



PTT Global Chemical Public Company Limited

Management Discussion and Analysis Q2/2024

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1. Executive Summary

In Q2/2024, PTT Global Chemical Public Company Limited (“the Company”) had total sales revenue of Baht 167,054 million, increased by 8% from Q1/2024, primarily driven by increased sales volumes in Petroleum products, Aromatics products, and Performance Chemicals. Additionally, sales volume rose by 14% compared to the same period last year for both Petroleum and Intermediate products.

In Q2/2024, the Company had Adjusted EBITDA of Baht 9,662 million in this quarter, decreased by 13% from Q1/2024. This was impacted by the weak performance of the Refinery business, driven by a decrease in the average Refinery margin due to a narrowing diesel spread. Additionally, the Aromatics business weakened due to narrowing by-product spreads, particularly the decrease in condensate residue caused by the drop in diesel prices. However, the Intermediate business and Polymers & Chemicals business showed improved performance due to increased phenol and polyethylene spreads compared to the previous quarter. The Company continued the deleveraging program, and incurred two extraordinary items, including bond buybacks totaling USD 749 million, as part of a deleveraging plan to maintain its credit rating. The bond buybacks generated a profit of Baht 2,895 million. Moreover, the Company disposed of shares in PTT Digital Solutions Company Limited (“PTT Digital”), representing 20 percent of PTT Digital’s total shares for Baht 1,023 million to a subsidiary of PTT Oil and Retail Business Public Company Limited (“OR”), which reduced the Company’s share proportion in the information technology service business. The Company had a gain from this transaction in its income statement of Baht 247.5 million. In addition, the Company recorded extraordinary/uncontrollable items from Stock Gain Net NRV of Baht 154 million, gain from commodity hedging of Baht 826 million, net gain from foreign exchange profit and financial derivatives profit of Baht 52 million. The Company had a Share of Loss from Investments of Baht 135 million, reflecting a decrease of Baht 323 million from the previous quarter. The Company reported Net Profit in Q2/2024 of Baht 1,846 million (Baht 0.41/share).

Table 1 : Performance Summary

(Unit: Million Baht)	Q2/2023	Q1/2024	Q2/2024	YoY		6M/2023	6M/2024	YoY	
				% +/-	% +/-			% +/-	% +/-
Sales Revenue	146,731	155,187	167,054	14%	8%	293,979	322,241	10%	
EBITDA	4,996	11,429	13,785	176%	21%	14,111	25,214	79%	
EBITDA Margin (%)	3%	7%	8%	5%	1%	5%	8%	3%	
Share of profit /(loss) of investments in JV and Associates	(405)	(323)	(135)	67%	58%	(557)	(457)	18%	
Net Profit/(Loss)	(5,591)	(606)	1,846	133%	>200%	(5,509)	1,240	123%	
EPS (Baht/Share)	(1.24)	(0.13)	0.41	133%	>200%	(1.22)	0.27	123%	
Adjusted EBITDA ¹	6,584 ²	11,054	9,662	47%	-13%	15,973	20,715	30%	
Adjusted EBITDA Margin (%)	4%	7%	6%	2%	-1%	5%	6%	1%	

Note: 1) Adjusted EBITDA refers to EBITDA excluding Stock gain/(loss), NRV, Gain/(loss) from commodity hedging, and Extra item.

2) Retroactively Adjusted EBITDA by excluding gain from bond buy-back in 2023

In Q2/2024, Upstream business performance slightly decreased compared to the previous quarter, driven by a slowdown in Refinery performance, with the GRM declining to 3.2 USD/barrel from 8.3 USD/barrel in the prior quarter. This decline was consistent with the decrease in diesel product prices after the winter season. Aromatics performance also decreased compared to the previous quarter, mainly due to a drop in by-product spreads resulting from the decrease in condensate residue (CR), which was driven by the declining trend in diesel oil prices. This decline occurred despite an increase in paraxylene and benzene spreads. Olefins performance remained stable, as the increase in ethylene prices offset the decrease in propylene spreads.

Intermediates business performance improved compared to the prior quarter, primarily due to a significant rise in Ethylene oxide product sales following the completion of a 53 days planned maintenance shutdown from February to April 2024. Additionally, the decline in propylene feedstock prices positively affected the propylene chain businesses, such as phenol, resulting in improved performance due to better phenol spreads. While phenol sales volume in Q2/2024 slightly declined due to a 28-day planned maintenance shutdown of BPA plant, and propylene oxide spreads increased.

Polymers & Chemicals business performance increased from the previous quarter due to the rise in average plastic spread prices that outweighed the increase in Naphtha prices. This was influenced by tighter supply resulting from maintenance shutdowns at Asian and Middle East, who were also under pressure from the Red Sea conflict. As a result, despite positive factors, the sales volume of Polymers & Chemicals decreased by 6% due to a 37-day maintenance shutdown of the LLDPE plant in Q2/2024.

Bio & Circularity business performance slightly declined compared to the previous quarter, primarily due to ongoing pressure in the Methyl Ester (ME) market from increased capacity by current producers. Additionally, the decrease in Fatty Alcohol (FA) prices due to decreased demand for home and personal care products amid the economic slowdown. While the Performance Chemicals Business displayed a slight improvement, this was driven by a 4% increase in allnex sales volume compared to the previous quarter, which coincided with the Chinese New Year holiday period, leading to reduced sales in the Asia-Pacific region. In contrast, sales volumes in other regions, including Europe, the Middle East, EMEA, and AMER, remained stable. However, Vencorex's performance improved mainly due to an increase in HDI product prices, despite ongoing price competition among HDI derivatives producers in the market.

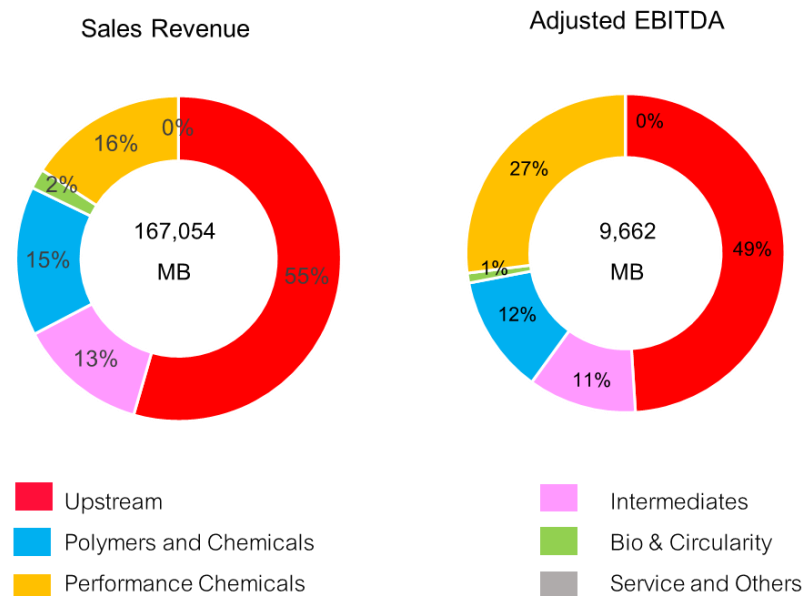
Table 2 : Adjusted EBITDA by Business Unit

Adjusted EBITDA ¹ Margin by Business Unit	Q2/2023 ²	Q1/2024	Q2/2024	YoY		6M/2023 ²	6M/2024	YoY
				% +/-	% +/-			
Adjusted EBITDA (Million Baht)								
Upstream	3,835	9,047	4,756	24%	-47%	10,467	13,803	32%
Intermediates	189	207	1,096	>200%	>200%	(789)	1,302	>200%
Polymers & Chemicals	780	279	1,185	52%	>200%	2,484	1,464	-41%
Bio & Circularity	119	92	40	-66%	-56%	388	133	-66%
Performance Chemicals	1,599	1,865	2,560	60%	37%	3,259	4,425	36%
Service and Others	62	-437	24	-61%	106%	163	-413	<-200%
Total	6,584	11,054	9,662	47%	-13%	15,973	20,715	30%
Adjusted EBITDA margin (%)								
Upstream	5	11	5	-	(6)	7	8	1
Intermediates	1	1	5	4	4	(2)	3	5
Polymers & Chemicals	3	1	5	2	4	5	3	(2)
Bio & Circularity	3	2	1	(2)	(1)	5	2	(3)
Performance Chemicals	7	8	10	3	2	7	9	2
Average	4	7	6	1	(1)	5	6	1

Note 1) Adjusted EBITDA refers to EBITDA excluding Stock gain/(loss),NRV, Gain/(loss) from commodity hedging, and Extra item.

2) Retroactively Adjusted EBITDA by excluding gain from bond buy-back in 2023

Q2/2024



2. Performance Analysis by Business Unit

2.1 Upstream

Table 3: Price, Product Spreads and performance of Upstream

	Q2/2023	Q1/2024	Q2/2024	YoY % +/-	QoQ % +/-	6M/2023	6M/2024	YoY % +/-
Dubai Crude Oil (\$/bbl)	77.8	81.3	85.3	10%	5%	79.0	83.3	5%
Diesel 500 ppm-Dubai (\$/bbl) ¹	14.6	21.7	13.7	-6%	-37%	19.9	17.7	-11%
Diesel 10 ppm-Dubai (\$/bbl) ²	15.6	23.1	14.8	-5%	-36%	22.1	18.9	-14%
LSFO-Dubai (\$/bbl)	10.7	13.5	9.9	-8%	-27%	11.5	11.7	1%
Gasoline-Dubai (\$/bbl)	16.6	17.9	13.1	-21%	-27%	17.6	15.5	-12%
Jet-Dubai (\$/bbl)	14.0	21.1	13.2	-5%	-37%	20.2	17.2	-15%
Market GRM (\$/bbl)	5.7	8.3	3.2	-43%	-61%	8.0	5.8	-28%
Condensate (\$/ton)	636	677	696	9%	3%	657	687	4%
Paraxylene (FECP)-Condensate (\$/ton)	395	350	344	-13%	-2%	375	347	-7%
Benzene-Condensate (\$/ton)	236	323	354	50%	9%	244	338	39%
BTX P2F (\$/ton)³	243	311	219	-10%	-30%	281	265	-6%
Naphtha (MOPJ) (\$/ton)	601	686	688	14%	0%	645	687	6%
Ethylene (SEA) (\$/ton)	874	974	980	12%	1%	899	977	9%
Propylene (SEA) (\$/ton)	844	919	823	-3%	-11%	902	871	-3%
Hedging Gain/(Loss) (MB)	327	107	826	153%	>200%	1,270	933	-27%
Stock Gain/(Loss) and NRV (MB)	(2,279)	273	274	112%	0%	(3,784)	547	114%
Adjusted EBITDA⁴ (MB)	3,835	9,047	4,756	24%	-47%	10,467	13,803	32%
Adjusted EBITDA (%)	5%	11%	5%	0%	-6%	7%	8%	1%
Petroleum Product Sales Volume (million bbl)	15.6	14.8	16.9	9%	15%	30.5	31.7	4%
Petrochemical Product Sales Volume (million ton)	1.3	1.3	1.3	4%	6%	2.5	2.6	4%

Note: 1) Diesel 500 ppm market price is based on EURO4 standard

2) Diesel 10 ppm market price is based on EURO5 standard stipulated since January 1, 2024

3) There was a reclassification of natural gas expenses, which are fuel costs in the refinery business segment and the aromatics business segment, from feedstock costs to variable costs. This led to a retrospective adjustment of BTX P2F for comparative analysis purposes, but it did not affect the Market GRM and Adjusted EBITDA as reported by the company.

4) Adjusted EBITDA refers to EBITDA excluding Stock gain/(loss), NRV, Gain/(loss) from commodity hedging, and Extra item

In Q2/2024, Upstream business had Adjusted EBITDA of Baht 4,756 million, decreased by 47% from the previous quarter, and Adjusted EBITDA Margin of 5%. Petroleum product sales volume was 16.9 million barrels, and the Petrochemical product sales volume was 1.3 million tons. The factors supported decrease in the performance are as follows:

1. Refinery performance decreased from the previous quarter. In Q2/2024, crude oil price increased from Q1/2024 due to the China demand and driving season, although this was pressured by the economic recession in many countries and OPEC and its allies (OPEC plus) halting production controls. Petroleum product spreads were pressured by the economic recession as mentioned and sufficient market supply.

Diesel selling prices decreased due to sluggish post-winter demand and increased supply from China. Low Sulfur Fuel Oil spread decreased as higher supply from continued more production and exports from Kuwait. Gasoline spreads decreased because of an increase in supply after the scheduled maintenance shutdowns of America and Middle Eastern producers, and more exports from China, despite the driving season. The Company's Market GRM decreased to 3.2 USD/barrel. The increase in crude oil price during the quarter resulted to the Company recording a slight stock gain in this period.

2. Aromatics performance decreased from the previous quarter. Paraxylene over condensate spread decreased driven by the economic recession and a weaker demand recovery, particularly in the polyester and textile markets. Benzene over condensate spread increased due to several plants on planned maintenance turnaround. Nevertheless, By-products spread decreased. These factors resulted to a decrease in Market P2F of this quarter to 219 USD/ ton.
3. The performance of Olefins remained stable. A positive factor was the increased product spreads of ethylene from Q1/2024 due to tight supply resulting from the planned maintenance shutdown of Asian crackers and the Middle East conflict in April. Conversely, the product spreads of propylene decreased due to higher supply in China and a weaker demand recovery in downstream markets.

2.2 Intermediates

Table 4: Price, Product Spreads and and performance of Intermediates

(Unit : USD per ton)	Q2/2023	Q1/2024	Q2/2024	YoY % +/-	QoQ % +/-	6M/2023	6M/2024	YoY % +/-
Mono-ethylene glycol (MEG -ACP)	490	539	521	6%	-3%	503	530	5%
MEG - 0.53 Ethylene	28	24	3	-89%	-88%	28	14	-51%
Phenol	952	948	1,012	6%	7%	985	980	0%
Phenol spread*	246	168	296	20%	76%	210	232	11%
Bisphenol A (BPA)	1,251	1,265	1,315	5%	4%	1,275	1,290	1%
BPA spread**	235	219	188	-20%	-14%	238	203	-15%
Propylene Oxide (PO)	1,133	1,013	1,005	-11%	-1%	1,142	1,009	-12%
Purified Terephthalic Acid (PTA)	797	768	772	-3%	0%	786	770	-2%
PTA - 0.67PX	106	80	76	-29%	-5%	94	78	-17%
Acrylonitrile (AN)	1,332	1,252	1,296	-3%	4%	1,418	1,274	-10%
AN - Propylene	488	332	473	-3%	42%	516	403	-22%
Methyl Methacrylate (MMA)	1,580	1,718	2,061	30%	20%	1,555	1,890	22%
MMA - Naphtha	979	1,032	1,374	40%	33%	910	1,203	32%
Adjusted EBITDA (MB)	189	207	1,096	>200%	>200%	(789)	1,302	>200%
Adjusted EBITDA (%)	1%	1%	5%	4%	4%	-2%	3%	5%
Sales Volume (Kton)	615	695	744	21%	7%	1,227	1,439	17%
Share of gain/(loss) from investment (MB)	(250)	(143)	(134)	47%	7%	(559)	(277)	51%

Note : *Phenol spread derives from Phenol-0.878 BZ-0.474Propylene+0.616 Acetone ** BPA spread derives from BPA-0.853 Phenol-0.273 Acetone

In Q2/2024, Intermediates business had Adjusted EBITDA of Baht 1,096 million, increased by more than 200% from the previous quarter, and Adjusted EBITDA Margin of 5%. Overall sales volume was approximately 744 thousand tons, increased by 7% compared with the previous quarter mainly due to the completion of planned maintenance shutdown of Mono-ethylene glycol plant in February to April 2024 (53 days), although the decreased in sale volume of Phenol due to the planned maintenance shutdown of BPA plant for 28 days.

In this quarter, the performance increased from the previous quarter resulting from an increase in Phenol product spread as a lower propylene price due to supply control by several producers in alignment with market demand. Also, the increase in product spreads led to improved performance in the Propylene Oxide business. The performance of Mono-ethylene glycol business decreased due to the decreased in product spread as higher feedstock price. However, the Intermediates business faced ongoing pressures from the recession and expansion of production supply in China, impacting the downstream industries of Phenol, BPA, and PTA, specifically the textile industry (filament and staple fiber) after the end of summer. Additionally, weaker-than-expected recovery in the construction and Electrical and Electronics (E&E) industries in China, have contributed to the overall slow pace of recovery in this quarter.

2.3 Polymers & Chemicals

Table 5: Price, Product Spreads and and performance of Polymers & Chemicals

(Unit : USD per ton)	Q2/2023	Q1/2024	Q2/2024	YoY % +/-	QoQ % +/-	6M/2023	6M/2024	YoY % +/-
Average Polyethylene(PE)	1,029	1,052	1,103	7%	5%	1,063	1,077	1%
High-Density Polyethylene (HDPE)	1,036	1,041	1,052	2%	1%	1,060	1,046	-1%
HDPE-Ethylene	162	67	71	-56%	7%	162	69	-57%
Linear Low-Density Polyethylene (LLDPE)	1,014	1,029	1,066	5%	4%	1,044	1,048	0%
LLDPE-Ethylene	140	55	86	-39%	56%	146	71	-51%
Low-Density Polyethylen (LDPE)	1,036	1,085	1,193	15%	10%	1,083	1,139	5%
LDPE-Ethylene	162	111	212	31%	91%	185	162	-12%
Polyethylene Terephthalate (PET)	955	913	905	-5%	-1%	963	909	-6%
Polypropylene (PP)	996	1,044	1,055	6%	1%	1,046	1,050	0%
PP- Naphtha	395	358	367	-7%	3%	401	363	-10%
Polyvinyl chloride (PVC)	791	763	784	-1%	3%	838	773	-8%
PVC-0.5Ethylene	354	276	294	-17%	6%	389	285	-27%
Polyols	1,456	1,278	1,315	-10%	3%	1,443	1,296	-10%
Polyols-0.92PO	414	346	390	-6%	13%	393	368	-6%
Adjusted EBITDA (MB)	780	279	1,185	52%	>200%	2,484	1,464	-41%
Adjusted EBITDA (%)	3%	1%	5%	2%	4%	8%	3%	-6%
Sales Volume (Kton)	574	612	576	0%	-6%	1,109	1,188	7%
Share of gain/(loss) from investment (MB)	(161)	(87)	173	>200%	>200%	(325)	86	126%

In Q2/2024, Polymers and Chemicals Business had Adjusted EBITDA of Baht 1,185 million, which increased by over 200% from the previous quarter, resulting in Adjusted EBITDA Margin of 5%. This was mainly driven by the price support from higher spread between Polyethylene and Ethylene. Overall, the total sales volume of Polymers and Chemicals Products was 576 thousand tons, which decreased by 6% compared to the previous quarter, mainly due to scheduled maintenance shutdown at the LDPE plant in Q2/2024 for 37 days.

The average Polyethylene price in Q2/2024 increased from the previous quarter, especially LDPE, which rose more than other PE products. This was due to manufacturers' maintenance shutdowns causing supply shortages in the Asia region during this period. The average polyethylene price showed a greater upward trend compared to naphtha raw material prices because of reduced supply from maintenance shutdowns of manufacturers in Asia and the Middle East region, primarily due to conflicts in the Red Sea. This was a positive factor for overall Polyethylene price. On the demand side, the market showed signs of recovery after the end of Ramadan. In addition, the market still faces pressure from the new supply entering in Vietnam in the latter half of 2024.

2.4 Bio & Circularity

Table 6: Price, Product Spreads and and performance of Bio & Circularity

(Unit : USD per ton)	Q2/2023	Q1/2024	Q2/2024	YoY % +/-	QoQ % +/-	6M/2023	6M/2024	YoY % +/-
Methyl Ester (ME) P2F (THB per Kilogram)	4.3	4.3	4.3	0%	0%	3.1	4.3	0%
Fatty Alcohol (FA) P2F	443	343	277	-37%	-19%	493	310	-37%
Adjusted EBITDA (MB)	119	92	40	-66%	-56%	388	133	-66%
Adjusted EBITDA (%)	3%	2%	1%	-1%	0%	5%	2%	-3%
ME Sales Volume (Kton)	91	79	75	-18%	-5%	177	154	-13%
FA Sales Volume (Kton)	22	25	25	16%	0%	44	50	15%
Share of gain/(loss) from investment (MB)	(90)	(418)	(217)	-142%	48%	37	(635)	<-200%

In Q2/2024, Bio and Circularity business had Adjusted EBITDA of Baht 40 million, decreased by 56% from the previous quarter, and Adjusted EBITDA Margin of 1% resulting from Fatty Alcohol (FA) P2F slightly decreased due to rising feedstock prices as tight supply and logistical concerns from higher freight rate. However, FA demand increased as buyers restocked in response to the tight supply caused by shutdowns of major producers in Indonesia, China, and Thailand, as well as the shutdown of a Short Chain Fatty Alcohol producer in Malaysia. Increased demand for Methyl Ester (ME) is continually driven by the recovery of the tourism and logistics sectors, supported by free visa policy for tourists from China, India and Taiwan. Additionally, maintaining high-speed diesel price at 31-33 Baht per liter has had a positive impact.

2.5 Performance Chemicals

Table 7: Performance of Performance Chemicals

	Q2/2023	Q1/2024	Q2/2024	YoY % +/-	QoQ % +/-	6M/2023	6M/2024	YoY % +/-
Adjusted EBITDA (MB)	1,599	1,865	2,560	60%	37%	3,259	4,425	36%
Adjusted EBITDA (%)	7%	8%	10%	3%	2%	7%	9%	2%
Sales Volume (Kton)	199	206	212	7%	3%	398	418	5%
Share of gain/(loss) from investment (MB)	(51)	178	(245)	<-200%	<-200%	(91)	(67)	26%

For Performance Chemicals Business in Q2/2024, the Adjusted EBITDA was Baht 2,560 million, which increased from the previous quarter by 37%, and the Adjusted EBITDA Margin was at 10% mainly due to the increase in sales volume of allnex by 4% from the previous quarter. The lower sales volume seen in the first quarter of 2024 was due to the Chinese New Year holidays in the Asia-Pacific region. In addition, there was an increase in demand from China in the container product during the Red Sea conflict. Sales volumes in the Europe, Middle East, and Africa (EMEA) region and the Americas (AMER) region remained similar to the previous quarter. However, allnex maintained strong profit per unit compared to the previous quarter. Vencorex, a producer of HDI derivatives, continued to face competitive pricing pressures from other market producers, but saw improved performance due to a significant increase in the prices of its main HDI derivative product.

3. Operating Performance

Unit : MB		Q2/2023 ¹	Q1/2024	Q2/2024	YoY % + /(-)	QoQ % + /(-)	6M/2023 ¹	6M/2024	YoY % + /(-)
1	Sales Revenue	146,731	155,187	167,054	14%	8%	293,979	322,241	10%
2	Feedstock cost	(112,015)	(117,919)	(130,669)	-17%	-11%	(222,593)	(248,588)	-12%
3	Product to Feed Margin	34,716	37,268	36,385	5%	-2%	71,386	73,653	3%
4	Variable Cost	(15,070)	(12,409)	(12,753)	15%	-3%	(29,364)	(25,162)	14%
5	Fixed OH	(7,936)	(8,335)	(8,286)	-4%	1%	(15,604)	(16,621)	-7%
6	Stock Gain/(Loss) and NRV	(2,659)	359	154	106%	-57%	(4,017)	514	113%
7	Gain/(Loss) on Commodity Hedging	327	107	826	153%	>200%	1,270	933	-27%
8	Other Revenue	2,274	1,404	4,816	112%	>200%	3,657	6,220	70%
9	SG&A Expenses	(6,656)	(6,965)	(7,357)	-11%	-6%	(13,218)	(14,323)	-8%
10	EBITDA	4,996	11,429	13,785	176%	21%	14,111	25,214	79%
11	Depreciation & Amortization	(6,786)	(7,280)	(8,146)	-20%	-12%	(13,747)	(15,426)	-12%
12	Extra items	(8)	-	-	100%	-	(8)	-	100%
13	EBIT	(1,798)	4,149	5,639	>200%	36%	356	9,788	>200%
14	Net financial expense	(2,628)	(2,554)	(2,815)	-7%	-10%	(5,310)	(5,371)	-1%
15	FX Gain(Loss)	(1,047)	(1,577)	52	105%	103%	(351)	(1,524)	<-200%
16	Share of gain/(loss) from investment	(405)	(323)	(135)	67%	58%	(557)	(457)	18%
17	Corporate Income Tax	271	(291)	(903)	<-200%	<-200%	314	(1,194)	<-200%
18	Net Profit/(Loss) after Tax	(5,607)	(596)	1,838	133%	>200%	(5,548)	1,242	122%
Profit/(loss) attributable to:									
19	Non-controlling interests	(16)	10	(8)	50%	-180%	-39	2	105%
20	Owners of the Company	(5,591)	(606)	1,846	133%	>200%	(5,509)	1,240	123%
21	Adjusted EBITDA ²	6,584	11,054	9,662	47%	-13%	15,973	20,715	30%

Note:

- Starting 2024, there was a reclassification of natural gas expenses, which are fuel costs in the refinery business segment and the aromatics business segment, from feedstock costs to variable costs. This led to a retrospective adjustment of the aforementioned items for comparative analysis purposes, without impacting other items and net profit as reported by the company.
- Adjusted EBITDA refers to EBITDA excluding Stock gain/(loss), NRV, Gain/(loss) from commodity hedging, and Extra item. and Adjusted EBITDA in 2023 was retroactively adjusted by excluding gain from bond buy-back in 2023

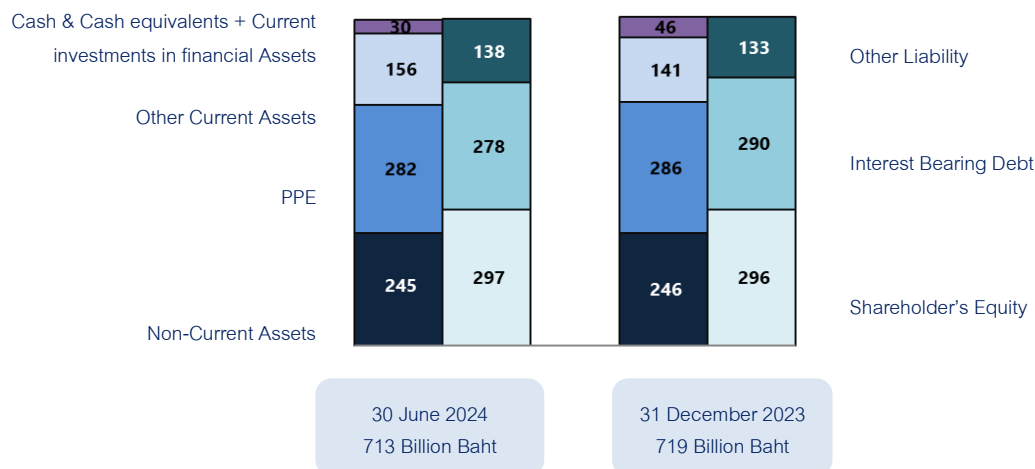
- In Q2/2024, the Company reported sales revenue of Baht 167,054 million, which increased by 8% from the previous quarter. This was primarily attributed to an increase in sale volumes of these business units: Petroleum products, Aromatics, and Performance Chemicals. However, the sales revenue in Q2/2024 increased by 14% from Q2/2023. This increase was mainly attributed to the higher sales volumes in Petroleum products and Intermediate products.
- Variable Costs in Q2/2024 went up by 3% from the previous quarter, mainly due to the overall increase in the utilization rate.
- Fixed overhead and SG&A expenses in Q2/2024 increased by 2% from last quarter. This was primarily due to increased selling expenses, which aligned with the overall increase in sales volumes in the Upstream and Intermediate business.
- Other income in Q2/2024 increased significantly due to the gain from buyback of U.S. dollar bonds of Baht 2,895 million and a gain of Baht 247.5 million from the sale of shares in PTT Digital.

- Depreciation expenses in Q2/2024 increased by 12% from Q1/2024, mainly due to allnex's accelerated depreciation of approximately Baht 399 million. This was a result of the business restructuring (Footprint Optimization) of its European plants
- Financial expenses increased by 10% from the previous quarter due to a decrease in interest income from short-term investments, which corresponds with the use of funds for the buyback of U.S. dollar bonds.
- The Company recognized a foreign exchange gain of Baht 52 million in Q2/2024, primarily due to gain from financial derivatives.
- The Company recognized a share of loss from investments totaling Baht 135 million in this quarter, an improvement of 58% from the previous quarter. This improvement was due to better performance from the joint venture in the polypropylene business, which was supported by recovery in product price spreads compared to the previous quarter. However, other joint ventures/associates continued to weaken amid the economic downturn.

4. Statements of Financial Position

4.1 Balance sheet

Unit: Billion Baht



Assets

As of June 30, 2024, the Company had total assets of Baht 713,287 million, decreased by Baht 5,718 million or 1% from December 31, 2023 and variance of the assets are described as follows:

- Total current assets decreased by Baht 1,122 million mainly due to the decrease in cash and cash equivalents, and current financial assets by Baht 16,306 million (refer to cash flows analysis). However, there was an increase in account receivables by Baht 3,241 million due to an increase in petroleum products. Inventories increased by Baht 10,430 million due to low inventory in the end of previous year.
- Other current assets increased by Baht 1,513 million as a higher Valued-added tax receivable.
- Property, plant and equipment decreased by Baht 3,205 million mainly due to depreciation of Baht 11,849 million. Property, plant and equipment decreased by Baht 3,205 million mainly due to higher depreciation by Baht 11,849 million, while the assets increased by Baht 8,644 million due to the projects, such as the planned maintenance shutdown of Olefins.
- Non-current assets decreased by Baht 902 million from the fair value measurements on the investment in Global Power Synergy Public Company Limited (GPSC) following a decline in the share price.

Liabilities

As of June 30, 2024, the Company had total liabilities of Baht 416,018 million, decreased by Baht 6,806 million from December 31, 2023 and movements of liabilities were as follows:

- Interest-bearing debt (including Lease liabilities) decreased by Baht 12,214 million due to 1) the drawdown of short-term borrowings by Baht 2,500 million 2) the drawdown of long-term borrowings by Baht 310 million, Euro 12 million and USD 400 million 3) the repayment of short-term loan by Baht 1,500 million 4) the repayment of long-term loans by Baht 1,703 million and Euro 186 million 5) bond buybacks totaling USD 749 million.
- Trade accounts payable increased by Baht 5,090 million mainly due to higher trade accounts payable of Olefins after the completion of planned maintenance shutdown of Olefins in Q4/2023.

Shareholder's Equity

As of June 30, 2024, the Company had total shareholder's equity of Baht 297,269 million, which increased by Baht 1,088 million from December 31, 2023 as a result from change in Other components of equity, which included the loss from fair value measurements in financial assets and the fair value measurements of GPSC.

4.2 Cashflow statement

Cashflow (Unit: Million Baht)	For six months Ended 30 June 2024
Net cash flows provided by operating activities	12,086
Net cash flows provided in investing activities	2,138
Net cash flows used by financing activities	(27,720)
Net increase (decrease) in cash and cash equivalents, before effect from foreign exchange rate	(13,496)
Effects of exchange rates on cash and cash equivalents	3,681
Net decrease in cash and cash equivalents during the period	(9,815)
Cash and cash equivalents at the beginning of the period	37,319
Cash and cash equivalents at the end of the period	27,503
Current investments in financial assets at the end of the period	2,440
Net cash and cash equivalent and investment at the end of the period	29,943

For the period ended June 30, 2024, the Company had cash flow activities as follows:

- Cash flows received from operating activities of Baht 12,086 million due to operating activities and decrease from change in working capital.
- Cash flow received in investing activities of Baht 2,138 million. The Company had cash paid for property, plant, and equipment, and intangible assets amounting to Baht 7,637 million. Additionally, the Company had cash paid for a decrease of investment in debt instruments to Baht 6,817 million. The Company had cash received from sale of investment in subsidiary of Baht 1,023 million.
- Cash flow used by financing activities of Baht 27,720 million mainly due to bond buybacks paid of Baht 23,904 million, finance costs paid of Baht 6,092 million, dividend paid of Baht 3,424 million, payment of lease liabilities of Baht 1,725 million, and repayment of borrowings from financial institutions of Baht 11,087 million. Meanwhile, the Company had cash received from borrowings from financial institutions of Baht 18,452 million.

As a result, as of June 30, 2024, the Company had total cash and cash Equivalents of Baht 27,503 million, along with current investments in financial assets of Baht 2,440 million. Hence, the Company had total cash and cash

equivalent and investment of Baht 29,943 million. The Company had Net interest-bearing debt to equity at 0.83 times and Net interest-bearing debt to EBITDA at 4.80 times.

4.3 Key Financial Ratios

Financial Ratios	Q2/2023	Q1/2024	Q2/2024
Current Ratio (Times)	1.58	1.50	1.19
EBITDA to Sales Revenue (%)	2.72%	6.85%	7.99%
Net Profits to Sales Revenues (%)	-3.04%	0.05%	1.20%
Return on Total Assets (%)	-1.27%	1.91%	3.20%
Return on Equity (%)	-6.16%	0.11%	2.69%
Interest Bearing Debt to Equity (Times)	1.00	0.99	0.93
Net Interest Bearing Debt to Equity (Times)	0.88	0.82	0.83
Interest Bearing Debt to EBITDA (Times)	17.89	6.97	5.39
Net Interest Bearing Debt to EBITDA (Times)	15.78	5.75	4.80

Remarks:

Current Ratio	=	Current Assets divided by Current Liabilities
EBITDA to Sales Revenue	=	EBITDA divided by Sales Revenue
Net Profit to Sales Revenue	=	Profits attributable to Owners of the Company to Sales Revenue
Return on Total Assets	=	Earnings before Interest and Tax divided by Average Total Assets
Return on Equity	=	Profits attributable to Owners of the Company divided by Average Equity attributable to Owners of the Company
Interest Bearing Debt to Equity	=	Interest Bearing Debt divided by Shareholder's Equity
Net Interest Bearing Debt to Equity	=	Interest Bearing Debt net Cash and Cash Equivalent and Current Investments in financial assets divided by Shareholder's Equity
Interest Bearing Debt to EBITA	=	Interest Bearing Debt net Cash and Cash Equivalent and Current Investments in financial assets divided by EBITDA
Net Interest Bearing Debt to EBITDA	=	Interest Bearing Debt net Cash and Cash Equivalent and Current Investments in financial assets divided by EBITDA

5. Projects Progress

Estimated Annual CAPEX of PTTGC Group for the next 5 years

CAPEX of PTTGC group	Total	Estimated Annual CAPEX (M.USD)				
	2024-2028	2024	2025	2026	2027	2028
1) PTTGC group excluding allnex	192	151	37	3	1	-
2) allnex expansion & growth Capex	622	117	157	135	109	103
total	814	268	194	138	110	103

Notes: 1. Group annual maintenance ~ 400 M.USD (including allnex Holding GmbH)

2. Other projects such as IT & digital, new office facility, operational excellence etc.

3. allnex expansion & growth Capex based on capex plan, including committed and uncommitted projects

4. FX assumption for USD/EURO is 1.10 for allnex CAPEX plan.

6. Market and Business Outlook in 2024

Global economic growth in 2024 remains challenging, even though there have been recovery from the COVID-19 crisis, conflicts in Ukraine, Middle East, and energy crises. The global growth outlook continues to be weak both in the overall sentiment and on a country-by-country basis. This is attributable to the impact of interest rates hike that have persisted to the highest level in the past decade in key global economies, as well as economic challenges. Furthermore, geopolitical tensions remain a significant risk factor, including the ongoing conflicts in Russia and Ukraine, and the Israel-Hamas war. It is expected that global growth will slow down from 3.5% in 2023 to 3.2% in 2024 and 3.2% in 2025, according to the International Monetary Fund (IMF, April 2024). Nevertheless, the economic situation is expected to gradually improve in the latter half of the year after international economic stimulus measures, leading to a slowly improving overall economic outlook.

Upstream business unit

The Company anticipates that the trend of Dubai crude oil prices in 2024 will average between 80-84 USD/barrel. However, there are several factors contributing to the challenge in crude oil market. These factors include ongoing inflationary pressures, persistently high-interest rates from previous years, and uncertainties related to the economic recovery in China, which can dampen oil demand. In terms of supply, OPEC and its allies (OPEC plus), expect a continuous control over production levels to maintain market stability. On the other hand, the supply shortage can be supported by increased production from non-OPEC countries, such as the United States, Brazil, Iran, and Venezuela.

For petroleum products, the Company anticipates that the price and products spread in 2024 will be softened compared to 2023. This is due to economic pressure factors, high-interest rate policy effects, and uncertainties in the global economy. Additionally, changes in consumer behavior and market uncertainties contribute to the expected weakening of demand. As a result, Diesel (10 ppm) over Dubai spread is expected to be 16-20 USD/barrel, while Low Sulfur Fuel Oil (LSFO) over Dubai spread will be in the range of 9-13 USD/barrel. The expected Gasoline over Dubai spread is around 12-16 USD/barrel. The Company continues to manage its production and sales strategies to align with the evolving market conditions. This includes optimizing by closely monitoring the market situation for crude oil supply and product spread. The Company expects that the Refinery's utilization rate to be at 103% in 2024.

For Aromatics products, the Company anticipates that the product spread for paraxylene and naphtha in 2024 will decrease to a range of 340-360 USD/ton. Economic challenges in the global economy and changing consumer behavior contribute to the expected decrease. The spreads for benzene and naphtha are expected to be around 310-330 USD/ton, which increase from 2023 due to the lower inventory level of benzene and the supply shortage in Q1/2024. The production capacity utilization rate for the Aromatics is expected to be at 90% in 2024.

The outlook for Olefins products, the Company anticipates that Ethylene product price will be at 950-980 USD/ton and Propylene price is expected to be 860-890 USD/ton. Both are expected to slightly increase from 2023. Economic conditions are expected to slowly improve in the second half of 2024, which can support the overall market for ethylene and propylene. However, there is still some pressure from the supply addition to the market. The Company expects Olefins utilization rate to be around 82% in 2024.

Intermediates business unit

For Phenol market trend in 2024, the Company expects that Phenol P2F spread will be in the range of 240-260 USD/ton, increase from 2023. Meanwhile, the end market is impacted by ongoing economic challenges in

the first half of the year, with a gradual improvement expected in the latter half of 2024. The economic stimulus package in China is anticipated to support this improvement. However, the continuous growth of new capacities entered in China will exert pressure on Phenol products.

Regarding MEG (Monoethylene Glycol) market trends, the Company expects the price of MEG to be around 520-540 USD/ton with an upward trend. There is an expectation of a gradual recovery in the second half of 2024 as economic pressures will start to ease. This will support the demand for MEG products. For PTA (Purified Terephthalic Acid) products, the Company anticipates that the product spread for PTA will gradually improve in 2024 as various economic activities worldwide, including trading and tourism, return to more normal levels.

Polymers & Chemicals Business unit

The Company anticipates that the average Polyethylene price in 2024 is expected to be 1,030-1,060 USD/ton, with a slight increase from 2023. The demand for plastic resins is expected to be supported by economic stimulus package and recovery measures implemented by countries worldwide. However, there are factors that may exert pressure, such as economic setbacks and global central bank policies to manage inflation rates. Additionally, there is still some uncertainty related to geopolitical factors in the European and Middle East region. In terms of suppliers, the Company anticipates that there will be additional capacities coming from countries such as China, India, and the United States. The Company expects the Polyethylene plants utilization rate to be around 105% in 2024.

Performance Chemicals Business unit

The economic slowdown is expected to continue to have an impact on the demand for industrial Coating Resin products. However, it is anticipated that the growth in demand for products in this business unit will outpace the overall GDP growth. This is due to several factors that underscore the importance of quality control and surface protection in various industries that utilize coating resins, such as automotive, packaging, and industrial metals.

7. Sustainability Management

GC strives to operate for the organization's growth as well as the balance of the three dimensions, namely Environment, Social, Governance and Economic (ESG). Our success has been reflected throughout the recognitions both national and international. The Company has implemented sustainability strategies and achieved the objectives as our goals. We have also attained outstanding results under sustainability strategy (Step up):

Sustainability Management in the Environmental Dimension

Efficiency-driven: The Company is implementing projects to improve energy efficiency in the production process and transition to renewable or low-carbon energy. The Company has successfully executed projects to reduce Scope 1 and 2 greenhouse gas emissions according to set targets. Additionally, the Company is exploring the feasibility of using new technologies to find further opportunities for action. For example, the Heat Exchanger installation project to transfer energy from hot condensate to preheat feed, and the project to improve the efficiency of the propylene oxide production unit to reduce steam energy consumption.

Portfolio-driven: The Company is moving forward to shift its business towards low-carbon operations by investing in High Value Business (HVB) and businesses aligned with circular economy principles. It is also seeking opportunities to create Synergy (Leverage Synergy) and maximize value from its operations. For example, the Plastics Waste Management project in collaboration with brand owners who plan to use products made from recycled PET plastic bottles (PCR PET or Post Consumer Recycled Resin PET) and recycled HDPE plastic bottles (PCR HDPE or Post Consumer Recycled Resin HDPE) through the GC YOUTURN platform.

Compensation-driven: The Company is continuously implementing projects to restore and balance forest ecosystems in collaboration with government agencies, the private sector, social sectors, and various communities. Examples include the Carbon Credit Management in Forests for Sustainable Development Project by the Mae Fah Luang Foundation under Royal Patronage, the Mangrove Reforestation and Care Project for Carbon Credits in collaboration with the Department of Marine and Coastal Resources, and currently, the Company is studying the technological feasibility and investment assessment for carbon capture technology in collaboration with PTT Group. Moreover, the Company is engaging in discussions and coordination with government agencies, regulatory bodies, associations, the private sector, and relevant industries to promote the development of carbon capture projects as a national initiative, supporting Thailand's Net Zero target.

Sustainability Management in the Social Dimension

The Company carries out social responsibility initiatives according to its resource efficiency improvement plan, aligned with the Company's strategy. These initiatives aim to elevate CSR projects by adding value to communities and society. Notable projects include the development of the On Nut Urban Forest Park (Flagship Project) on 55 rai (approximately 21.74 acres) in collaboration with the Australian Embassy and partner networks. This project extends to developing a resilient urban center and surrounding areas (Resilient Urban Centre and Surrounds: RUCAS). Another significant project is Upcycling Social Enterprise (Impact Driven Project), which adds value to the Ban Bon community

sewing group by producing upcycled survival bags for the Friends in Need (of "Pa") Volunteers Foundation and the Thai Red Cross Society. The Our Khung Bangkokchao project (Strategic Fit Project) aims to create a knowledge management platform for waste segregation through various activities, such as the Recycle Market. Additionally, the Company is developing community products that reflect the unique identity of Rayong Province in collaboration with partners. The Company also reviews community support measures for emergencies to minimize impacts on the community, society, and the company, as well as related organizations.

Sustainability Management in the Governance & Economic Dimension

The Company is committed to sustainability efforts that align with national guidelines and international standards. The company discloses sustainability information related to its operational strategies, management systems, processes, and sustainability performance on key business issues and stakeholder expectations under the sustainability management framework, which includes:

- International sustainability disclosure principles (Global Reporting Initiative Standards 2021: GRI 2021)
- International Financial Reporting Standards (IFRS), including IFRS S1, which provides general guidelines for companies on sustainability-related financial disclosures, and IFRS S2, which outlines the disclosure of climate change-related opportunities and risks, including industry-based metrics
- European Sustainability Reporting Standards (ESRS)
- Stakeholder Engagement Standard (AA1000)
- Dow Jones Sustainability Indices (DJSI)
- Carbon Disclosure Project (CDP Worldwide: CDP)
- Morgan Stanley Capital International (MSCI) sustainability performance benchmarks
- United Nations Sustainable Development Goals (SDGs)

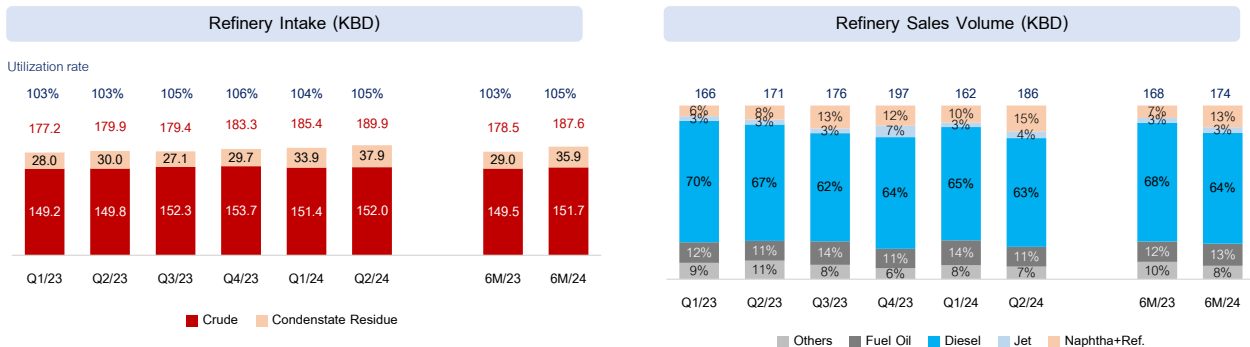
The Company analyzes data to improve and review operations in accordance with the Dow Jones Sustainability Indices (DJSI) and Carbon Disclosure Project (CDP) criteria, particularly in climate change management and water security. Given the increasingly stringent assessment criteria, preliminary score evaluations are conducted to accelerate operational improvements and maintain exemplary global sustainability standards.

The Company has participated in the 2024 DJSI evaluation, expecting to maintain its leadership in global sustainability within the Top 3 ranks. Additionally, the Company has participated in the EcoVadis assessment, an international sustainability index focused on supply chain collaboration, and is currently awaiting the evaluation results.

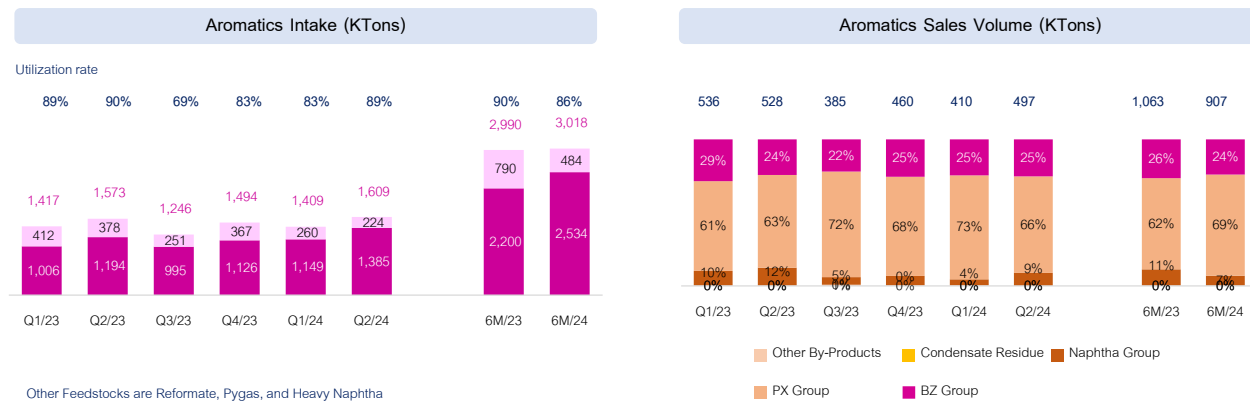
8. Appendix

8.1 Production and Sales

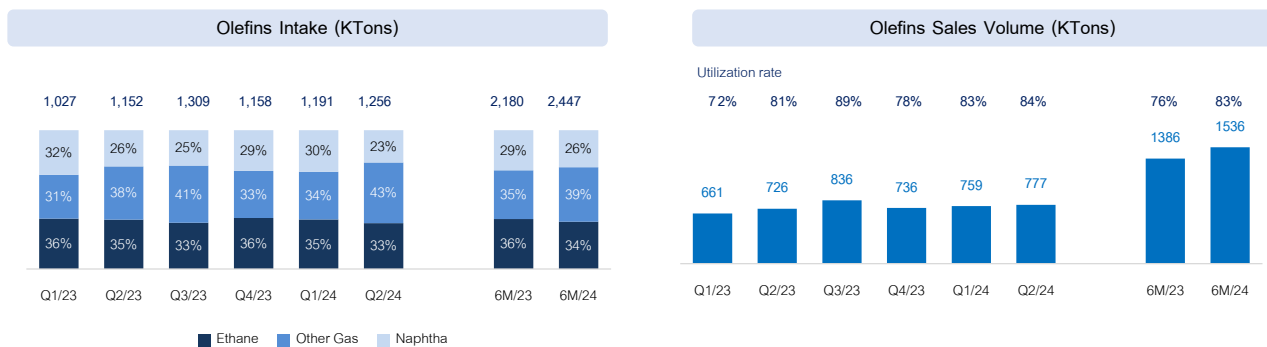
Graph 1: Refinery Intake and Sales Volume



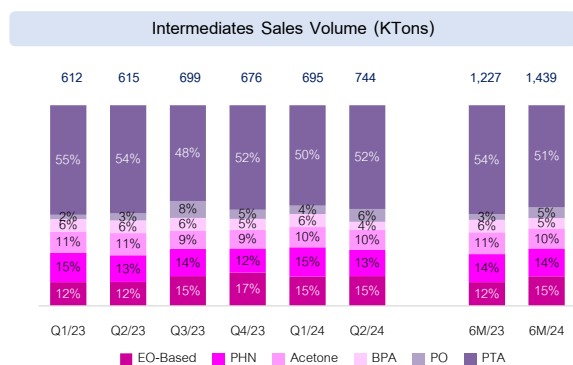
Graph 2: Aromatics Intake and Sales Volume (BTX)



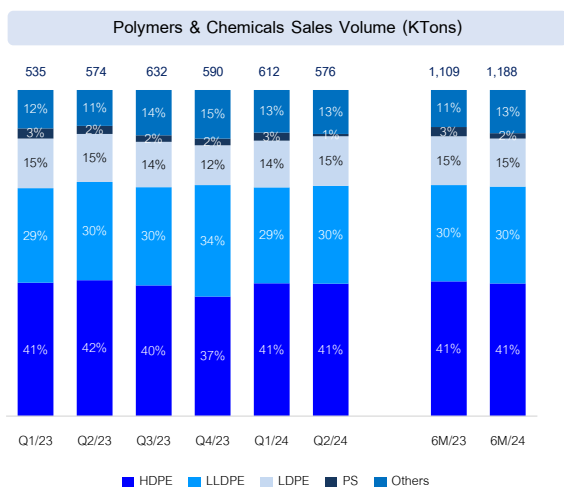
Graph 3: Olefins Intake and Olefins and Derivatives Sales Volume



Graph 4: Intermediates products sales Volume



Graph 5: Polymers & Chemicals products sales Volume



Graph 6: Utilization rate

Utilization rate	Q1/23	Q2/23	Q3/23	Q4/23	Q1/24	Q2/24	6M/23	6M/24
Upstream								
- Refinery	103%	103%	105%	106%	104%	105%	103%	105%
- Aromatics	89%	90%	69%	83%	83%	89%	90%	86%
- Olefins	72%	81%	89%	78%	83%	84%	76%	83%
Intermediates								
- MEG	13%	4%	90%	78%	46%	78%	9%	62%
- Phenol	104%	98%	102%	91%	108%	107%	101%	108%
- BPA	98%	103%	103%	95%	118%	79%	101%	99%
- PO	26%	46%	106%	61%	50%	90%	36%	70%
Polymers & Chemicals								
HDPE	106%	110%	110%	97%	115%	111%	108%	113%
LLDPE	93%	93%	105%	98%	103%	85%	93%	94%
LDPE	96%	119%	115%	93%	111%	117%	107%	114%
Total PE	99%	104%	109%	97%	109%	101%	102%	105%

8.2 Detail of Adjusted EBITDA by Business Unit

Adjusted EBITDA ¹ Margin by Business Unit	Q1/2023 ²	Q2/2023 ²	Q3/2023 ²	Q4/2023 ²	Q1/2024	Q2/2024	YoY	QoQ	6M/2023 ²	6M/2024	YoY	
							% +/-	% +/-			% +/-	
Adjusted EBITDA (Million Baht)												
Upstream	6,632	3,835	7,349	6,547	9,047	4,756	24%	-47%	10,467	13,803	32%	
Refinery	4,900	2,581	6,463	4,759	4,329	1,384	-46%	-68%	7,481	5,713	-24%	
Aromatics	2,440	1,291	1,113	1,697	2,713	1,449	12%	-47%	3,732	4,161	12%	
Olefins	(708)	(37)	(227)	92	2,005	1,923	>200%	-4%	(745)	3,929	>200%	
Intermediates	(978)	189	237	192	207	1,096	>200%	>200%	(789)	1,302	>200%	
Polymers & Chemicals	1,704	780	2,513	1,181	279	1,185	52%	>200%	2,484	1,464	-41%	
Bio & Circularity	269	119	100	185	92	40	-66%	-56%	388	133	-66%	
Performance Chemicals	1,660	1,599	1,964	1,783	1,865	2,560	60%	37%	3,259	4,425	36%	
Service and Others	102	62	67	24	-437	24	-61%	106%	163	-413	<-200%	
Total	9,389	6,584	12,231	9,912	11,054	9,662	47%	-13%	15,973	20,715	30%	
Adjusted EBITDA margin (%)												
Upstream	8	5	8	7	11	5	-	(6)	7	8	1	
Intermediates	(6)	1	1	1	1	5	4	4	(2)	3	5	
Polymers & Chemicals	8	3	10	5	1	5	2	4	5	3	(2)	
Bio & Circularity	7	3	3	5	2	1	(2)	(1)	5	2	(3)	
Performance Chemicals	7	7	8	8	8	10	3	2	7	9	2	
Average	6	4	8	6	7	6	1	(1)	5	6	1	

Note: 1 Adjusted EBITDA refers to EBITDA excluding Stock gain/(loss), NRV, Gain/(loss) from commodity hedging, and Extra item

2 Retroactively Adjusted EBITDA by excluding gain from bond buy-back in 2023

8.3 Planned Maintenance Shutdown Schedule 2024

Plant	2024											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
OLE	Cracker		56		OLE2/2				26	OLE2/2		
	Oleflex											
POL	HDPE										15	HDPE2
	LDPE								24			
	LLDPE I				37							
	LLDPE II											
	PS									33		
EOB	TOCGC		53									
	EA		55									
PHN	Phenol I											
	Phenol II											
	BPA					28						
REF	Refinery											
ARO1	Aromatics I											
ARO2	Aromatics II											
GCO	PO											