SET Opportunity day
FY2023

February 29, 2024

Disclaimer

This presentation includes forward-looking statements that are subject to risks and uncertainties, including those pertaining to the anticipated benefits to be realized from the proposals described herein. This presentation contains a number of forward-looking statements including, in particular, statements about future events, future financial performance, plans, strategies, expectations, prospects, competitive environment, regulation and supply and demand.

PTTGC has based these forward-looking statements on its views with respect to future events and financial performance. Actual financial performance of the entities described herein could differ materially from that projected in the forward-looking statements due to the inherent uncertainty of estimates, forecasts and projections, and financial performance may be better or worse than anticipated. Given these uncertainties, readers should not put undue reliance on any forward-looking statements.

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The global recognized sustainable company

Global Compact LEAD

SUSTAINABLE DEVELOPMENT GOALS

The 1st company in Thailand recognized in

LEAD LEVEL

Member of
Dow Jones Sustainability Indices
Powered by the S&P Global CSA

PTT Global Chemical Public Company Limited
Chemical Industry
Top 1%
S&P Global Corporate Sustainability Assessment (CSA) Score 2023
S&P Global Sustainable1

CDP Climate & Water

Platinum 2023 ecovadis Sustainability Rating

The only company in chemicals sector ranked

- 2019-2023: No.1 for 5 consecutive years and Top 1% S&P Global ESG Scores

The 1st and only Thai-own conglomerate to achieve

- 2022-2023: A LIST Climate Change & Water Security

The top 1 % of companies assessed by EcoVadis awarded

- 2023: Platinum Sustainability Medal

MSCI (ESG Rating A)

FTSE4Good (Top 3)

SUSTAINALYTICS Top 10th percentile In Chemical Industry

SET AWARDS 2023 SET Sustainability Awards of Honor 6 consecutive years

SET AAA ESG Ratings 2023 SET ESG Ratings AAA Thailand Sustainability Investment 9 consecutive years

Vision and Mission

VISION

To be a Leading Global Chemical Company
for Better Living

MISSION

SHAREHOLDER

We deliver fair and sustainable returns for shareholders through excellent and trustworthy performance management.

SOCIETY

We integrate social and environmental responsibility into our business practices to achieve sustainable development.

BUSINESS PARTNER

We provide the best solutions to business partners through innovative products and services.

EMPLOYEE

We build an adaptable organization that promotes learning through a happy work environment and actively develop its employees' capabilities so as to equip them for new challenges, foster their dedication to and engagement with the organization, and achieve professional excellence.

Agenda

1. Strategic execution
2. Financial highlights
3. Market Outlook

Agenda

1 Strategic execution

2 Financial highlights

3 Market Outlook

Recap of 2023: A challenging year for petrochemicals

China economy

- Limited upside from China re-opening
- Challenges in numerous sectors as China GDP growth disappoints at ~5%

Geopolitics tension

- Russia-Ukraine continued from 2022
- New conflicts in Israel-Hamas and Red Sea
- Volatility in crude oil price

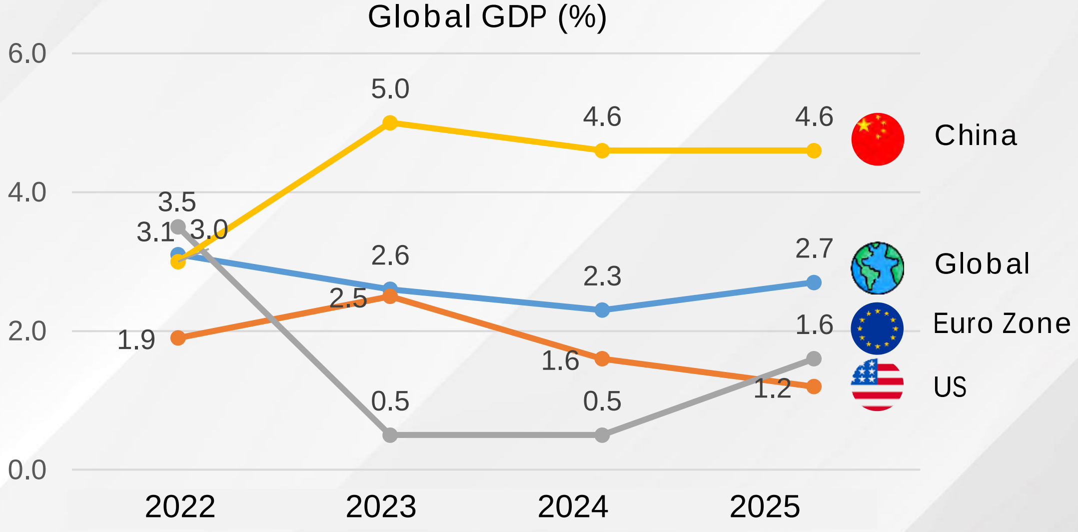
Rising interest rates

- Rising interest trends throughout 2023 leads to inflation and slow investment
- High interest peaking in Q4/23

Sustainability

- COP28: Energy transition momentum is accelerating as nations aim to triple renewable energy capacities by 2030

Economics slow down



Source : S&P Global Market Intelligence (Oct 2023)

Petrochemical products operating rates reached bottom

New Petrochemical capacity

Global petrochemicals supply competition grows especially in China, US, ME

China Self-sufficiency

Supply surplus from huge capacity coming on stream

Strengthening our resilience

1 Operation Optimization

- Competitiveness Enhancements
- Market-Focus Backed Transformation (MFBT)
- Enhancement projects e.g. MAX, FiT, dEx, MTPI

2 Integration & Partnership

- Partnership with industry leaders GCL (GC x WHA)
- allnex growth and collaboration (Innovation hub)
- Expanding recycling products with brand owners




Our strengths create business resilience

3 ESG Leadership

- Decarbonization towards Net Zero
- Awards & Recognitions

Member of
Dow Jones Sustainability Indices
Powered by the S&P Global CSA

No. 1 in Chemicals Sector for 5 consecutive years

PLATINUM 2023 ecovadis Sustainability Rating

CDP
Climate & Water
A List

4 Financial Resilience

- Enhancing Financial strength (Deleveraging, Cost and Capex controls)
- Sustainable finance

Olefins Feedstock flexibility

Competitiveness Enhancement

Step Change

2021	2023
	
ORP (OLE 4)	OMP (OLE 2/2 Modification)

		Olefins Capacity (Ethylene & Propylene)
Gas-based	OLE 1	588 KT
Flexible feed	OLE 2/1	875 KT
Flexible feed	OLE 2/2	491 KT
Gas-based	OLE 3	1,025 KT
Liquid-based	OLE 4	750 KT
		3,729 KT

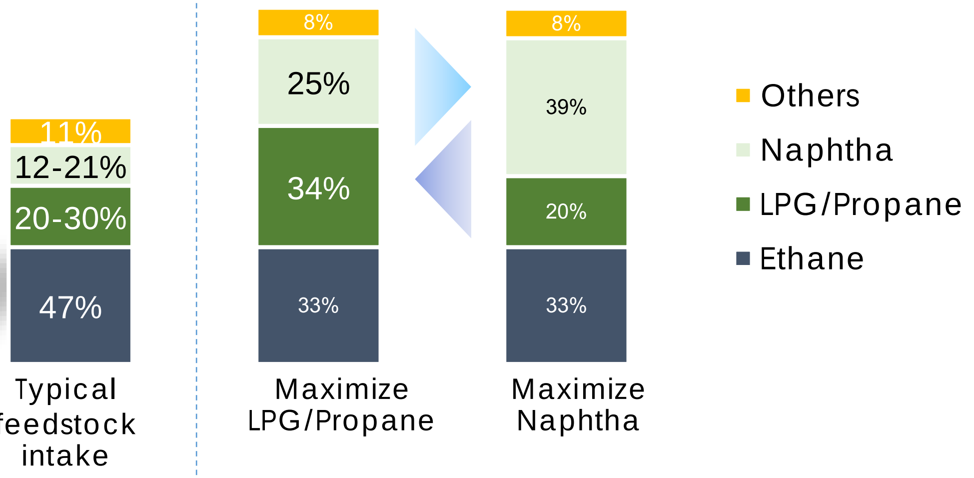
Feedstock flexibility enhancement

- GC has continuously implemented feedstock flexibility to Olefins plants
- GC now has full capability to optimize based on economics of each feedstock type

Olefins feedstock intake

Pre-ORP & OMP (OLE capacity: 2.9 MT)

Current (OLE capacity: 3.7 MT)



- Assume Ethane intake according to 2019-2023 average
- Maximize full capacity

Partnership with WHA to enhance GC Logistics as full integrated logistics company

WHA GROUP 50%

GC 50%

GC LOGISTICS

GC Logistics to become full integrated logistics company

- GC sells 50% shares in GC Logistics to WHA Corporation group for 2,640 MB
- WHA brings expertise in warehouse and distribution center businesses to enhance opportunity for business growth

Transaction completed in Dec'23

GC & WHA Site visit in Feb'24

2023 allnex Key Highlights

5th April

GC & allnex: Joint innovation & analyst visit in Rayong

- Collaboration to accelerate innovation, technology, and Application
- Support GC's portfolio shaping to high value and low carbon business

Cost and Operation Improvement achieved target 2023 and continued to 2024

- ✓ Accelerated footprint optimization in to minimize costs and capture demand in the growth regions.
- ✓ Operation and SG&A cost saving achieved e.g., energy consumption efficiency and yield improvement, SG&A optimization
- ✓ 4 experts from GC assigned to support allnex safety /reliability improvement

2023 Summary

12th April

Allnex China Hub Dushan Port

16th November

Ceremony of 2 Million Safety Man-hours Mechanical Completion

Start up Celebration of China hub phase 1 with 7 production lines

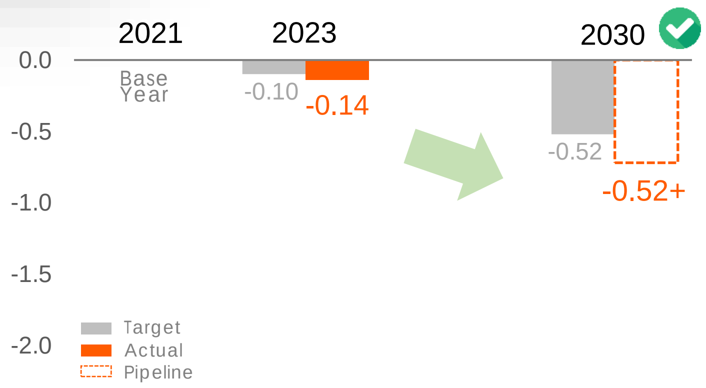
Production base of environmentally- friendly high-performance resins to promote green innovation and meet the growing demands of China

Net Zero Pathway Performance Update

Multiple initiatives implemented towards 20% GHG reduction in 2030, net zero in 2050

Efficiency-driven

Emission reduction (MtCO2e)

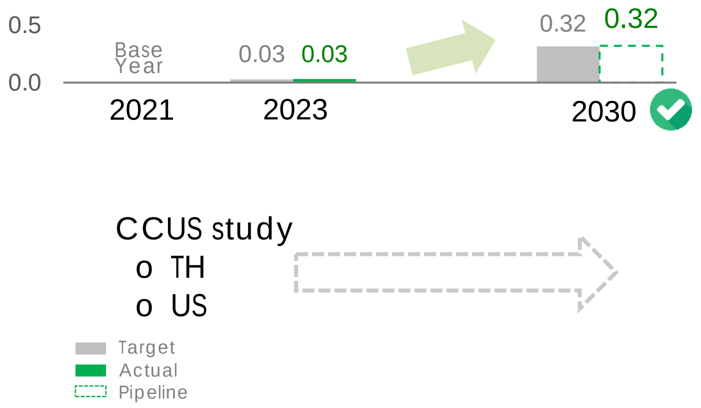


Portfolio-driven

Emission reduction (MtCO2e)

Compensation-driven

Carbon Credit Inventory (MtCO2e)



2023 Highlights:

~138 $ktCO_2e$ GHG reduction in 2023 (projects since 2022-23)

>190 Projects implemented
- Optimization / process & equipment upgrade

>9,800 MWh replaced by RE

~630 $ktCO_2e$ GHG avoidance per year (allnex, ENVICCO)

~22 kton Plastic waste managed (GC YOUเทิร์น, ENVICCO, UP TO YOU)

~27 $ktCO_2e$ Carbon credit inventory from forestation pipeline
- Mangrove
- Terrestrial

2 MOUs CCUS co-development projects in Thailand

Other projects in progress

- NH3 Decomposition / H2 Fuel switching
- Membrane Separation
- Biogas utilization

- Business restructuring study
- New business venturing & CVC
- Sustainable product solutions

- CCU technology development
- Carbon credit management

Outlook for 2024: Industry will continue through transition period

External Factors

Megatrends

New Industry Landscape

Geopolitics impact

Strategy

Strengthen on 3 Steps Plus

Step Change
- Competitiveness Enhancement
- Market-Focus Backed Transformation (MFBT): Increase portfolio from HVP (Target 56% in 2028) and Innovation products

Step Out
- allnex growth projects and cost initiatives
- Bio & Circularity: Bio-refinery, Expand recycling products market

Step Up
- Net Zero: GHG reduction targets on track for Net Zero target
- ESG leadership

Continue on enhancements through bottom of cycle

- Efficiency
- Lean Cost control
- Partnership development

Necessity & Opportunity in New Landscape

- Business Restructuring: Strategic partners & Non-core business
- Hydrogen and Carbon Business Integration

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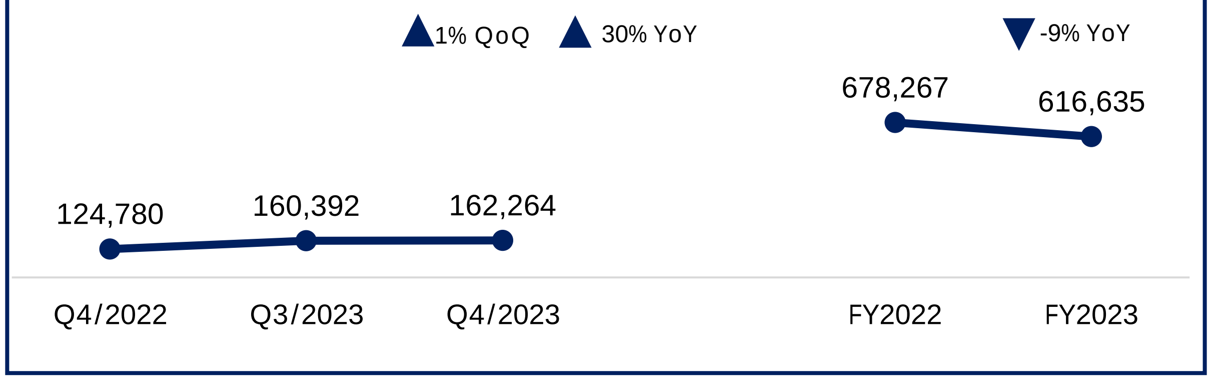
Stable Adjusted EBITDA
bolstered by **extra gains regarding selling GCL's stake and bond buy**-back

Revenue

Unit: MB



Operating Profit and NI

Unit: MB

>200% QoQ
>200% YoY
<-200% QoQ
-3% YoY
111% YoY
-119% YoY

NI Operating Profit

Q4'23 main extra items:

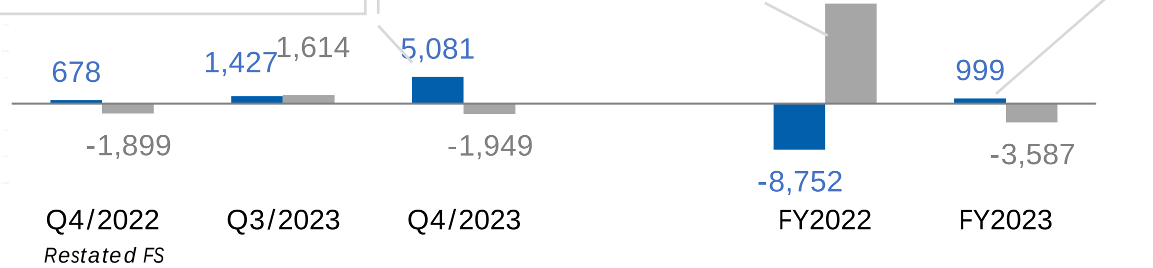
Stock Gain(Loss) &NRV	(2,412)
Commodity Hedging	831
FX Gain/(Loss)	2,288
Gain from bond buy back	1,422
Gain regarding GCL's stake	4,017

FY'22 main extra items:

Stock Gain(Loss) &NRV	(3,657)
Commodity Hedging	(23,057)
FX loss	(313)
Gain on shares purchase	939
Gain from investment reclassification	848

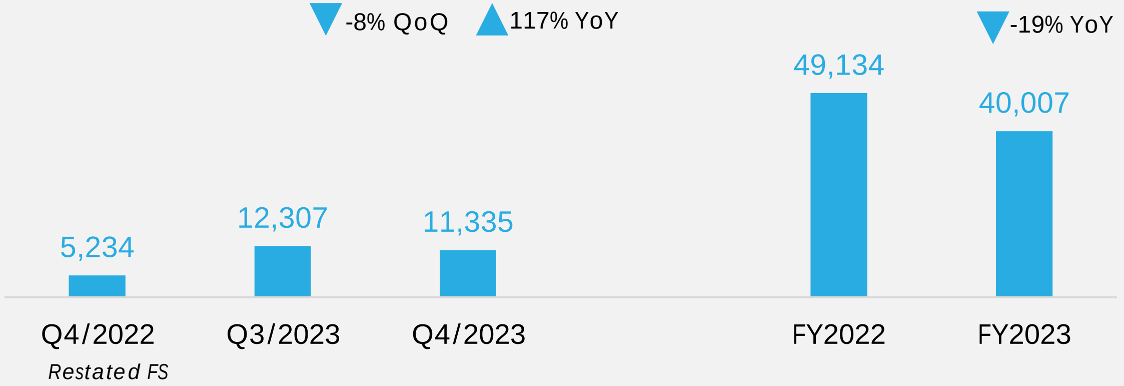
FY'23 main extra items:

Stock Gain(Loss) &NRV	(2,656)
Commodity Hedging	(627)
FX Gain/(Loss)	790
Gain from bond buy back	1,890
Gain regarding GCL's stake	4,017



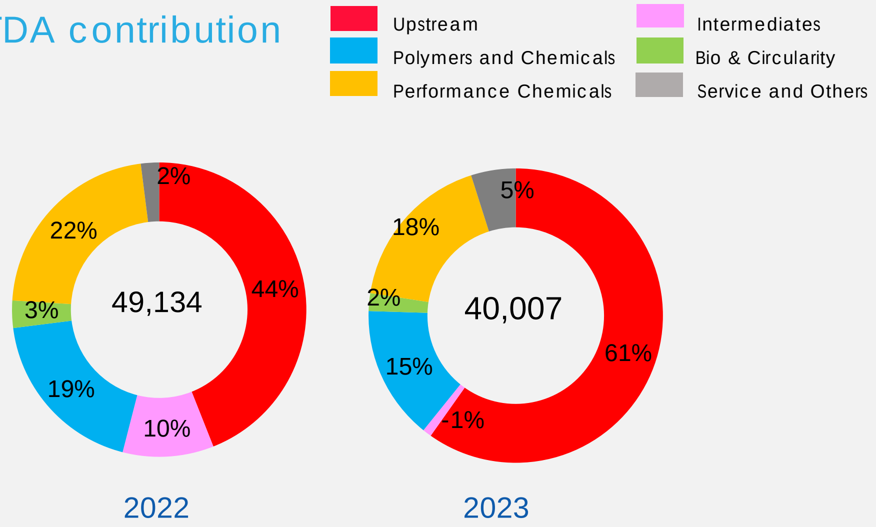
Adjusted EBITDA*

Unit: MB



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

Adjusted EBITDA contribution



Consolidated Statement of Income – Q4/23

Negative impact to P/L | Positive impact to P/L

	Unit : MB	Q4/2022 [1]	Q3/2023	Q4/2023	YoY % + /(-)	QoQ % + /(-)	2022	2023	YoY % + /(-)	
1	Sales Revenue	124,780	160,392	162,264	30%	1%	678,267	616,635	-9%	
2	Feedstock cost	(92,801)	(123,230)	(128,533)	-39%	-4%	(521,512)	(478,301)	8%	
3	Product to Feed Margin	31,979	37,162	33,731	5%	-9%	156,755	138,334	-12%	(A)
4	Variable Cost	(13,053)	(12,008)	(10,517)	19%	12%	(51,148)	(47,944)	6%	(B)
5	Fixed OH	(8,173)	(8,408)	(9,654)	-18%	-15%	(32,542)	(33,666)	-3%	(C)
6	Stock Gain/(Loss) and NRV	(3,518)	3,674	(2,413)	31%	-166%	(3,657)	(2,756)	25%	
7	Gain/(Loss) on Commodity Hedging	356	(2,729)	831	133%	130%	(23,057)	(627)	97%	
8	Other Revenue	2,535	2,434	7,841	>200%	>200%	7,527	13,931	85%	
9	SG&A Expenses	(8,053)	(6,372)	(7,234)	10%	-14%	(31,458)	(26,823)	15%	(C)
10	EBITDA	2,072	13,753	12,585	>200%	-8%	22,420	40,449	80%	
11	Depreciation & Amortization	(6,361)	(7,225)	(6,533)	-3%	10%	(26,646)	(27,504)	-3%	(D)
12	Extra items	1,744	(625)	547	-69%	188%	893	(86)	-110%	
13	EBIT	(2,545)	5,903	6,599	>200%	12%	(3,333)	12,859	>200%	
14	Net financial expense	(2,405)	(2,714)	(2,683)	-12%	1%	(9,171)	(10,707)	-17%	(E)
15	FX Gain(Loss)	3,990	(1,146)	2,288	-43%	>200%	(313)	790	>200%	
16	Share of gain/(loss) from investment	(381)	(179)	11	103%	106%	2,908	(725)	-125%	
17	Corporate Income Tax	2,028	(467)	(1,199)	-159%	-157%	2,273	(1,352)	-159%	
18	Net Profit/(Loss) after Tax	687	1,397	5,016	>200%	>200%	(7,636)	865	111%	
	Profit/(loss) attributable to:									
19	Non-controlling interests	9	(30)	(65)	<-200%	-117%	1,116	-134	-112%	
20	Owners of the Company	678	1,427	5,081	>200%	>200%	(8,752)	999	111%	
21	Adjusted EBITDA [2]	5,234	12,307	11,335	117%	-8%	49,134	40,007	-19%	

1. Restated Financial statement for Q4/2023 since the measurements of net assets acquired from acquisition of allnex have been completed by an independent appraiser in Q4/2022. The adjustment has no effect to FY2022
2. Adjusted EBITDA = Adjusted EBITDA refers to EBITDA excluding Stock gain/(loss),NRV, Gain/(loss) from commodity hedging, and Extra item

YoY highlights (FY23 VS FY22)

(A) (−) P2F
- lower GRM and product-spread of Phenol and Polymers and PET business,offset with higher sales vol. of refinery

(B) (+) VC
Decrease in utilities price caused by drop in fuel gas price

(C) (+) FOH&SGA
mainly decreased by lower selling expense from allnex and Polymers product

(E) (−) Net Financial Expense
Higher Interest rate in the market, despite the bond buy back of $ 355 million in FY2023.

QoQ highlights (Q4/23 VS Q3/23)

(A) (−) P2F
- Lower GRM of Refinery business and lower spread of Polyemers offset with better aromatics performance

(B) (+) VC
Decrease in lower operating rate of Olefins and Polymers due to S/D maintenance

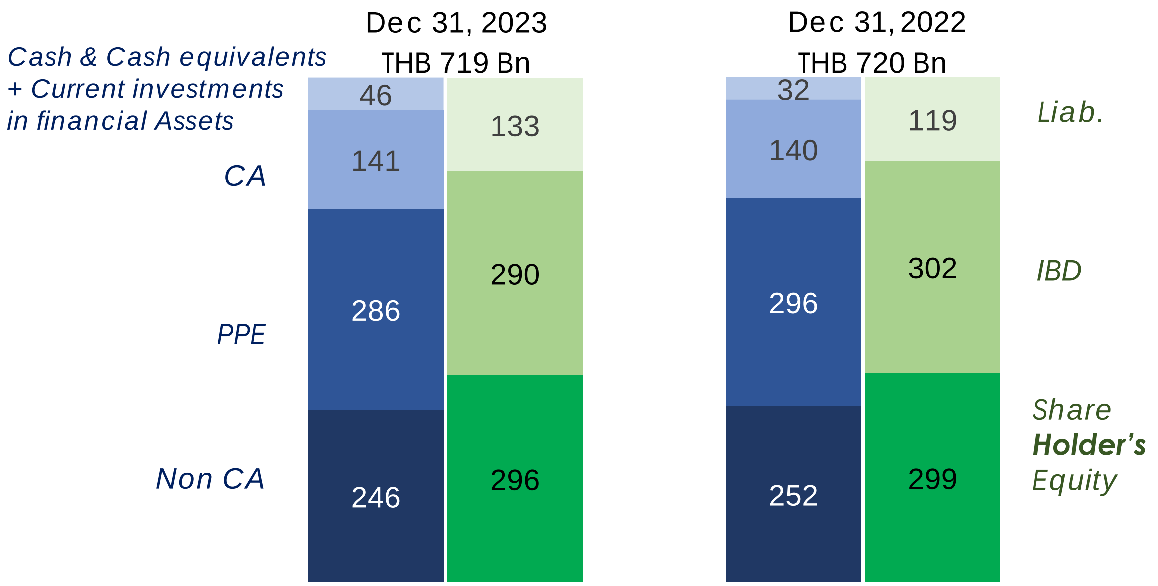
(C) (−) FOH&SGA: increased mainly from restructure expenses

(D) (+) Depreciation decreased due to the sales and lease back of some plant assets.

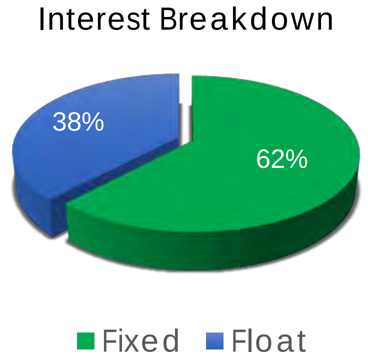
(E) (−) Net Financial Expense decreased from bond buy-back of $214 million in Q4/23

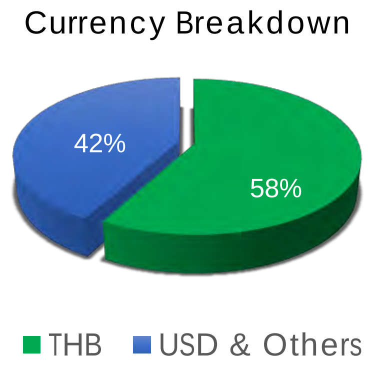
Strong Financial Position

Statements of Financial Position



Long Term Debt Portfolio

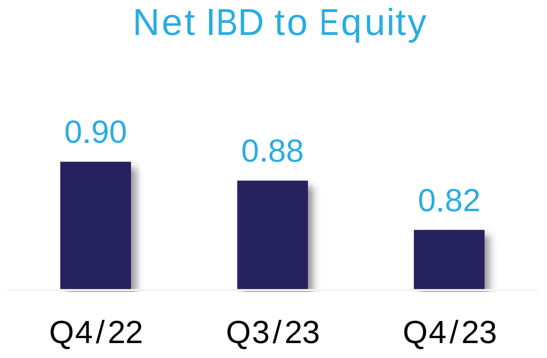


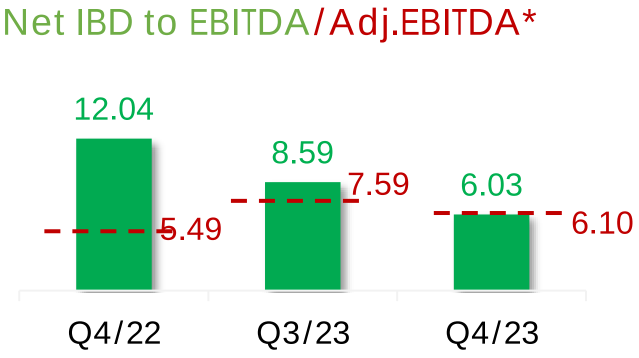


Total Long Term Debt THB 263 Bn
As of 31 Dec 23

Avg. Loan Life	7.39 yrs
Avg. Cost of Debts	4.01 %

Key financial Ratios





Commit to maintain "Investment-grade Credit Rating"

	S&P Global Ratings	Moody's	Fitch Ratings
International Ratings	BBB (Stable)	Baa3 (Negative)	BBB (Negative)
National Ratings			AA (TH) (Negative)

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

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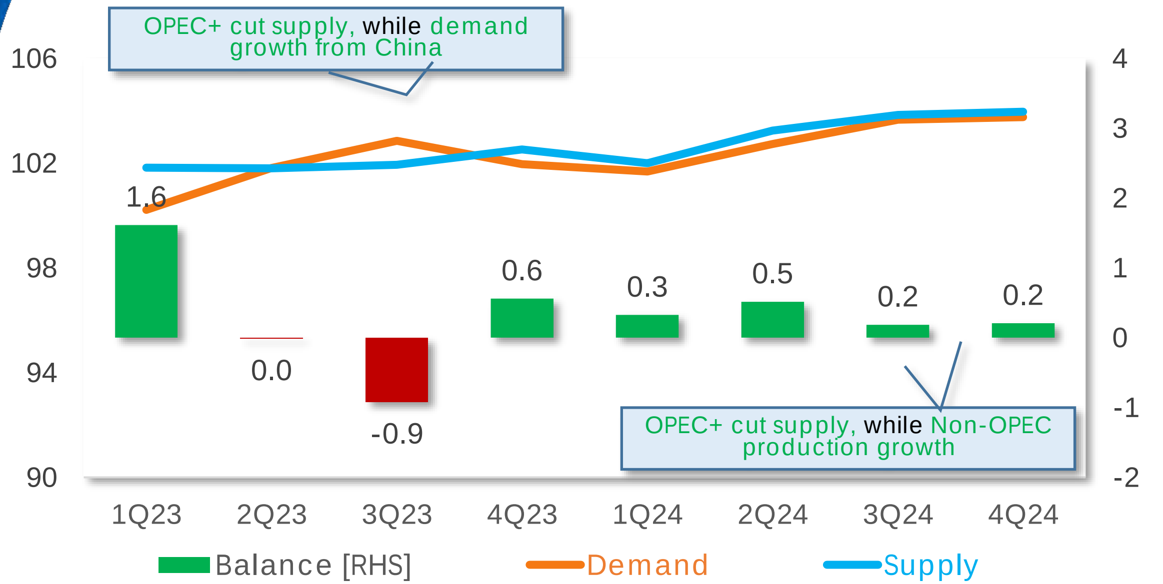
3 **Market Outlook**

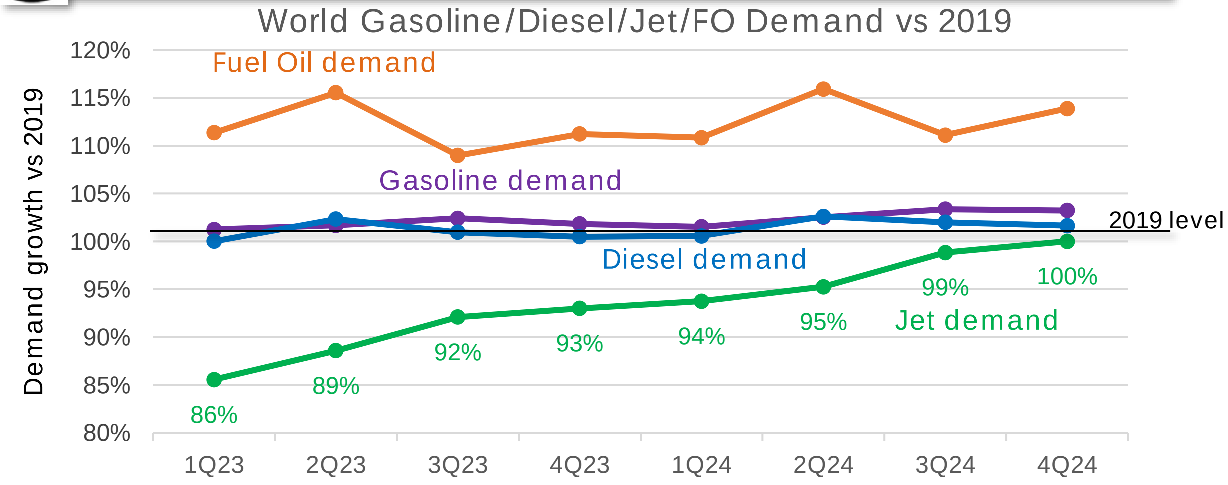
Feedstocks & Refined Products Outlook

Global Crude Balance [MBD] : Supply - Demand



Source: IEA, GC, Jan 2024

Global Refined Product Demand



Source: Energy Aspect, GC, Jan 2024

Crude :

- Escalating geopolitical tensions in the Middle East likely continues through Y2024; however, no crude oil markets disruption yet.
- Tight supply from OPEC+ voluntary cut 2.2 mb/d, extended to Q1/2024.
- Non-OPEC supply growth +1.1 mb/d; U.S., Canada, Brazil, Guyana in Y2024
- Economic & inflation concern; GDP growth to slightly improve from 3.0% in 2023 and 3.1% in 2024 (Version: Jan 2024)
- Global oil demand growth to slow from +2.3 in 2023 to +1.2 mb/d in 2024 (IEA).
- Forecast Dubai price 2024, $75-85 bbl.

Naphtha :

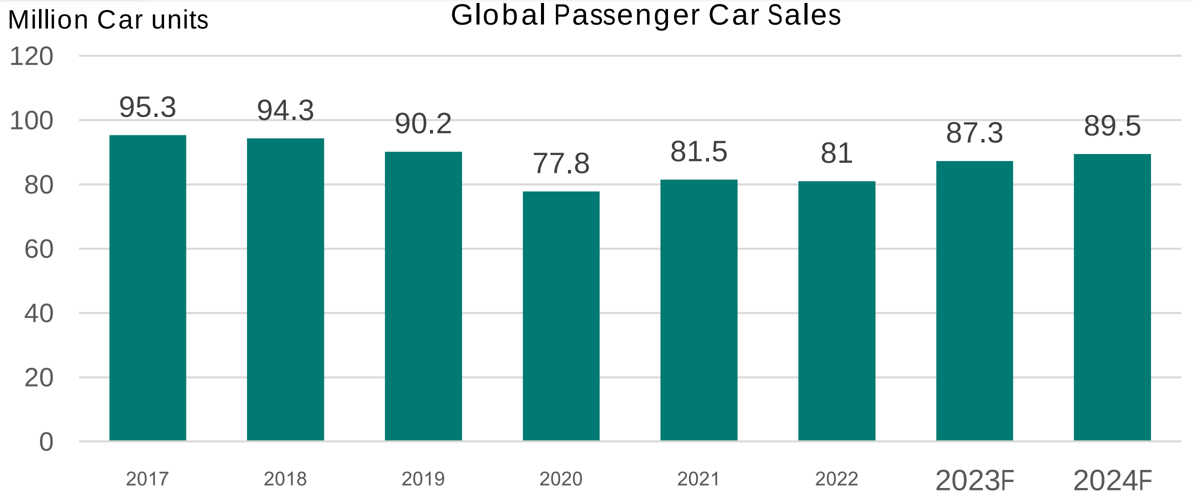
- Weak downstream petrochemical demand propped up by robust gasoline blending & limited West arbitrage due to Red Sea tensions.

Refined Products :

- Due to low middle distillate yields from OPEC+ cuts, keep diesel crack strong.
- Strong gasoline demand from festive seasons, Chinese New Year and Ramadan, combined with an El Niño-lengthened summer.
- Jet fuel demand is poised to rebound to 2019 levels, fueled by inbound visa-free policies and the easing of restrictions on outbound group tours.
- Strong demand for LSFO is being driven by increased long-haul shipping via the Cape of Good Hope to avoid tensions in the Red Sea.
- Y2024: Refinery margins are likely to be strong from healthy demand.

End Use Market Outlook

Automotive

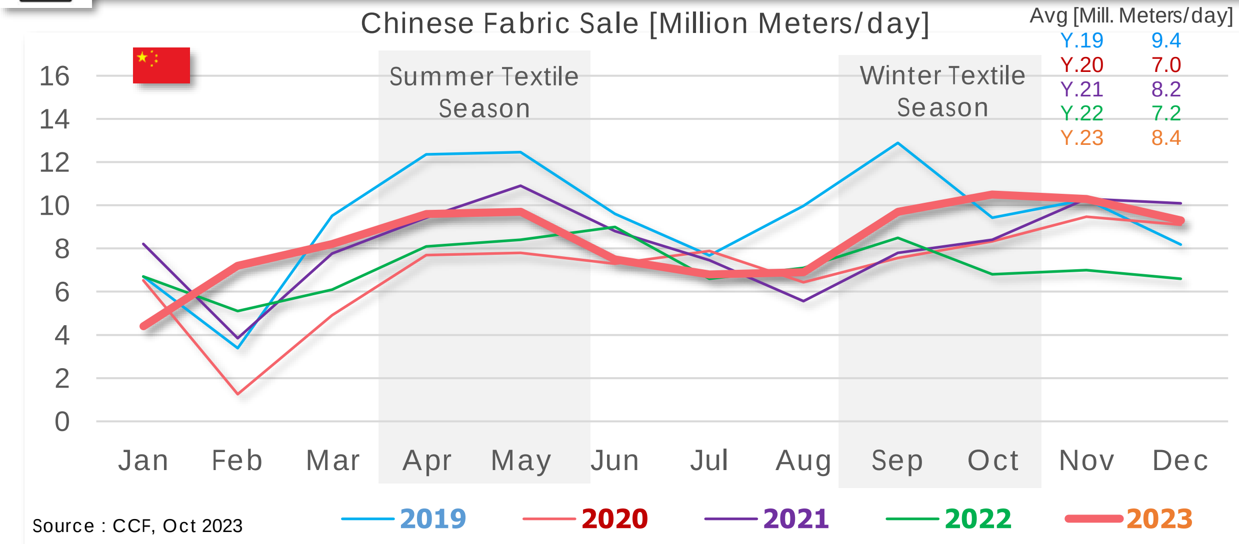


Source : Moody's, ING Research, Nov 2023

GC Products : BZ, Phenol, BD, PE, PP, MEG, AN, PO, Polyols

- Strongly growth of Global car sales in 2023 are a consequence of the release of demand linked to the easing of chip shortage issues.
- Global passenger car sales are forecasted to rise around 2.6% in 2024 leading by growth of EV car.
- EV car sales is expected to increase 21% to 16.7 million car units globally in 2024. Although, it marks a slowdown compared to 30% growth in 2023, as government subsidies may discontinue, high borrowing costs continued, and limited charging facilities.
- Easing semiconductor chip shortages may be overshadowed by geopolitical risks and trade disruptions, threatening supply chain recovery.
- Y2024: Automotive sector continues to improve from the growth of EV car.

Textile



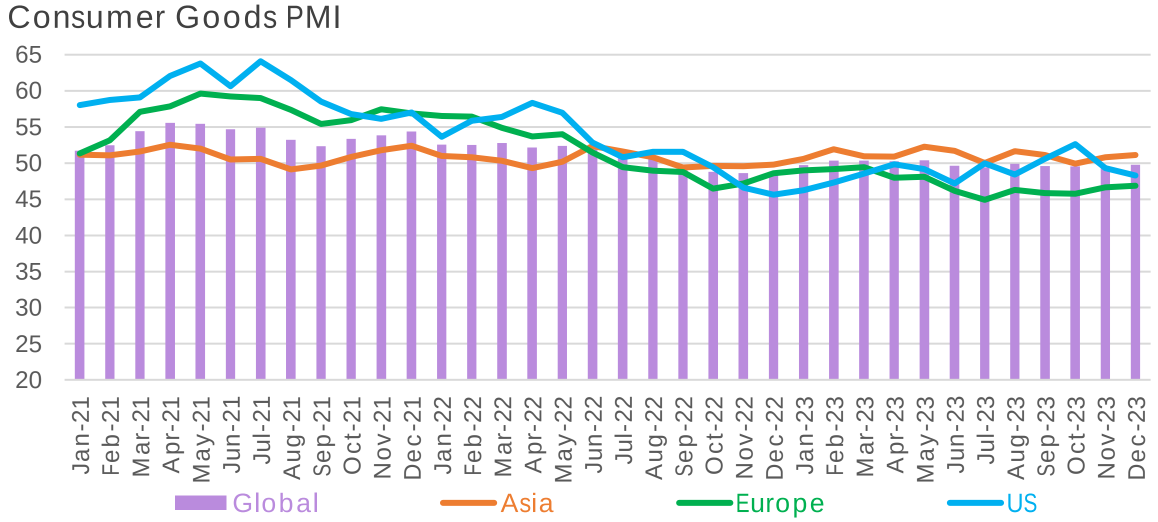
Source : CCF, Oct 2023

GC Products : PX, PTA, MEG, PP

- The Textile market still challenge from global economic concern.
- Post-COVID, consumers behavior change more people spend conservatively.
- Globally tourism recovered, more travelling & social activities support textile demand
- Q4/2023, some uplift from Winter textile season and supportive demand from festive season
- Q1/2024, more demand from stocking ahead Chinese New Year holiday and Summer Textile Season
- Y2024: Textile market is steady to last year.

End Use Market Outlook

Packaging & Film

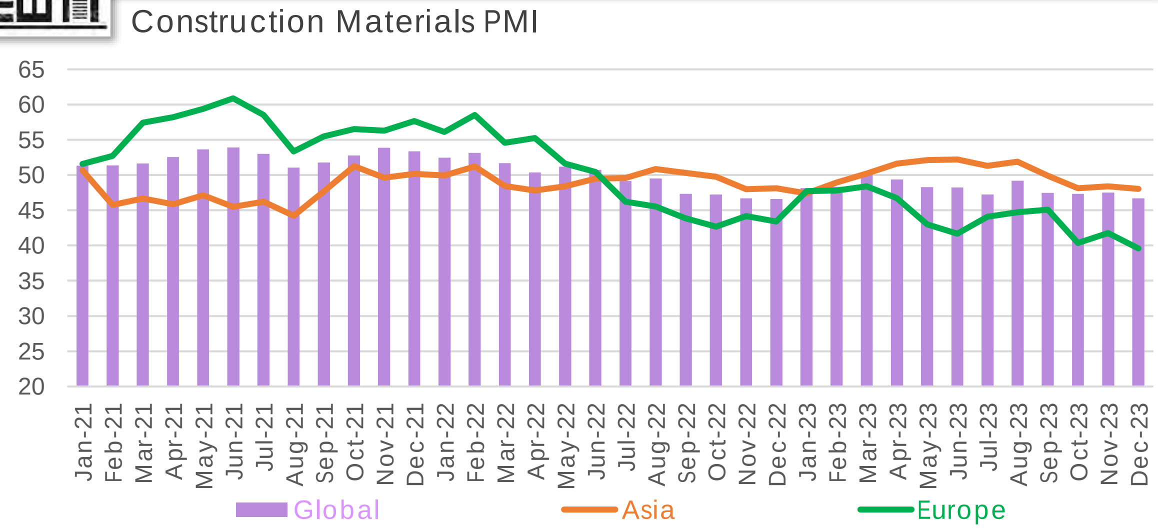


Source : S&P Global Platts PMI, Jan 2024

GC Products : PX, BZ, PTA, PE, PP, PET, PS

- Chinese New Year still pose demand for end use for seasonal packaging and gift.
- No significant shift to recycle material. Supply limitation and cost issue remain barrier for penetration.
- International tourism projected to surpass pre-pandemic level in 2024. Demand of plastic use in the sector such as flight, hotels to improve.
- Economic uncertainty affecting demand for end-use packaging. Softer inflation in 2H2024 to encourage more spending and improve demand.
- Y2024 : Packaging market shall continue to improve from previous year.

Construction, Household & Pipe

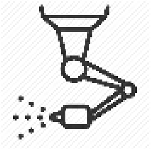


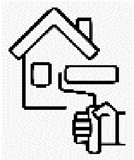
Source : S&P Global Platts PMI, Jan 2024

GC Products : Phenol, PE, PP, PO, Polyols

- Government's infrastructure project in key development countries included China, India, U.S. partly offset bearish situation in private property sector and support to demand.
- FED's interest rate may decrease slower than estimate could discourage new investment due to high borrowing cost.
- Construction in 2023 has faced pressure from strict fiscal policy and collapse of several property business.
- China's real estate sector to continue facing subdue sentiment in 2024 as slow demand continue from structural over capacity.
- Y2024 : Construction keeps bearish from China's real estate/ high interest rate.

Industry Outlook : Resilient Automotive demand, Packaging sector recovers gradually



End Market (Exposure)	Q1/2024 vs Q4/2023			Q1/2024 and 2024 outlook
	EU	AMER	AP	
GDP	0.9%	2.1%	5.2%	• World GDP is maintain at 3.1% • Q1/24 shows improvement from Q4/23; thanks to demand ramp up prior CNY and strong EV sector
Auto & Mobility (~28%)				• EV era: Expected of strong automotive OEM demand in all regions from with new model / new Chinese players in early 2024. More discounting is being predicted for 2024. • US car sales tumble in Q4/23, with concerns over interest rates & economy slowdown. Expect growth in demand in Q1/24. AP demand remain strong in Q4 with surging of EV sales in China.
Industrial goods (~25%)				• Industrial coil among all regions and container in China started to slowly recover while wood and metal remains weak. 2024 outlook will still be challenging. • Electronics, smart phone / PC, semiconductor market has started to see signs of recovery in demand across global since Q4'2023. Expected demand to keep going up in Q1'2024.
Packaging (~27%)				• Expected customers to restocking in Q1'2024, especially in AP due to inventory decline and demand recovery in China before Chinese new year in Feb. • Overall packaging demand in EU and AMER remains stable.
Construction & Decoration (~20%)				• EU and AMER: Latest building permit still negative YoY. Q1/24 outlook still flat. Current situation is similar to the US from high mortgage rate and inflation drive lower demand in housing market, which expected to improve in late 2024. However, non-residential is doing well. • AP: China still flat with average new home prices in China's 70 major cities fell 0.1 percent year-on-year. While India market continues with positive from strong demand.

Negative Stable Positive

Source: SPB intelligence - Economist intelligence unit, Bloomberg, Capital IQ, GDP from IMF as of Jan 2024


Q
A

Thank You

ครึ่งทศวรรษ ... ยืนหนึ่งในโลก

ขอขอบคุณทุกแรงใจ ที่ร่วมกันดูแลโลกใบนี้ให้ดีขึ้นไปด้วยกัน

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Appendix

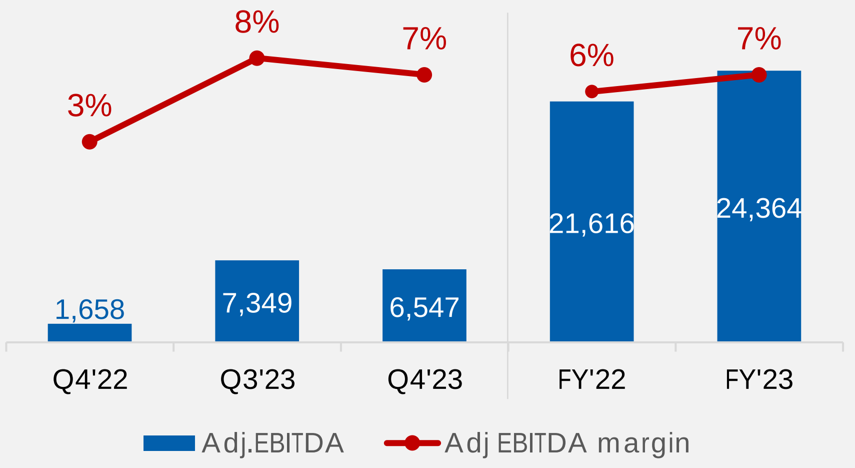
Operating Performance analysis - Upstream

Diesel, LSFO, PX, BZ, Ethylene, Propylene

Upstream

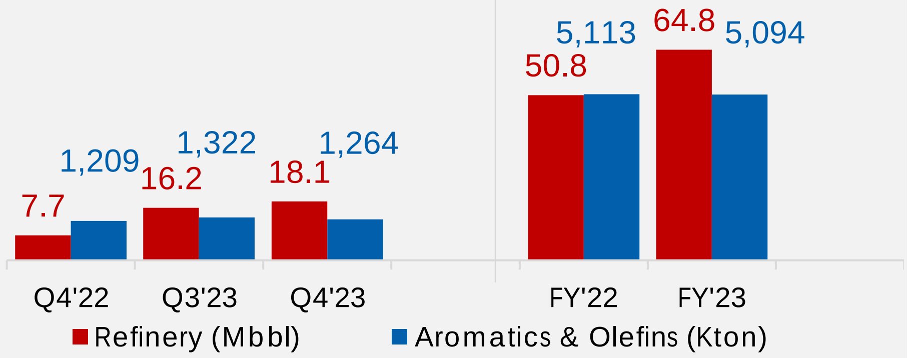
Adjusted EBITDA

Unit : MB



Sales volume

Unit : Mbbl & Kton



Key products/spread	Q4/22	Q3/23	Q4/23	FY2022	FY2023
Dubai ($/bbl)	84.8	86.7	83.6	96.3	82.1
Diesel 50 ppm.-Dubai ($/bbl)	41.4	28.7	24.4	39.0	24.3
LSFO-Dubai ($/bbl)	14.4	8.9	14.1	22.5	11.5
Crude premium ($/bbl)	12	6	7	11	7
Market GRM ($/bbl)	9.7	12.6	9.0	12.1	9.4
PX spread ($/ton)	249	357	330	275	359
BZ spread ($/ton)	92	183	201	198	218
BTX P2F ($/ton)	96	164	180	85	189
Naphtha ($/ton)	673	648	659	785	649
Ethylene price ($/ton)	905	822	937	1,054	889
Propylene price ($/ton)	880	822	807	1,008	858
Hedging gain/(loss) (mb)	356	(2,729)	831	(23,057)	(626)
Stock gain/(loss) net NRV (mb)	(3,455)	3,793	(2,592)	(3,197)	(2,584)

Market highlights QoQ:

- The key refined products spread is mainly pressured by the economic recession in many countries. Gasoil spread decreased due to higher supply after the refinery returned from T/A. LSFO spread increased due to demand recovery from the winter season.
- The BZ spread increased, impacted by several producers controlling the supply to secure margins.
- Higher Ethylene spread as Ethylene price spiked up due to the supply shortage in the region , while slightly increased in Naphtha cost.

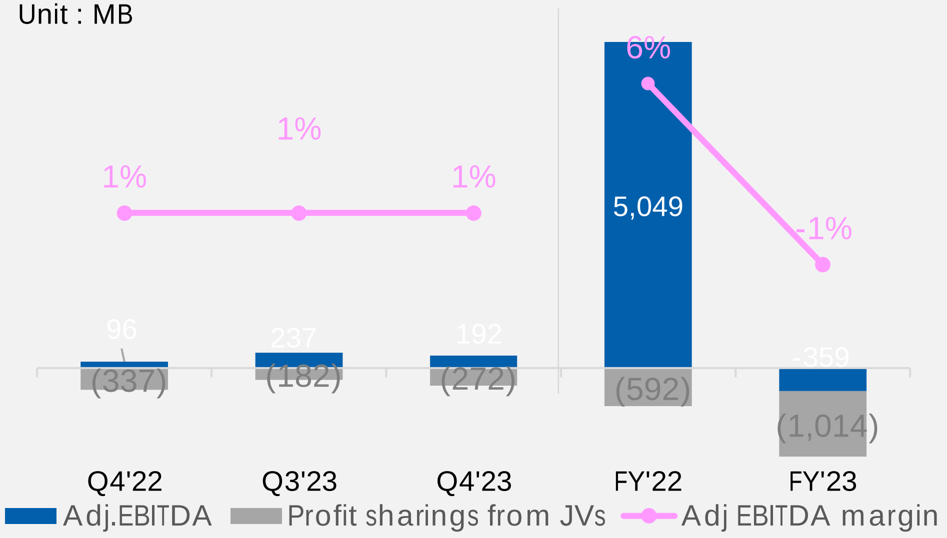
Operating Performance analysis - Intermediates

EO, EG, Phenol, BPA, Acetone, PTA, PO, AN, MMA

Intermediates

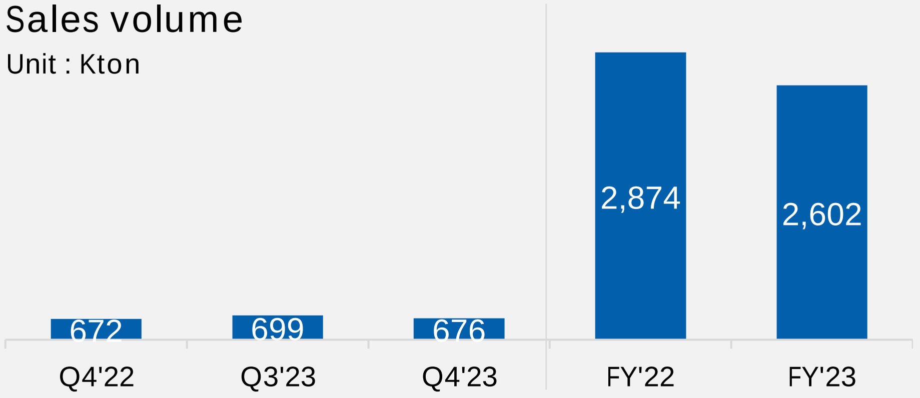
Adjusted EBITDA & equity incomes

Unit : MB



Sales volume

Unit : Kton



Note: excludes sales volume of JV's companies

Key products/spread	Q4/22	Q3/23	Q4/23	2022	2023
PHN spread ($/ton)	355	295	293	357	252
BPA spread ($/ton)	351	200	243	553	230
MEG spread ($/ton)	249	310	231	218	278
PTA spread ($/ton)	101	72	73	105	84
PO price ($/ton)	1,054	984	946	1,230	1,053
AN spread ($/ton)	681	348	428	697	452
MMA spread ($/ton)	920	928	902	1,089	912

Phenol spread = Phenol-0.878 BZ-0.474 Propylene+0.616 Acetone
BPA spread = BPA-0.853 Phenol-0.273 Acetone
MEG spread = MEG ACP – 0.65Ethylene
PTA spread = PTA-0.67PX
AN spread = ACN-Propylene
MMA spread = MMA- Naphtha

Market highlights QoQ:

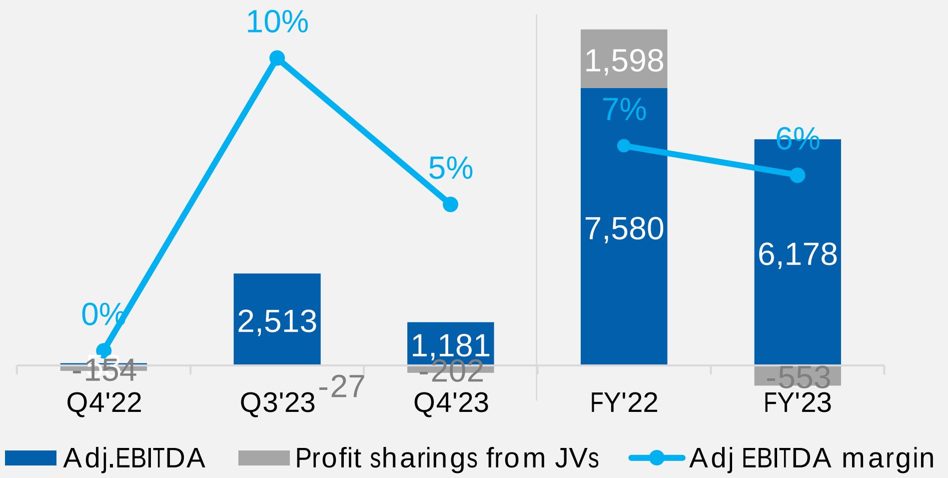
- Phenol demand mainly attributed to BPA sector following the increase in BPA price
- Phenol Plant turnaround in Q4/2023
- Lower MEG spread as the ethylene price spiked up in Q4/2023
- Unchanged PTA spread amid producers control supply on economic concern slow trade activities end year

PE, PP, PS, PET, PVC, Compound, Polyols

Polymers & Chemicals

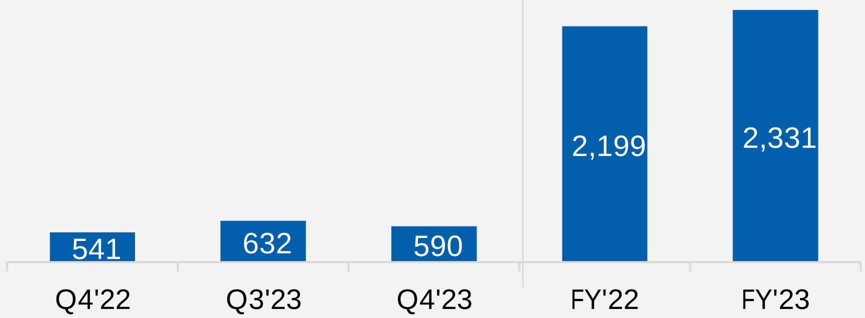
Adjusted EBITDA & equity incomes

Unit : MB



Sales volume

Unit : Kton



Note: excludes sales volume of JV's companies

Key products/spread	Q4/22	Q3/23	Q4/23	FY2022	FY2023
PE price ($/ton)	1,047	1,005	1,001	1,280	1,033
HDPE-Ethylene ($/ton)	128	210	86	148	155
PP price ($/ton)	995	969	968	1,206	1,008
PET price ($/ton)	913	893	880	1,097	925
Polyols price ($/ton)	1,404	1,323	1,257	1,656	1,366

Market highlights QoQ:

- PE price slightly decreased as the market remains long with demand subdued due to economic concerns, while Ethylene price increased following naphtha price.
- New supply in Vietnam,Interest rate hike, and economic recession concerns still put the pressure on Polymers demand and price.
- Demand in polyethylene terephthalate (PET) markets was weak amid slow trading activities end year concern over new capacities.

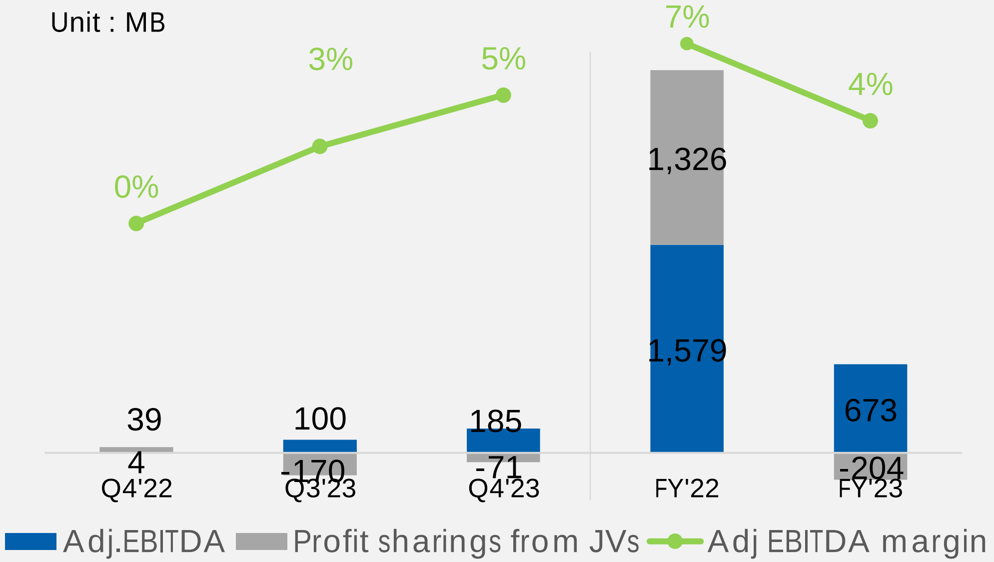
Operating Performance analysis – Bio & Circularity

Oleochemicals, Bioplastics, Recycle Resins

Bio & Circularity

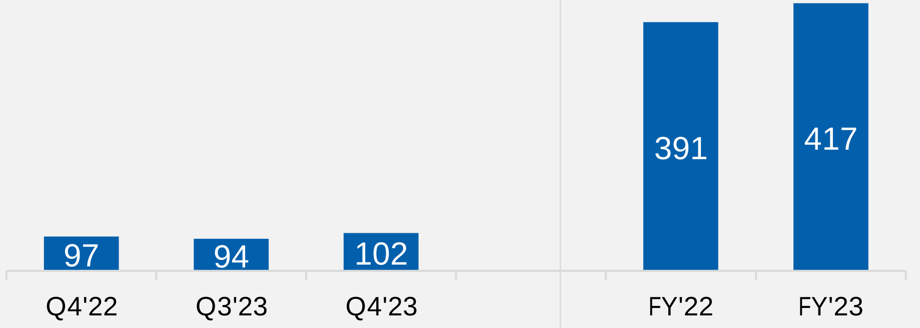
Adjusted EBITDA & equity incomes

Unit : MB



Sales volume

Unit : Kton



Note: excludes sales volume of JV's companies

Key products/spread	Q4/22	Q3/23	Q4/23	2022	2023
ME spread (THB/kg)	4.2	4.3	4.3	3.4	4.3
FA spread ($/ton)	595	358	394	514	434

ME spread = ME -1.02(CPO)
FA spread = FA - 1.2(CPKO)

Market highlights:

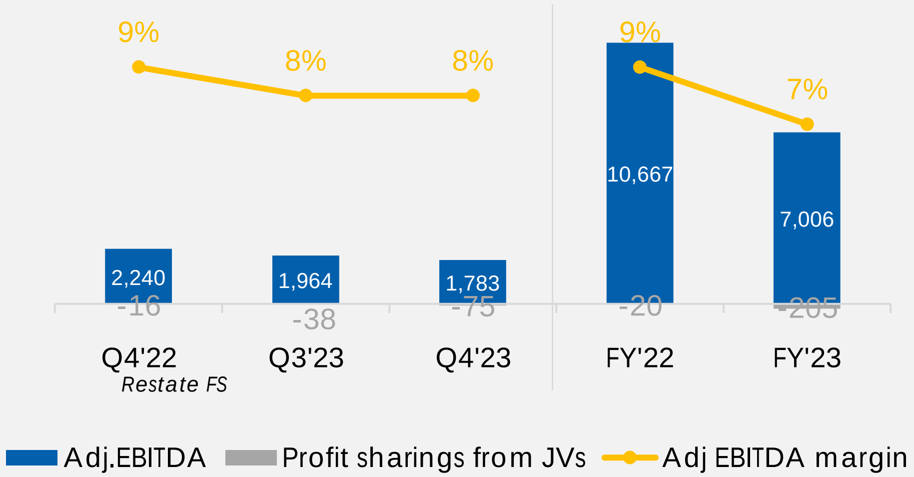
- Increased winter demand for Methyl Ester (ME) is driven by tourism, and energy policies. The biodiesel blend remains at B7, aligning ME prices with rising crude palm oil (CPO) prices. Challenges from reduced CPO production due to heavy rainfall persist, but growing domestic demand, tourist activities, and economic recovery positively impact ME prices.
- Fatty Alcohol (FA) demand rises in Q4, driven by China's economic recovery and preparations for Chinese New Year. High season for cosmetics and health product manufacturers boosts both Long Chain and Short Chain Alcohol demand, aligning with increasing CPKO prices.

Operating Performance analysis – Performance Chemicals

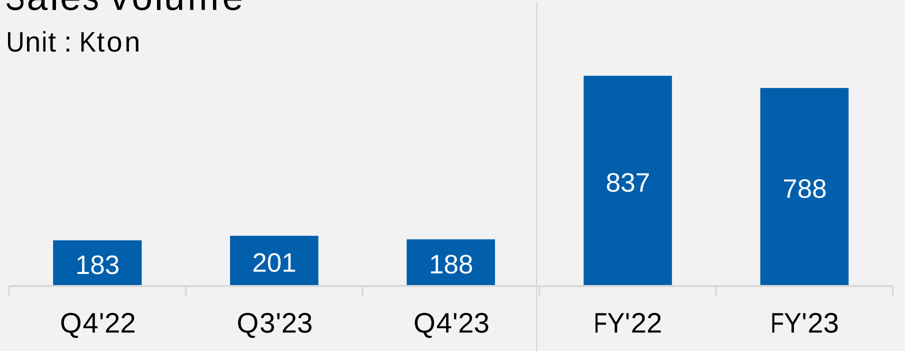
Coating resins & Additives
Engineering Plastic

Performance Chemicals

Adjusted EBITDA & equity incomes



Sales volume



Key products/spread	Q4/22	Q3/23	Q4/23	2022	2023
Adj.EBITDA margin (%)	9%	8%	8%	9%	7%

Market highlights:

EBITDA contributed from Performance Chemicals decreased QoQ

- Vencorex : Continue of low HDI derivatives sales volume impacted by weak global demand
- Allnex : Lower sales volumes QoQ largely driven by the business seasonality (i.e. EMEA, AMER, and Australia), as well as the normal destocking effects seen at year-end

allnex performance	Q4/22	Q3/23	Q4/23	2022	2023
Adj.EBITDA (MEUR)	49	68	56	317	247
Adj.EBITDA margin	8%	12%	11%	12%	11%
Sales Vol. (Kton)	176	193	179	796	754

Note Adj.EBITDA reported by allnex (adjusted for non-recurring items)

Consolidated Statement of Cash Flow (FY2023)

Unit: MB

Operating	48,649
- Net gain (Include NCI)	865
- Depreciation	28,487
- Other Adj.	2,364
- Change in Working Capital	16,933

+

CAPEX & Investment	(9,240)	
- CAPEX – net	(19,586)	Paid -21,846
- Investments in debt instruments	(2,134)	
- Investments in equity instruments	(126)	
- Sale Asset	4,503	Received 12,606
- Dividend Receive	2,566	
- Short term and Long term investment – net	3,980	
- Interest receive	970	
- Short term and Long term Loan – net	587	

Free cash flow
39,409

+

Financing	(25,123)
- Debenture – net	(10,330)
- Loans - net	473
- Interest Paid & Fin leases	(14,047)
- Dividend Paid	(1,269)
- Investment in subsidiary to NCI – net	50

Beginning : 31,963	+	Cash In (Out)	=	Ending : 46,249
Cash 25,940 S/T Investment 6,023		14,287		Cash 37,319 S/T Investment 8,930

Committed Capex to support GC's sustainable growth

GC Group (Consolidated entities)

Projects	Total	Estimated Annual CAPEX (M.USD)				
	2024-2028	2024	2025	2026	2027	2028
1) PTTGC group excl. allnex	192	151	37	3	1	0
2) allnex expansion & growth Capex	474	111	114	95	91	63
total	666	262	151	98	92	63

Notes:
1. Group annual maintenance ~ 400 M.USD (including allnex)
2. Other projects such as IT & digital, new office facility, upgrade/modify production unit etc
3. allnex expansion & growth Capex based on capex plan, including committed and uncommitted projects
4. FX assumption for USD/EURO is 1.01 for allnex CAPEX plan

JV & associates: Key projects

Bio & Circularity

NatureWorks

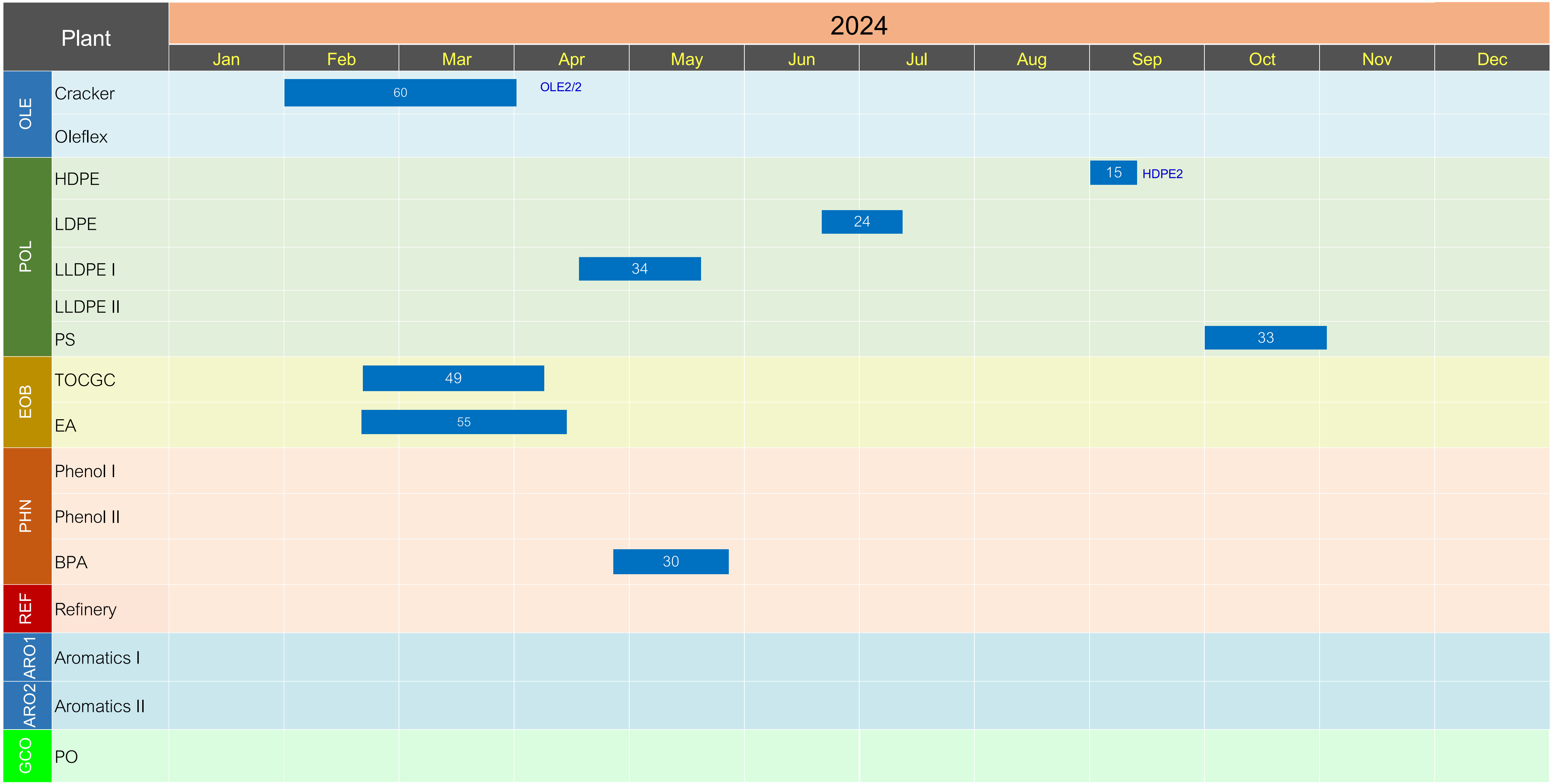
- 75kta PLA capacity
- Nakhon Sawan Bio Complex
- COD: 2025
- World's First Integrated PLA facility

Polymers & Chemicals

AGC VINYTHAI

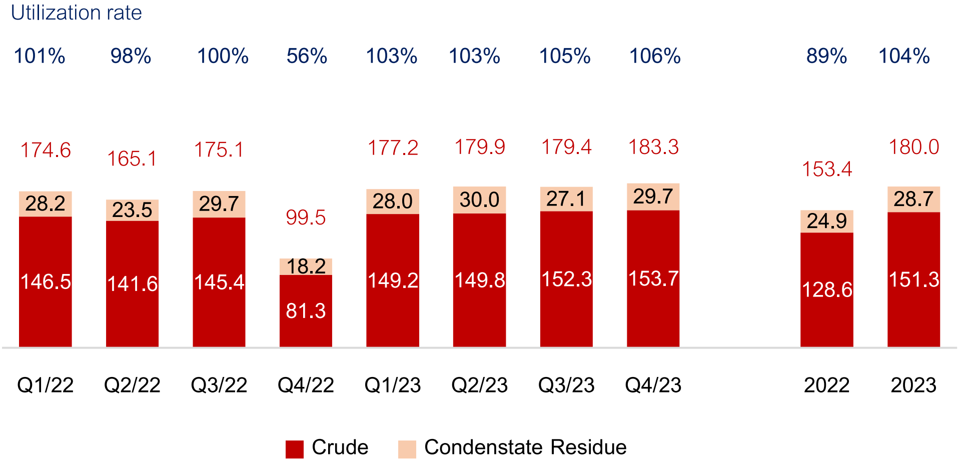
- 400kta PVC capacity
- COD: 2025
- To become No. 1 PVC producer in CLMVT

Maintenance Shutdown Schedule 2024

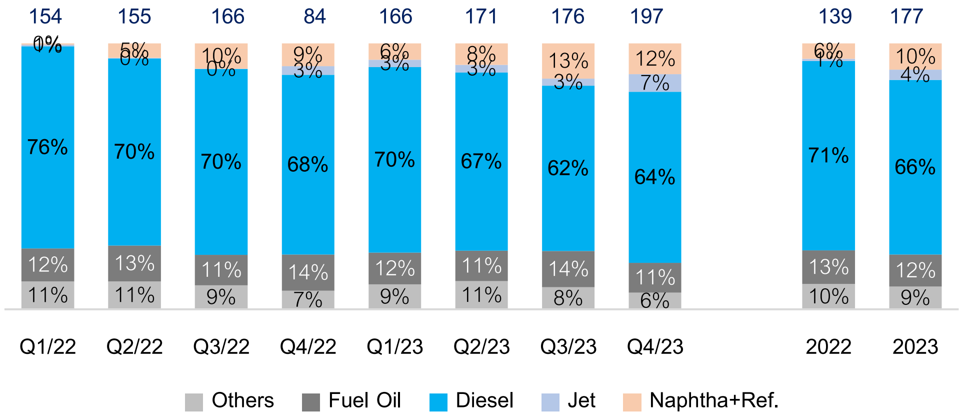


Upstream - Refinery

Refinery Intake (KBD)



Refinery Sales Volume (KBD)

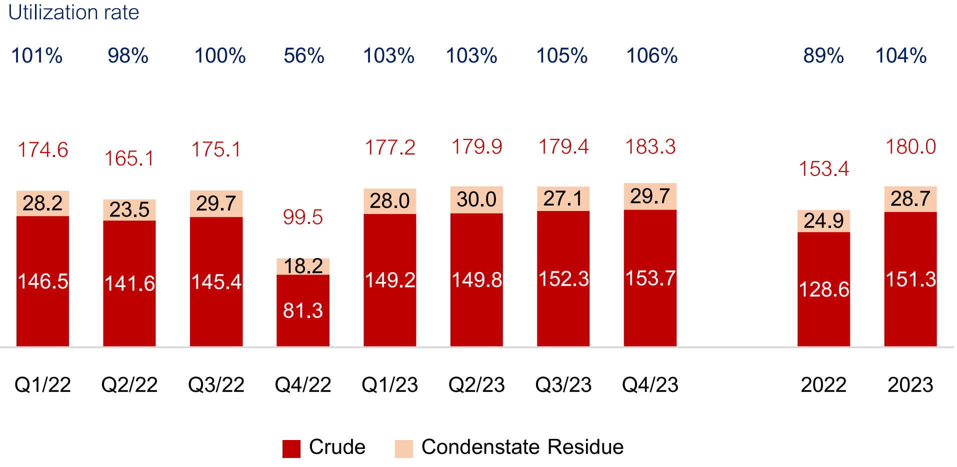


Gross Refinery Margin

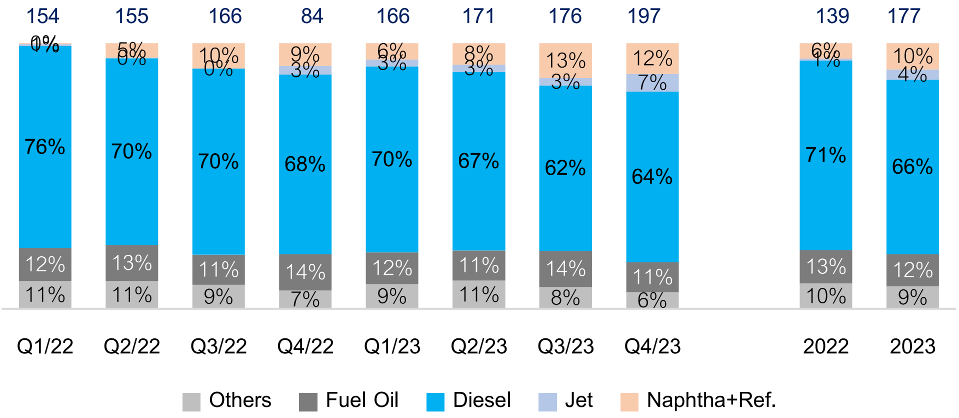
$/BBL	Q1/22	Q2/22	Q3/22	Q4/22	Q1/23	Q2/23	Q3/23	Q4/23	2022	2023
Market GRM	7.6	21.1	9.8	9.7	10.3	5.7	12.6	9.0	12.1	9.4
Stock Gain (Loss) net NRV	4.5	4.9	(8.6)	(7.1)	(2.6)	(2.8)	3.6	(3.3)	(1.3)	(1.2)
Hedging Gain (Loss)	(16.6)	(20.7)	(3.9)	0.0	1.3	0.9	(4.2)	1.2	(11.0)	(0.2)
Accounting GRM	(4.5)	5.2	(2.7)	2.6	9.0	3.8	12.1	6.9	(0.2)	8.0

Upstream - Aromatics

Aromatics Intake (KTons)



Aromatics Sales Volume (KTons)

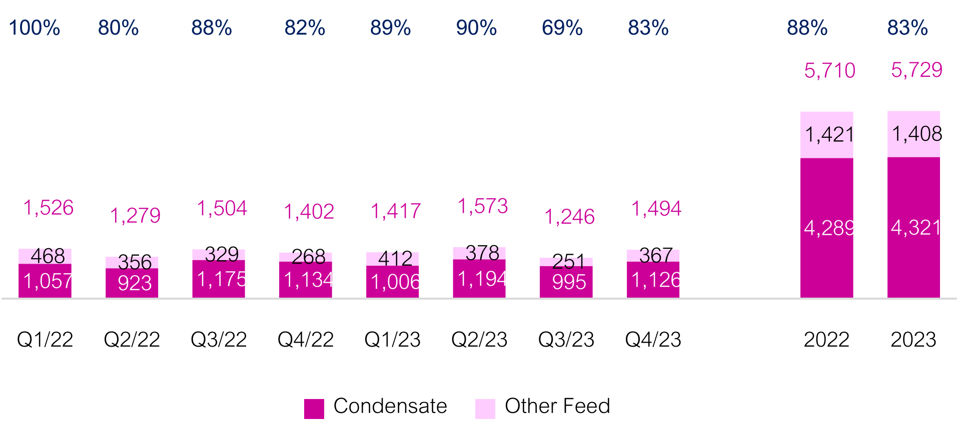


Aromatics BTX P2F

$/ton	Q1/22	Q2/22	Q3/22	Q4/22	Q1/23	Q2/23	Q3/23	Q4/23	2022	2023
BTX P2F	48	117	78	96	248	165	164	180	85	190
Stock Gain (Loss) net NRV	129	36	(144)	(45)	(19)	(32)	96	(30)	(7)	1
Hedging Gain (Loss)	3	(109)	9	19	14	(9)	(18)	7	(18)	(1)
Accounting P2F	179	44	(57)	70	244	124	242	157	59	190

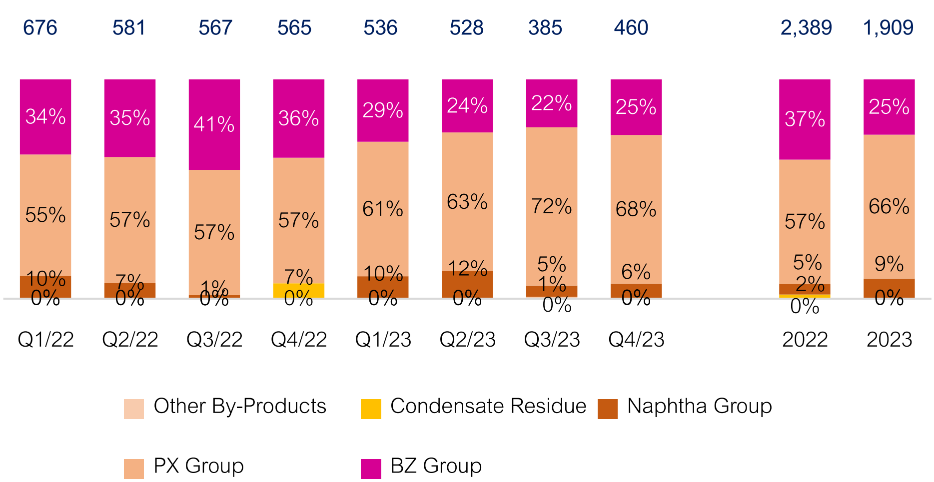
Upstream - Olefins

Olefins Intake (KTons)



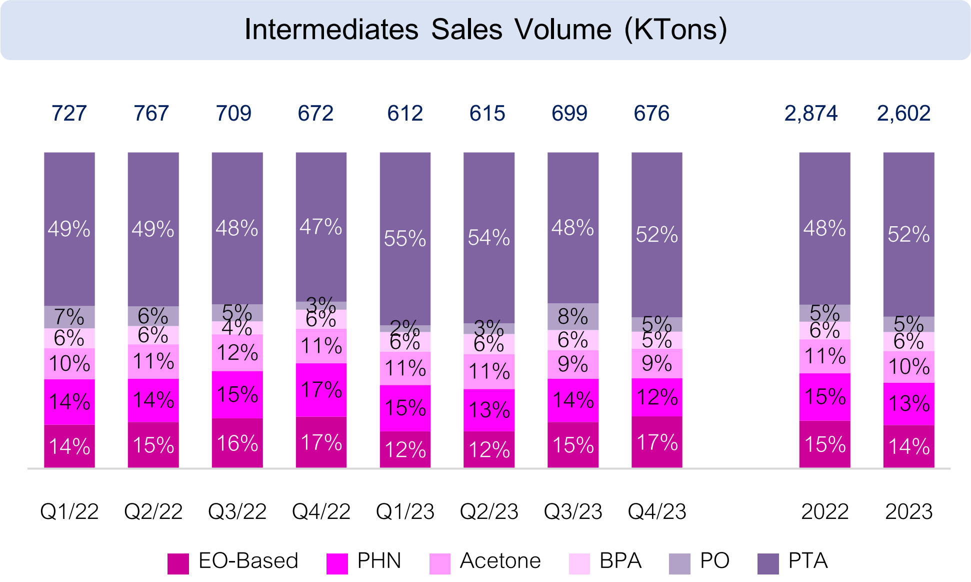
Other Feedstocks are Reformate, Pygas, and Heavy Naphtha

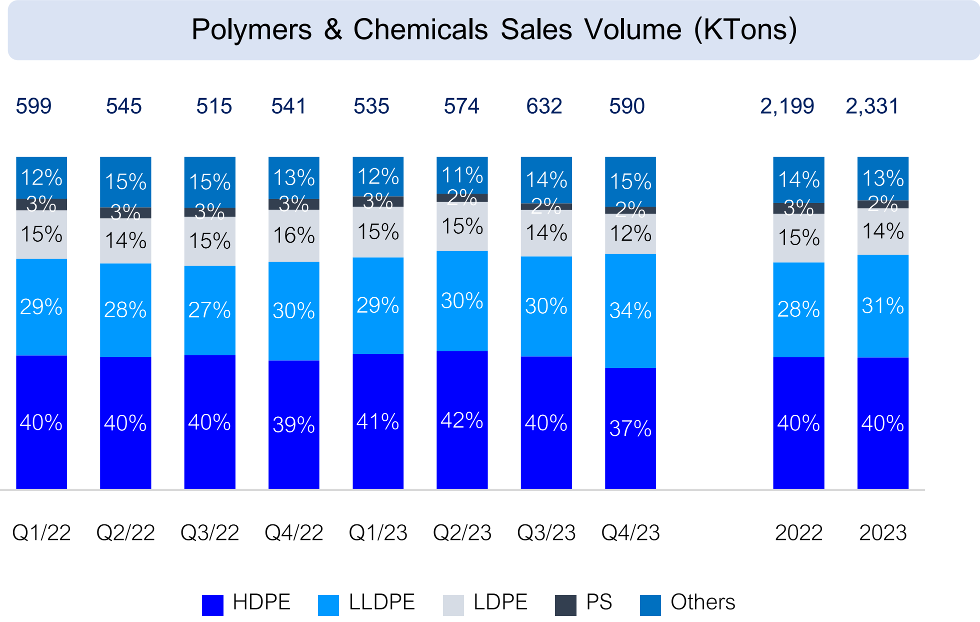
Olefins Sales Volume (KTons)



Intermediates

Polymers & Chemicals





Utilization rate

Utilization rate	Q1/22	Q2/22	Q3/22	Q4/22	Q1/23	Q2/23	Q3/23	Q4/23	2022	2023
Upstream										
- Refinery	101%	98%	100%	56%	103%	103%	105%	106%	89%	104%
- Aromatics	100%	80%	88%	82%	89%	90%	69%	83%	88%	83%
- Olefins	85%	75%	83%	76%	72%	81%	89%	78%	80%	80%
Intermediates										
- MEG	66%	88%	84%	79%	13%	4%	90%	78%	79%	47%
- Phenol	119%	118%	116%	107%	104%	98%	102%	91%	115%	99%
- BPA	119%	112%	71%	107%	98%	103%	103%	95%	102%	100%
- PO	104%	81%	69%	22%	26%	46%	106%	61%	69%	60%
Polymers & Chemicals										
HDPE	111%	102%	95%	92%	106%	110%	110%	97%	100%	106%
LLDPE	92%	80%	97%	88%	93%	93%	105%	98%	89%	97%
LDPE	128%	85%	128%	121%	96%	119%	115%	93%	115%	106%
Total PE	106%	90%	101%	95%	99%	104%	109%	97%	98%	102%

Market Prices

Product	Unit	Y. 2021 [Actual]	Y. 2022 [Actual]	Y. 2023 [Actual]	Y. 2024 [Forecast]	Change Y. 24 - 23
Crude : Dubai	$/bbl	69.2	96.3	82.1	75 - 85	↓
Petroleum Product :						
▪ Diesel 10 PPM - Dubai	$/bbl	8.4	39	24.3	18 – 22	↓
▪ VLSFO - Dubai	$/bbl	12.6	22.5	11.5	9 - 12	↓
Aromatics Chain :						
▪ PX – Naphtha	$/Ton	213	319	389	370 - 390	↑
▪ PTA Margin	$/Ton	92	106	85	100 – 110	↑
▪ PET Margin	$/Ton	168	175	89	100 – 110	↑
▪ BZ – Naphtha	$/Ton	268	244	248	240 – 260	↑
▪ Phenol Margin	$/Ton	448	357	252	210 – 230	↓
Olefins Chain :						
▪ HDPE	$/Ton	1181	1203	1044	1050 – 1080	↑
▪ HDPE – Naphtha	$/Ton	536	418	394	410-440	↑

Highlight Y. 24

- Slow economic growth [-]
- Non-OPEC supply growth [-]

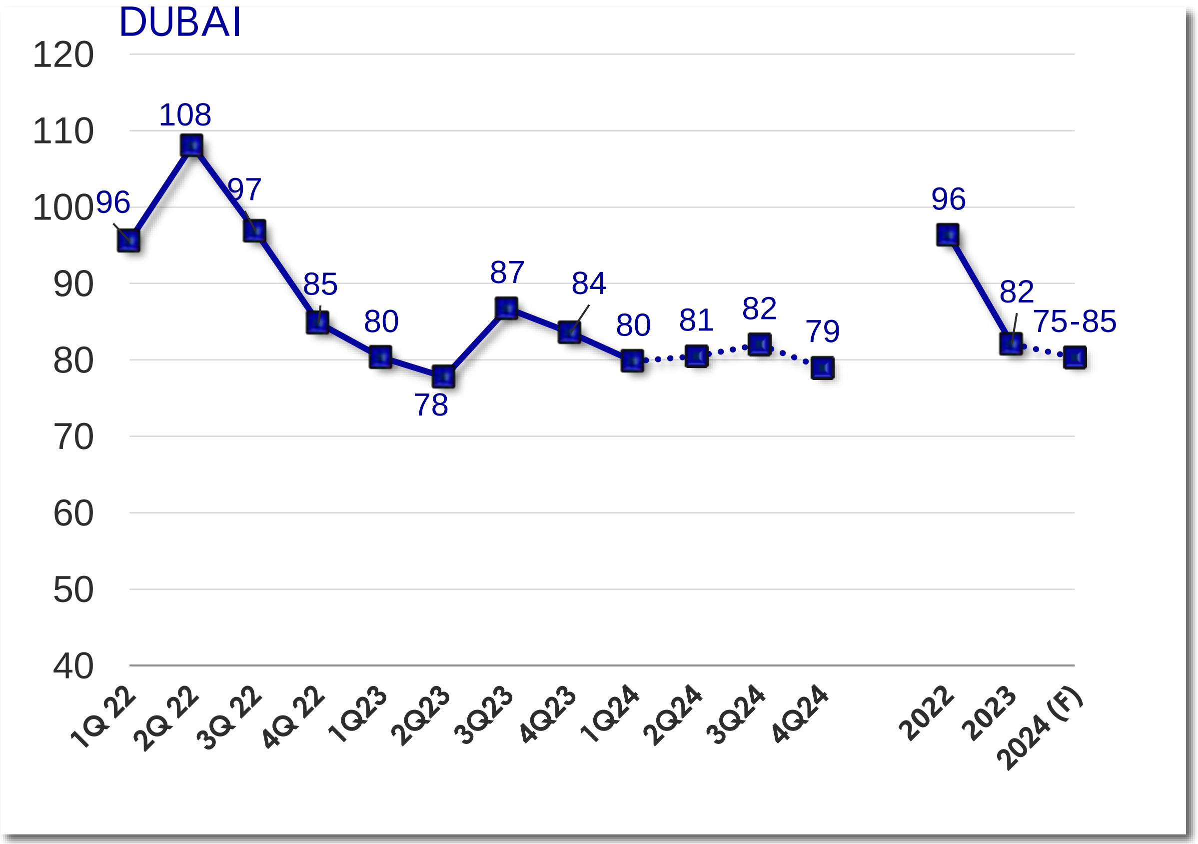
- New Refinery [-]

- Gasoline cost push [+]
- Strongly growth of **derivatives'** additional cap [+]
- New Capacity [-]
- Slow economic growth [-]

Source: Platts, ICIS, GC's Price Forecast as of 22 Jan 2024

- Geopolitical tensions in the Middle East, while tighten oil supply from OPEC+ through year-end
- Economic concern, which expects oil demand growth slower than Y2023

Crude Price, $/bbl



$/bbl	2022	2023	2024 (F)
Dubai	96.3	82.1	75-85

Source: PTTGC as of 22 Jan 24 Price Forecast

Market Commentary : Crude

Crude

2H2023

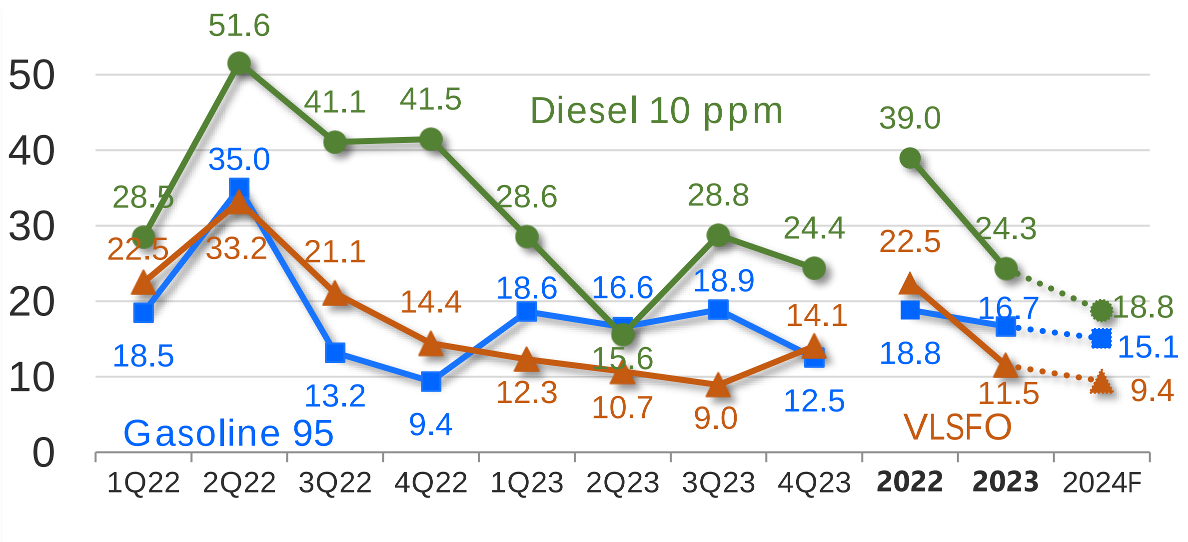
- Geopolitics tension among Israel-Hamas war, but limited impact as no oil & gas supply disruption.
- Tight supply from Saudi Arabia voluntary cut a further 1 mb/d, Russia to additional 0.3 mb/d export reduction until Dec23, extended if required.
- China to boost oil demand Y2023 to 1.7 of world 2.2 MBD.
- U.S. crude oil production increases in Q4/2023 to reach 2019 level at 13.4 mb/d.

2024

- Escalating geopolitical tensions in the Middle East continues through Y2024; however, no energy markets disruption.
- Tight supply from OPEC+ voluntary cut 2.2 mb/d, extended to Q1/2024.
- Economic & inflation concern; GDP growth to slightly improve from 3.0% in 2023 and 3.1% in 2024 (Version: Jan 2024)
- Global oil demand growth to slow from +2.3 in 2023 to +1.2 mb/d in 2024.
- Non-OPEC supply growth +1.1 mb/d; U.S., Canada, Brazil, Guyana in Y2024

Strong margins in 2H 2023 seen due to robust diesel & gasoline, with 2024 likely mirroring the trend despite contrasting demand forecasts.

Refined Products Price, $/bbl



Spread over Dubai, $/bbl	2022	2023	2024 (F)
Diesel 10 ppm	39.0	24.3	18 – 22
Gasoline 95	18.8	16.7	14 – 18
VLSFO	22.5	11.5	9 - 12

Market Commentary : Refinery

Diesel

Gasoline

VLSFO

2H 2023

- Strong diesel crack supports overall refined product margins due to the lack of a China export quota.
- Healthy gasoline demand during peak driving season and an El Niño-lengthened summer could further support margins.
- Jet demand recovers slowly due to weak global economic activity, especially in Europe.
- Strong LSFO cracks are expected due to lower Al Zour Refinery exports as it supplies domestic utility plants.

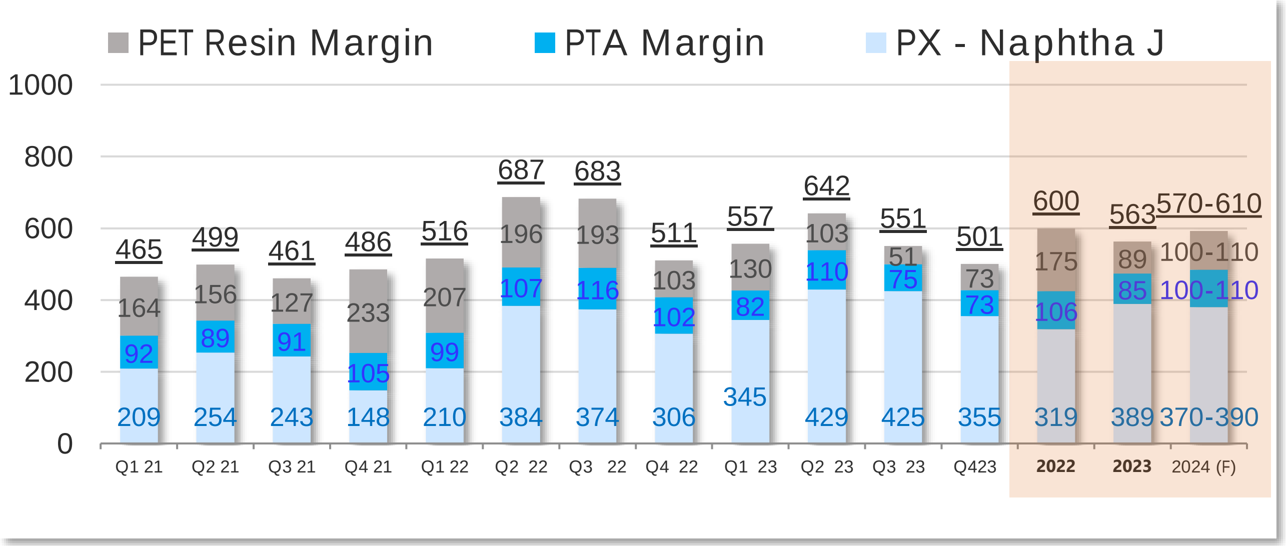
2024

- Overall refined product margins are likely to be strong due to low middle distillate yields from OPEC+ cuts, which keep diesel crack strong.
- Jet demand is expected to recover to the 2019 level, supported by a significant economic stimulus from China.
- The EIA's 2024 oil demand forecast is 1.4 MBD, citing harsher economic conditions. In contrast, Energy Aspect sees refinery additions exceeding 2.9 MBD.

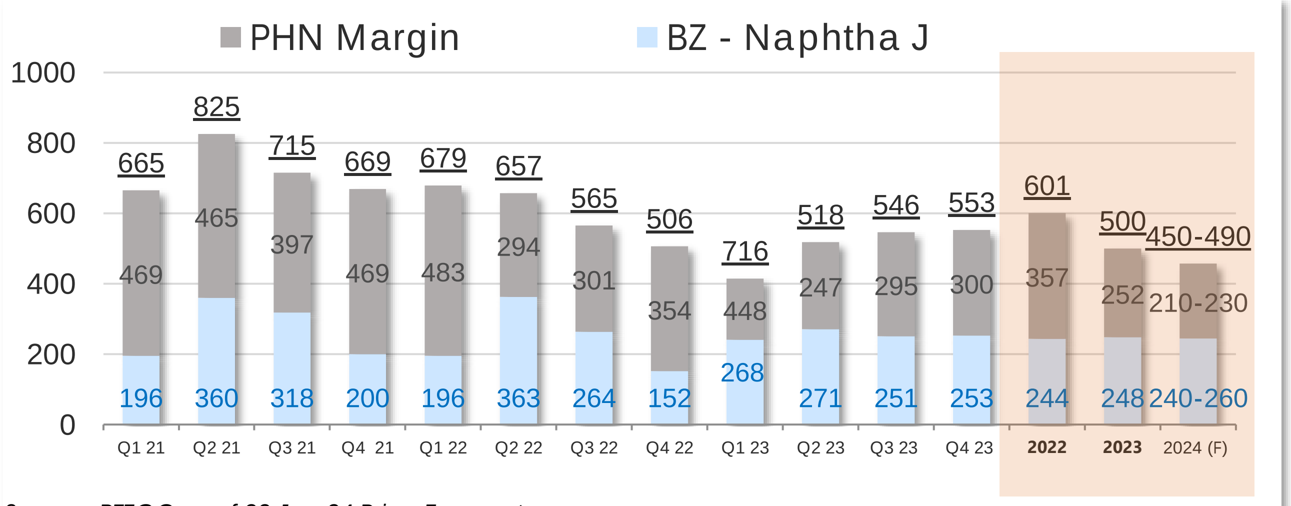
Source: PTTGC as of 22 Jan 24 Price Forecast

- Global economic concern amid geopolitical conflicts & logistics disruption
- Upcoming new capacities of Aromatics chains still challenge the markets

Paraxylene Value Chain Spreads, $/T



Benzene Value Chain Spreads, $/T



Source: PTTGC as of 22 Jan 24 Price Forecast

Market Commentary : Aromatics

PX / PTA / PET

2H 2023
- PX market supported from S/D maintenance, Gasoline cost push & Winter textile season
- Supply loss from ZPC (PX 4 MTA) & Shenghong (PX 2.8 MTA) ≈ 10% of world PX capacity unplanned S/D in **Jun'**23 support PX margin
- Overall market still challenge from global economic concern

2024
- Expected Economics concern & Geopolitical conflict will recover amid lower new PX capacities ≈ 0.8 MTA (1% world capacity)
- New PTA & PET capacities ≈ 9.2 MTA (8% world capacity)and 1.1 MTA (3% world capacity) respectively will support PX demand
- Lower new PTA & PET capacities compared to last year will support PTA & PET margins
- Overall PX chain margins in 2024 better than 2023 but still challenge from economic concern & consumer behavior change spend more conservative

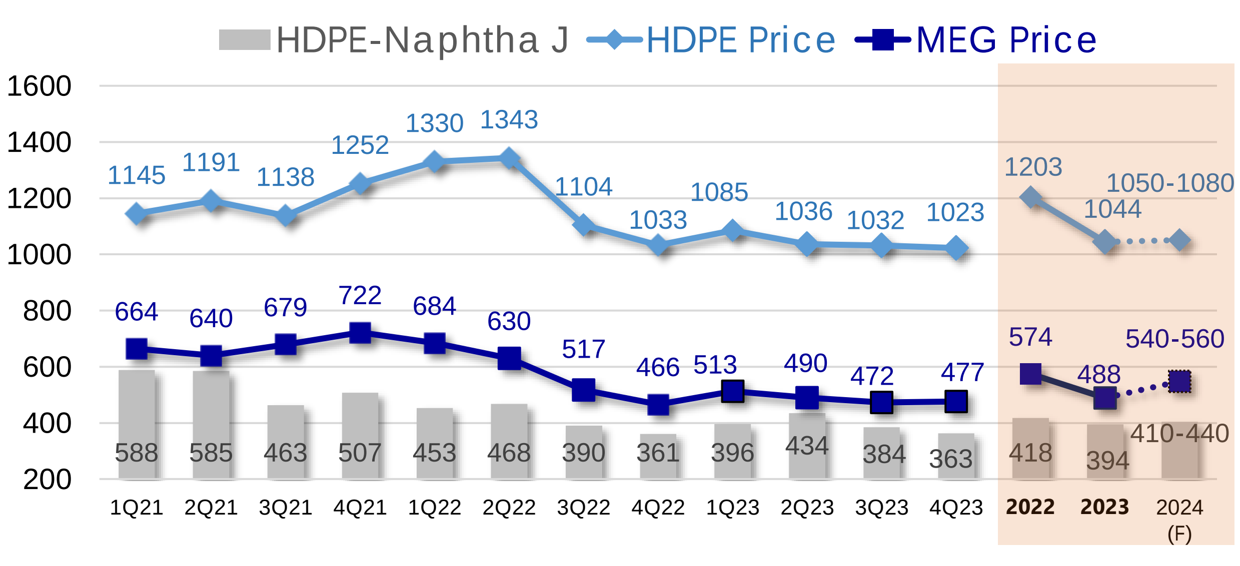
BZ / Phenol

2H 2023
- BZ market supported from S/D maintenance, Gasoline cost push , less pygas on lower crackers production
- Supply loss from ZPC (BZ 2.6 MTA) & Shenghong (BZ 1.7 MTA) ≈ 6% of world BZ capacity unplanned S/D in **Jun'**23 support BZ margin
- Overall market still challenge from global economic concern pressure BZ chain demand in construction , automotive sectors.

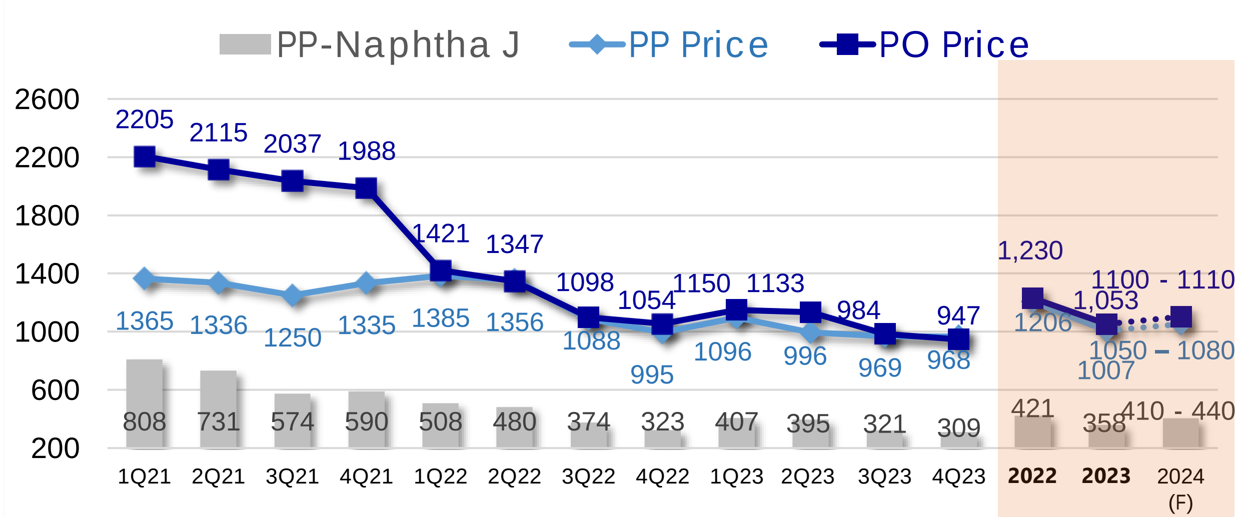
2024
- Expected Economics concern & Geopolitical conflict will recover amid lower new BZ capacities ≈ 1.1 MTA (1% world capacity)
- Lower new Phenol capacities compared to last year will support Phenol margins
- Hybrid working support BZ chain application for electrical appliance, computer , smartphone etc.
- New Phenol capacities 0.75 MTA (5% world capacity) pressure Phenol margin
- Overall BZ chain margins in 2024 slightly lower than 2023 due to economic concern & consumer behavior changes spend more conservative

Fundamental to improved from slower capacity addition. Uncertainty remain on economics.

Ethylene Derivatives Price, $/T



Propylene Derivatives Price, $/T



Source: PTTGC as of 22 Jan 24 Price Forecast

Market Commentary: Olefins

PE

2H 2023
- Buying interest capped by continue slow global demand recovery and feedstock volatility. Sentiment also bearish from ongoing geopolitical tension.

2024
- Fundamental to remain under pressure from weak economic in China to affect buying interest. Continue geopolitical tension also remain concern.
- Gradual in demand recovery still expecting in later part of 2024 after fiscal measure easing, bringing some support back to PE market.

MEG

2H 2023
- MEG market pressured from high supply in as China's inventory level mounted and continue limit buying interest from economic concern.

2024
- Eased supply pressure from heavy T/A in key producer Saudi Arabia.
- New capacities around 2 MTA expected in 2024 lower than around 6 MTA in 2023, make market more balance.
- Demand growth in 2024 estimated at 3.5% improved from 2023 at 2.6%.

PP

2H 2023
- New capacities S/U in China and SEA amid persistency weakness in the Global economy continued to weigh down buying sentiment.

2024
- Market remain under challenge from gradually startup of new capacity amid demand uncertainty. Additional supply in 2024 is 5.6 MTA or 5% of global supply, though, it is lower than 2023 which around 7 MTA.
- Demand in 1Q will be supported by the implement of new import quota in Indonesia.

PO

2H 2023
- Slow demand recovery and new capacity S/U outstripped heavy capacity loss from planned maintenance and production cut.

2024
- Huge wave of new capacities, mainly in China, will continue to pressure sentiment. Around 3 MTA of upcoming capacity in 2024 (17% of global supply.
- Demand is expected to recovery with growth estimated at 2.7%, higher than 2023 at -1.3%

International business Outlook - Partial volume rebound is expected in 2H24, driven by demand recovery in key market segments and supported by growth in key regions

Supporting factors

- Favorable GDP outlook in key emerging markets where allnex has a strong footprint
  - India
  - China
- Demand surge for containers in China drives container coating resins sales
- Continued positive outlook for the electronics and automotive industry in 2024
- Emerging opportunities within sustainable segments, allnex is well-positioned to capitalize on green chemistries and sustainable product innovations.

Factors to be monitored

- High-interest rates and persistent inflation, especially in advanced economies
- Geopolitical factors to be monitored
  - Conflict between Russia and Ukraine
  - Tension between Israel and Hamas
  - Ongoing trade wars between US and China