2Q23F with net loss of >Bt5bn as two drivers in 1Q23, oil refinery and aromatics, slipped QoQ with much weaker olefins and polymer businesses than historical average on low gas supply from PTT, and the chemical segment is pressured by the global economic slowdown. We see more downside risk to our 2023F and TP of Bt52, though we see the current share as largely reflecting this earnings weakness. Maintain Neutral.

2Q23F in the red. 2Q23F (Aug. 9) was weak as key drivers in 1Q23 (oil refinery and aromatics) weakened QoQ and other businesses were feeble. We estimate a net loss of Bt5.3bn (Bt1.17/share), down from a slim profit of Bt82mn in 1Q23 due to lower core earnings and FX loss. Core operating earnings will also plunge to a Bt3.1bn loss in 2Q23 from a loss of Bt240mn in 1Q23 due to lower oil refining market GRM and weaker aromatics product-to-feed margin, eroded by lower byproduct margin (condensate residue, naphtha and LPG). Olefins and polymer stayed weak in 2Q23 as the proportion of ethane feedstock (36% of total in 1Q23) remained lower than normal (>50%) due to gas production delays from Block G1/61 (Erawan). Higher production from Erawan in late June will help from 3Q23 onwards.

Subdued contribution from intermediates and performance chemicals. Sluggish demand for durable goods and slow construction activities continued to depress demand for performance chemicals, mainly allnex (coating resins and additives). We expect flat contribution from allnex in 2Q23 QoQ as sales volume recovery was slowed by bearish market sentiment in Europe. Note that PTTGC initially expected allnex to contribute adjusted EBITDA at >EUR400mn p.a. but Europe's economic slowdown in 2022-1H23 hurt sales volume of this high-value business, though the adjusted EBITDA margin was maintained. We expect allnex's adjusted EBITDA 1H23 at >EUR100mn. Performance of Vencorex (isocyanates used in coatings and adhesives polyurethanes) was mute on slower European demand.

Challenging 2H23 ahead. Although we hope olefins and polymers will drive 2H23 on more gas supply from PTT, this is uncertain. PTTGC expects the proportion of ethane feedstock in 2H23 to rise to 37-40% from 36% in 1H23 but the problem lies in slower demand and a supply imbalance in the petrochemical market. Refinery market GRM will recover to US\$5-6/bbl in 2H23 due to better diesel and jet fuel cracker spread from seasonal demand but remains unexciting against >US\$10/bbl in 1Q23. We still see downside risk to our earnings forecast for 2023F unless more stimulus from China can boost market sentiment in 2H23, which is iffy.

Key risk factors: 1) Volatile crude oil price and product spread for oil refining and petrochemicals, 2) higher feedstock cost due to lower gas feedstock, 3) asset impairment, 4) regulatory change on GHG emissions and single-use plastics (<3% of capacity), and 5) change in government policy in allocating domestic gas supply to petrochemical business.

Forecasts and valuation

Year to 31 Dec	Unit	2021	2022	2023F	2024F	2025F
Revenue	(Btmn)	468,953	683,954	608,765	579,615	561,153
EBITDA	(Btmn)	61,952	46,537	50,261	61,870	66,605
Core profit	(Btmn)	32,313	13,792	8,292	20,176	24,280
Reported profit	(Btmn)	44,982	(8,752)	9,932	20,176	24,280
Core EPS	(Bt)	7.17	3.06	1.84	4.47	5.38
DPS	(Bt)	3.75	1.00	1.10	2.20	2.70
P/E, core	(x)	5.2	12.1	20.1	8.3	6.9
EPS growth, core	(%)	n.a.	(57.3)	(39.9)	143.3	20.3
P/BV, core	(x)	0.5	0.6	0.6	0.5	0.5
ROE	(%)	10.5	4.4	2.7	6.5	7.4
Dividend yield	(%)	10.1	2.7	3.0	5.9	7.3
EV/EBITDA	(x)	4.9	8.9	8.4	6.5	5.6

Source: InnovestX Research

Tactical: NEUTRAL

(3-month)

Stock data	
Last close (Jul 20) (Bt)	37.00
Target price (Bt)	52.00
Mkt cap (Btmn)	166.83
Mkt cap (US\$m)	4,879

Beta	H
Mkt cap (%) SET	0.89
Sector % SET	2.27
Shares issued (mn)	4,509
Par value (Bt)	10.00
12-m high / low (Bt)	52.5 / 34.8
Avg. daily 6m (US\$m)	18.71
Foreign limit / actual (%)	37 / 11
Free float (%)	54.8
Dividend policy (%)	≥ 30

Share performance			
(%)	1M	3M	12M
Absolute	(2.0)	(11.4)	(16.9)
Relative to SET	(1.9)	(9.2)	(15.5)

Source: SET, InnovestX Research

2022 Sustainability / 2021 ESG Score	
Sustainability Index (THSI)	Included

ESG Bloomberg Rank in the sector

ESG Score Rank	2/15
Environmental Score Rank	1/15
Social Score Rank	2/15
Governance Score Rank	1/15

ESG comment

PTTGC had the sector's best environmental and governance scores in 2021, with outperforming social score. The company has set up concrete plans to achieve target in reducing greenhouse gas by 20% within 2030 from peak year in 2025.

Source: Bloomberg Finance L.P.

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Value proposition

PTTGC is PTT Group's flagship chemical company. It is also the largest ethane-based petrochemical producer in Thailand with fully integrated petrochemical and refinery operations and a diversified product portfolio covering the full hydrocarbon chain, as well as ventures in green chemicals. While the ethylene output from the 2.9mtpa-crackers is mostly consumed internally to produce 1.9mtpa polyethylene, it also supplies propylene to contracted customers, primarily companies under the PTT Group. PTTGC also operates a 280kbd oil refinery, comprising a 145kbd conventional oil refinery and 135kbd condensate residual splitter. It has steadily expanded its product portfolio to specialty chemicals, including ethylene oxide (EO)-based performance products and ethylene glycol (EG), as well as phenol and related. It also invested in a global coating resins firm – allnex – to strengthen its HVA product portfolio and international business. PTTGC has invested in the bio-based chemical business, using crude palm oil and crude palm kernel oil as the key feedstock to produce methyl ester (biodiesel) and related products via subsidiary Global Green Chemicals Plc (GGC).

Business outlook

Earnings in 2023F will be weak on sluggish petrochemical demand and new capacity additions, mainly in China and the Middle East. We expect lower losses from extra items, i.e., oil price hedging and inventory, to underlie the YoY increase in profit. Oil refinery and aromatics businesses were key drivers for 1H23 and olefins and polymer businesses will take the driver's seat in 2H23 given higher ethane feedstock from PTT after gas production at G1/61 (Erawan) is ramped up from Jun 2023. More contribution from the specialty chemical business – allnex – is expected. Oil price fluctuation may cause inventory gain/loss throughout the year. Expanding to more specialty and recycled products will also reduce earnings volatility compared to commodity grade products.

Bullish views	Bearish views
1. PTTGC's competitive feedstock cost, mainly ethane from PTT's gas separation plant, will support profitability in the medium term.	1. Lower ethane supply from PTT on lower gas production in the Gulf of Thailand, mainly Block G1/61 (Erawan), will continue to drag olefins EBITDA margin. More risk has emerged from the new government's intention to alter the gas supply allocation to the petrochemical industry.
2. Feedstock flexibility will increase after the olefins retrofit project (ORP) started up in 2Q21 and the olefins 2 modification project (OMP) commenced operations in 2Q23.	2. Investors are concerned about the depleting gas reserves in the Gulf of Thailand which will reduce its competitiveness in the longer term.
3. The planned expansion in downstream specialty and recycled products will stabilize profitability in the long term.	3. The company's plan to invest in an olefins cracker in the US continues to undermine investor appetite for the stock as gas cost in the US may be less competitive on the US administration's policy to reduce fracking activities.

Key catalysts

Factor	Event	Impact	Comment
Higher ethane feedstock	More ethane supply from PTT is expected from 3Q23 onwards.	Positive	We expect adjusted EBITDA for the olefins business to improve in 3Q23 on a higher ethane proportion of 37-40% in 2H23 from 36% in 1Q23.
Near-term earnings outlook	2Q23F earnings momentum	Lower YoY but higher QoQ	Weaker GRM is expected to affect adjusted EBITDA margin for oil refining. The market remains pessimistic on the global economic outlook.

Sensitivity Analysis

Factor	Earnings impact	TP impact
EBITDA margin (+0.1%)	+5.1% (2023F)	+Bt0.5/share

Our view on ESG

We view that PTTGC provides concrete targets on environmental and social issues with a committed timeline and actual performance relative to its targets. We view PTTGC's management and governance as satisfactory, reflecting management expertise and experience in the business, a diverse Board of Directors and transparency with stakeholders.

ESG Disclosure Score

Bloomberg ESG Score		CG Rating 0-5		DJSI	SETTHSI	THSI
Rank in Sector	2/15	PTTGC	5	Yes	Yes	Yes

Source: Thai Institute of Directors and SET

Environmental Issue (E)

- PTTGC targets to reduce greenhouse gas (scope 1 and 2) by 20% within 2030 from peak year in 2025 and to achieve net zero emissions and cooperate with suppliers and customers to halve scope 3 emissions within 2050.
- It is one of the first organizations in Thailand to implement a Circular Economy by raising public awareness of waste management.
- PTTGC continues to invest in renewable energy technology and integrate green initiatives into its business operations, aiming at reducing the consumption of fossil fuels. This includes the installation of solar rooftops. The company also enhanced energy efficiency and reduced energy consumption in production process and offices. PTTGC also joins hand with other companies under PTT group to study opportunities in CCUS in Thailand.

Governance Issue (G)

- PTTGC's board of directors (2022) consists of 14 directors, 13 non-executive directors (92.8% of the entire board), 8 independent directors, which exceeds half of the board (57.1% of the entire board), and an executive director. There is one female member (7.1% of the entire board).
- The company has been rated "Excellent" (5 stars) by the Thai Institute of Directors in 2022.
- We view PTTGC's management and governance as satisfactory, reflecting management's experience and expertise, its transparency with stakeholders, and its independent board of directors.

Social Issue (S)

- PTTGC set up social enterprises with the goal of generating sustainable income for local communities, leveraging strategy via a Circular Economy, mainly the management of waste for delivery as feedstock to its recycled plastic resin factory under the Community Waste Model project in order to promote end-to-end waste management.
- PTTGC employed customer recommendations to enhance the efficiency of its customer relationship management. It continuously maintains customer satisfaction at 93%.
- PTTGC continued to emphasize improving employee capability while maintaining work-life balance and safety and occupational health with competitive compensation. Employee turnover rate was 5.65% in 2022, slightly up from 3.83% in 2021 and Lost Time Injury Frequency Rate and Total recordable incident rate was 0 and 0.4 case/1 million man-hours, respectively.

ESG Disclosure Score

	2020	2021
ESG Disclosure Score	80.81	79.24
Environment	89.10	88.55
Emissions Reduction Initiatives	Yes	Yes
Climate Change Policy	Yes	Yes
GHG Scope 1	5,880.00	6,737.60
Biodiversity Policy	Yes	Yes
Energy Efficiency Policy	Yes	Yes
Total Energy Consumption	41,518.40	43,233.80
Social	63.42	57.68
Human Rights Policy	Yes	Yes
Equal Opportunity Policy	Yes	Yes
Health and Safety Policy	Yes	Yes
Fatalities - Employees	0.00	0.00
Total Recordable Incident Rate - Employees	0.04	0.08
Employee Turnover Pct	6.33	3.83
Governance	89.86	89.86
Size of the Board	15	15
Number of Board Meetings for the Year	15	16
Board Meeting Attendance Pct	96	99
Number of Female Executives	7	7
Number of Independent Directors	8	8
Board Duration (Years)	3	3

Source: Bloomberg Finance L.P.

Disclaimer

Bloomberg ESG Disclosure Scores rate companies on their level of disclosure of ESG data. Bloomberg offers four disclosure scores, for overall ESG, as well as Environmental, Social, and Governance. To review the fully transparent methodology, calculate disclosure scores for any company, and compare a company's scores vs its peers, see ESG Disclosure Score Model in Bloomberg.

Financial statement

Profit and Loss Statement

FY December 31	Unit	2018	2019	2020	2021	2022	2023F	2024F	2025F
Total revenue	(Btmn)	518,655	412,810	329,291	468,953	683,954	608,765	579,615	561,153
Cost of goods sold	(Btmn)	466,026	390,619	317,093	409,783	629,952	555,796	516,811	495,016
Gross profit	(Btmn)	52,629	22,191	12,198	59,170	54,002	52,969	62,804	66,137
SG&A	(Btmn)	14,854	16,469	14,881	21,727	38,973	34,702	33,021	31,955
Other income	(Btmn)	2,694	2,319	2,283	1,771	3,946	3,251	3,239	3,539
Interest expense	(Btmn)	3,593	3,119	3,511	5,945	9,835	11,932	9,748	9,598
Pre-tax profit	(Btmn)	36,876	4,922	(3,912)	33,269	9,139	9,586	23,274	28,123
Corporate tax	(Btmn)	2,986	649	(109)	7,228	(2,273)	1,904	3,947	4,769
Equity a/c profits	(Btmn)	6,895	4,559	3,323	6,841	3,496	1,748	2,010	2,111
Minority interests	(Btmn)	(201)	(667)	(452)	(568)	(1,116)	(1,139)	(1,161)	(1,185)
Core profit	(Btmn)	40,583	8,164	(932)	32,313	13,792	8,292	20,176	24,280
Extra-ordinary items	(Btmn)	(514)	3,518	1,132	12,669	(22,544)	1,640	0	0
Net Profit	(Btmn)	40,069	11,682	200	44,982	(8,752)	9,932	20,176	24,280
EBITDA	(Btmn)	59,524	27,239	19,891	61,952	46,537	50,261	61,870	66,605
Core EPS	(Btmn)	9.00	1.81	(0.21)	7.17	3.06	1.84	4.47	5.38
Net EPS	(Bt)	8.89	2.59	0.04	9.98	(1.94)	2.20	4.47	5.38
DPS	(Bt)	4.25	2.00	1.00	3.75	1.00	1.10	2.20	2.70

Balance Sheet

FY December 31	Unit	2018	2019	2020	2021	2022	2023F	2024F	2025F
Total current assets	(Btmn)	144,310	104,494	129,911	209,092	172,009	165,121	168,525	190,338
Total fixed assets	(Btmn)	324,945	348,020	359,472	538,389	547,957	546,157	538,756	530,630
Total assets	(Btmn)	469,255	452,514	489,383	747,481	719,965	711,277	707,281	720,967
Total loans	(Btmn)	95,655	106,778	148,002	209,163	277,345	270,708	266,572	262,436
Total current liabilities	(Btmn)	73,858	53,033	59,041	147,003	103,976	89,195	74,941	78,121
Total long-term liabilities	(Btmn)	91,915	105,886	141,347	272,875	317,161	297,158	293,021	288,885
Total liabilities	(Btmn)	165,773	158,919	200,389	419,878	421,138	386,353	367,963	367,006
Paid-up capital	(Btmn)	45,088	45,088	45,088	45,088	45,088	45,088	45,088	45,088
Total equity	(Btmn)	303,482	293,595	288,994	327,603	298,828	305,209	319,603	334,246
BVPS	(Bt)	65.66	63.39	62.33	70.58	64.61	65.77	68.70	71.69

Cash Flow Statement

FY December 31	Unit	2018	2019	2020	2021	2022	2023F	2024F	2025F
Core Profit	(Btmn)	40,583	8,164	(932)	32,313	13,792	8,292	20,176	24,280
Depreciation and amortization	(Btmn)	19,055	19,198	20,292	22,738	27,563	28,743	28,849	28,885
Operating cash flow	(Btmn)	53,554	30,337	21,953	70,108	(3,297)	22,273	48,017	55,155
Investing cash flow	(Btmn)	(32,842)	(41,780)	(28,274)	(148,843)	(12,213)	(26,943)	(21,448)	(20,759)
Financing cash flow	(Btmn)	(27,397)	(6,461)	31,794	90,036	(14,164)	(10,187)	(9,918)	(13,773)
Net cash flow	(Btmn)	(6,685)	(17,904)	25,473	11,300	(29,674)	(14,857)	16,650	20,624

Key Financial Ratios

FY December 31	Unit	2018	2019	2020	2021	2022	2023F	2024F	2025F
Gross margin	(%)	10.1	5.4	3.7	12.6	7.9	8.7	10.8	11.8
Operating margin	(%)	7.3	1.4	(0.8)	8.0	2.2	3.0	5.1	6.1
EBITDA margin	(%)	11.5	6.6	6.0	13.2	6.8	8.3	10.7	11.9
EBIT margin	(%)	7.8	1.9	(0.1)	8.4	2.8	3.5	5.7	6.7
Net profit margin	(%)	7.7	2.8	0.1	9.6	(1.3)	1.6	3.5	4.3
ROE	(%)	13.9	2.7	(0.3)	10.5	4.4	2.7	6.5	7.4
ROA	(%)	9.0	1.8	(0.2)	5.2	1.9	1.2	2.8	3.4
Net D/E	(x)	0.1	0.3	0.3	0.4	0.8	0.8	0.7	0.6
Interest coverage	(x)	16.6	8.7	5.7	10.4	4.7	4.2	6.3	6.9
Debt service coverage	(x)	3.7	2.1	0.8	1.3	2.0	2.6	3.6	3.9
Payout Ratio	(%)	47.8	77.2	2,258.9	37.6	(51.5)	49.9	49.2	50.1

Main Assumptions

FY December 31	Unit	2018	2019	2020	2021	2022	2023F	2024F	2025F
Utilization rate - Olefins	(%)	101	102	97	91	80	95	95	95
Utilization rate - Aromatics	(%)	93	88	96	99	88	88	88	88
Utilization rate - Oil Refinery	(%)	102	87	97	95	89	100	100	100
HDPE-naphtha spread	(US\$/t)	716	468	500	536	418	425	450	475
PX-condensate spread	(US\$/t)	451	351	228	259	275	280	280	280
Market GRM	(US\$/bbl)	6.1	3.9	2.2	3.8	12.1	7.5	8.3	9.7

Financial statement

Profit and Loss Statement

FY December 31	Unit	2Q21	3Q21	4Q21	1Q22	2Q22	3Q22	4Q22	1Q23
Total revenue	(Btmn)	112,627	113,189	140,461	176,767	197,603	183,141	126,442	148,147
Cost of goods sold	(Btmn)	96,409	97,421	128,033	156,957	171,252	179,474	122,269	138,948
Gross profit	(Btmn)	16,218	15,768	12,428	19,810	26,351	3,667	4,173	9,199
SG&A	(Btmn)	4,417	4,998	8,357	9,652	9,388	9,621	10,312	8,471
Other income	(Btmn)	363	567	433	811	818	591	1,725	680
Interest expense	(Btmn)	1,530	1,704	1,528	2,101	2,428	2,741	2,566	2,786
Pre-tax profit	(Btmn)	10,634	9,634	2,975	8,869	15,353	(8,103)	(6,979)	(1,379)
Corporate tax	(Btmn)	5,591	727	190	38	(324)	(101)	(1,886)	(43)
Equity a/c profits	(Btmn)	2,324	1,154	1,471	1,142	1,549	250	555	(244)
Minority interests	(Btmn)	(141)	(233)	(61)	(470)	(438)	(200)	(9)	23
Core profit	(Btmn)	7,226	9,828	4,195	9,504	16,788	(7,953)	(4,547)	(1,557)
Extra-ordinary items	(Btmn)	17,809	(2,822)	(947)	(6,908)	(15,400)	(5,431)	5,195	1,640
Net Profit	(Btmn)	25,035	7,005	3,248	2,596	1,388	(13,384)	648	82
EBITDA	(Btmn)	17,753	17,175	10,358	17,806	24,563	1,714	2,454	8,373
Core EPS	(Btmn)	1.60	2.18	0.93	2.11	3.72	(1.76)	(1.01)	(0.35)
Net EPS	(Bt)	5.55	1.55	0.72	0.58	0.31	(2.97)	0.14	0.02

Balance Sheet

FY December 31	Unit	2Q21	3Q21	4Q21	1Q22	2Q22	3Q22	4Q22	1Q23
Total current assets	(Btmn)	222,986	221,154	209,092	238,676	252,436	198,814	172,009	168,995
Total fixed assets	(Btmn)	358,129	359,309	538,389	542,661	540,220	543,650	547,957	544,374
Total assets	(Btmn)	581,115	580,464	747,481	781,338	792,656	742,464	719,965	713,369
Total loans	(Btmn)	192,493	177,427	209,163	282,834	304,490	277,163	277,345	270,999
Total current liabilities	(Btmn)	73,277	101,041	147,003	165,246	165,556	123,985	103,976	102,370
Total long-term liabilities	(Btmn)	187,626	157,983	272,875	289,939	310,247	316,374	317,161	312,472
Total liabilities	(Btmn)	260,902	259,024	419,878	455,184	475,803	440,358	421,138	414,842
Paid-up capital	(Btmn)	45,088	45,088	45,088	45,088	45,088	45,088	45,088	45,088
Total equity	(Btmn)	320,212	321,439	327,603	326,153	316,853	302,106	298,828	298,528
BVPS	(Bt)	69.23	69.48	70.58	70.16	68.21	64.91	64.61	64.53

Cash Flow Statement

FY December 31	Unit	2Q21	3Q21	4Q21	1Q22	2Q22	3Q22	4Q22	1Q23
Core Profit	(Btmn)	7,226	9,828	4,195	9,504	16,788	(7,953)	(4,547)	(1,557)
Depreciation and amortization	(Btmn)	5,589	5,837	5,854	6,837	6,782	7,076	6,867	6,965
Operating cash flow	(Btmn)	10,377	21,922	29,159	5,176	(3,262)	(547)	(4,664)	18,397
Investing cash flow	(Btmn)	(4,291)	11,934	(114,731)	(17,588)	(9,925)	28,046	(12,745)	(4,417)
Financing cash flow	(Btmn)	(4,705)	(29,262)	86,161	15,337	4,205	(42,332)	8,626	(9,284)
Net cash flow	(Btmn)	1,381	4,595	589	2,925	(8,982)	(14,834)	(8,783)	4,695

Key Financial Ratios

FY December 31	Unit	2Q21	3Q21	4Q21	1Q22	2Q22	3Q22	4Q22	1Q23
Gross margin	(%)	14.4	13.9	8.8	11.2	13.3	2.0	3.3	6.2
Operating margin	(%)	10.5	9.5	2.9	5.7	8.6	(3.3)	(4.9)	0.5
EBITDA margin	(%)	15.8	15.2	7.4	10.1	12.4	0.9	1.9	5.7
EBIT margin	(%)	10.8	10.0	3.2	6.2	9.0	(2.9)	(3.5)	1.0
Net profit margin	(%)	22.2	6.2	2.3	1.5	0.7	(7.3)	0.5	0.1
ROE	(%)	9.3	12.3	5.2	11.6	20.9	(10.3)	(6.1)	(2.1)
ROA	(%)	5.1	6.8	2.5	5.0	8.5	(4.1)	(2.5)	(0.9)
Net D/E	(x)	0.4	0.4	0.5	0.7	0.8	0.8	0.8	0.8
Interest coverage	(x)	11.6	10.1	6.8	8.5	10.1	0.6	1.0	3.0
Debt service coverage	(x)	2.3	1.5	0.9	1.3	1.8	0.3	0.4	1.5

Key Statistics

FY December 31	Unit	2Q21	3Q21	4Q21	1Q22	2Q22	3Q22	4Q22	1Q23
Utilization rate - Olefins	(%)	93	91	80	85	75	83	76	72
Utilization rate - Aromatics	(%)	102	100	97	100	80	88	82	89
Utilization rate - Oil Refinery	(%)	101	77	101	101	98	100	56	103
HDPE-naphtha spread	(US\$/t)	585	462	507	453	468	390	360	396
PX-condensate spread	(US\$/t)	283	304	211	248	354	276	249	381
Market GRM	(US\$/bbl)	2.0	3.2	6.4	7.6	21.1	9.8	9.7	10.3

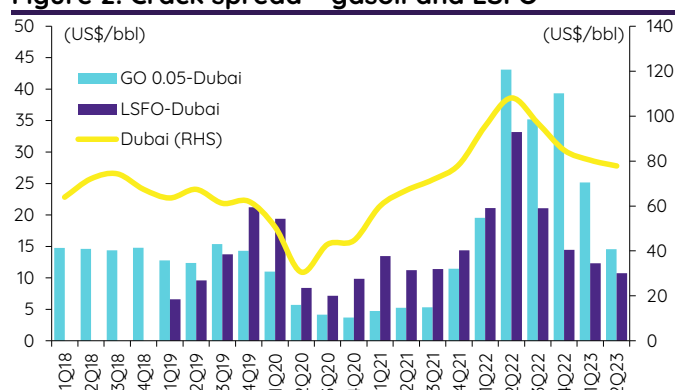
Figure 1: PTTGC - 2Q23F earnings preview

	2Q22	1Q23	2Q23F	%YoY	%QoQ
Sales and Service Incomes	197,603	147,248	144,017	(27.1)	(2.2)
EBITDA	23,731	7,688	4,899	(79.4)	(36.3)
Operating profit	13,703	(240)	(3,166)	n.a.	n.a.
Net profit	1,388	82	(5,266)	n.a.	n.a.
EPS (Bt/share)	0.31	0.02	(1.17)	n.a.	n.a.
CDU utilization rate	98%	103%	103%	5.0	0.0
Market GRM (PTTGC)	21.09	10.30	5.80	(72.5)	(43.7)
Utilization rate - PE	90%	99%	104%	14.0	5.0
HDPE-naphtha spread (US\$/t)	468	396	435	(7.1)	9.8
Utilization rate - BTX	80%	89%	88%	8.0	(1.0)
P2F margin - aromatics (US\$/t)	117	248	198	69.2	(20.2)

Source: PTTGC and InnovestX Research

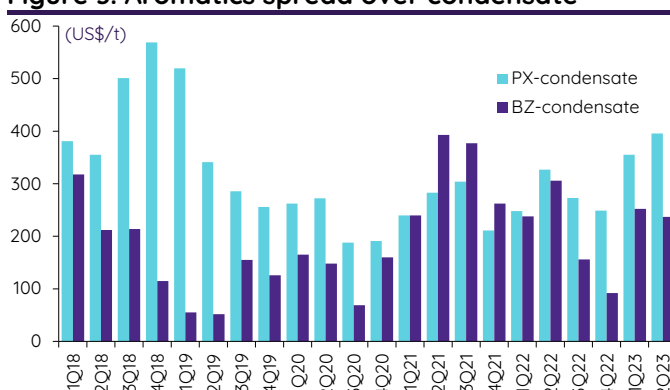
Appendix

Figure 2: Crack spread - gasoil and LSFO



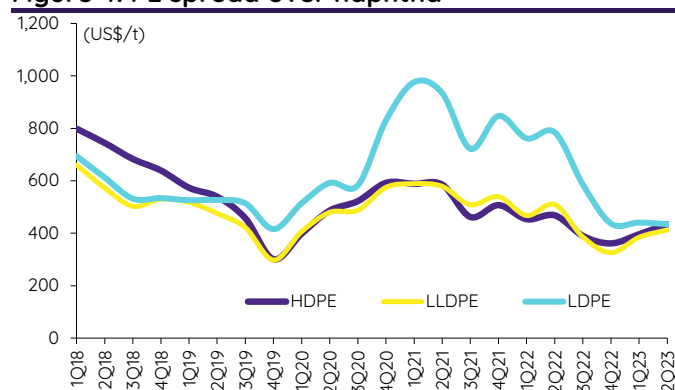
Source: PTTGC and InnovestX Research

Figure 3: Aromatics spread over condensate



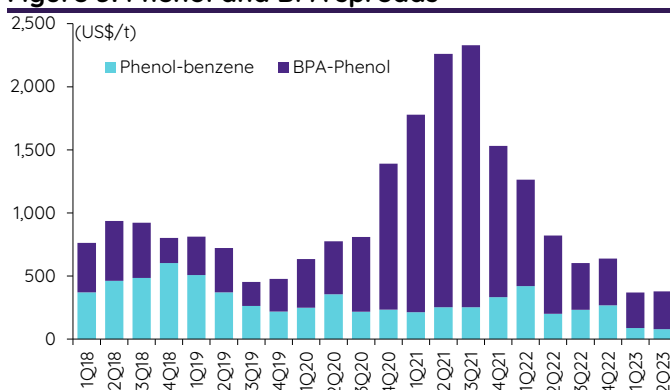
Source: PTTGC and InnovestX Research

Figure 4: PE spread over naphtha



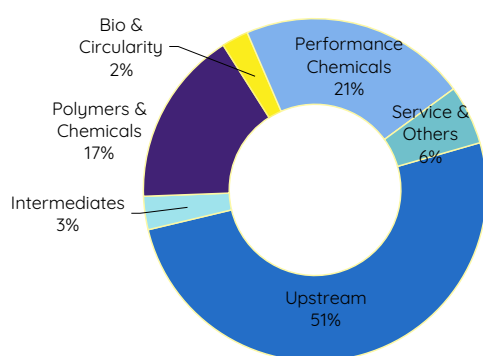
Source: PTTGC and InnovestX Research

Figure 5: Phenol and BPA spreads



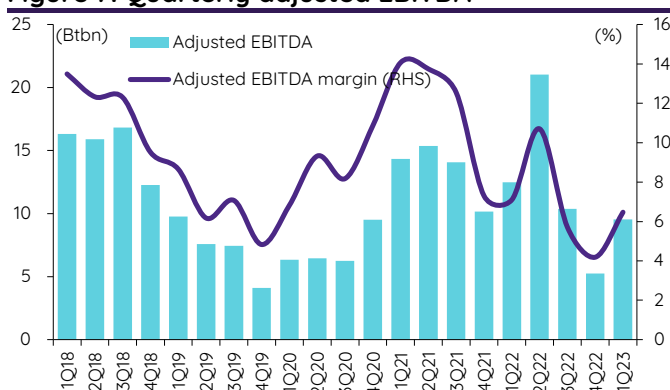
Source: PTTGC and InnovestX Research

Figure 6: Adj. EBITDA breakdown (LTM-1Q23)



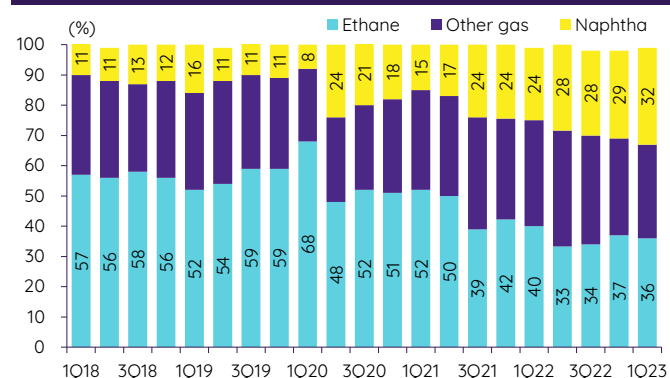
Source: PTTGC and InnovestX Research

Figure 7: Quarterly adjusted EBITDA



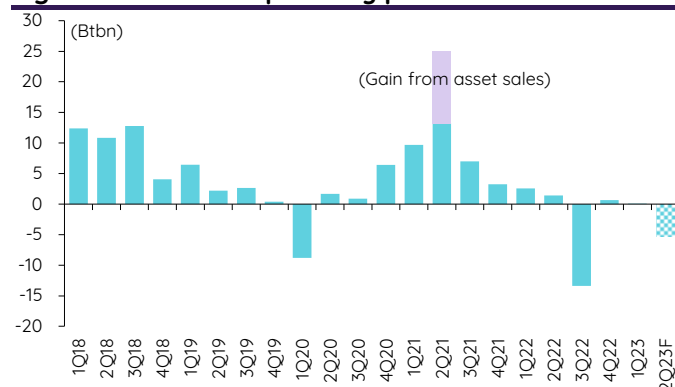
Source: PTTGC and InnovestX Research

Figure 8: Olefins intake breakdown



Source: PTTGC and InnovestX Research

Figure 10: PTTGC - quarterly profit



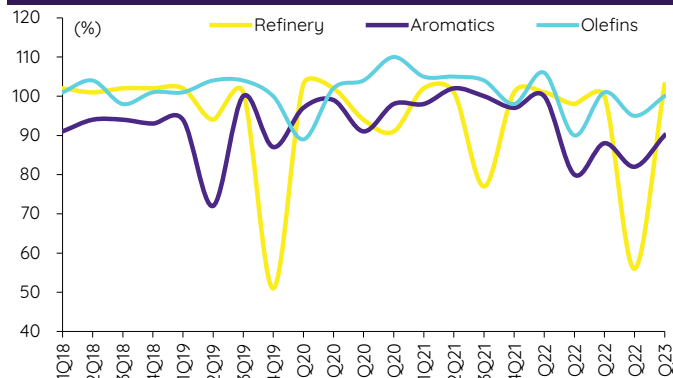
Source: PTTGC and InnovestX Research

Figure 12: Valuation summary (price as of Jul 20, 2023)

	Rating	Price (Bt/Sh)	Target (Bt/Sh)	ETR (%)	P/E (x)			EPS growth (%)			P/BV (x)			ROE (%)			Div. Yield (%)			EV/EBITDA (x)		
					22A	23F	24F	22A	23F	24F	22A	23F	24F	22A	23F	24F	22A	23F	24F	22A	23F	24F
GGC	Neutral	11.90	13.4	16.0	12.2	14.9	11.4	30	(18)	31	1.2	1.1	1.0	10	8	9	4.2	3.4	3.5	6.0	5.6	4.0
IVL	Outperform	32.75	44.0	36.8	4.7	14.6	8.3	44	(68)	77	1.0	1.0	0.9	22	7	11	4.9	2.4	3.7	4.9	6.5	4.8
PTTGC	Neutral	37.00	52.0	43.5	12.1	20.1	8.3	(57)	(40)	143	0.6	0.6	0.5	4	3	6	2.7	3.0	5.9	8.9	8.4	6.5
Average					9.7	16.5	9.3	6	(42)	84	0.9	0.9	0.8	12	6	9	3.9	2.9	4.4	6.6	6.8	5.1

Source: InnovestX Research

Figure 9: Utilization rate



Source: PTTGC and InnovestX Research

Figure 11: PTTGC - PBV band



Source: InnovestX Research

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Corporate Governance Report

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Declared (ประกาศเจตนา)

AAI, AH, ASW, BBGI, CBG, CI, CPW, CV, DMT, DOHOME, EKH, EVER, FLOYD, GLOBAL, GREEN, ICN, ITC, J, JAS, JMART, JMT, JTS, LEO, LH, MEGA, MENA, MODERN, NER, OR, OSP, OTO, PRIME, PRTR, RBF, RT, SA, SANKO, SFLEX, SIS, SUPER, SVOA, SVT, TEGH, TGE, TIPH, TKN, TMI, TPLAS, VARO, W, WIN, WPH

N/A

24CS, 3K-BAT, A, A5, AAV, ABM, ACAP, ACC, ACE, ACG, ADB, ADD, AEONTS, AFC, AGE, AHC, AIT, AJA, AKR, AKS, ALL, ALLA, ALPHAX, ALT, ALUCON, AMARC, AMARIN, AMC, AMR, ANAN, AOT, APCO, APEX, APP, APURE, AQUA, ARIN, ARIP, ARROW, ASAP, ASEFA, ASIA, ASIMAR, ASN, ATP30, AU, AUCTION, AURA, B52, BA, BBIK, BC, BCT, BDMS, BEAUTY, BEM, BGT, BH, BIG, BIOTEC, BIS, BIZ, BJC, BJCHI, BKD, BLAND, BLC, BLESS, BLISS, BM, BOL, BR, BRI, BROCK, BSM, BTG, BTNC, BTW, BUI, BVG, BYD, CAZ, CCET, CCP, CEYE, CGD, CH, CHARAN, CHASE, CHAYO, CHG, CHIC, CHO, CITY, CIVIL, CK, CKP, CMAN, CMO, CMR, CNT, COLOR, COMAN, CPANEL, CPH, CPR, CPT, CRANE, CRD, CSP, CSR, CSS, CTW, CWT, D, DCON, DDD, DEXON, DHOUSE, DITTO, DOD, DPAINT, DTCENT, DTICI, DV8, EASON, EE, EFORL, EMC, ESSO, F&D, FANCY, FE, FMT, FN, FORTH, FTI, FVC, GABLE, GENCO, GIFT, GL, GLAND, GLOCON, GLORY, GRAMMY, GRAND, GSC, GTB, GTV, GYT, HFT, HL, HPT, HTECH, HUMAN, HYDRO, IFEC, IHL, IIG, IMH, IND, INGRS, INSET, IP, IRPC, IT, ITD, ITNS, ITTHI, JAK, JCK, JCKH, JCT, JDF, JSP, JUBILE, KAMART, KC, KCC, KCM, KDH, KEX, KGEN, KIAT, KISS, KJL, KK, KKC, KLINIQ, KOOL, KTIS, KTMS, KUMWEL, KUN, KWC, KWM, KYE, LALIN, LDC, LEE, LIT, LOXLEY, LPH, LST, MACO, MANRIN, MASTER, MATI, MAX, M-CHAI, MCS, MDX, MEB, METCO, MGC, MGT, MICRO, MIDA, MITSIB, MJD, MK, ML, MORE, MOSHI, MPIC, MTW, MUD, MVP, NATION, NC, NCH, NCL, NDR, NETBAY, NEW, NEWS, NEX, NFC, NNCL, NOVA, NPK, NSL, NTSC, NTV, NUSA, NV, NVD, NYT, OHTL, OISHI, ONEE, PACE, PACO, PAF, PCC, PEACE, PERM, PF, PHG, PICO, PIN, PJW, PLE, PLT, PLUS, PMTA, POLAR, POLY, POMPUI, PORT, POST, PPM, PQS, PRAKIT, PRAPAT, PRECHA, PRI, PRIN, PRO, PROEN, PROUD, PSG, PTC, PTL, RAM, RCL, READY, RICHY, RJH, ROCK, ROH, ROJNA, RP, RPC, RPH, RSP, S, S11, SABUY, SAF, SAFARI, SALEE, SAM, SAMART, SAMCO, SAMTEL, SAUCE, SAWAD, SAWANG, SBNEXT, SCAP, SCI, SCP, SDC, SE, SEAFSCO, SECURE, SENX, SFT, SGC, SGF, SHANG, SHR, SIAM, SICT, SIMAT, SISB, SJWD, SK, SKE, SKN, SKY, SLM, SLP, SM, SMART, SMD, SMT, SNNP, SO, SOLAR, SONIC, SPA, SPCG, SPG, SPVI, SQ, SR, SSC, SSS, STANLY, STARK, STC, STEC, STECH, STHAI, STI, STP, STPI, SUC, SUN, SUTHA, SVR, SWC, SYNEX, TACC, TAPAC, TBN, TC, TCC, TCCC, TCJ, TCOAT, TEAM, TEAMG, TEKA, TFM, TGPRO, TH, THAI, THANA, THE, THG, THL, THMUI, TIGER, TITLE, TK, TKC, TLI, TM, TMC, TMW, TNDT, TNH, TNPC, TOA, TPAC, TPBI, TPCH, TPIPL, TPLI, TPOLY, TPS, TQM, TQR, TR, TRC, TRITN, TRUBB, TRV, TSE, TTI, TTT, TTW, TVH, TVT, TWP, TWZ, TYCN, UAC, UBA, UMI, UMS, UNIQ, UP, UPOIC, UREKA, UTP, UVAN, VIBHA, VL, VNG, VPO, VRANDA, WARRIX, WAVE, WFX, WGE, WINMED, WINNER, WORK, WORLD, WP, XPG, YGG, YONG

Explanations

Companies participating in Thailand's Private Sector Collective Action Coalition Against Corruption programme (Thai CAC) under Thai Institute of Directors (as of April 17, 2023) are categorised into: companies that have declared their intention to join CAC, and companies certified by CAC.