

# PTT Global Chemical

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Public Company Limited

# PTTGC

Bloomberg PTTGC TB  
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## 2Q23 likely to remain challenging

**Pessimism on PTTGC's earnings has sent the share down 24% YTD vs. the SET's -9% and SETPETRO's -19%. It reported a thin 1Q23 profit of Bt82mn, sinking 97% YoY and 87% QoQ despite a sharp 82% QoQ rise in adjusted EBITDA. 2Q23F will be challenging as two drivers in 1Q23, oil refinery and aromatics, have already slipped QoQ. Further, performance of olefins and polymer businesses remains below historical average due to insufficient gas supply from PTT and the performance chemical segment is pressured by the global economic slowdown. We slash our 2023F by 52% to reflect the disappointing results and cut TP (end-2023) to Bt52/share, based on 0.8x PBV (2023F), largely priced in. Neutral.**

**1Q23 results recap.** PTTGC's 1Q23 profit was worse than expected at only Bt82mn, down 97% YoY and 87% QoQ. Although earnings for the upstream segment, oil refinery and aromatics, was up strongly QoQ on higher market GRM and aromatics product spread, overall performance was dragged by olefins, intermediate (phenol and MEG), and performance chemicals (Vencorex). Contribution from the JV was in the red due to lower product spread at associates, mainly Thai Asahi. Adjusted EBITDA grew 82% QoQ to Bt9.5bn but fell 24% YoY. Adjusted EBITDA margin improved from 4% in 4Q22 to 6% in 1Q23 but is way below 5-year average of 10%.

**2Q23F remains challenging.** We expect 2Q23 earnings to remain subdued as key earnings drivers in 1Q23 (oil refinery and aromatics) have weakened QTD and other businesses remain feeble. A potential driver could be olefins and polymers due to more gas supply from PTT, but this is uncertain. It expects the proportion of ethane feedstock in 2Q23 to be close to 1Q23's level of 36% before rising to 37-40% in 3Q23 on a rise in production at Block G1/61 (Erawan) to 400mmcf from 200mmcf from June. We expect this to drive earnings in 2H23, implying a slower earnings recovery this year than previously thought. There may be some offset provided by the startup of the olefins modification project (OMP) in 2Q23 that will enable it to up propane feedstock to 40% from 29%, giving more flexibility in feedstock selection.

**Earnings forecast and TP cut.** The earnings turnaround in 2023, led by no huge inventory loss and other extra items, will be slower than expected. The weaker 1Q23 profit looks to continue through 2Q23, and we cut our 2023F net profit by 52% to Bt9.9bn. Downside risk is gas supply in 2H23 and global economic outlook. We also cut TP to Bt52 from Bt56, based on 0.8x PBV (2023F), equivalent to 9.7x EV/EBITDA.

**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)	5.0	11.7	19.4	8.0	6.6
EPS growth, core	(%)	n.a.	(57.3)	(39.9)	143.3	20.3
P/BV, core	(x)	0.5	0.6	0.5	0.5	0.5
ROE	(%)	10.5	4.4	2.7	6.5	7.4
Dividend yield	(%)	10.5	2.8	3.1	6.2	7.6
FCF yield	(x)	(48.8)	(9.6)	(2.9)	16.5	21.3
EV/EBIT	(x)	7.5	21.4	19.3	11.9	9.8
EBIT growth, core	(%)	n.a.	(51.6)	13.4	53.5	14.2
EV/CE	(x)	0.8	1.1	1.1	1.1	1.1
ROCE	(%)	8.0	5.0	4.0	6.8	8.1
EV/EBITDA	(x)	4.8	8.7	8.3	6.4	5.5
EBITDA growth	(%)	211.5	(24.9)	8.0	23.1	7.7

Source: InnovestX Research

## Tactical: NEUTRAL

(3-month)

Stock data	
Last close (May 19) (Bt)	35.75
Target price (Bt)	52.00
Mkt cap (Btbn)	161.19
Mkt cap (US\$mn)	4,704

Beta	H
Mkt cap (%) SET	0.87
Sector % SET	2.23
Shares issued (mn)	4,509
Par value (Bt)	10.00
12-m high / low (Bt)	52.5 / 35.3
Avg. daily 6m (US\$mn)	20.13
Foreign limit / actual (%)	37 / 11
Free float (%)	54.8
Dividend policy (%)	≥ 30

### 2022 Sustainability/2021 ESG Score

Sustainability Index (THSI)	Included
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ESG Bloomberg Score	78.71
Environmental Score	88.55
Social Score	57.68
Governance Score	89.86

Source: Bloomberg Finance L.P.

### Share performance

(%)	1M	3M	12M
Absolute	(12.8)	(27.0)	(23.1)
Relative to SET	(9.9)	(20.2)	(17.6)

Source: SET, InnovestX Research

### Analyst

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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 are expected to turn around from net loss of Bt8.8bn in 2022, which arose out of its planned shutdown of most of its olefin crackers and oil refinery throughout last year and weak petrochemical product spread. Lower losses from extra items, mainly from oil price hedging and inventory, will underlie the YoY increase in profit. Oil refinery and aromatics businesses are 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 is expected, mainly from allnex. 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 EBITDA margin of its olefins business. 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) commences 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	Lower inventory loss will be the key earnings driver QoQ but 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

## ESG Disclosure Score

<b>Bloomberg ESG Score</b>	<b>79.24 (2021)</b>
Rank in Sector	2/15

	CG Rating 0-5	DJSI	SETTHSI	THSI
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 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.

### 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%, higher than the industry average.
- 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.

### Governance Issue (G)

- PTTGC's board of directors 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.

## ESG Disclosure Score

	2020	2021
<b>ESG Disclosure Score</b>	<b>80.81</b>	<b>79.24</b>
<b>Environment</b>	<b>89.10</b>	<b>88.55</b>
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
<b>Social</b>	<b>63.42</b>	<b>57.68</b>
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

<b>Governance</b>	<b>89.86</b>	<b>89.86</b>
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 such as energy consumption, board composition, and workforce accidents.

Company ESG reporting has evolved since our ESG Disclosure Score was originally created in 2010. In order to reflect the evolution in corporate reporting, in early 2022 Bloomberg updated its ESG disclosure scores methodology. The methodology changes were implemented for all years of data for all companies in the ESG Coverage universe.

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
<b>Gross profit</b>	<b>(Btmn)</b>	<b>52,629</b>	<b>22,191</b>	<b>12,198</b>	<b>59,170</b>	<b>54,002</b>	<b>52,969</b>	<b>62,804</b>	<b>66,137</b>
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
<b>Pre-tax profit</b>	<b>(Btmn)</b>	<b>36,876</b>	<b>4,922</b>	<b>(3,912)</b>	<b>33,269</b>	<b>9,139</b>	<b>9,586</b>	<b>23,274</b>	<b>28,123</b>
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)
<b>Core profit</b>	<b>(Btmn)</b>	<b>40,583</b>	<b>8,164</b>	<b>(932)</b>	<b>32,313</b>	<b>13,792</b>	<b>8,292</b>	<b>20,176</b>	<b>24,280</b>
Extra-ordinary items	(Btmn)	(514)	3,518	1,132	12,669	(22,544)	1,640	0	0
<b>Net Profit</b>	<b>(Btmn)</b>	<b>40,069</b>	<b>11,682</b>	<b>200</b>	<b>44,982</b>	<b>(8,752)</b>	<b>9,932</b>	<b>20,176</b>	<b>24,280</b>
EBITDA	(Btmn)	59,524	27,239	19,891	61,952	46,537	50,261	61,870	66,605
<b>Core EPS</b>	<b>(Btmn)</b>	<b>9.00</b>	<b>1.81</b>	<b>(0.21)</b>	<b>7.17</b>	<b>3.06</b>	<b>1.84</b>	<b>4.47</b>	<b>5.38</b>
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
<b>Total assets</b>	<b>(Btmn)</b>	<b>469,255</b>	<b>452,514</b>	<b>489,383</b>	<b>747,481</b>	<b>719,965</b>	<b>711,277</b>	<b>707,281</b>	<b>720,967</b>
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
<b>Total liabilities</b>	<b>(Btmn)</b>	<b>165,773</b>	<b>158,919</b>	<b>200,389</b>	<b>419,878</b>	<b>421,138</b>	<b>386,353</b>	<b>367,963</b>	<b>367,006</b>
Paid-up capital	(Btmn)	45,088	45,088	45,088	45,088	45,088	45,088	45,088	45,088
<b>Total equity</b>	<b>(Btmn)</b>	<b>303,482</b>	<b>293,595</b>	<b>288,994</b>	<b>327,603</b>	<b>298,828</b>	<b>305,209</b>	<b>319,603</b>	<b>334,246</b>
<b>BVPS</b>	<b>(Bt)</b>	<b>65.66</b>	<b>63.39</b>	<b>62.33</b>	<b>70.58</b>	<b>64.61</b>	<b>65.77</b>	<b>68.70</b>	<b>71.69</b>

## 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)
<b>Net cash flow</b>	<b>(Btmn)</b>	<b>(6,685)</b>	<b>(17,904)</b>	<b>25,473</b>	<b>11,300</b>	<b>(29,674)</b>	<b>(14,857)</b>	<b>16,650</b>	<b>20,624</b>

## 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
<b>Gross profit</b>	<b>(Btmn)</b>	<b>16,218</b>	<b>15,768</b>	<b>12,428</b>	<b>19,810</b>	<b>26,351</b>	<b>3,667</b>	<b>4,173</b>	<b>9,199</b>
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
<b>Pre-tax profit</b>	<b>(Btmn)</b>	<b>10,634</b>	<b>9,634</b>	<b>2,975</b>	<b>8,869</b>	<b>15,353</b>	<b>(8,103)</b>	<b>(6,979)</b>	<b>(1,379)</b>
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
<b>Core profit</b>	<b>(Btmn)</b>	<b>7,226</b>	<b>9,828</b>	<b>4,195</b>	<b>9,504</b>	<b>16,788</b>	<b>(7,953)</b>	<b>(4,547)</b>	<b>(1,557)</b>
Extra-ordinary items	(Btmn)	17,809	(2,822)	(947)	(6,908)	(15,400)	(5,431)	5,195	1,640
<b>Net Profit</b>	<b>(Btmn)</b>	<b>25,035</b>	<b>7,005</b>	<b>3,248</b>	<b>2,596</b>	<b>1,388</b>	<b>(13,384)</b>	<b>648</b>	<b>82</b>
EBITDA	(Btmn)	17,753	17,175	10,358	17,806	24,563	1,714	2,454	8,373
<b>Core EPS</b>	<b>(Btmn)</b>	<b>1.60</b>	<b>2.18</b>	<b>0.93</b>	<b>2.11</b>	<b>3.72</b>	<b>(1.76)</b>	<b>(1.01)</b>	<b>(0.35)</b>
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
<b>Total assets</b>	<b>(Btmn)</b>	<b>581,115</b>	<b>580,464</b>	<b>747,481</b>	<b>781,338</b>	<b>792,656</b>	<b>742,464</b>	<b>719,965</b>	<b>713,369</b>
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
<b>Total liabilities</b>	<b>(Btmn)</b>	<b>260,902</b>	<b>259,024</b>	<b>419,878</b>	<b>455,184</b>	<b>475,803</b>	<b>440,358</b>	<b>421,138</b>	<b>414,842</b>
Paid-up capital	(Btmn)	45,088	45,088	45,088	45,088	45,088	45,088	45,088	45,088
<b>Total equity</b>	<b>(Btmn)</b>	<b>320,212</b>	<b>321,439</b>	<b>327,603</b>	<b>326,153</b>	<b>316,853</b>	<b>302,106</b>	<b>298,828</b>	<b>298,528</b>
<b>BVPS</b>	<b>(Bt)</b>	<b>69.23</b>	<b>69.48</b>	<b>70.58</b>	<b>70.16</b>	<b>68.21</b>	<b>64.91</b>	<b>64.61</b>	<b>64.53</b>

## 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)
<b>Net cash flow</b>	<b>(Btmn)</b>	<b>1,381</b>	<b>4,595</b>	<b>589</b>	<b>2,925</b>	<b>(8,982)</b>	<b>(14,834)</b>	<b>(8,783)</b>	<b>4,695</b>

## 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

**1Q23 result highlights:**

- Sales revenue fell 16% YoY but improved 17% QoQ after as the oil refinery was operated fully in 1Q23, following 49-day planned oil refinery maintenance shutdown in 4Q22. This was also behind higher utilization rate of oil refinery from 56% (4Q22) to 103% (1Q23). Revenue from allnex increased QoQ after its low season in 4Q in Europe and the US.
- Overall adjusted EBITDA fell 24% YoY but rose 82% QoQ, led by upstream, polymers and bio & circularity segment, with adjusted EBITDA improved from 4% in 4Q22 to 6% in 1Q23. This was driven mainly by higher market GRM and wider product spread of aromatics business. Nonetheless, adjusted EBITDA of olefins business continued to weaken (-127% YoY and -85% QoQ) due to high feedstock cost and lower proportion of ethane feedstock from 40% in 1Q22 and 37% in 4Q22 to 36% in 1Q23, vs. 5-year average of nearly 50%.
- Although operating performance of allnex continued to improve in 1Q23 with EBITDA of Bt1.9bn from low season in 4Q22, Adjusted EBITDA of performance chemicals weakened 31% YoY and 26% QoQ. This was due to loss contribution from HDI business in Europe under Vencorex. The competition in HDI business in Europe was more intense due to slower demand in automotive industry and new supply from Asia, hurting profit of Vencorex in 1Q23 with EBITDA loss of >Bt200mn. Mitigation plan for Vencorex is to enhance its cost and seek more collaboration with allnex to increase competitiveness. For allnex, management expects more improvement in 2Q23 with sales volume to increase 3-5% QoQ with stable margin while more overhead cost cutting will be continued.
- Management revealed that the recent business restructuring could save its cost by approximately Bt200mn/year. More overhead cost cutting will be continued amidst weak market condition in petrochemical business.
- More ethane feedstock from PTT is expected for 3Q23 onwards given the expected more gas supply from the Gulf of Thailand (Erawan). This will increase the proportion of ethane feedstock in olefins production from 32% in 1Q23 to 37-40% in 2H23.

**Figure 1: PTTGC - 1Q23 earnings review**

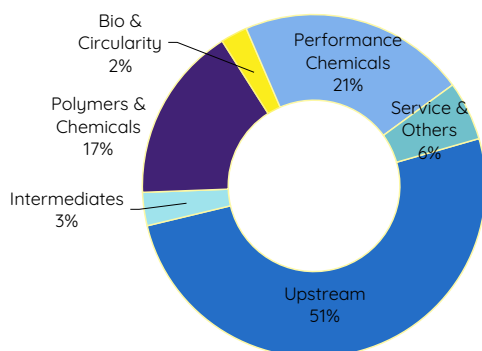
	1Q22	4Q22	1Q23	%YoY	%QoQ
<b>P&amp;L (Bt, mn)</b>					
Total revenue	176,767	126,442	148,147	(16.2)	17.2
Gross profit	19,810	4,173	9,199	(53.6)	120.4
EBITDA	17,806	2,454	8,373	(53.0)	241.2
Profit before extra items	9,504	(4,547)	(1,557)	n.a.	n.a.
<b>Net Profit</b>	<b>2,596</b>	<b>648</b>	<b>82</b>	<b>(96.8)</b>	<b>(87.3)</b>
EPS (Bt)	0.58	0.14	0.02	(96.8)	(87.3)
<b>B/S (Bt, mn)</b>					
Total assets	781,338	719,965	713,369	(8.7)	(0.9)
Total liabilities	455,184	421,138	414,842	(8.9)	(1.5)
Total equity	326,153	298,828	298,528	(8.5)	(0.1)
BVPS (Bt)	70.16	64.61	64.53	(8.0)	(0.1)
<b>Financial ratio (%)</b>					
Gross margin (%)	11.2	3.3	6.2	(5.0)	2.9
EBITDA margin (%)	10.1	1.9	5.7	(4.4)	3.7
Net profit margin (%)	1.5	0.5	0.1	(1.4)	(0.5)
ROA (%)	5.0	(2.5)	(0.9)	(5.8)	1.6
ROE (%)	11.6	(6.1)	(2.1)	(13.7)	4.0
D/E (X)	1.4	1.4	1.4	(0.6)	(2.0)

Source: PTTGC and InnovestX Research



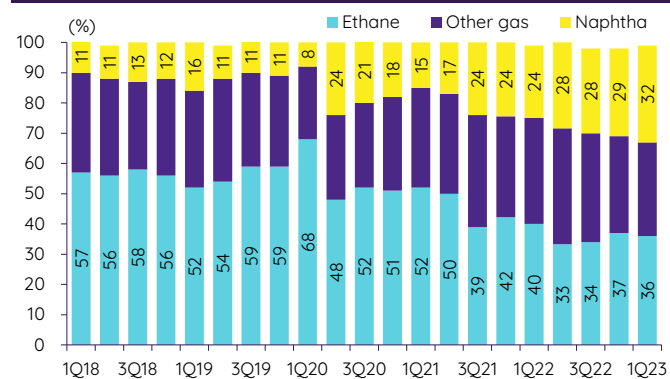
## Appendix

**Figure 2: Adj. EBITDA breakdown (LTM-1Q23)**



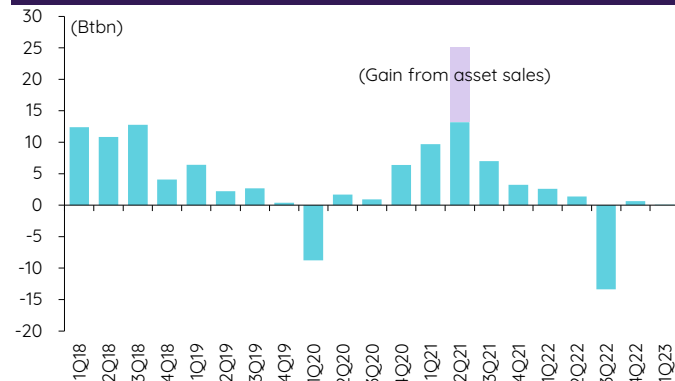
Source: PTTGC and InnovestX Research

**Figure 4: Olefins intake breakdown**



Source: PTTGC and InnovestX Research

**Figure 6: PTTGC - quarterly profit**



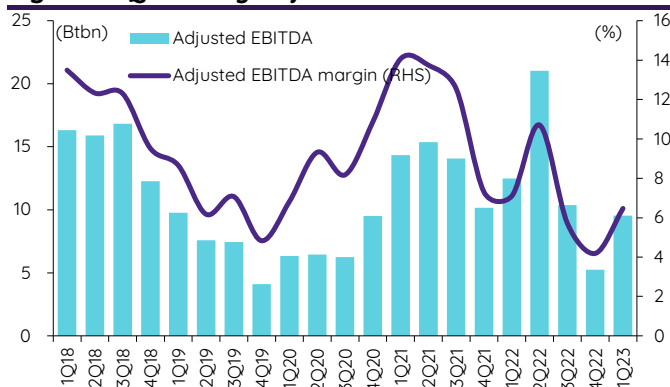
Source: PTTGC and InnovestX Research

**Figure 8: Valuation summary (price as of May 19, 2023)**

	Rating	Price Target		ETR (%)	P/E (x)			EPS growth (%)			P/BV (x)			ROE (%)			Div. Yield (%)			EV/EBITDA (x)		
		(Bt/Sh)	(Bt/Sh)		22A	23F	24F	22A	23F	24F	22A	23F	24F	22A	23F	24F	22A	23F	24F	22A	23F	24F
GGC	Neutral	12.70	13.4	8.7	13.0	15.9	12.1	30	(18)	31	1.3	1.2	1.1	10	8	9	3.9	3.2	3.3	6.4	6.1	4.4
IVL	Outperform	32.25	54.0	71.5	4.7	8.7	6.4	44	(46)	36	1.0	0.9	0.8	22	11	13	5.0	4.0	5.0	4.8	5.5	4.2
PTTGC	Neutral	35.75	52.0	48.5	11.7	19.4	8.0	(57)	(40)	143	0.6	0.5	0.5	4	3	6	2.8	3.1	6.2	8.7	8.3	6.4
<b>Average</b>					<b>9.8</b>	<b>14.7</b>	<b>8.9</b>	<b>6</b>	<b>(35)</b>	<b>70</b>	<b>0.9</b>	<b>0.9</b>	<b>0.8</b>	<b>12</b>	<b>7</b>	<b>10</b>	<b>3.9</b>	<b>3.4</b>	<b>4.8</b>	<b>6.7</b>	<b>6.6</b>	<b>5.0</b>

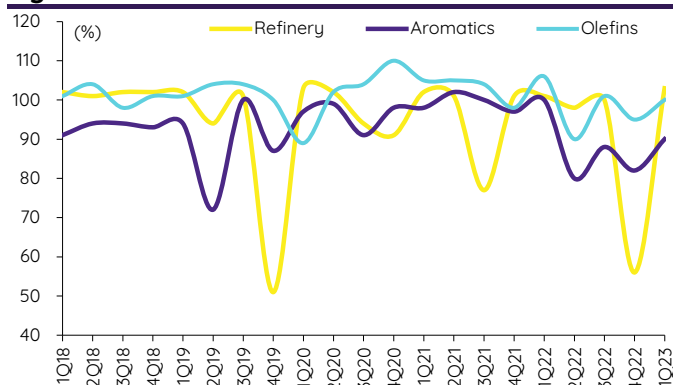
Source: InnovestX Research

**Figure 3: Quarterly adjusted EBITDA**



Source: PTTGC and InnovestX Research

**Figure 5: Utilization rate**



Source: PTTGC and InnovestX Research

**Figure 7: PTTGC - PBV band**



Source: InnovestX Research

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\* บริษัทหรือกรรมการหรือผู้บริหารของบริษัทที่เกี่ยวข้องกับการทำบัญชีการเงิน เช่น การกระทำผิดเกี่ยวกับหลักทรัพย์ การทุจริต คอร์รัปชัน เป็นต้น ซึ่งการใช้ข้อมูล CGR ควรระมัดระวังอย่างสูงและควรพิจารณาด้วย

**Anti-corruption Progress Indicator****Certified (ได้รับรับรอง)**

2S, 7UP, ADVANC, AF, AI, AIE, AIRA, AJ, AKP, AMA, AMANAH, AMATA, AMATAV, AP, APCS, AS, ASIAN, ASK, ASP, AWC, AYUD, B, BAFS, BAM, BANPU, BAY, BBL, BCH, BCP, BCPG, BE8, BEC, BEYOND, BGC, BGRIM, BKI, BLA, BPP, BROOK, BRR, BSBM, BTS, BWG, CEN, CENTEL, CFRESH, CGH, CHEWA, CHOTI, CHOW, CIG, CIMBT, CM, CMC, COM7, COTTO, CPALL, CPF, CPI, CPL, CPN, CRC, CSC, DCC, DELTA, DEMCO, DIMET, DRT, DUSIT, EA, EASTW, ECF, ECL, EGCO, EP, EPG, ERW, ESTAR, ETC, ETE, FNS, FPI, FPT, FSMART, FSS, FTE, GBX, GC, GCAP, GEL, GFPT, GGC, GJS, GPI, GPSC, GSTEEL, GULF, GUNKUL, HANA, HARN, HEALTH, HENG, HMPRO, HTC, ICC, ICHI, IFS, III, ILINK, ILM, INET, INOX, INSURE, INTUCH, IRC, IRPC, ITTEL, IVL, JKN, JR, K, KASET, KBANK, KBS, KCAR, KCE, KGI, KKP, KSL, KTB, KTC, KWI, L&E, LANNA, LHFG, LHK, LPN, LRH, M, MAJOR, MAKRO, MALEE, MATCH, MBAX, MBK, MC, MCOT, META, MFC, MFEC, MILL, MINT, MONO, MOONG, MSC, MST, MTC, MTI, NCAP, NEP, NKI, NOBLE, NOK, NRF, NWR, OCC, OGC, ORI, PAP, PATO, PB, PCSGH, PDG, PDJ, PG, PHOL, PIMO, PK, PL, PLANB, PLANET, PLAT, PM, PPP, PPPM, PPS, PR9, PREB, PRG, PRINC, PRM, PROS, PSH, PSL, PSTC, PT, PTECH, PTG, PTT, PTTEP, PTTGC, PYLON, Q-CON, QH, QLT, QTC, RABBIT, RATCH, RML, RS, RWI, S&J, SAAM, SABINA, SAK, SAPPE, SAT, SC, SCB, SCC, SCCC, SCG, SCGP, SCM, SCN, SEAOL, SE-ED, SELIC, SENA, SGP, SINGER, SIRI, SITHAI, SKR, SMIT, SMK, SMPK, SNC, SNP, SORKON, SPACK, SPALI, SPC, SPI, SPRC, SRICHA, SSF, SSP, SSSC, SST, STA, STGT, STOWER, SUSCO, SVI, SYMC, SYNTEC, TAE, TAKUNI, TASCO, TCAP, TCMC, TFG, TFI, TFMAMA, TGH, THANI, THCOM, THIP, THRE, THREL, TIDLO, TIPCO, TISCO, TKS, TKT, TMD, TMILL, TMT, TNITY, TNL, TNP, TNR, TOG, TOP, TOPP, TPA, TPCC, TPP, TRT, TRU, TRUE, TSC, TSI, TSTE, TSTH, TTA, TTCL, TU, TURTLE, TVDH, TVI, TVO, TWPC, UBE, UBIS, UEC, UKEM, UOBKH, UPF, UV, VCOM, VGI, VIH, WACOAL, WHA, WHAUP, WICE, WIIL, XO, YUASA, ZEN, ZIGA

**Declared (ประกาศเจตนารมณ์)**

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, N/A, 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, 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, DTCI, 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, HLT, HPT, HTECH, HUMAN, HYDRO, IFEC, IHL, IIG, IMH, IND, INGRS, INSET, IP, IRCP, 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, 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, SBNEXT, SCAP, SCI, SCP, SDC, SE, SEAFCO, SECURE, SENX, SFP, 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, SUN, SUN, SUTHA, SVR, SWC, SYNEX, TACC, TAPAC, TC, TCC, TCCC, TCJ, TCOAT, TEAM, TEAMG, TEKA, TFM, TGPRO, TH, THAI, THANA, THG, THL, THMUI, TIGER, TITLE, TK, TKC, TLI, TM, TMC, TMW, TNDT, TNH, TNPC, TOA, TPAC, TPBI, TPCH, TPIPL, TPIPP, TPOLY, TPS, TQM, TQR, TR, TRC, TRITN, TRUBB, TRV, TSE, TSF, TTI, TTT, TTW, 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.