



Opportunity Day Q3/2024
22 November 2024

Disclaimer

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The global recognized sustainable company

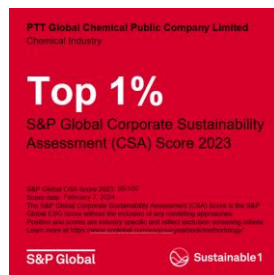


The 1st company in
Thailand recognized in

LEAD LEVEL

Member of
**Dow Jones
Sustainability Indices**

Powered by the S&P Global CSA



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 5 % of companies assessed by EcoVadis awarded

▶ 2024: **Gold** Sustainability Medal



(ESG Rating BBB)



FTSE4Good
(Top 3)



Top 4th percentile
In Chemical Industry
(Low Risk)



SET Sustainability Awards of Honor
7 consecutive years



SET ESG Ratings AAA
Thailand Sustainability Investment
9 consecutive years

Agenda

1

Strategic execution

2

Financial highlights

3

Market outlook



Agenda

1

Strategic execution

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Market outlook



1

Portfolio Transformation

Healthy Portfolio

- Classification
- Carving & Enhancement
- Strategic Partnership Encompass

2

Competitiveness Reinforcement

Holistic Optimization

- Global Feedstock Optimization & Group Collaboration Enhancement
- Market-focused Business Transformation
- Operational Excellence, Advanced & Digital Technology

3

Enhance position in High Value & Low Carbon Business

MTP Specialty Hub



- Transform MTP into Southeast Asia Specialty Hub

4

Accelerate allnex to Finish Line and Grow Further

High Value Business

- allnex Full Potential



5

Balance Business with Sustainability

Sustainable Portfolio

- Seeding Bio & Circularity Business for Future
- Decarbonization Scenarios



6

Enablers for Transformation



Innovation & CVC



Organization Transformation



Value-based Financial Management

Olefins competitiveness differentiates GC



Ensured ethane feedstock security

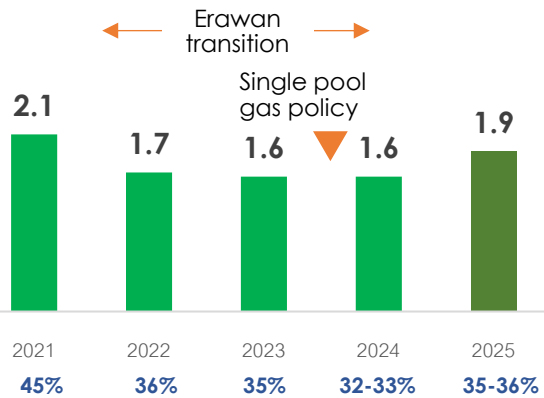
Ethane agreement revision with PTT

- **Existing agreement** with PTT valid until 2030
- **Short-term agreement revision:**
 - To reflect GSP's natural gas costs
 - Approx. 3% increase in Ethane cost
 - Any future finalization of Single Pool Gas Pricing regulatory study will be evaluated by both PTT and GC

Net Impact to 2024 Ethane costs of approx. (200) MB:

- Retroactive impact from Jan 2024 to be booked in Q4/24
- Net impact with additional ethane for Q4/24

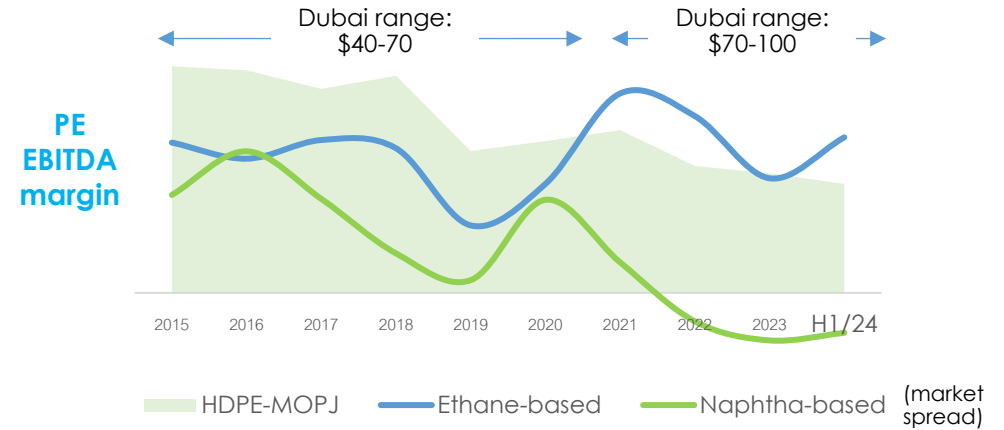
Ethane feedstock (MT)



**Secured ~20%
increase in ethane
for 2025**

Ethane
portion

Unmatched position in feedstock competitiveness and flexibility



- Ethane retains competitiveness to Naphtha throughout cycles
- Competitiveness has enlarged as HDPE-MOPJ squeezed while crude price elevated



Ethane as baseload feedstock

- ✓ Ethane feedstock security from PTT

Flexibility from ORP/ OMP

- ✓ Internal-sourced Naphtha / LPG enhances margins protection

Potential for global feedstock sourcing

- ✓ GC's crackers well-configured for gas feedstock

Business restructure of prioritized companies



- **Concluded pathway** for business restructuring of identified companies
- **Expected uplift to EBITDA of THB 2.6 bn and NI of THB 5.0 bn** through discontinuing loss contribution from both companies from 2025 onwards

Note: Estimated normalized impact from without Vencorex and PTTAC based on annualized 9M/2024 figures



vencorex
CHEMICALS

**Vencorex
France
& Vencorex TDI**

- **10 Sep:** Court accepted Judicial reorganization/Safeguarding process
- **Judicial Reorganization process on progress** as planned
- **Assets bidding is on process:** Commercial court is considering bidding conditions
- **Complete the reorganization process by end of 2024.** Site decontamination planned for Q1/2025
- All provisions will be booked in 2024

**Vencorex US,
Vencorex TH,
and other
entities**

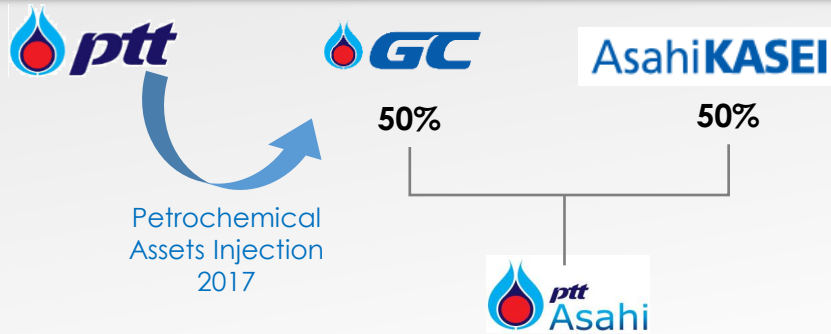
- External monomer sourcing progresses as planned
- Business/assets sale is on process.



ptt
Asahi

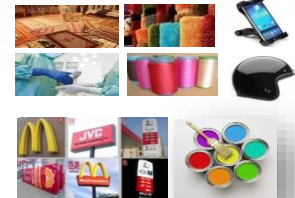
- **15 Nov: Approval of Business Withdrawal Process**
- **Execution of stakeholder management program** to ensure the smooth transition and minimize the impact

Holding Structure: Partnership with AKC



Company Overview

- Acquired from PTT in 2017 to consolidate under Petrochemical Flagship
- Cost competitive position driven by Propane-based technology
- Capacity:
 - Acrylonitrile (AN) 200 KTA
 - Methyl Methacrylate (MMA) 85 KTA



Captured Demand Growth with Cost Competitive Position and Synergies with GC

- **Engaged with JV partner & supplier** on long-term competitiveness
- **Executed** series of improvement initiatives

JV partner announced impairment in PTTAC

- **Announced** business restructuring consideration
- **Concluded view on long term** market recovery and cycle movement of AN & MMA
- **Explored** flexibility of production process for product optimization

Decision on Business Withdrawal

2017

2021

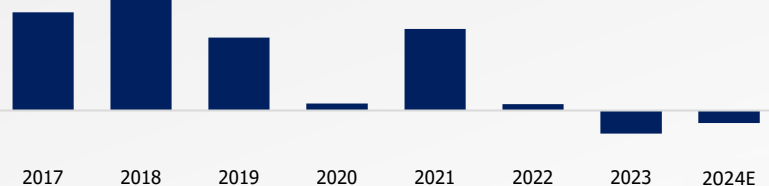
2022

May 2024

Q2-Q3/2024

Q4/2024

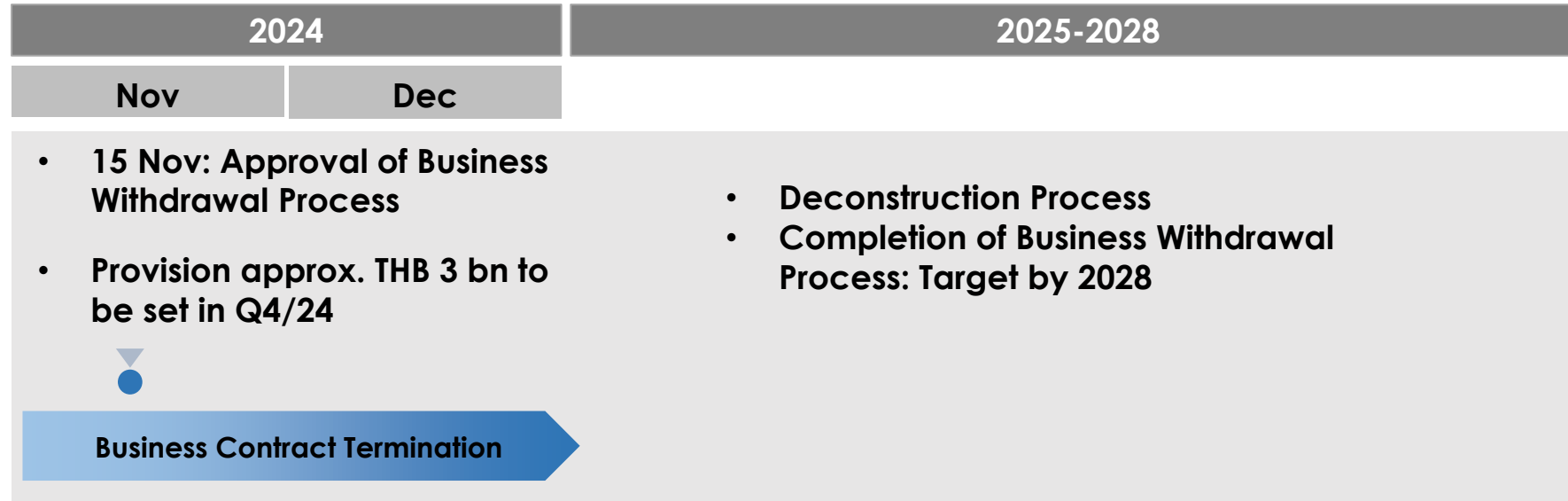
PTTAC EBITDA 2017-2024



Significant Adverse Impact from Change of Business Landscape

- **AN demand** decreased impact to low industry utilization rate (~70% expected through 2030)
- **PTTAC's propane-based technology** losing competitiveness to improving propylene-based technology
- **Improvement initiatives** (starting since 2022) not sufficient to sustain long term business viabilities

Process & Timeline



Stakeholder Management



Customer/ Supplier

Business transition plan to minimize impact to partners



Employee

Employee assistance program and communication series to ensure the smooth transition



Shareholder/ Partner

Coordination and Collaboration with AKC and other partners for optimal business decision



Government Agency

Compliance under Requirement of Law



Financial Institution/Investor

Timely communication with mitigation plan to minimize adverse impact

Restructuring Financial impacts



Q3/2024

Unit: MB	Q3/2024
Vencorex	
<ul style="list-style-type: none"> Impairment on all Vencorex entities (Non-cash) Note: conservative numbers includes VCR FR and outside FR 	7,960
<ul style="list-style-type: none"> Provisions Provide for costs related to site cleansing and exit costs 	614
PTTAC	
<ul style="list-style-type: none"> Impairment equivalent to full book value of investment in PTTAC (Non-cash) 	8,937

Financial covenants:

- No impact to GC's financial covenants

Q4/2024

Vencorex

- Vencorex's performance** is expected to be recognized until completion of the judicial reorganization process
- To fully book provision** subject to outcome of judicial reorganization process

PTTAC

- Provisions** related to PTTAC business withdrawal of **THB 3 bn** is expected to be booked in Q4/2024

2025

- Expected uplift to EBITDA of THB 2.6 bn and NI of THB 5.0 bn** through discontinuing loss contribution from both companies from 2025 onwards

Note: Estimated normalized impact from without Vencorex and PTTAC based on annualized 9M/2024 figures

Holistic Optimization to Reinforce Competitiveness



Build on existing foundation

Holistic Optimization: Enhance end to end optimization



Completed ORP/OMP Projects



Operational Excellence program



Digital transformation



Business process transformation

Improve Feedstock Security & Flexibility

- PTT Group collaboration
- Explore feedstock import from global sources

Add Values & Solution for Domestic & Strategic Market Customers

- Accelerate MFBT
- Products development for domestic & strategic markets

Adopt Technology to Enhance Supply Chain End to End Optimization

- Supply Planning Tool
- Plant-wide Optimization
- AI/Machine Learning

Enhance Efficiency & Performance and Roll out to allnex

- Roll out OpEx and best practices to allnex
- Parallel HVB knowledge capture from allnex

EBITDA Uplift benefit to reinforce competitiveness

Holistic optimization 2030 Target

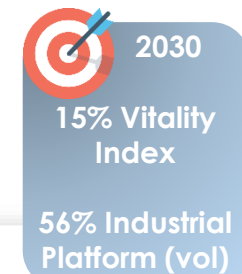
168 MUSD/year

Benefits from on-going programs

~150 MUSD/year



Complete downstream product portfolio offered to customers



Upstream

Intermediates

Polymers

AGC VINYTHAI

Chlor-Alkali

EDC/VCM

PVC

2.8 MT
Ethylene (C2)
Capacity

PE

PS

MEG

PET

Olefins

0.8 MT
Propylene (C3)
Capacity

PP

Phenol

PO

Polyols



*: After AVT's Expansion project completion

As a gas-based producer, we have higher portion of Ethylene chain products

Note:

PVC: AVT (32.7% owned by GC)
PP: HMC (41.4% owned by GC)

PET: TPRC (74% owned by GC)
Polyols: GCP (82.1% owned by GC)

Market-Focused Business Transformation (MFBT)

- **Sales portfolio optimization and market re-allocation** to optimize margins
- **Secure strategic market** by enhancing competitiveness and customer experience through **"Product & Service"**
- **Accelerate MFBT and application development** to penetrate to new sub-segments and increase market share

Integrated PVC chain

AGC VINYTHAI (32.7% owned by GC)

- **The only fully-integrated PVC chain producer in Thailand**
- **To be largest PVC producer in CLMVT** with expansion project set to **double AVT's PVC capacity to 850 KT in 2025**

Strong partnership enables superior technology

- **Lyondell Basell: PP (specialty grade)**
- **DynaChisso: PP compound**
- **Revolve Group: PE Rotomoulding**



2025 Outlook

Driven by higher volume with stable EBITDA margin

Volume Growth
~7%

AMER



9%

EMEA



8%

APAC



6%

India - Mahad Site



SEA Hub
Rayong

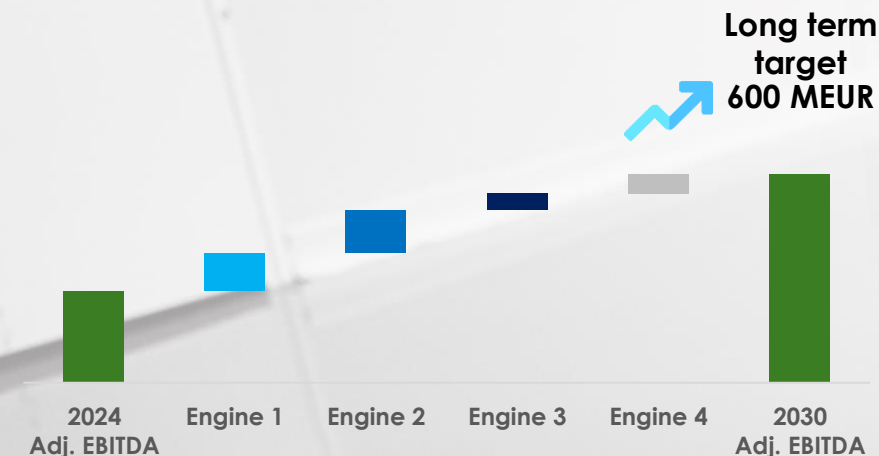


China Hub
Dushan Port



- ✓ Expansion of production (current capacity ~32 KTA)
- ✓ Focus on technologies without local competition in the region
- ✓ Serving selected positions in SEA markets
- ✓ FID in 2025

4 Engines EBITDA uplift



Total CAPEX plan (2025-2030) for each engine

Engine 1

Profitable growth through capacity expansion

Engine 2

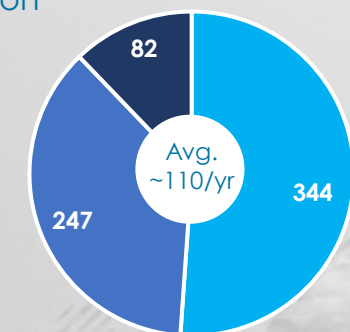
Operational Excellence

Engine 3

Innovation & Sustainability

Engine 4

Adjacencies and M&A



Muconic Acid Project MOU with Toray



Collaboration on technology development and feasibility study of bio-muconic acid and bio-adipic acid for commercial-scale plant in Thailand

Scope of MOU



Cellulosic Sugar

Bio-Muconic Acid

Bio-Adipic Acid

Bio-Nylon-6,6

Collaboration on Upscaling and Commercialization of Bio-muconic Acid and Its Derivatives

Target Plant Capacity: 40,000 ton / year

Indicative timeline: If project is feasible, both parties aim to commercialize in 2030

Align with GC's sustainability and innovation strategy



- **Fibers** 39%
- **Auto & Trucks** 26%
- **E&E** 11%
- **Appliances** 7%
- **Industrial** 7%
- **Others** 9%

Diverse applications which aligns with renewable and decarbonization targets

Agenda

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Strategic execution

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Financial highlights

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Market outlook



Earnings slightly declined from lower margins of Intermediates, but partly offset by Aromatics improvement. Impairments of PTTAC and VCR recognized in Q3/24.

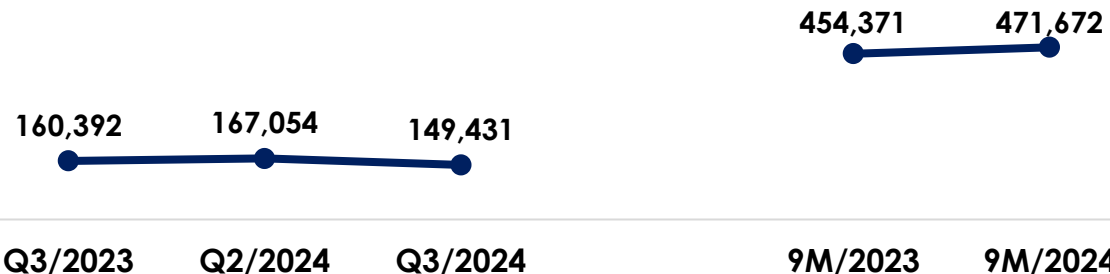


Revenue

Unit: MB

▼ 7% YoY ▼ 11% QoQ

▲ 4% YoY

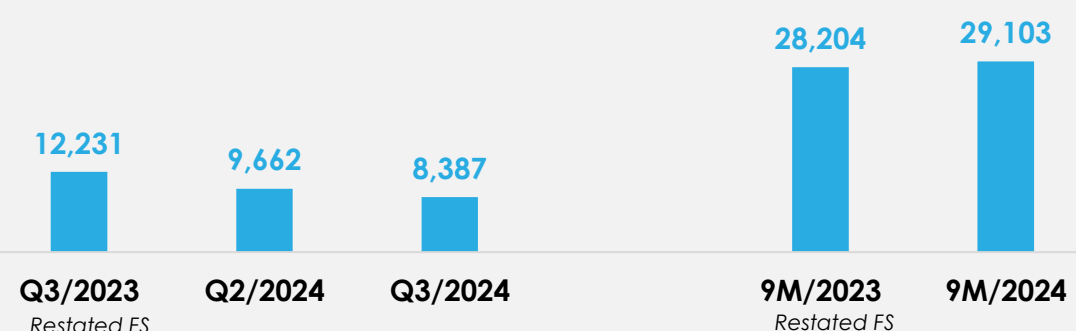


Adjusted EBITDA*

Unit: MB

▼ 31% YoY ▼ 13% QoQ

▲ 3% YoY



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

Operating Profit and NI

Unit: MB

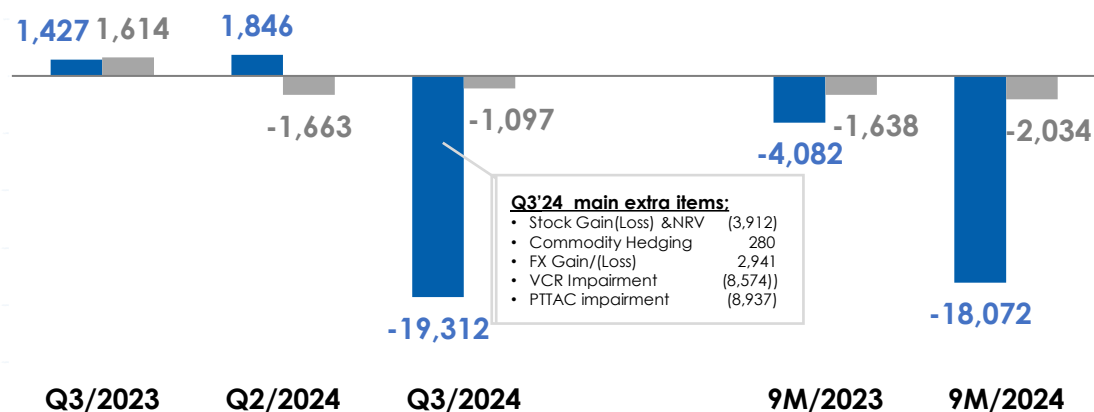
▼ <200% YoY ▼ <200% QoQ

▼ 168% YoY ▲ 34% QoQ

▼ <200% YoY

▼ 26% YoY

■ NI ■ Operating Profit

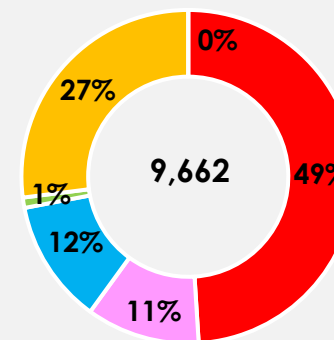


Q3'24 main extra items:

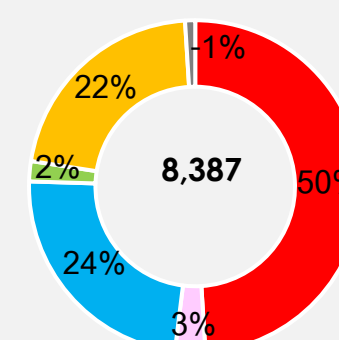
- Stock Gain(Loss) & NRV (3,912)
- Commodity Hedging 280
- FX Gain/(Loss) 2,941
- VCR Impairment (8,574)
- PTTAC impairment (8,937)

Adjusted EBITDA contribution

- Upstream
- Polymers and Chemicals
- Performance Chemicals
- Intermediates
- Bio & Circularity
- Service and Others



Q2/2024



Q3/2024

Consolidated Statement of Income – Q3/24

Unit : MB		Q3/2023 ¹	Q2/2024	Q3/2024	YoY % + /(-)	QoQ % + /(-)	9M/2023 ¹	9M/2024	YoY % + /(-)
1	Sales Revenue	160,392	167,054	149,431	-7%	-11%	454,371	471,672	4%
2	Feedstock cost	(121,632)	(130,669)	(114,590)	6%	12%	(344,225)	(363,178)	-6%
3	Product to Feed Margin	38,760	36,385	34,841	-10%	-4%	110,146	108,494	-1%
4	Variable Cost	(13,606)	(12,753)	(12,816)	6%	0%	(42,969)	(37,978)	12%
5	Fixed OH	(8,408)	(8,286)	(7,927)	6%	4%	(24,012)	(24,548)	-2%
6	Stock Gain/(Loss) and NRV	3,674	154	(3,912)	<-200%	<-200%	(343)	(3,398)	<-200%
7	Gain/(Loss) on Commodity Hedging	(2,729)	826	280	110%	-66%	(1,458)	1,213	183%
8	Other Revenue	2,434	4,816	1,492	-39%	-69%	6,090	7,712	27%
9	SG&A Expenses	(6,372)	(7,357)	(7,203)	-13%	2%	(19,589)	(21,526)	-10%
10	EBITDA	13,753	13,785	4,755	-65%	-66%	27,864	29,969	8%
11	Depreciation & Amortization	(7,225)	(8,146)	(7,598)	-5%	7%	(20,972)	(23,023)	-10%
12	Extra items	(625)	-	-	100%	0%	(633)	-	100%
13	EBIT	5,903	5,639	(2,843)	-148%	-150%	6,259	6,946	11%
14	Net financial expense	(2,714)	(2,815)	(2,814)	-4%	0%	(8,025)	(8,182)	-2%
15	FX Gain(Loss)	(1,146)	52	2,941	>200%	>200%	(1,497)	1,416	195%
16	Share of gain/(loss) from investment	(179)	(135)	(279)	-56%	-107%	(735)	(737)	0%
17	Corporate Income Tax	(467)	(903)	1,000	>200%	>200%	(153)	(195)	-27%
18	Net Profit/(Loss) after Tax (exclude impairment/restructuring cost)	1,397	1,838	(1,995)	<-200%	<-200%	(4,151)	(752)	82%
19	Net Profit/(loss) attributable to: Non-controlling interests	(30)	(8)	(194)	<-200%	<-200%	-69	-191	-177%
20	Net Profit/(Loss) after Tax (exclude impairment/restructuring cost)	1,427	1,846	(1,801)	<-200%	-198%	(4,082)	(561)	86%
21	Loss from impairment of assets (Vencorex)	-	-	(7,960)	100%	100%	-	(7,960)	100%
22	Provision for business restructuring (Vencorex)	-	-	(614)	100%	100%	-	(614)	100%
22	Share of loss from JV from impairment of assets of PITAC	-	-	(8,937)	100%	100%	-	(8,937)	100%
23	Net Profit/(Loss) after Tax to Owners of the Company (include impairment/resturcuring cost)	1,427	1,846	(19,312)	<-200%	<-200%	(4,082)	(18,072)	<-200%
24	Adjusted EBITDA ²	12,231	9,662	8,387	-31%	-13%	28,204	29,103	3%

- Negative impact to P/L
 + Positive impact to P/L

YoY highlights (Q3/24 VS Q3/23)

- (A) - **P2F**
lower performance of Refinery effected by the lower GRM and lower POL spread
- (B) + **VC** : Align with the lower olefins utilization rate and the decrease in utilities price of allnex
- (C) - **FOH&SGA**
Higher selling expense from phenol business following the increase in sales volume and higher freight cost
- (D) - **Other Revenue**
Insurance claim from GCL incident of 500 MB recorded in Q3/23
- (F) - **Net Financial Expense** increased due to the higher interest rate in the market, partly offset with lower interest payment from bond

QoQ highlights (Q3/24 VS Q2/24)

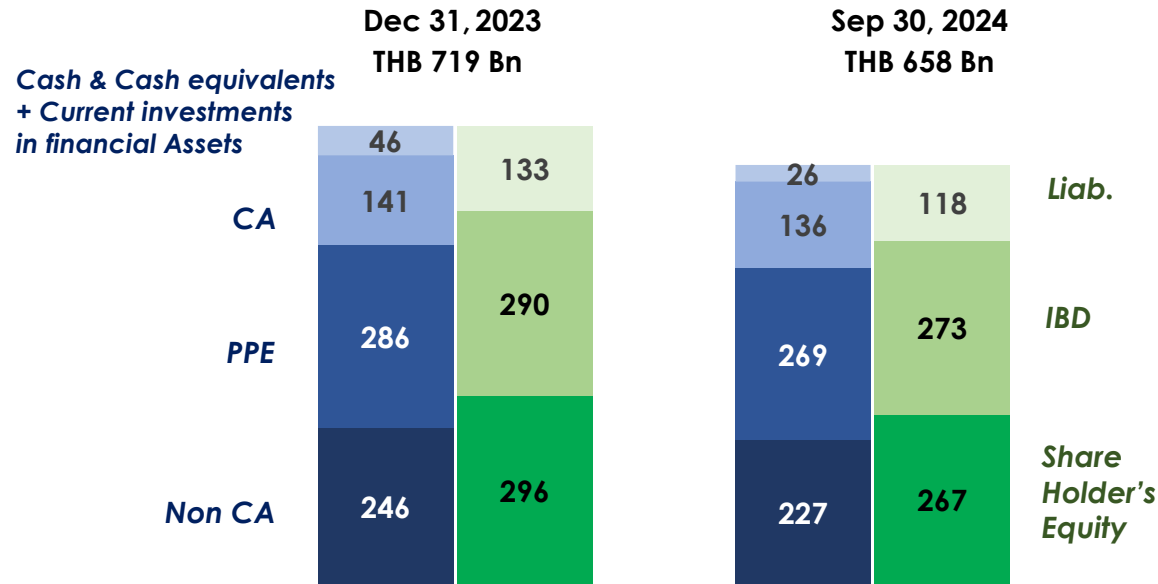
- (A) - **P2F**
Lower performance of Intermediates and allnex , party offset with higher aromatics performance
- (C) + **FOH&SGA**
mainly decrease from OPEX reduction program
- (D) - **Other Revenue**
One-time bond buy back gain recorded in Q2/24 of 2,895 MB
- (E) + Depreciation decreased due to the accelerated depreciation related to allnex footprint optimization in Q2/24

1) 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.

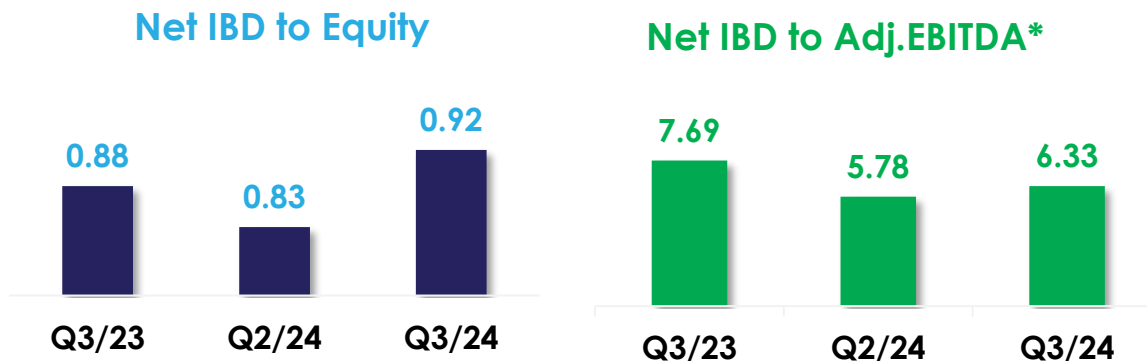
2) Adjusted EBITDA refers to EBITDA excluding Stock gain/(loss),NRV, Gain/(loss) from commodity hedging, and Extra item. and Adjusted EBITDA in 2023 was retroactively adjusted by excluding gain from bond buy-back in 2023

Strong Financial Position

Statements of Financial Position

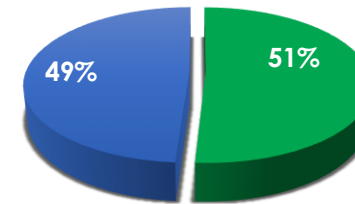


Key financial Ratios



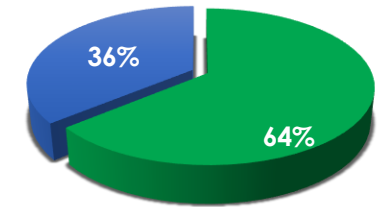
Long Term Debt Portfolio

Interest Breakdown



■ Fixed ■ Float

Currency Breakdown



■ THB ■ USD & Others

Total Long Term Debt THB 244 Bn
As of 30 Sep 24

Avg. Loan Life	5.72 yrs
Avg. Cost of Debts	4.15 %
Avg. Cost of Debts (after CCS)	3.98%

Commit to maintain "Investment-grade Credit Rating"

S&P Global
Ratings

MOODY'S
RATINGS

FitchRatings

International Ratings		
BBB (Stable)	Baa3 (Negative)	BBB (Stable)

National Ratings
AA (TH) (Stable)

Capex to support GC's sustainable growth



GC Group (Consolidated entities)



CAPEX of PTTGC group	Total	Estimated Annual CAPEX (M.USD)				
	2025-2029	2025	2026	2027	2028	2029
1) PTTGC group excluding allnex	183	163	20	-	-	-
2) allnex expansion & growth Capex	657	126	141	160	138	92
total	840	288	161	160	138	92

Notes:

1. Group annual maintenance ~ 400 M.USD (including allnex) and are excluded from the table
2. PTTGC group 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. Source of fund will be from allnex.
4. FX assumption for USD/EURO is 1.12 for allnex CAPEX plan

Maintained Investment grade rating from all credit ratings agencies

	Ratings	Recent updates
Fitch Ratings	BBB (Stable)	21 Sep: Revised Outlook from Negative to Stable
MOODY'S RATINGS	Baa3 (Negative)	30 Oct: No Rating Action after rating review completed
S&P Global Ratings	BBB (Stable)	-

พิธีแต่งตั้งผู้จัดการจัดจำหน่ายหุ้นด้วยสิทธิที่มีลักษณะคล้ายหุ้น
บริษัท พิกี้ โกลบอล เคมิคอล จำกัด (มหาชน)

The backdrop features the following logos from left to right: Bangkok Bank, CIMB THAI, Kasikornbank, KASIKORN SECURITIES, Krungsri, KTB, Maybank, TTB, and Siam Commercial Bank.

Multiple initiatives for sustaining balance sheet

- **GC appointed 12 JLAS** for issuance of THB perpetual bonds
- **Equity credit:** Fitch confirmed 50% equity credit from proposed issuance. GC also expects equity credit from Moody's & S&P.
- **1st issuance of perpetual bonds by PTT group companies in 10 years**
- **Currently in issuance progress**

- **Non-core assets divestments:** Continue progress on divestments on non-core assets
- **Opex / Capex discipline**

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Financial highlights

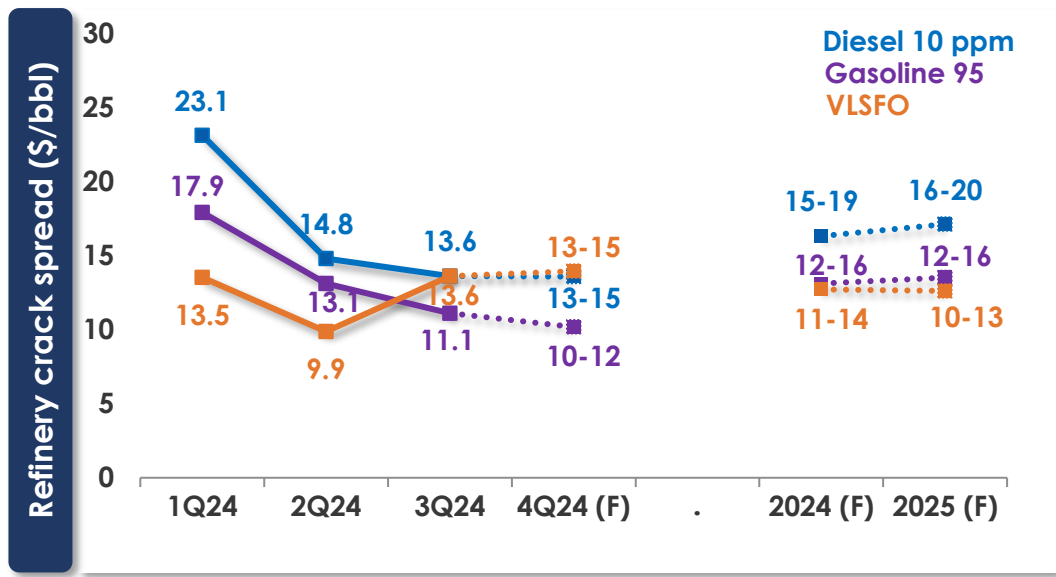
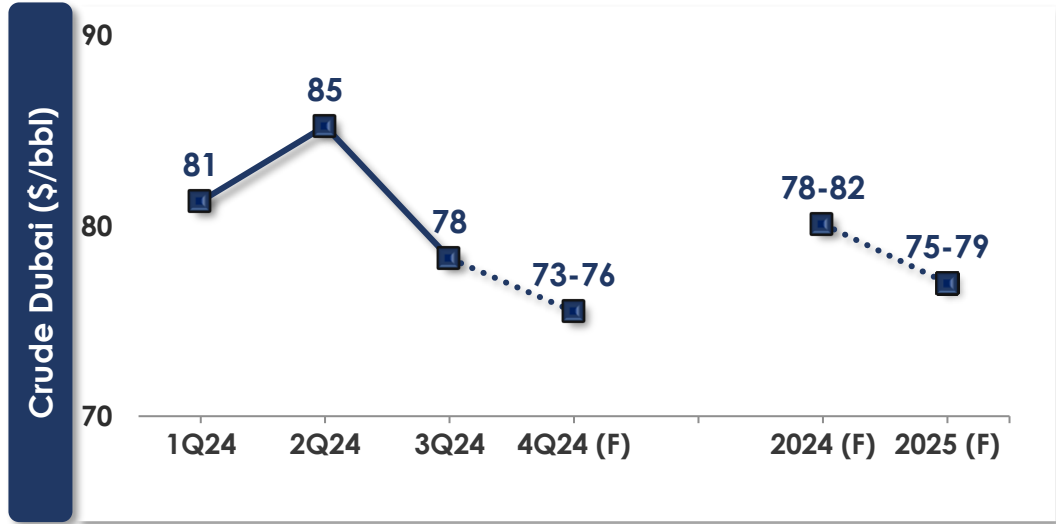
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Market outlook



- Geopolitical tensions, Fed rate cuts, the upcoming winter could boost oil prices in late 2024.
- Increased production from non-OPEC will lead to a longer oil supply.

Market Highlights



Bullish



Risk of Middle East tensions and ongoing Russia-Ukraine conflict



Fed's interest rate cut supports oil demand



China has rolled out a series of stimulus measures to counter economic challenges

Bearish



Non-OPEC crude production growth leads to more supply in 2025



More OPEC+ production from unwinding cuts (2.2 mb/d) from Jan 25 onwards

Bullish



Interest rate cuts in the EU (-0.75% this year) and US (-0.50% this year) may support overall consumption



Delayed start-up of refinery outages in Indonesia and Malaysia.



An upcoming winter due to the La Niña could support heating demand in 4Q24 and 1Q25

Bearish



High freight rates continue to limit Diesel/Jet arbitrage flow from Asia to Europe amid Red Sea tension

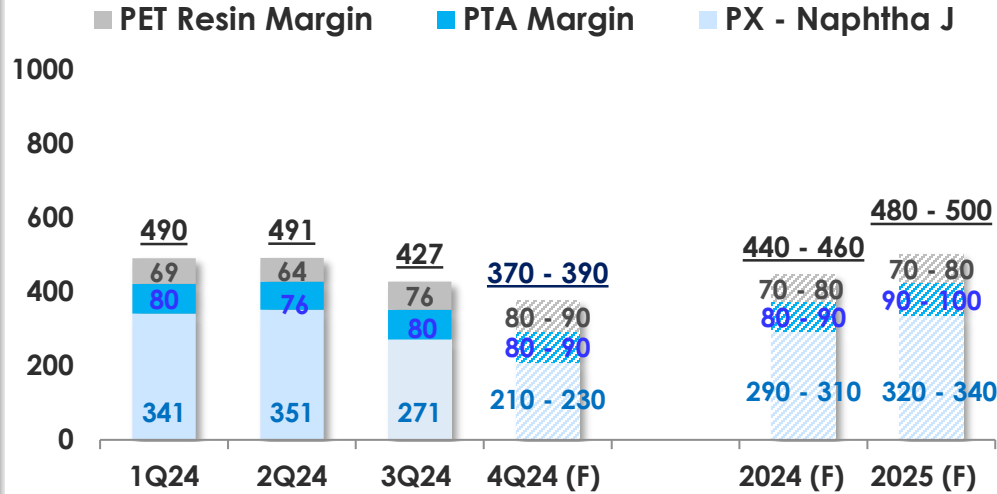


The gradual ramp-up of **Nigeria's Dangote (650KBD)** and **China's Yulong (400KBD)** refineries will add more supply in 4Q24

- Global economic concerns pressure aromatics chain demand and margins
- Producers control supply by production cut to secure margins

Market Highlights

Paraxylene Chain, \$/T



PX

Bullish



Expected PX demand will improve in 4Q24 from winter textile & Festive Season



Additional capacity 0.85 MTA of Saudi's Jazan delays start up from 4Q24 to 3Q25



Textile & PET bottle demand supported in 4Q24 from festive season



PTA & PET margins will improve in 4Q24 on producers control supply and T/A season

PTA
PET

Bearish



Global economic concerns limit Textile demand in overall

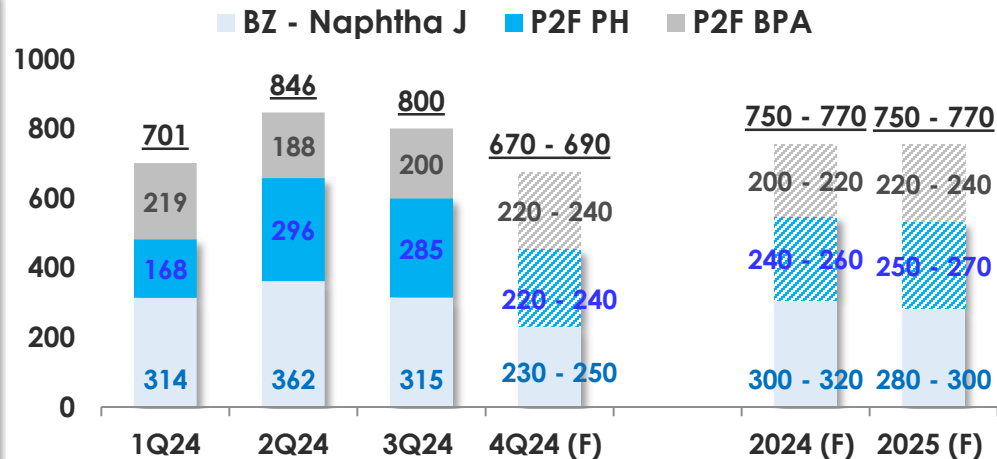


Consumer behavior changes spend more conservative amid high polyester inventory pressure PX chain demand and margins



Additional PTA & PET capacities in 2024 ≈ 5 MTA (4% of world cap) and 1.5 MTA (0.5 % of world cap) respectively pressure PTA, PET margins

Benzene Chain, \$/T



BZ

Bullish



E&E, appliance sectors will improve in 4Q24 from festive season



BZ market is supported by controlled supply, reduced pygas production



China's stimulus measures are expected to support the construction, E&E sectors

PH
BPA

Bearish



Global economic concerns limit consumer spending

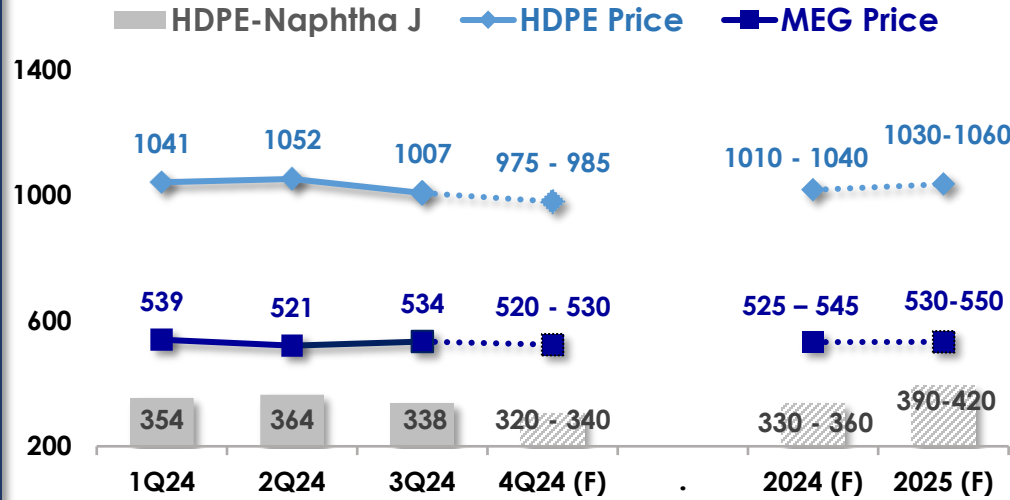


Additional Phenol capacity around 0.5 MTA in China (Fuyu 0.15 MTA) and South Korea (GS Caltex 0.35 MTA) target to S/U in Dec 24

- Additional capacity remains a key pressure factor for olefins chains.
- Potential China's stimulus packages could bolster demand.

Market Highlights

Ethylene Chain, \$/T



PE

Bullish



Demand for packaging to improve in 4Q24 due to upcoming festive Xmas & New Year activities



Expect continuous Chinese stimulus packages would boost local consumption and PE demand respectively



Less supply from key exporters in 4Q24 such as US and Middle East to support price.

MEG

Bearish

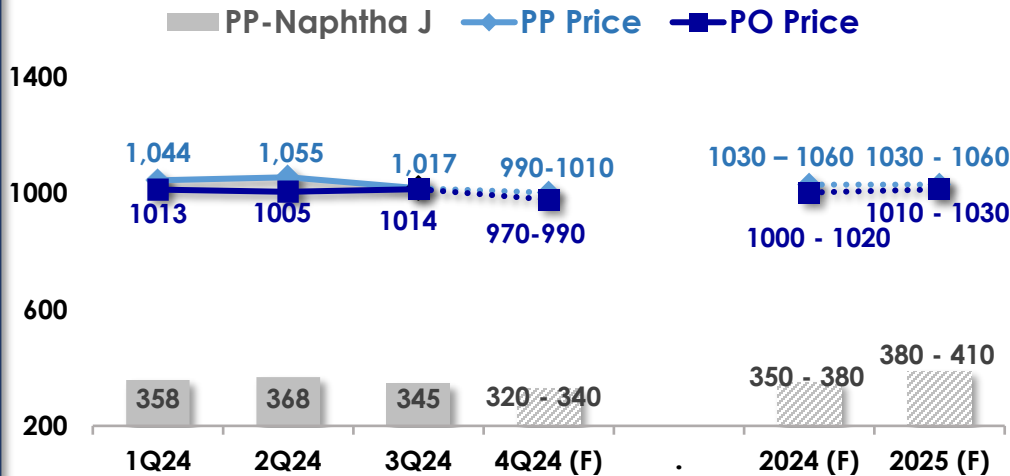


Additional Chinese capacity (4Q24 1.6 MTA and 1Q25 3.8 MTA) will pressure PE prices and raise market competitions.



New MEG capacities 1.8 MTA expected in 2025 which has been delayed from 2024.

Propylene Chain, \$/T



PP

Bullish



Packaging demand to improve following gift season in 4Q24 and **expected stimulus in China** could boost consumer confidence.



Supply decreased from commercial production cut due to extended periods of low margins



Production cut is likely to continue in 2025 together with **rationalization capacity in US**



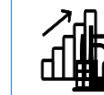
Central bank globally started to **cut interest rate in 4Q24** and **further cut are expected in 2025** could lift end market demand

PO

Bearish



1.3 MTA of upcoming Chinese PP capacity in 4Q24 could add more pressure to the market



Additional capacity around 1.2 MTA targets to S/U in 2025

Macro Trend: Q4/2024 Gloomy Economic Outlook Amid Rising Risks and Geopolitical Tensions

Major Events

- 1. War: (i) Russia-Ukraine:** Biden may expedite pending aid for Ukraine before leaving office. **(ii) Israel-Hamas conflict:** Trump's second term could intensify the conflict.
- 2. US-China "competition without conflict:** Prioritizing economic recovery amid ongoing tech/EV competition.
- 3. Global election super cycle:** leaning to the right in the EU (from France and UK). National Red Shift in the U.S.
- 4. World Bank forecasts 2024 growth to slow for third consecutive year:** slow growth in US and China; modest recovery in EU

Risks:

- Supply chain disrupts and industry strategy changes
- Freight cost
- Regulatory and policy uncertainty, including climate policy

Q4/2024 Economic Outlook

- **U.S.:** Growth outlook upgraded, but debt dynamics remain unstable under current fiscal policies.
- **E.U.:** Growth downgrades in major economies due to a slower-than-expected recovery.
- **China:** Deepening growth slowdown, with an increase in protectionist policies impacting trade.

2025 To watch:

- **Gaza War:** Increased tensions anticipated
- **Ukraine:** U.S. support for NATO/Ukraine
- **U.S.:** Debt ceiling suspension ends in Jan; policy shift under Trump 2.0: tax cuts, tariffs, sanctions, climate regulations.
- **E.U.:** Strategic direction expected after finalizing the EU commissioner; key election in Germany.
- **China:** Release of the 15th Five-Year Plan for 2026–2030 expected.

2024 Outlook

Q4/2024

Industry Outlook: Continued strong demand in Packaging across all regions and industrial metal in APAC

GDP trends vary, PMIs show upward trends

(real GDP, annual percentage)	2024 As of Apr	2024 As of Jul	2024 As of Oct
World Output	3.2	3.2	3.2
United States	2.7	2.6	2.8
Europe	1.1	0.9	0.8
China	4.6	5.0	4.8
India	6.8	7.0	7.0

Source: IMF | Jan 2024, Apr 2024, July 2024

Manufacturing PMI	Aug 2024	Sep 2024	Oct 2024
Global	49.5	48.8	49.4
United States	47.9	47.3	48.5
Europe	45.8	45.0	46.0
China	50.4	49.3	50.3
India	57.5	56.5	57.5

End Market (Exposure)	Q4/2024 vs Q3/2024			Q4/2024 outlook
	EMEA	AMER	APAC	
Auto & Mobility (~28%)				<p>Q4/2024 outlook ■ Negative ■ Stable ■ Positive</p> <ul style="list-style-type: none"> Continued soft demand in all regions in Q4 2024. However, it's expected a demand pickup in China starting from Q1 2025 supported by the incentive of scrappage policy leads to additional demand of passenger car. Continued strong demand in APAC both in Industrial metal and Coil & Precoated metal supported by on-going supply chain disruption in Red Sea and new property rescue plan from Government, respectively. Soft demand in EMEA and AMER explained by economic and industrial construction slowdown. Overall packaging demand continue strong compared to other end markets. On going concern of economic slowdown pressures the construction activities in all regions. However, it's expected to see the improving demand starting next year fueled by China's stimulus package and rate cut by Fed in November.
Industrial goods (~25%)				
Packaging (~27%)				
Construction & Decoration (~20%)				

Confidential









Price and Spread outlook

Price and Spread

Dubai	\$78-82/bbl
Diesel spread	\$15-19/bbl
PX over Naphtha	\$290-310/ton
BZ over Naphtha	\$300-320/ton
HDPE price	\$1,010-1,040/ton
HDPE-MOPJ	\$330-360/ton

Olefins Feedstock mix

Ethane portion
Ethane Volume

2024E	2025E
	 \$75-79/bbl  \$16-20/bbl  \$320-340/ton  \$280-300/ton  \$1,030-1,060/ton  \$390-420/ton
32-33% 1,500-1,600 Kton	35-36% 1,800-1,900 Kton

2025 key factors:

- **Refinery operation:** Savings on ship-to-ship costs
- **Ethane feedstock:** Increased ethane flow
- **Portfolio transformation:**
 - Discontinue loss contribution from Vecnorex and PTAC
 - Conclude Vencorex assets sales
- **Opex/Capex control to enhance liquidity and EBITDA**

Utilization rate

Olefins and allnex volume to increase, while refinery shutdown in Q4/2025



Refinery

91%



Aromatics

84%



Olefins

91%



Polymers

107%

allnex
The Coating Resins Company

**Allnex
volume growth 7%**

Projects to start up in 2025



 NatureWorks

Natureworks Plant 2

COD: Q3/2025



AGC VINYTHAI

AGC Vinythai Expansion Plant COD: Q2/2025

Ethylene vol from GC: 50KT in 2025 and 190 KT in 2026 onwards



Bio-refinery SAF

COD: Q1/2025

Thank You

ครั้งทศวรรษ ... ยืนหนึ่งในโลก

ขอขอบคุณทุกแรงใจ ที่ร่วมกันดูแลโลกใบนี้ให้ดีขึ้นไปด้วยกัน

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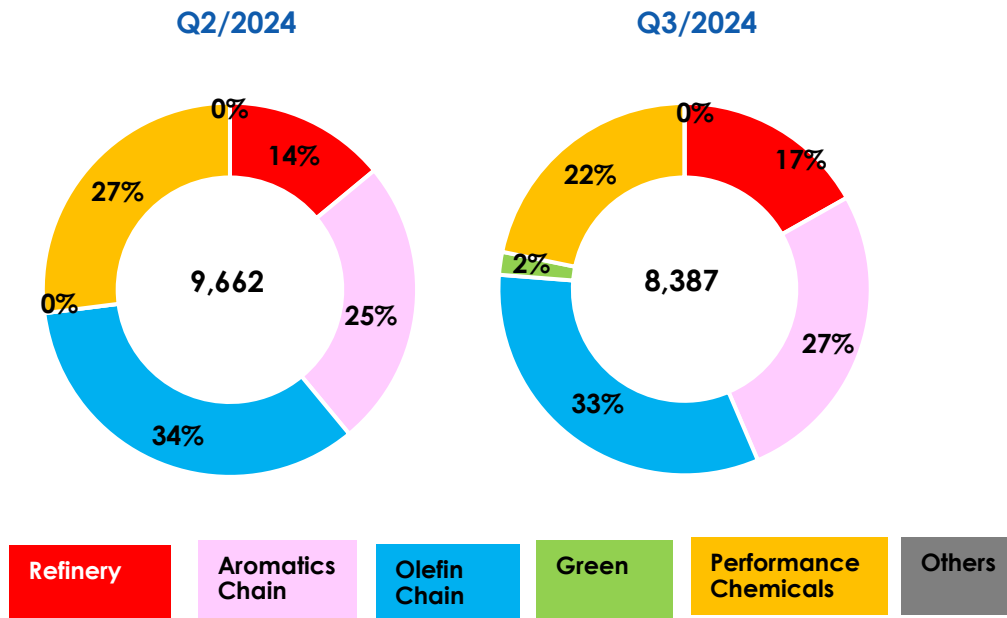
Appendix

Contribution by market chains



Adjusted EBITDA contribution by market chains

Unit: MB



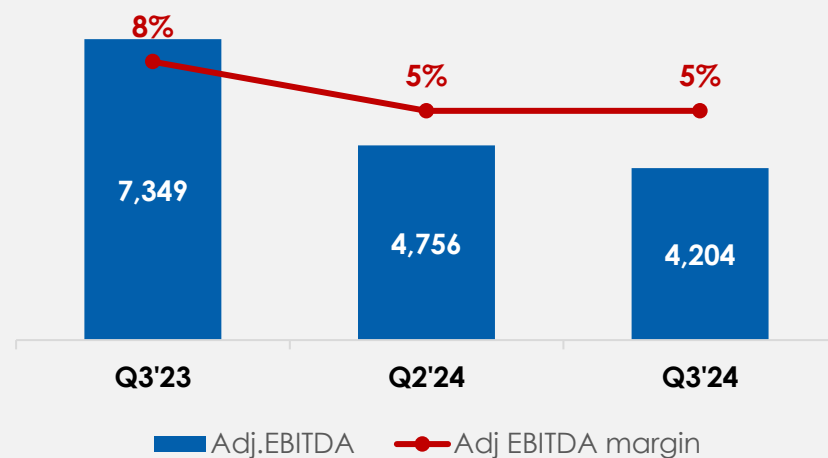
Market Prices/Spread (\$/ton)

		Q2/24	Q3/24
Refinery	GRM (\$/bbl)	3.2	3.5
Aromatics Chain	PX Spread	344	294
	BZ Spread	354	336
	Phenol Spread	296	285
	PTA Spread	76	80
Olefin Chain	HDPE	1,052	995
	HDPE-Naphtha	364	323
	MEG Spread	3	35

Upstream

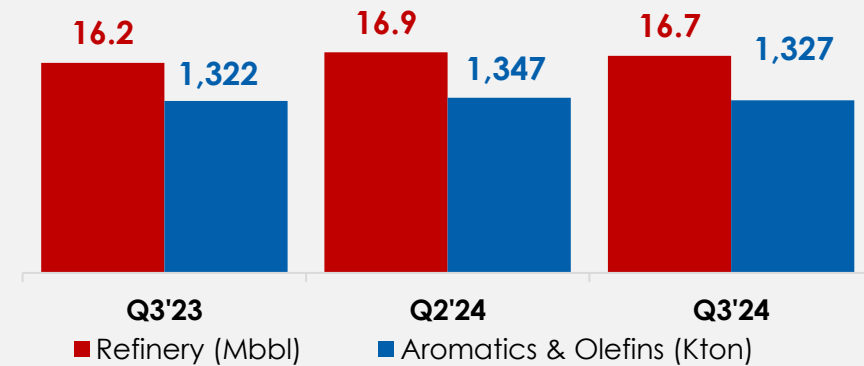
Adjusted EBITDA

Unit : MB



Sales volume

Unit : Mbbl & Kton



Key products/spread	Q3/23	Q2/24	Q3/24
Dubai (\$/bbl)	86.7	85.3	78.3
Diesel - Dubai (\$/bbl)	28.8	14.8*	13.6*
(500 ppm in 2023 and 10 ppm in 2024)			
LSFO-Dubai (\$/bbl)	8.9	9.9	13.6
Crude premium (\$/bbl)	6	7	7
Market GRM (\$/bbl)	12.6	3.2	3.5
PX spread (\$/ton)	357	344	294
BZ spread (\$/ton)	183	354	336
BTX P2F (\$/ton)**	217	219	241
Naphtha (\$/ton)	648	688	672
Ethylene price (\$/ton)	822	980	962
Propylene price (\$/ton)	822	823	875
Hedging gain/(loss) (mb)	(2,729)	826	280
Stock gain/(loss) net NRV (mb)	3,793	274	(3,635)

*Referred to Diesel 10 ppm since 2024,EURO5 has been stipulated in Thailand

**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.

Market highlights QoQ:

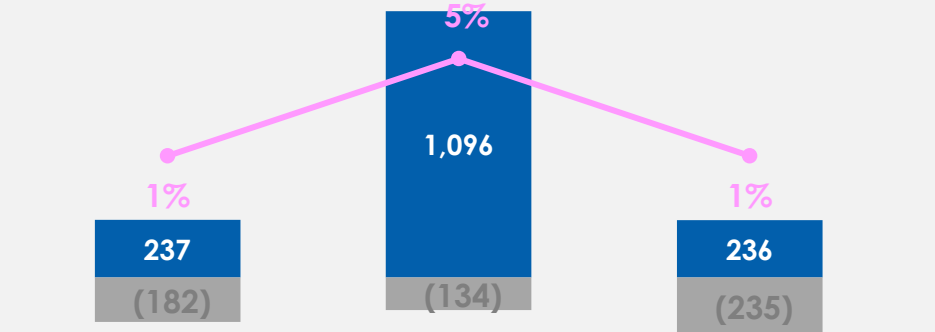
- The key refined products spread is primarily impacted by oversupply and global economic downturns. The Gasoil spread declined due to higher export from India, Taiwan and South Korea as Monsoon season. LSFO spread increased due to lower export from China and Middle East.
- The PX spread decreased due to economics concern and sluggish in downstream market. Also, the BZ spread decreased as the slow demand recovery. However, the increase in Aromatics performance is due to a higher by-product spread.
- Lower Ethylene spread following the softened in crude oil and naphtha price ,while Propylene spread went up due to the tight supply in SEA.

Intermediates

Adjusted EBITDA & equity incomes

Unit : MB

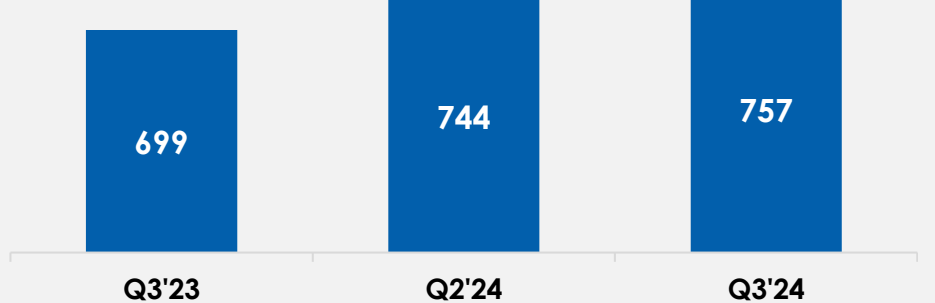
■ Adj.EBITDA ■ Profit sharings from JVs ● Adj EBITDA margin



Q3'23 Q2'24 Q3'24
Note : JV companies include PTTAC

Sales volume

Unit : Kton



Note: excludes sales volume of JV's companies

Key products/spread	Q3/23	Q2/24	Q3/24
PHN spread (\$/ton)	295	296	285
BPA spread (\$/ton)	200	188	200
MEG ASP spread (\$/ton)	38	3	35
PTA spread (\$/ton)	72	76	79
PO spread (\$/ton)	162	182	140
AN spread (\$/ton)	348	473	321
MMA spread (\$/ton)	928	1,374	1,531

Phenol spread = Phenol-0.878 BZ-0.474 Propylene+0.616 Acetone
BPA spread = BPA-0.853 Phenol-0.273 Acetone
MEG spread = MEG ASP - 0.5285Ethylene
PTA spread = PTA-0.67PX
PO spread = PO-Propylene
AN spread = AN-Propylene
MMA spread = MMA- Naphtha

Market highlights QoQ:

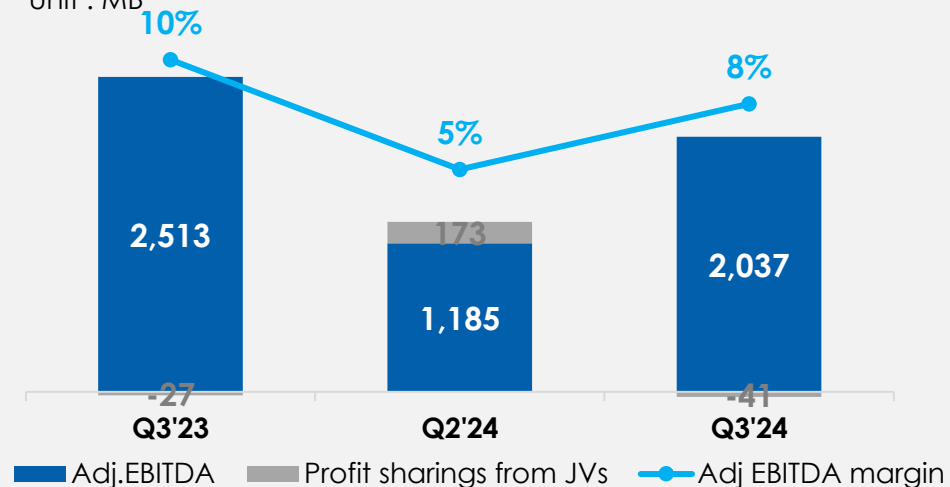
Rising in Propylene price led to the weak performance of Propylene chain business

- Lower Phenol spread mainly attributed by higher feedstock cost of Propylene amid the subdued demand , partly offset with higher sales volume of Phenol, after the T/A in Q2/2024
- Significant drop in Propylene Oxide performance following the rise in feedstock cost
- Higher MEG spread resulting from the decrease in feedstock cost of Ethylene price
- AN spread decreased following the increase in feedstock (Propylene)

Polymers & Chemicals

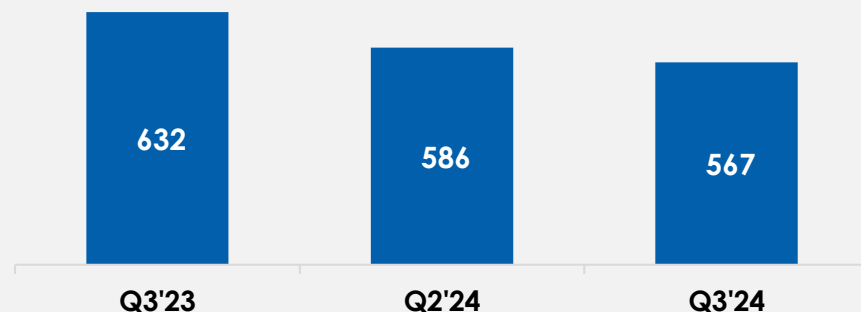
Adjusted EBITDA & equity incomes

Unit : MB



Sales volume

Unit : Kton



Note: excludes sales volume of JV's companies

Note: JV companies include HMC, AVT, RGL, and DynaChisso

Key products/spread	Q3/23	Q2/24	Q3/24
PE price (\$/ton)	1,005	1,103	1,084
HDPE-Ethylene (\$/ton)	210	71	33
PP price (\$/ton)	969	1,055	1,017
PET price (\$/ton)	893	905	873
Polyols price (\$/ton)	1,323	1,315	1,277

Market highlights QoQ:

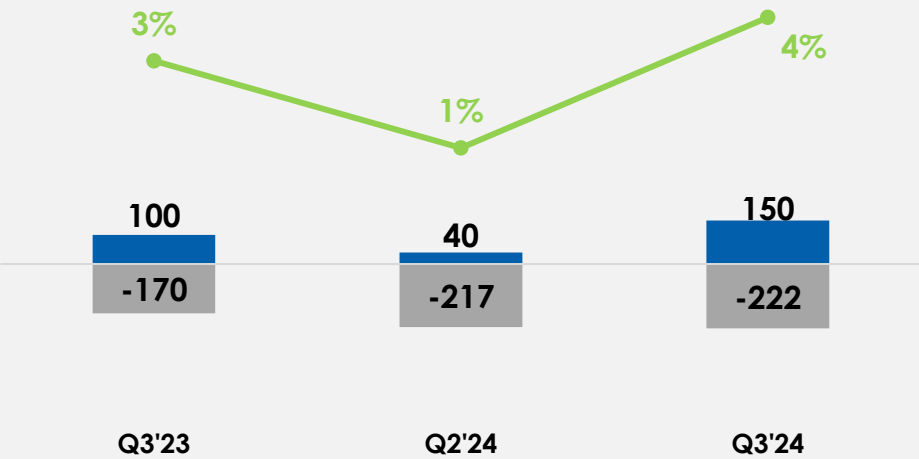
- PE price decreased due to the ample supply in the quarter amid the weak demand in Asia
- Higher PE price premium compared with the downward trend in the market
- New supply of PE in Vietnam, Interest rate hike, and economic recession concerns still put the pressure on Polymers demand and price.

Bio & Circularity

Adjusted EBITDA & equity incomes

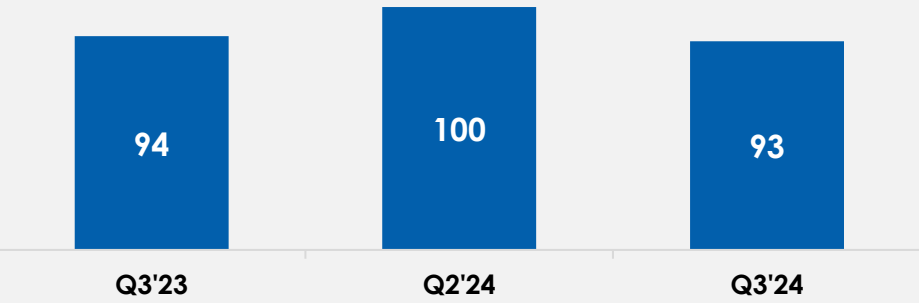
Unit : MB

■ Adj.EBITDA ■ Profit sharings from JVs ● Adj EBITDA margin



Sales volume

Unit : Kton



Note: excludes sales volume of JV's companies

Note: JV companies include EOUK, NatureWorks, PTMCC, TEX, GKBI

Key products/spread	Q3/23	Q2/24	Q3/24
ME spread (THB/kg)	4.3	4.3	4.3
FA spread (\$/ton)	358	277	365

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

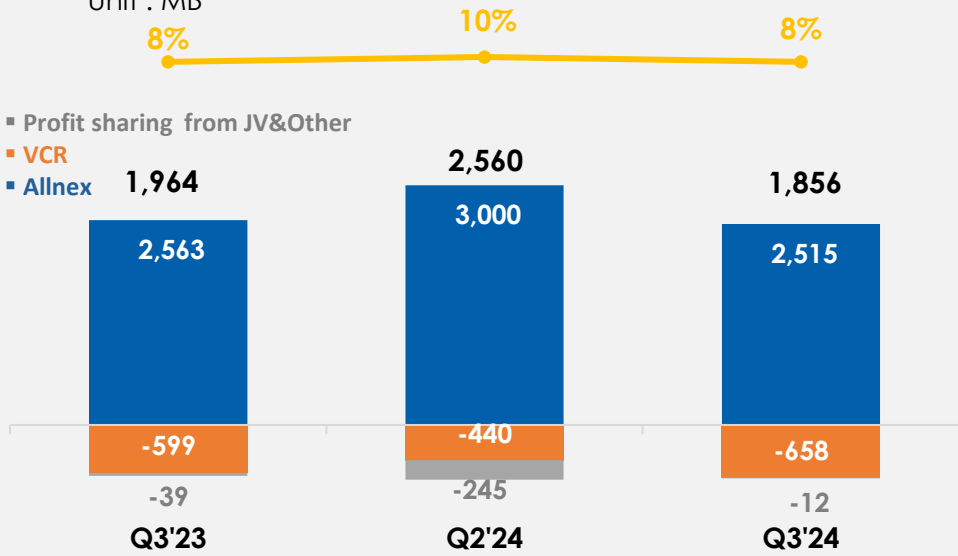
Market highlights:

- The slowdown in demand for Methyl Ester (ME) is driven by Thailand's monsoon season, which has led to reduced logistics and transportation activities. However, the government has extended the Oil Fuel Fund Act B.E. 2562 (2019) for another two years to support biofuel prices and maintain the high-speed diesel price at 33 Baht per liter. Moreover, the Fuel Fund Executive Committee (OFFEC) has decided to collect contributions from diesel consumers to help reduce the fund's accumulated losses.
- The Fatty Alcohol (FA) P2F increased in Q3/2024 as buyers restocked in response to tight supply caused by shutdowns of major producers in Indonesia, China, and Thailand, as well as the closure of a short-chain fatty alcohol producer in Malaysia. Additionally, logistical concerns emerged due to rising freight rates.

Performance Chemicals

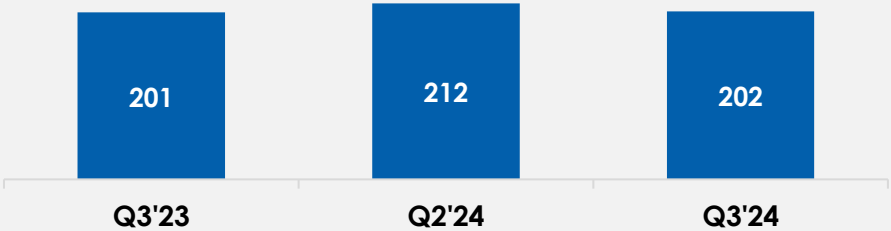
Adjusted EBITDA & equity incomes

Unit : MB



Sales volume (allnex & Vencorex)

Unit : Kton



Key products/spread	Q3/23	Q2/24	Q3/24
Adj.EBITDA margin (%)	8%	10%	8%

Market highlights:

- EBITDA contributed from Performance Chemicals decreased QoQ
- Vencorex : Continue of low HDI derivatives sales volume impacted by weak global demand.
 - Allnex : Sales Volumes were 5% down in Q3/2024 compared to Q2/2024 largely driven by the business seasonality in EMEA (weak August due to summer shutdown period) and the reduced volumes linked to the overall market decline, while the sales volume in AMER and APAC remained flat.

allnex performance	Q3/23	Q2/24	Q3/24
Adj.EBITDA (MEUR)	68	81	69
Adj.EBITDA margin	12%	14%	12%
Sales Vol. (Kton)	193	204	195

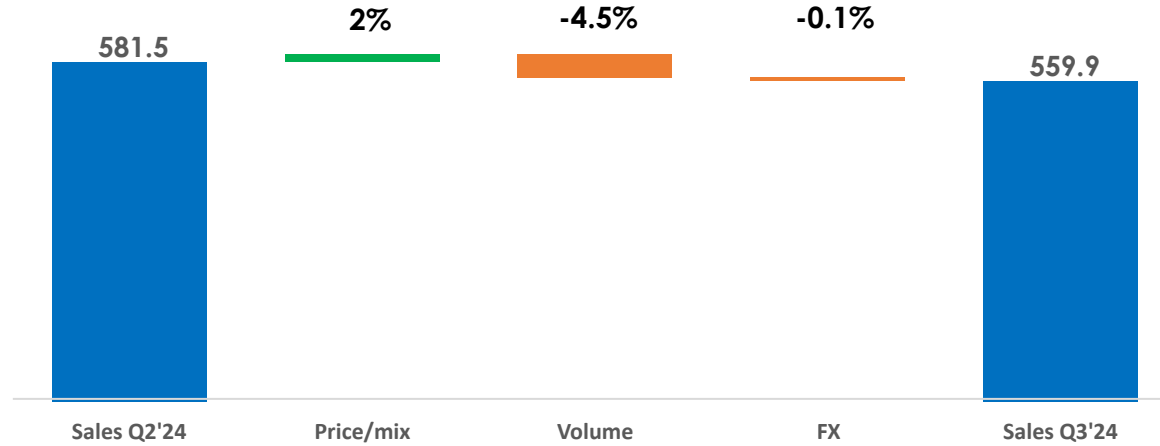
Note Adj.EBITDA reported by allnex (adjusted for non-recurring items)

Note: JV companies include KGC, Entis, Synthese

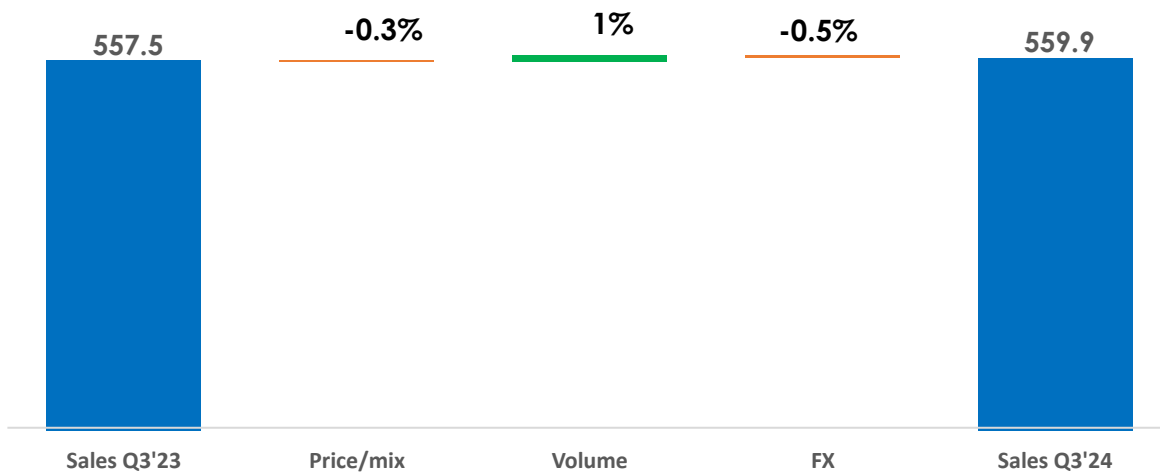
Revenue Development

QoQ

Unit : MEUR



YoY



Revenue breakdown by segment

End-segment	Q3-/23	Q2/24	Q3/24
Industrial Metal	17%	17%	17%
Infrastructure & Construction	31%	31%	31%
Mobility & Transportation	29%	27%	28%
Packaging & Consumer Goods	23%	25%	24%

Performance summary

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Price and Spread

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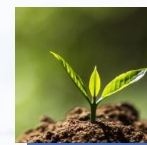
Polymers

107%

allnex
The Coating Resins Company

**Allnex
volume growth 7%**

Projects to start up in 2025



NatureWorks

Natureworks Plant 2

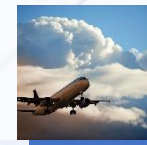
COD: Q3/2025



AGC VINYTHAI

AGC Vinythai Expansion Plant COD: Q2/2025

Ethylene vol from GC: 50KT in 2025 and 190 KT in 2026 onwards



Bio-refinery SAF

COD: Q1/2025

Maintenance Shutdown Schedule 2025

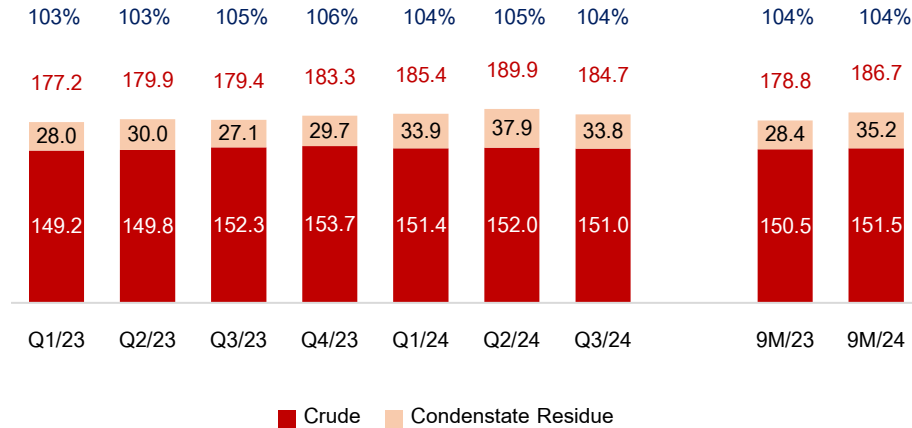


Plant		2025											
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
OLE	Cracker					44	OLE2/1						
	Oleflex												
POL	HDPE					15	HDPE 1	15	HDPE 2				
	LDPE					12							
	LLDPE I												
	LLDPE II								20				
	PS										33		
EOB	TOCGC					63							
	EA					65							
PHN	Phenol I					12				30			
	Phenol II		10										
	BPA					18							
REF	Refinery											50	
ARO1	Aromatics I												
ARO2	Aromatics II											53	
GCO	PO												

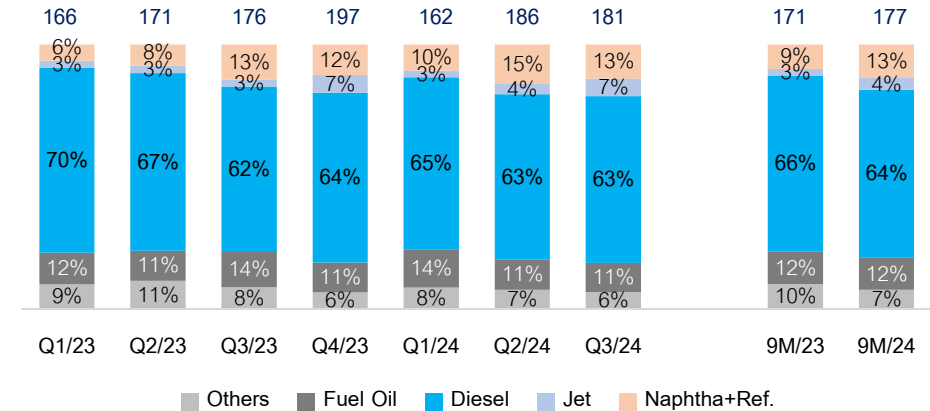
Upstream - Refinery

Refinery Intake (KBD)

Utilization rate



Refinery Sales Volume (KBD)



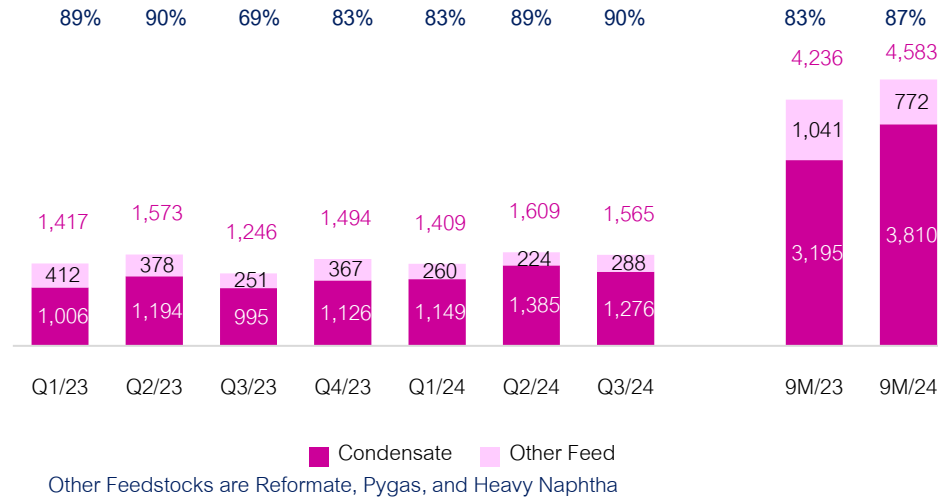
Gross Refinery Margin

\$/BBL	Q1/23	Q2/23	Q3/23	Q4/23	Q1/24	Q2/24	Q3/24	9M/23	9M/24
Market GRM	10.3	5.7	12.6	9.0	8.3	3.2	3.5	9.6	5.0
Stock Gain (Loss) net NRV	(2.6)	(2.8)	3.6	(3.3)	(0.07)	0.4	(4.6)	(0.5)	(1.4)
Hedging Gain (Loss)	1.3	0.9	(4.2)	1.2	0.2	1.3	.05	(0.7)	0.7
Accounting GRM	9.0	3.8	12.1	6.9	8.5	5.0	(0.7)	8.3	4.3

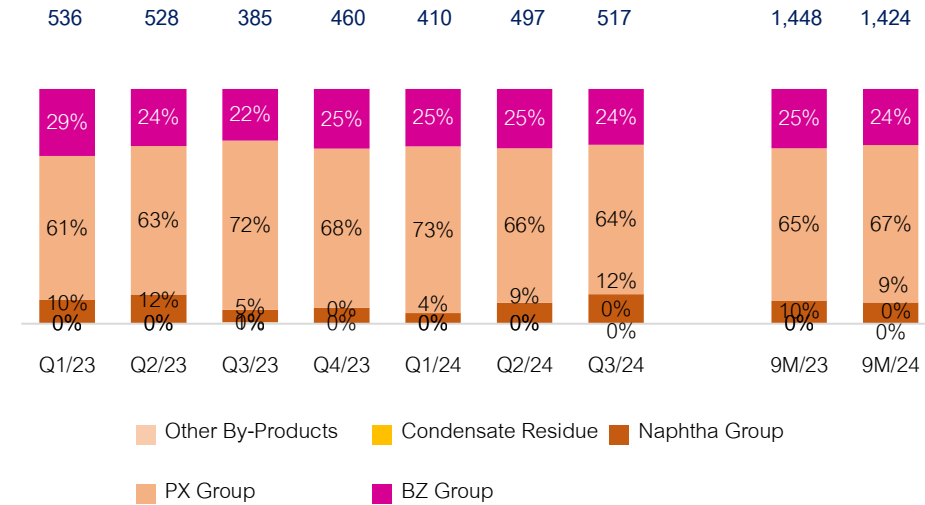
Upstream - Aromatics

Aromatics Intake (KTons)

Utilization rate



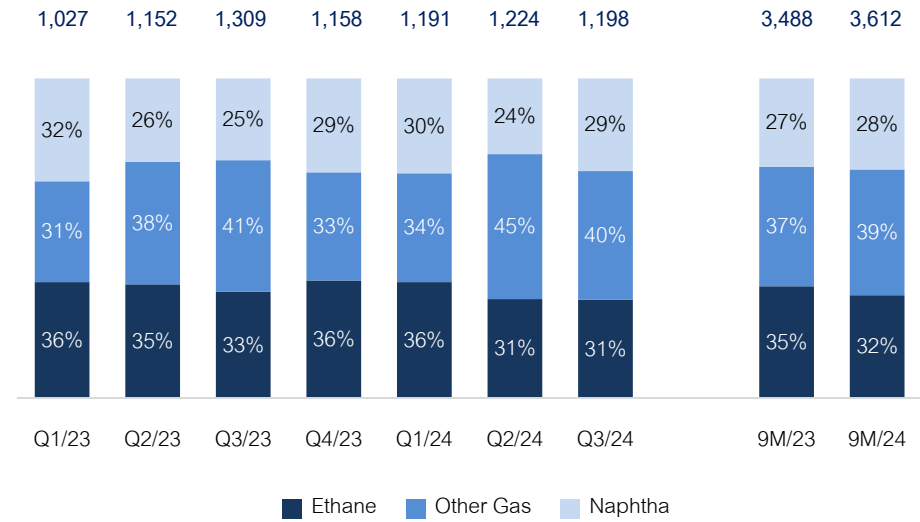
Aromatics Sales Volume (KTons)



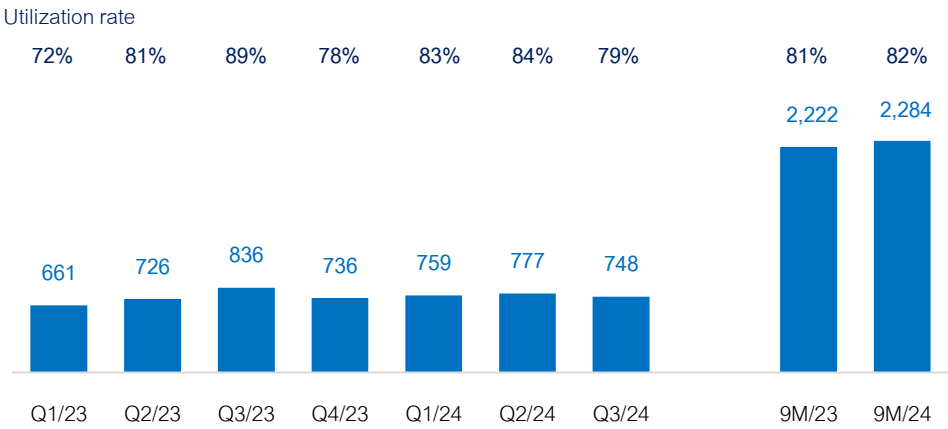
Aromatics BTX P2F

\$/ton	Q1/23	Q2/23	Q3/23	Q4/23	Q1/24	Q2/24	Q3/24	9M/23	9M/24
BTX P2F	321	243	217	253	311	220	241	261	257
Stock Gain (Loss) net NRV	(19)	(32)	96	(30)	16	3	(38)	12	(7)
Hedging Gain (Loss)	14	(9)	(18)	7	(2)	(1)	-	(4)	(1)
Accounting P2F	316	202	295	230	325	222	202	269	247

Olefins Intake (KTons)

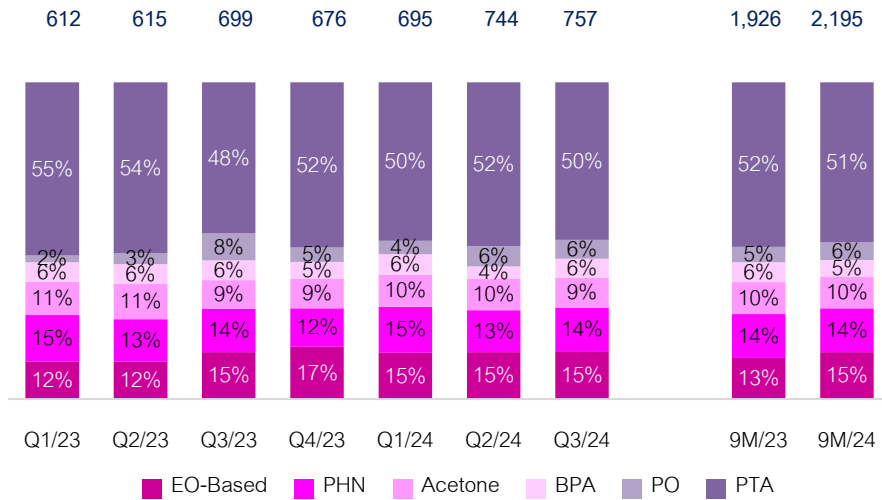


Olefins Sales Volume (KTons)



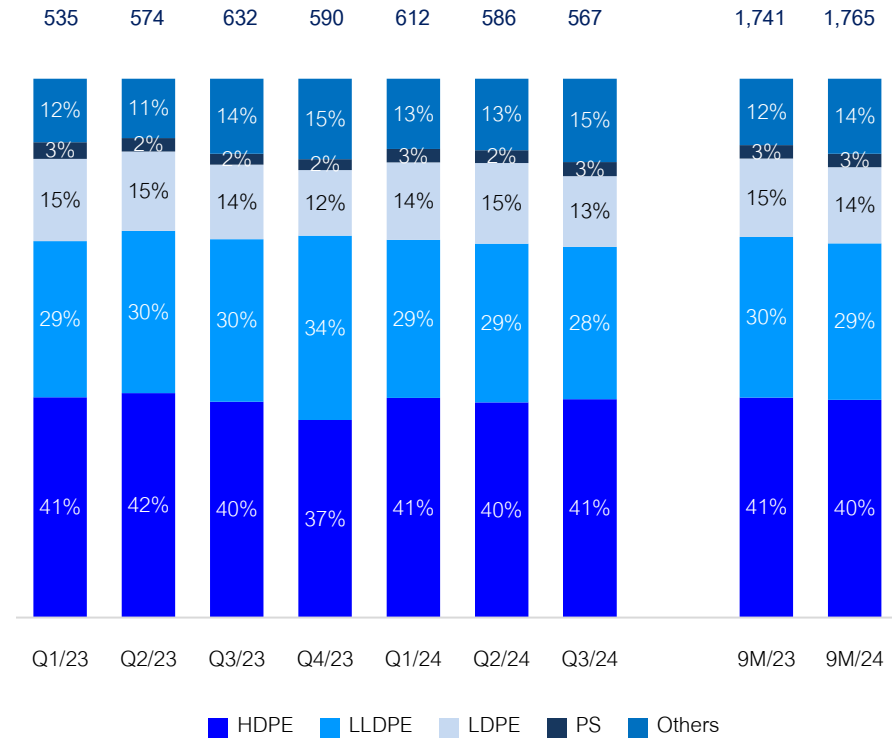
Intermediates

Intermediates Sales Volume (Ktons)



Polymers & Chemicals

Polymers & Chemicals Sales Volume (Ktons)



Utilization rate



Utilization rate	Q1/23	Q2/23	Q3/23	Q4/23	Q1/24	Q2/24	Q3/24	9M'23	9M'24
Upstream									
- Refinery	103%	103%	105%	106%	104%	105%	104%	104%	104%
- Aromatics	89%	90%	69%	83%	83%	89%	90%	83%	87%
- Olefins	72%	81%	89%	78%	83%	84%	79%	81%	82%
Intermediates									
- MEG	13%	4%	90%	78%	46%	78%	92%	36%	72%
- Phenol	104%	98%	102%	91%	108%	107%	111%	102%	109%
- BPA	98%	103%	103%	95%	118%	79%	120%	102%	106%
- PO	26%	46%	106%	61%	50%	90%	76%	60%	72%
Polymers & Chemicals									
HDPE	106%	110%	110%	97%	115%	111%	98%	109%	108%
LLDPE	93%	93%	105%	98%	103%	85%	89%	97%	92%
LDPE	96%	119%	115%	93%	111%	117%	114%	110%	114%
Total PE	99%	104%	109%	97%	109%	101%	97%	104%	102%

Market Prices



Product	Unit	Y. 2022 [Actual]	Y. 2023 [Actual]	Y. 2024 [Forecast]	Change Y. 24 - 23	Y. 2025 [Forecast]
Crude : Dubai	\$/bbl	96.3	82.1	78 - 82	↓	75 - 79
Petroleum Product :						
▪ Diesel 10 PPM - Dubai	\$/bbl	39	24.3	15 - 19	↓	16 - 20
▪ VLSFO - Dubai	\$/bbl	22.5	11.5	11 - 14	↑	10 - 13
Aromatics Chain :						
▪ PX – Naphtha	\$/Ton	319	389	290 - 310	↓	320 - 340
▪ PTA Margin	\$/Ton	106	85	80 - 90	↓	90 - 100
▪ PET Margin	\$/Ton	175	89	70 - 80	↓	70 - 80
▪ BZ – Naphtha	\$/Ton	244	248	300 - 320	↑	280 - 300
▪ Phenol Margin	\$/Ton	357	252	240 - 260	↓	250 - 270
Olefins Chain :						
▪ HDPE	\$/Ton	1203	1044	1010 - 1040	↓	1030 - 1060
▪ HDPE – Naphtha	\$/Ton	418	394	330 - 360	↓	390 - 420

Highlight Y. 24

- Geopolitics Tension [+]
- China Economic concern [-]

- New Refinery [-]
- Limited GO/Jet Arbitrage to West [-]
- Low China LSFO quota [+]

- Gasoline cost push [+]
- Control supply [+]
- New Capacity [-]
- Slow economic growth [-]