



# Thai Oil Public Company Limited

## Presentation to Investors

### September 2021



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# Presentation Agenda

**TOP GROUP BUSINESS OVERVIEW**

**KEY FINANCIAL HIGHLIGHTS**

**STRATEGIC INVESTMENT PLANS**

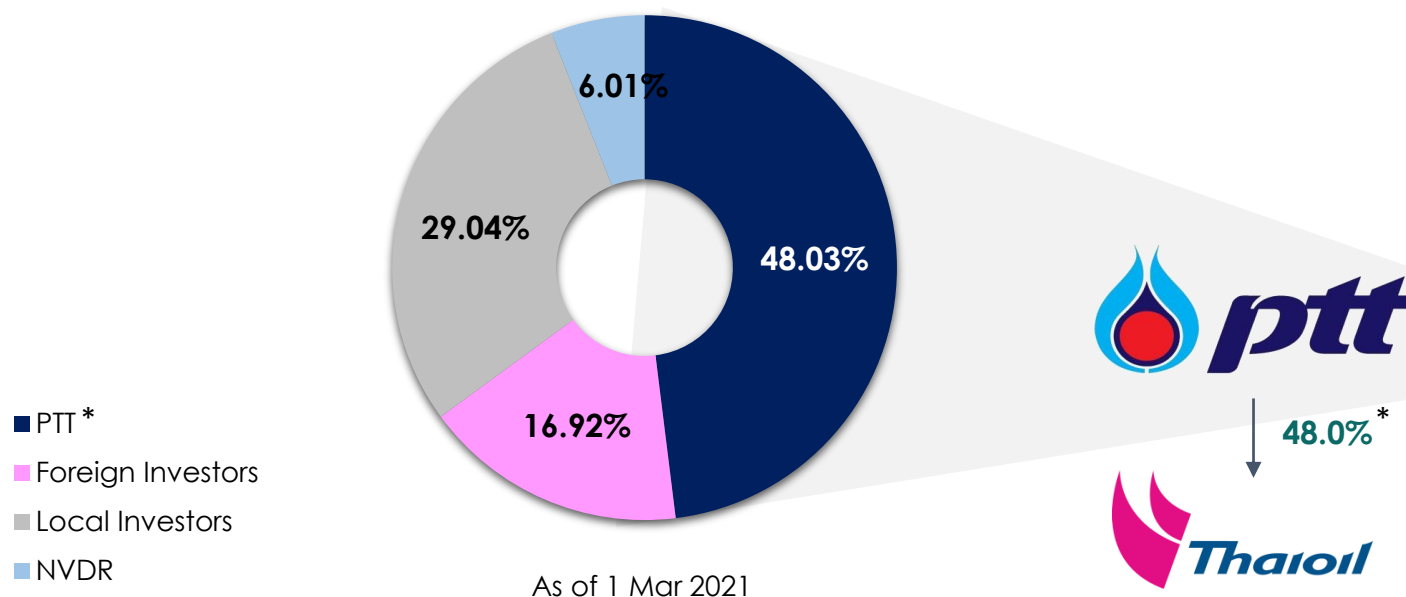
**OLEFINS INVESTMENT**

**OUTLOOK**

**FINAL REMARKS**

# Strategic Relationship and Operational Integration with PTT

## Thai Oil's strong shareholder base



- Benefits from PTT's dual role as our major shareholder and key business partner
- All transactions take place at arm's length and in adherence with strong corporate governance principles

### Key strategic benefits for Thai Oil

#### 1. Long-term strategic partnership

- Thai Oil is PTT's principal refiner
- Long-term strategic shareholder and joint investment

#### 2. Business partnership

- Product offtake
- Crude procurement

#### 3. Operational synergies

- Freight costs reduction
- Knowledge transfer and shared services
- Close management collaboration and secondment of trained staff

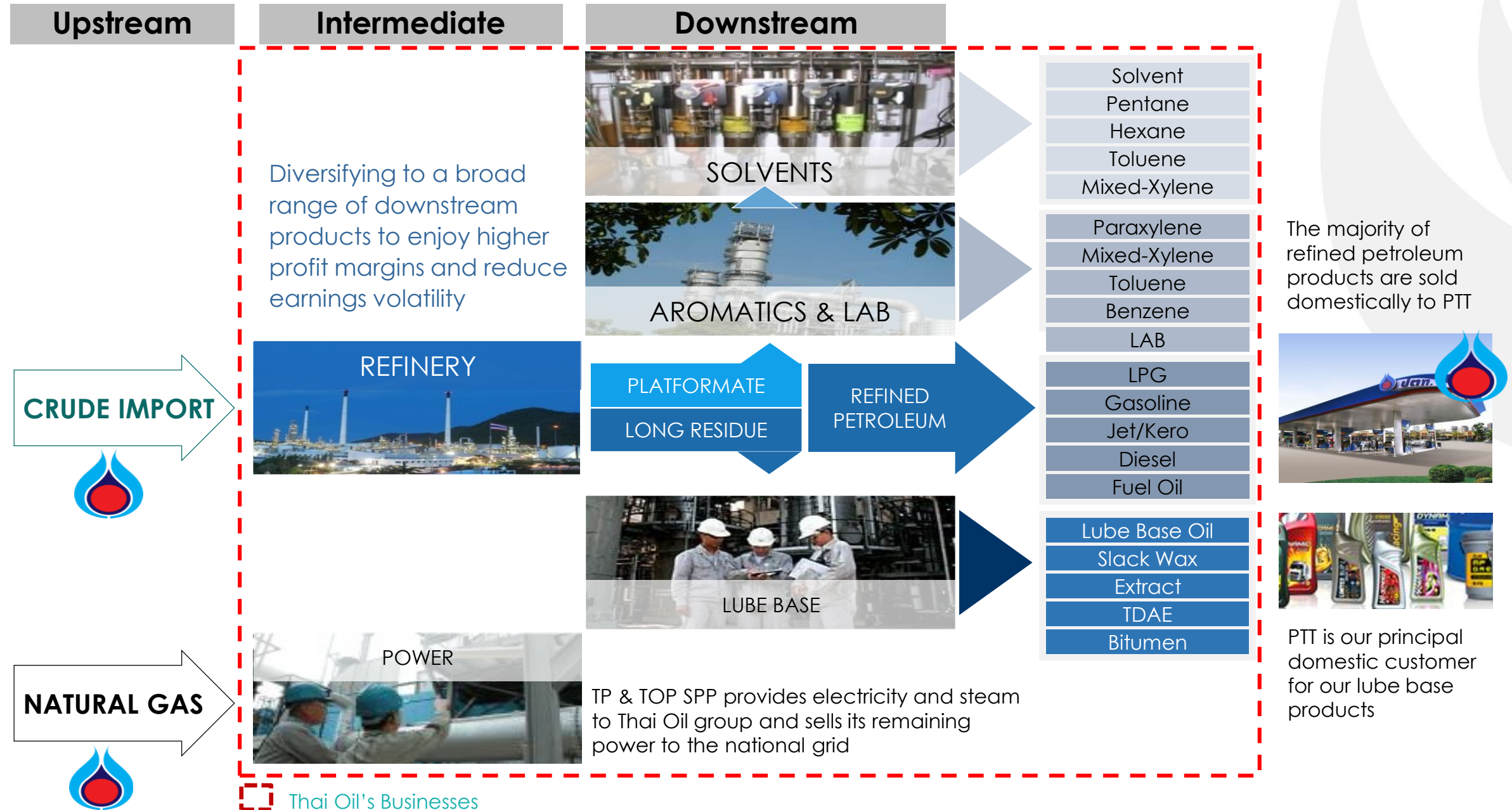
Remark

\* PTT holds total of 48.03 % both direct and indirect



# TOP Group Synergy & Strategic Role in PTT Group Value Chain

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# Key Milestones: 60 Years, A Long Track Record of Success

-6-

## 1961 – 1997 Capacity expansion and initial stage of business diversification

**1961**

- Incorporated

**1964**

- Commenced operation with distillation capacity of 35 kbd
- Simple refinery with Nelson complexity Index ~ 4<sup>1</sup>

**1970**

- Refining capacity expanded to 65 kbpd

**1989**

- Increased refining capacity to 90 kbpd

**1993**

- We expanded our refining capacity to 190 kbd

**1994 – 1997**

- Increased total refining capacity to 220 kbd
- Initial investment in Thai Paraxylene ("TPX") and Thai Lube Base ("TLB")
- IPT became the first IPP to enter into a PPA with EGAT<sup>2</sup> with 700 MW capacity ; separately, Thailoil Power ("TP") constructed the power generation plant under the SPP with 118 MW capacity

## 2004 – 2011 Listing, expansion and diversification

**2004**

- IPO and listed on the SET
- Acquired remaining shares in Thai Paraxylene and Thai Lube Base which became our wholly-owned subsidiaries

**2007**

- Increased refining capacity to 275 kbd

**2008**

- The first refinery in Thailand with diesel production to comply with the sulfur content requirements of Euro IV
- Capacity expansion of Thai Paraxylene with total aromatics capacity of 900,000 tons p.a.
- Invested in Solvents business in Thailand and Vietnam

## Today A leading integrated refining and petrochemical group in Asia Pacific

- 275 kbd refinery ( approximately 22% of Thailand's total refining capacity)
- Nelson index 9.8<sup>1</sup>
- Diversified business through 16 subsidiaries

**2010**

- Established Thailoil Ethanol
- Production expansion of TDAE by 50,000 tons per annum

**2011**

- Manufactured diesel and ULG in compliance with the sulfur and BZ aromatics content requirements of the Euro IV
- Acquired 1<sup>st</sup> VLCC

**2013-2014**

- Established LABIX
- Invested in power biz via GPSC & TOP SPP
- Completed Emission Improvement, HVU-2 Debottlenecking & CDU-3 Preheat Train project

**2015-2016**

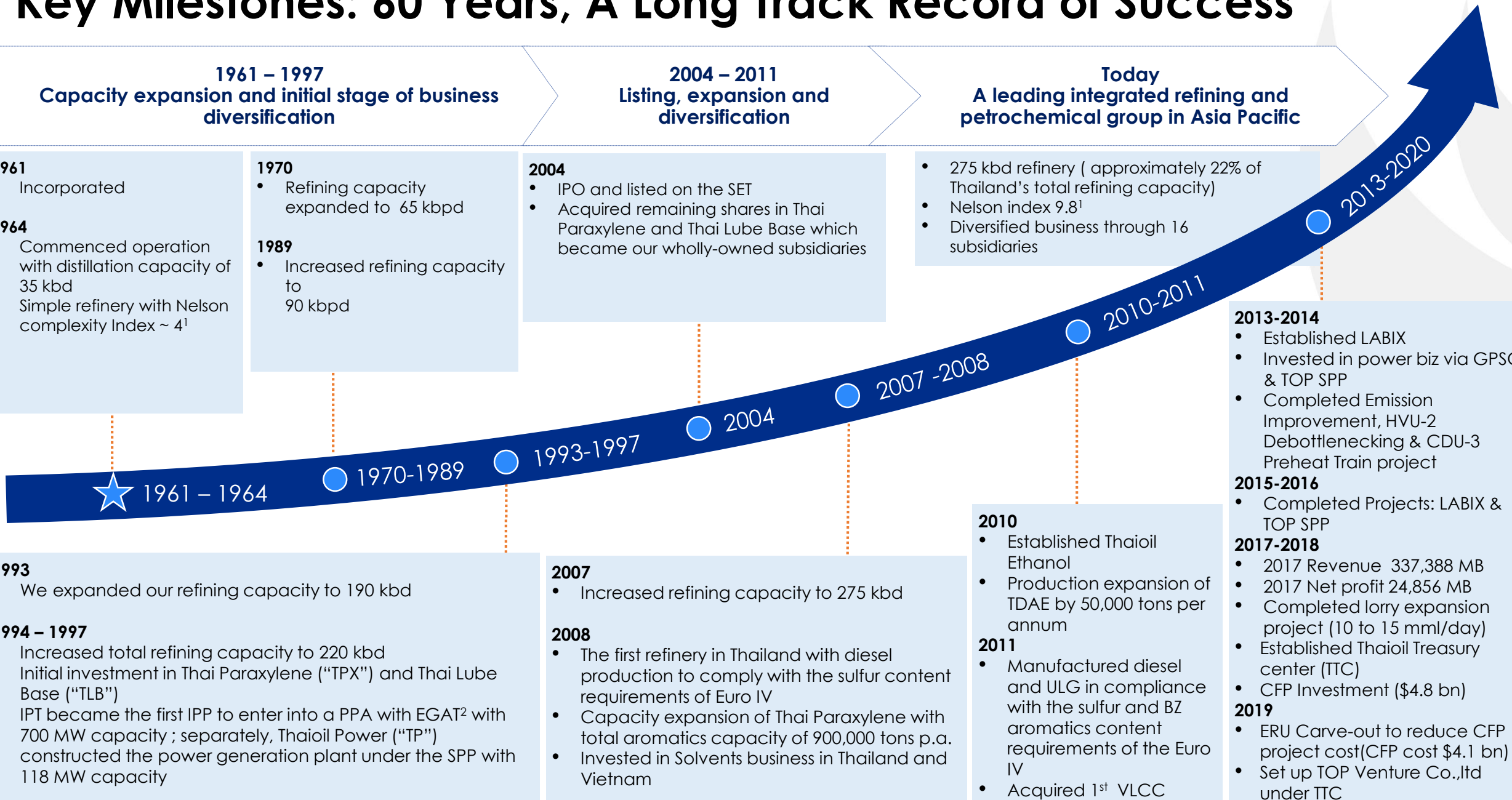
- Completed Projects: LABIX & TOP SPP

**2017-2018**

- 2017 Revenue 337,388 MB
- 2017 Net profit 24,856 MB
- Completed lorry expansion project (10 to 15 mml/day)
- Established Thailoil Treasury center (TTC)
- CFP Investment (\$4.8 bn)

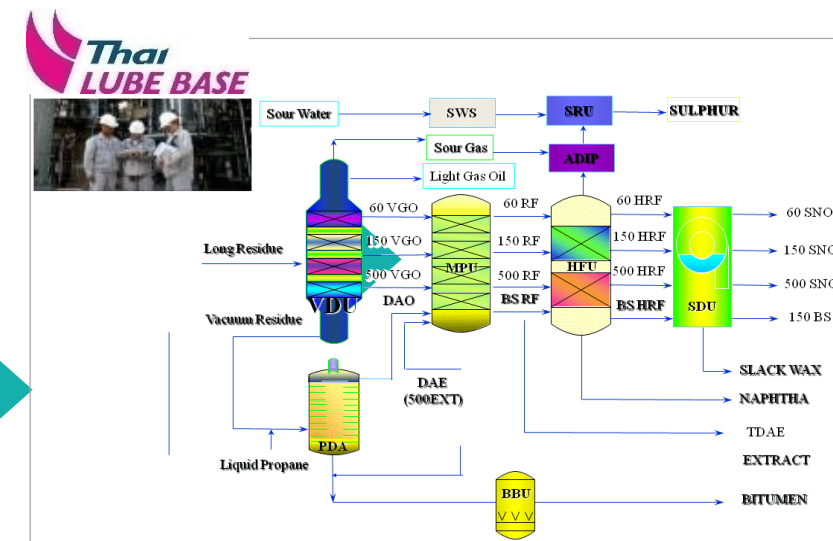
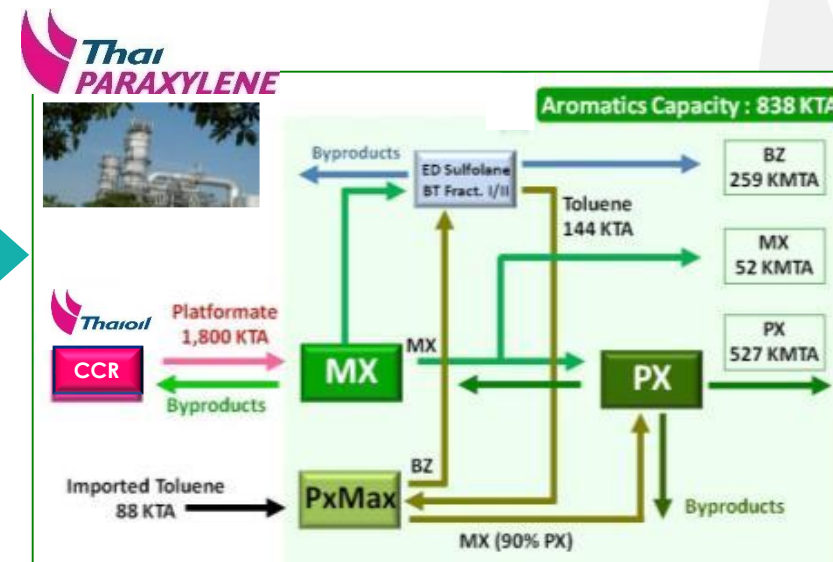
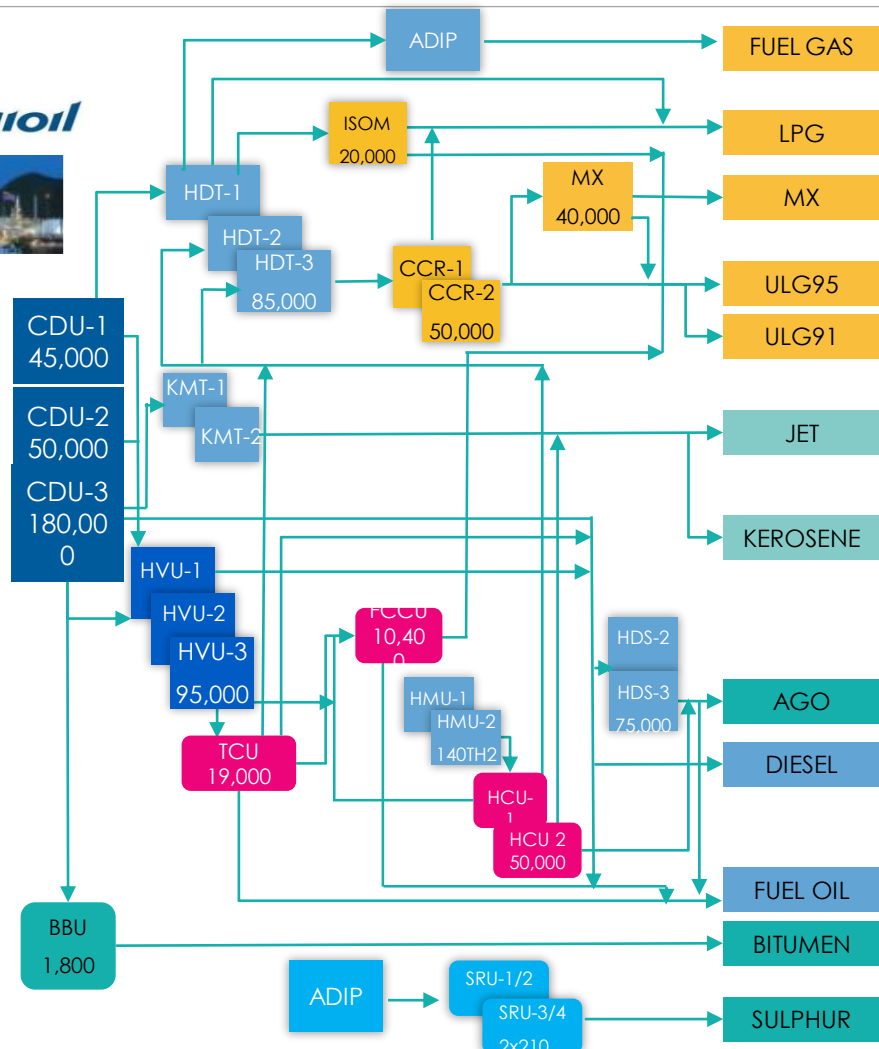
**2019**

- ERU Carve-out to reduce CFP project cost(CFP cost \$4.1 bn)
- Set up TOP Venture Co.,Ltd under TTC



# Thai Oil Group Business Structure

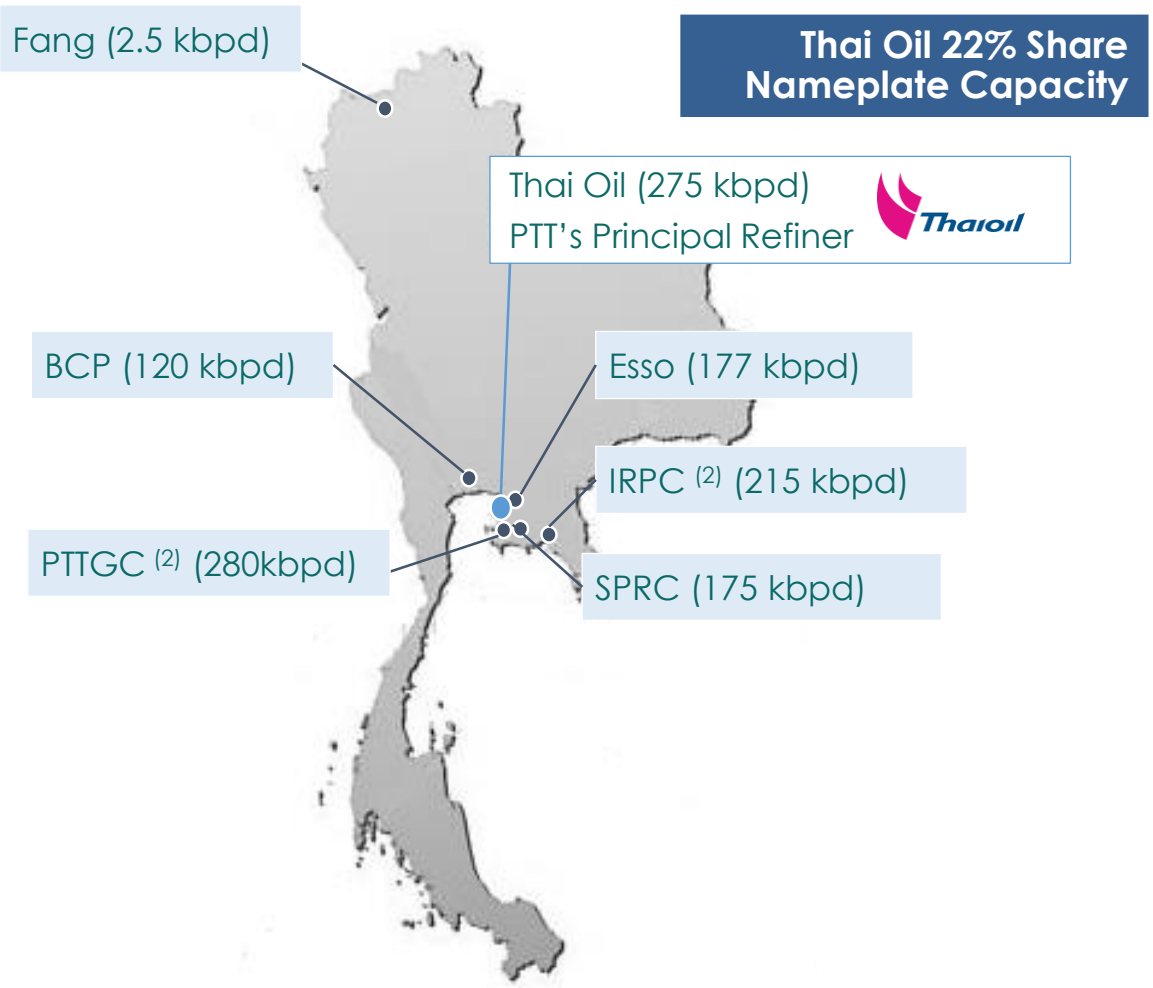




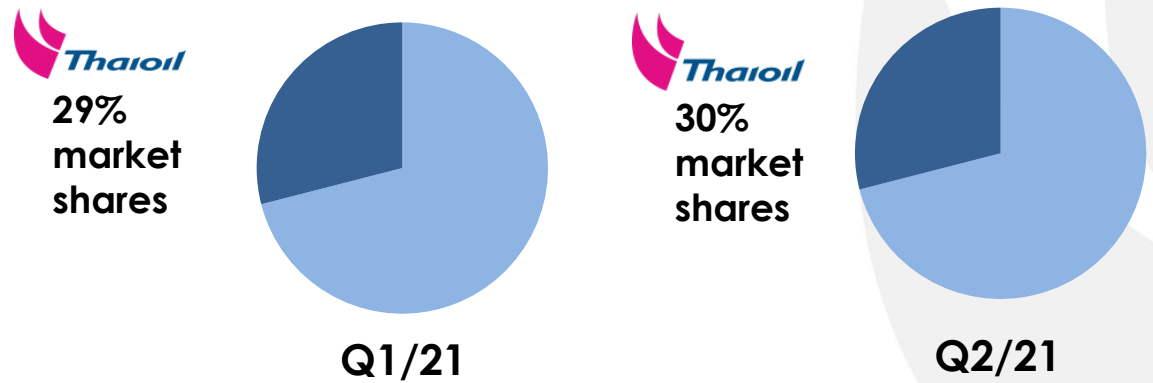


# One of Region's Leading Refineries

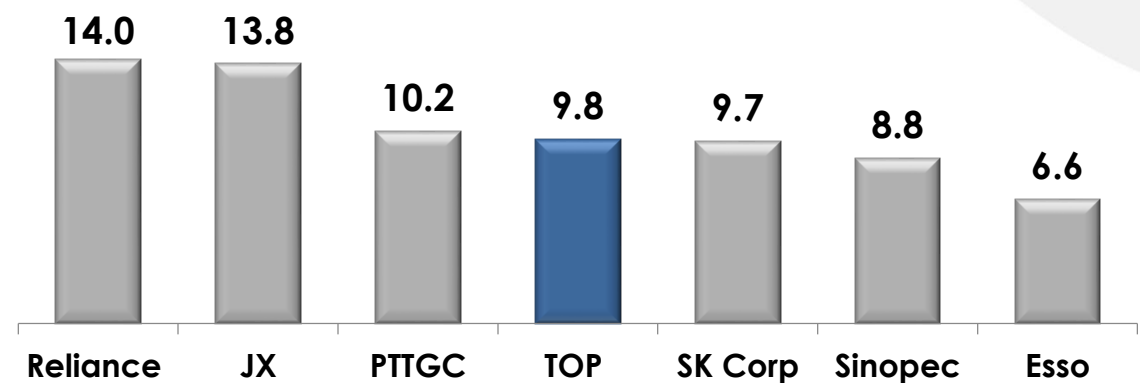
Total Thailand crude refining capacity 1,244.5 kbd <sup>(1)</sup>



Market shares for refined petroleum product <sup>(3)</sup>



Nelson Index - Regional Comparison <sup>(4)</sup>



- Remarks:
- Nelson Complexity Index measures refinery's upgrading capability for comparison
  - It is the ratio of complexity barrels divided by crude distillation capacity

Note: 1. Source: Energy Policy and Planning Office (EPPO), Ministry of Energy Thailand as of Jul 2020  
 2. PTT holds a 47.6% interest in IRPC, a 47.7% interest in PTTGC as at 4 Aug 2020  
 3. Calculate by total domestic sales of refined petroleum products (excluding by product & LPG) of Thai Oil divided by total sales of petroleum products in Thailand excl LPG. Source from EPPO  
 4. Source: Worldwide Refinery Survey and Complexity Analysis 2019 from Oil & Gas Journal and company information

# Strategic Location with Competitive Advantages in Access to Key Markets

Close proximity to the key domestic markets

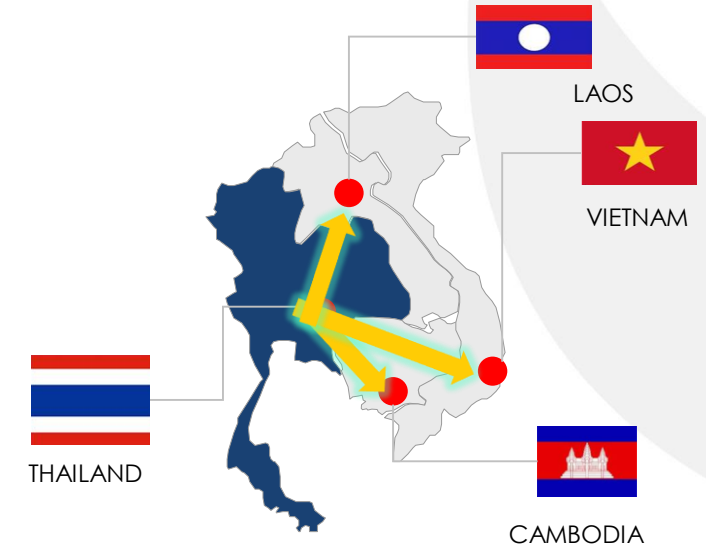
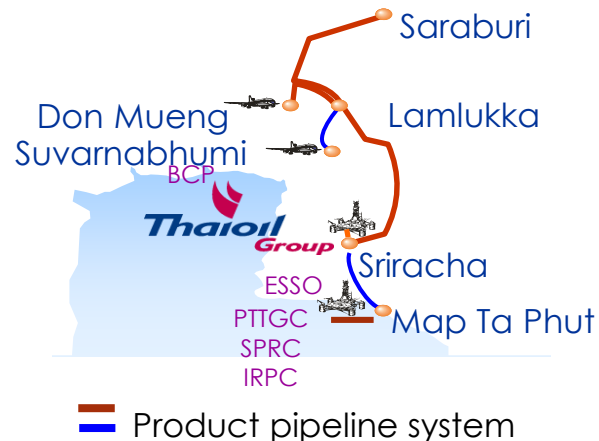
Access to Indochina markets through deep water ports and trucks

Our strategic location provide us with

1. Close proximity with the key domestic markets and Indochina
2. Direct access to deep water ports
3. Direct connection with multi-product pipelines



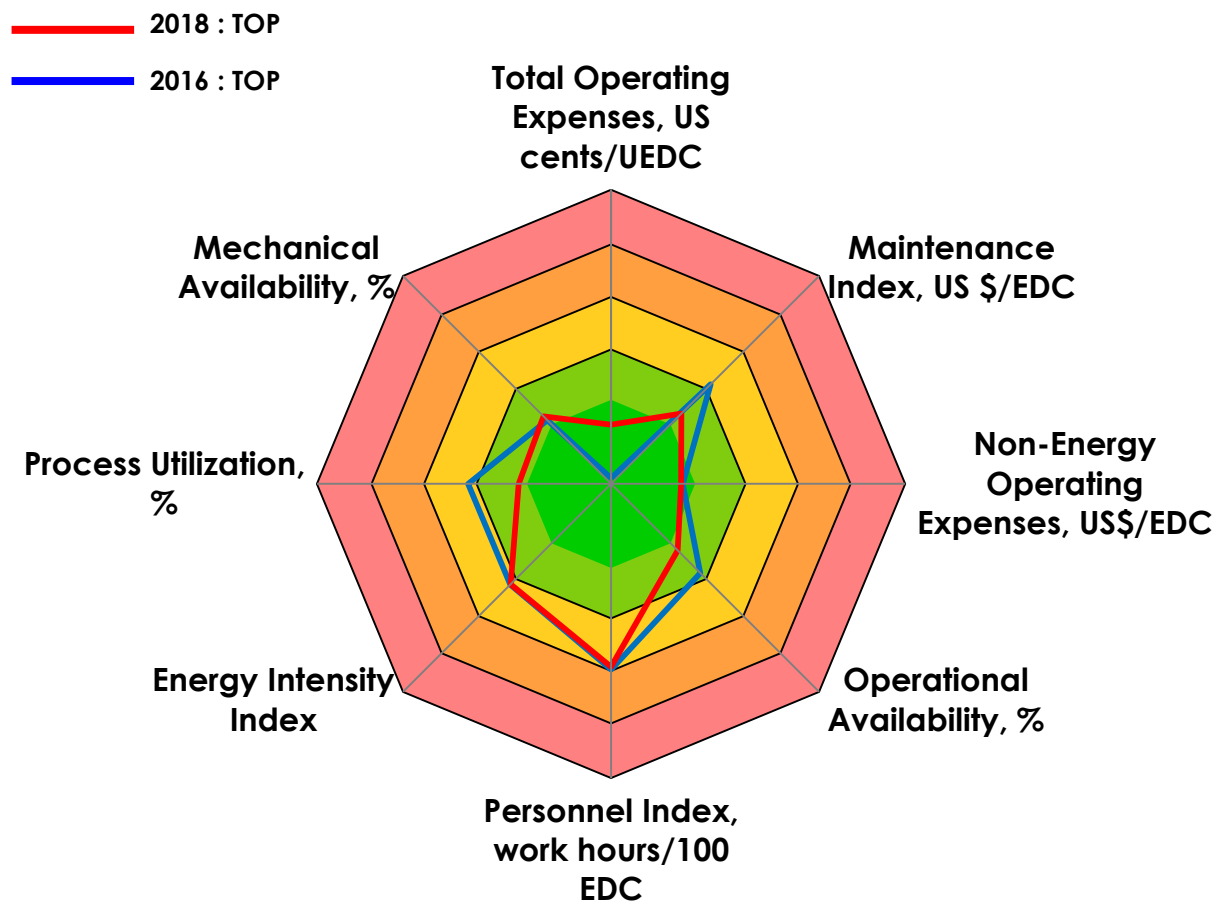
Direct connection with product pipeline system



- ✓ Our plants are located within the Sriracha Complex
- ✓ SBM provides direct access to deep water ports, and ability to receive feedstock directly from VLCC
- ✓ We also enjoy available connections to delivery networks such as multi-product pipelines, including Thapline

# Competitive Performance Benchmarking (Yr 2016 vs 2018)

## Solomon for GOC 3<sup>(1)</sup> Category



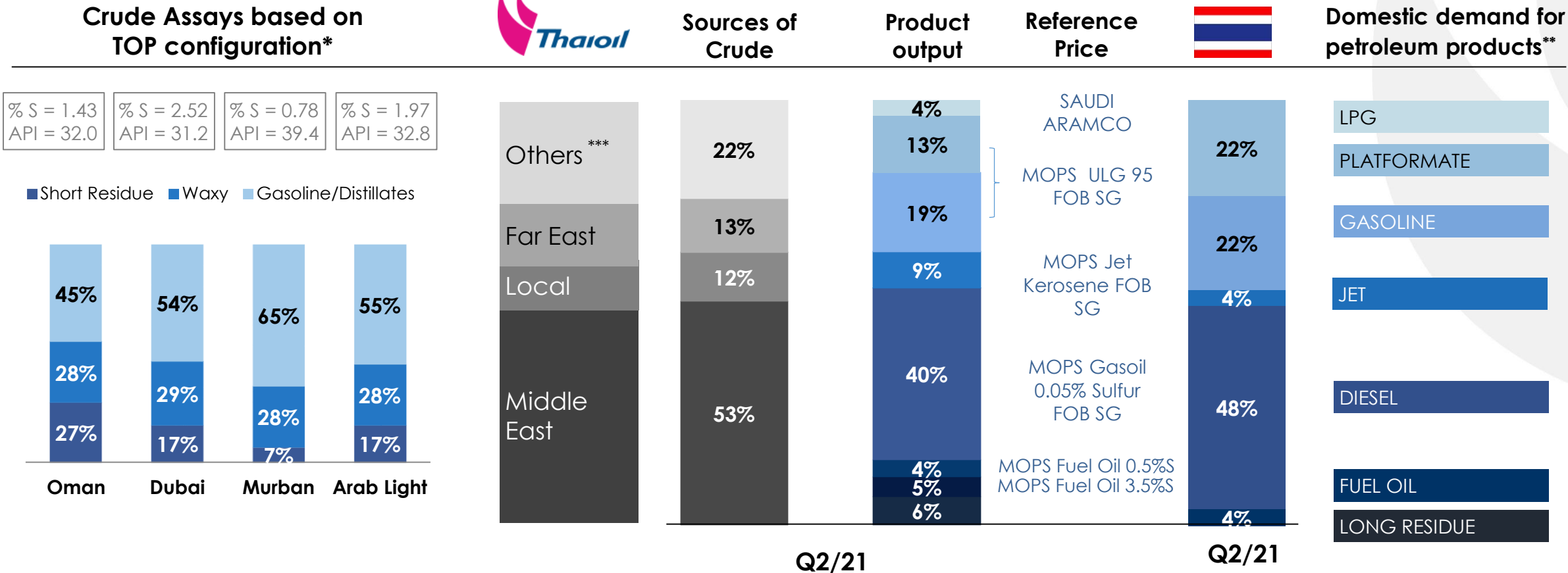
Solomon Associates is the independent 3rd party who applies Comparative Performance Analysis methodology to industry peers in the area of reliability, equipment, utilization, operating expense, gross margin and overall performance range and come up with comparative ranking

Remark :

<sup>(1)</sup> GOC 3 stands for Gas Oil Conversion Group 3, under which refineries in this group have equivalence distillation capacity 1,800 – 2,999 KEDC

# Optimized & Flexible Operations...Superior Performance

Thai Oil is able to diversify its type of crude intake and product outputs to maximize demand and margin



\*Crude yield as per assay in Spiral as of Feb 2016

\*\* Source: Energy Policy and Planning Office, Ministry of Energy Thailand

\*\*\* Including Nigeria, Russia and others

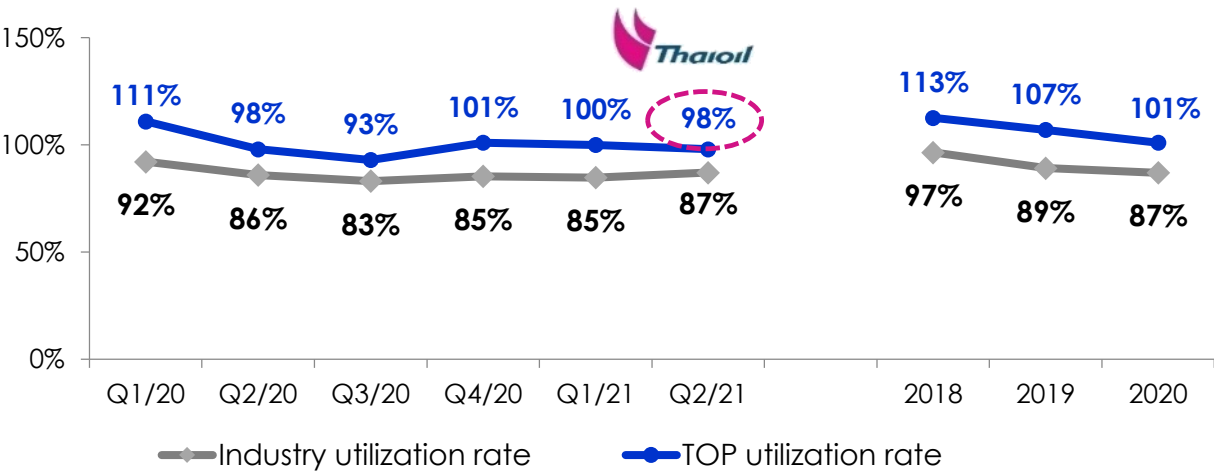
- Flexibility in crude intake allows diversification of crude types to source cheaper crude
- Flexibility in product outputs by maximizing middle distillates (jet and diesel) by adjusting production mode to capture domestic demand and price premium
- Maximize Platformate production to capture higher margin on aromatics
- Minimize fuel oil output to avoid lower margin products



# Refinery: Slightly Lower Utilization as Softening Domestic Oil Demand

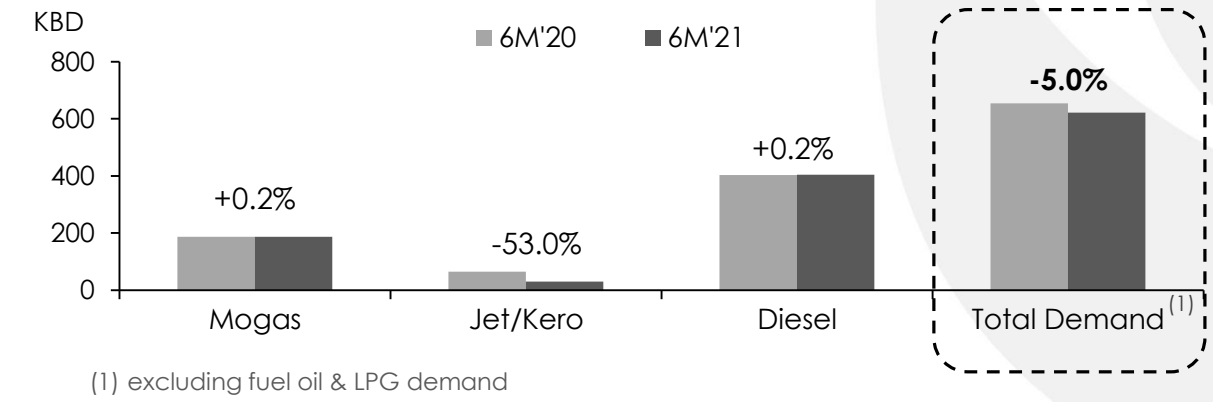
## TOP/ Domestic Refinery Utilization Rate

Unit: % Utilization Rate

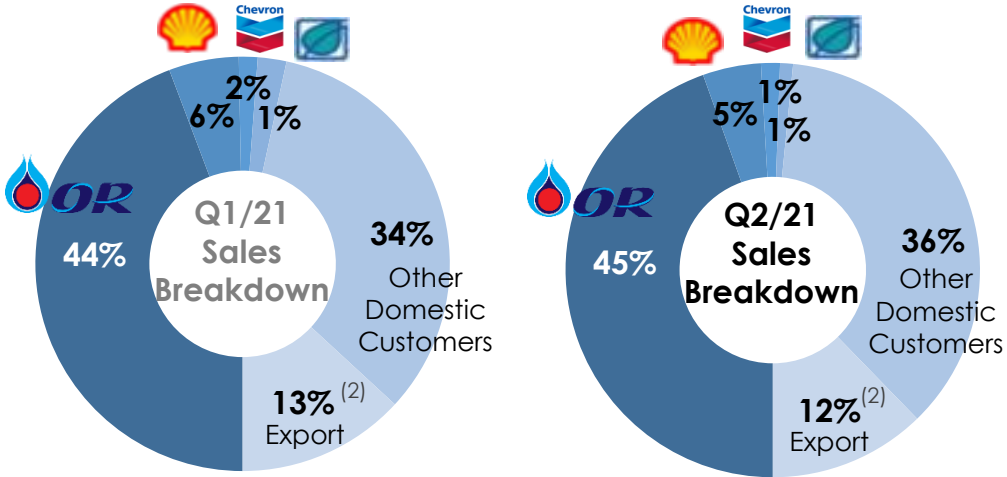


## Domestic Oil Demand

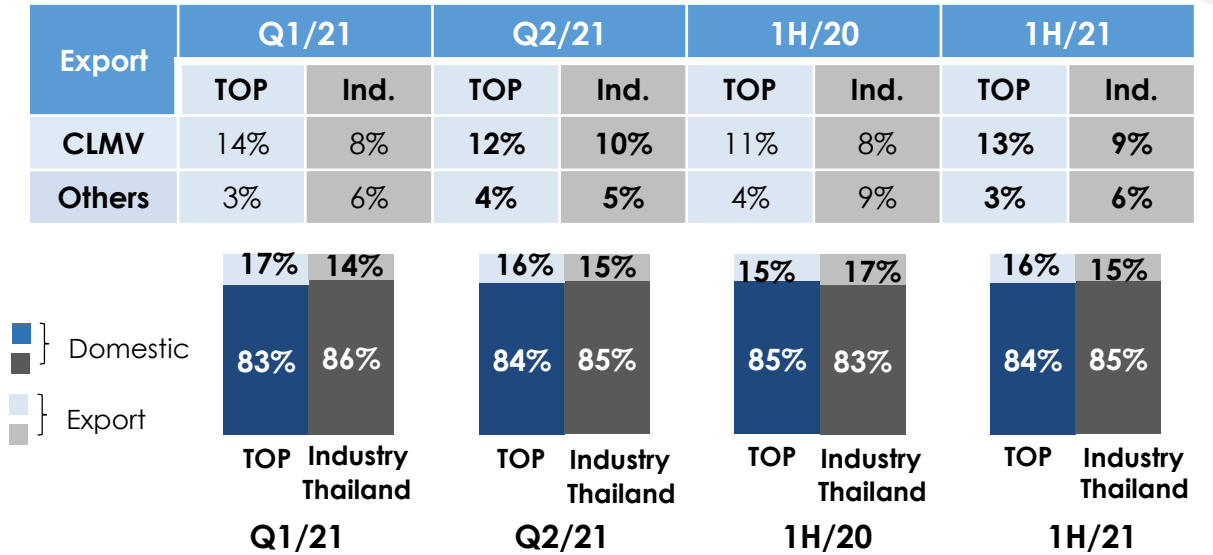
Jun'21 (yoy)	Mogas	Jet/Kero	Gasoil	Total
	-8.0%	+60.5%	-4.4%	-3.8%



## Sales Breakdown by Customers



## TOP's Domestic Sales vs Industry (3)



(2) Excluding export sale through PTT  
(3) Source: Department of Energy Business, Ministry of Energy



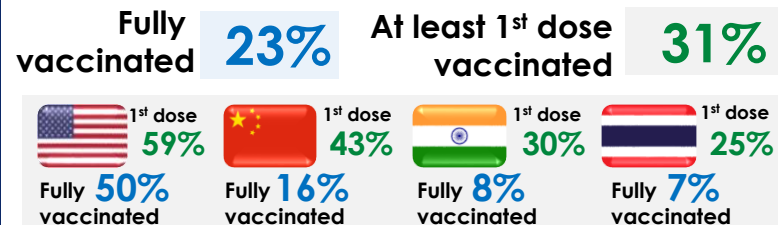
## KEY FINANCIAL HIGHLIGHTS

# Q2/21 Recovery On The Way

## COVID-19 Pandemic Recovery

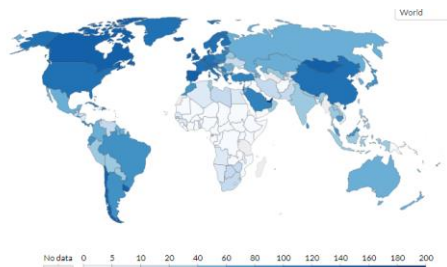
### Vaccination rate

Share of people vaccinated against COVID-19 (Aug 13, 2021)



Source: WHO (Aug'21), OMS & GCDL & University of Oxford (Aug'21)

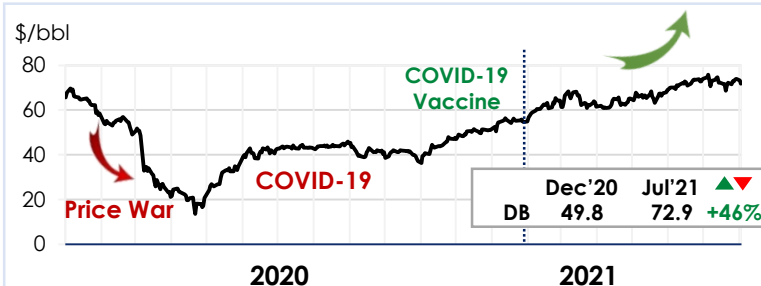
- 31% of the world population has received at least one dose of COVID-19 vaccine, 4.7 billion doses have been administered globally



- Widespread immunization is expected to be achieved by most developed economies i.e. the U.S., Europe & China
- The economic recovery from COVID-19 has started to accelerate particularly in the U.S., Europe & China on the back of a massive fiscal stimulus plan and easing COVID-19

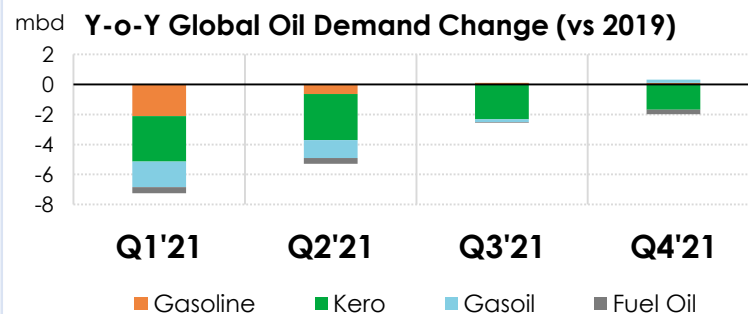
## Global Oil Demand Recovery

- Rising crude prices amid demand recovery and tightening supply



Source: Reuters (Aug'21)

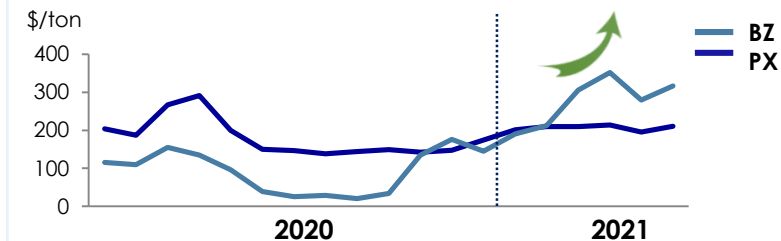
- Improving product demand due to increasing global vaccination rate and easing COVID-19 restrictions in developed countries



Source: Energy Aspects (Jul'21)

## Strong Downstream Markets

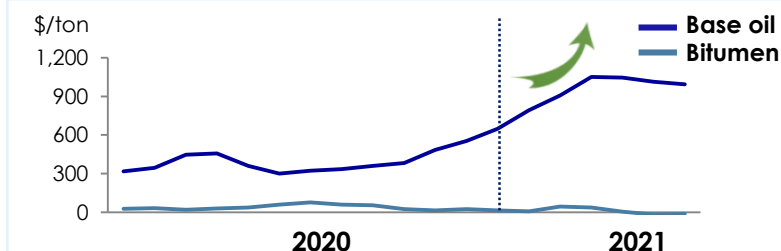
- Improving Aromatic & LAB Markets



Source: Reuters (Aug'21)

- Improving aromatics market on less additional capacity and demand recovery
- Robust LAB market on growing demand for hygiene products during COVID-19 pandemic amid limited supply

- Record High Base Oil Margin



Source: Reuters (Aug'21)

- Extremely strong base oil market on limited supply from refinery run cuts and demand recovery

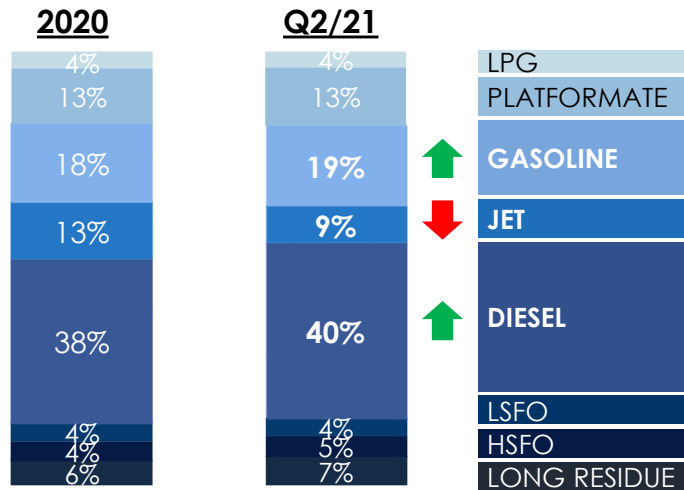
# Continuous Business Excellence

## Operational

### • Optimize overall utilization rates

U-Rate %	Q1/21	Q2/21	1H/20	1H/21
Refinery	100%	<b>98%</b>	105%	<b>99%</b>
Aromatics	80%	<b>89%</b>	78%	<b>85%</b>
LAB	91%	<b>117%</b>	113%	<b>104%</b>
Base Oil	93%	<b>95%</b>	85%	<b>94%</b>

### • Stretched operational boundaries

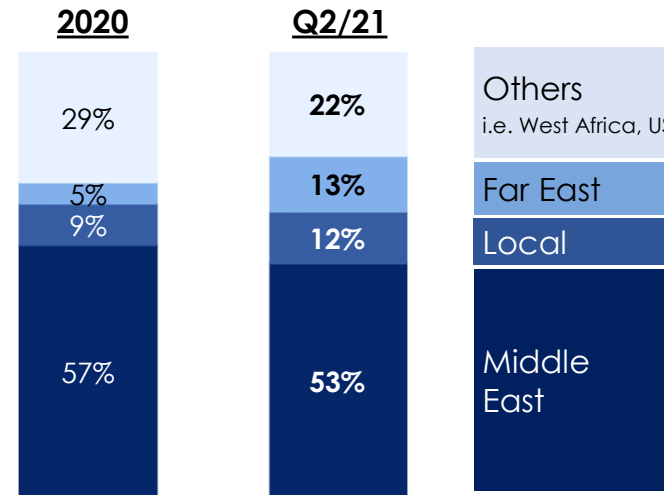


## Commercial

### • Maximize domestic & Indochina sales

	Q1/21	Q2/21	1H/20	1H/21
Local	83%	<b>84%</b>	85%	<b>84%</b>
Indochina	14%	<b>12%</b>	11%	<b>13%</b>
Other exports	3%	<b>4%</b>	4%	<b>3%</b>

### • Crude diversification



## Financial

### • Affirmed Credit Rating

- In line with TOP's strategic direction
- Clear recapitalization plan, but subject to market conditions
- Strong parental support from PTT

Moody's

Baa3  
Negative Outlook

STANDARD  
& POOR'S

BBB  
Stable Outlook

FitchRatings

A+ (Tha)  
Negative Outlook

### • Successful completion of marine business restructuring in Apr'21

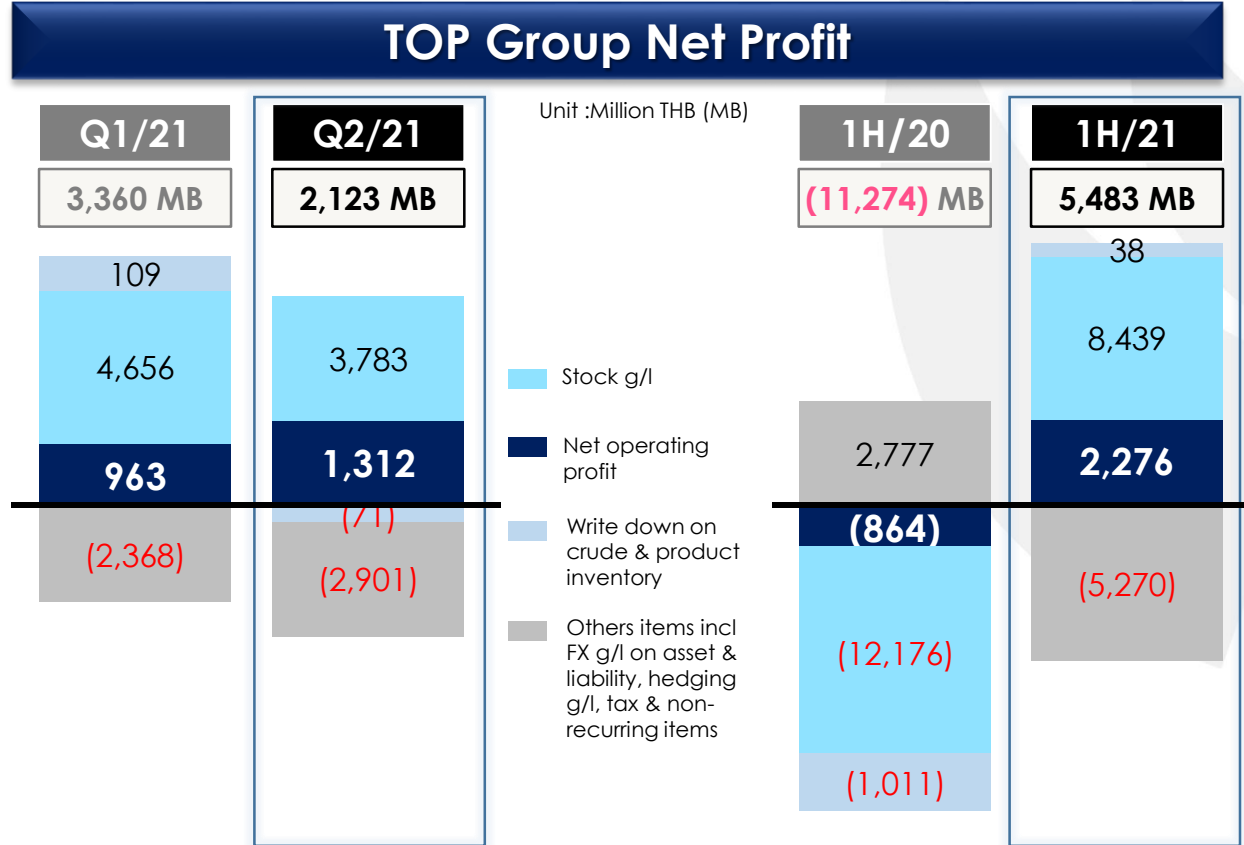
### • Continuously enhanced cost management

### • Funding Readiness



# Q2 & 1H/21 Performance

<b>Crude</b>	<p><b>QoQ Dubai rose from \$64.4/bbl to \$71.6/bbl</b>  <b>YoY Dubai rose from \$40.8/bbl to \$71.6/bbl</b></p> <ul style="list-style-type: none"> <li><b>+ Oil demand recovery</b> due to increasing global vaccination rate &amp; easing COVID-19 restrictions in developed economies</li> <li><b>+ Limited crude oil supply</b> from strong compliance of OPEC+ cut by 6.6 MBD</li> </ul>
<b>Refinery</b>	<p><b>QoQ Mkt GRM softened from \$0.7/bbl to \$0.4/bbl</b>  <b>YoY Mkt GRM slightly softened from \$0.7/bbl to \$0.6/bbl</b></p> <ul style="list-style-type: none"> <li><b>- Higher crude cost</b> due to tight crude oil market and stronger oil demand in the U.S.</li> <li><b>+ Improving Gasoline spread</b> due to rising demand in the U.S. and Europe from easing COVID-19 restrictions and higher summer driving season demand in the U.S.</li> <li><b>+ Improving Middle Distillate spreads</b> due to increasing demand from higher economic activities from easing COVID-19 restrictions in the U.S., Europe &amp; China</li> </ul>
<b>Aromatic &amp; LAB</b>	<p><b>QoQ Contributions improved from \$2.0/bbl to \$2.4/bbl</b>  <b>YoY Contributions improved from \$1.5/bbl to \$2.2/bbl</b></p> <ul style="list-style-type: none"> <li><b>+ Strong BZ margin</b> due to higher demand from new SM plant start-up (1.2 mtpa) and supply disruption in the U.S. following historic cold blast</li> <li><b>+ Robust LAB Contribution</b> from growing demand for hygiene products during COVID-19 pandemic amid limited supply</li> </ul>
<b>Lube</b>	<p><b>QoQ Contribution improved from \$1.5/bbl to \$2.4/bbl</b>  <b>YoY Contribution improved from \$0.3 to \$1.9/bbl</b></p> <ul style="list-style-type: none"> <li><b>+ Record high Base Oil margin</b> due to limited supply from refinery run cuts and regional demand recovery</li> </ul>



### QoQ

- + Higher Market GIM** from \$4.1/bbl to \$5.2/bbl
- Lower Utilization Rate** from 100% to 98%

### YoY

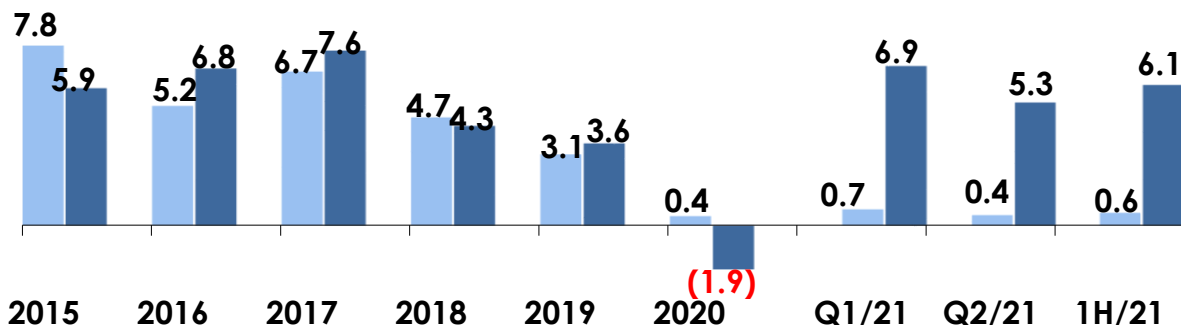
- + Improving Market GIM** from \$2.5/bbl to \$4.7/bbl
- Lower Utilization Rate** from 105% to 99%

# Integrated Margin & Competitive Cash Cost

## Gross Refining Margin

(Unit: US\$/bbl)

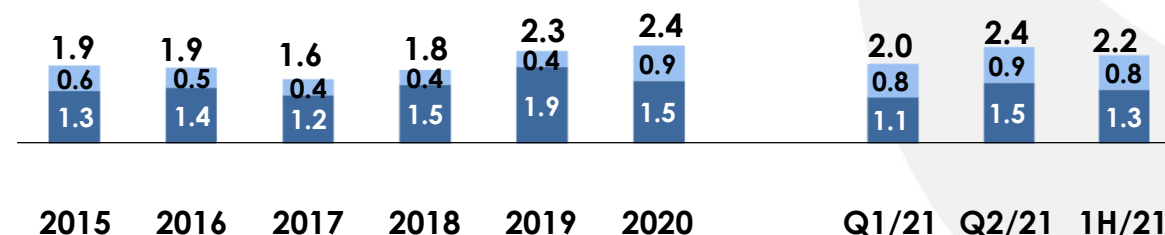
■ Market GRM ■ Accounting GRM (Market GRM + Stock G/L)



## Refinery's Cash Cost

(Unit: US\$/bbl)

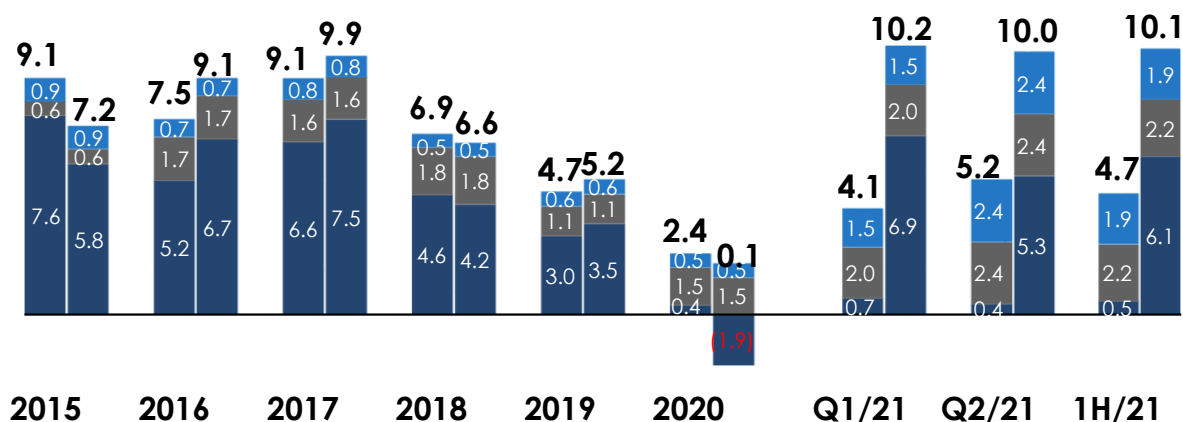
■ Operating Cost ■ Interest Expense (net)  
(excl. one-time non-operating item)



## Gross Integrated Margin

(Unit: US\$/bbl)

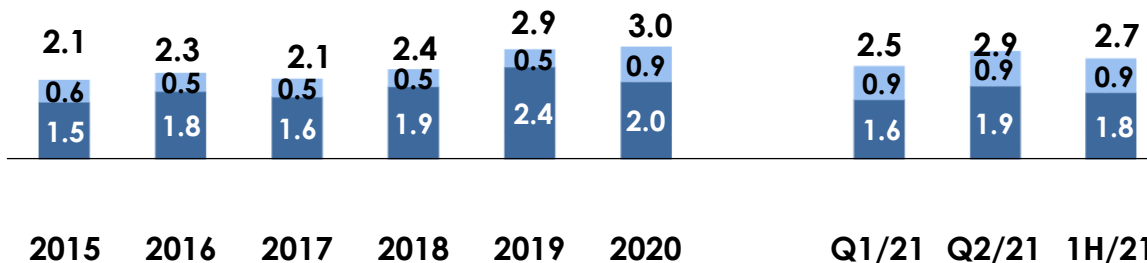
■ Market GRM ■ Accounting GRM (Market GRM + Stock G/L)  
■ Refinery ■ Aromatic & LAB ■ Lube Base



## Group's Cash Cost

(Unit: US\$/bbl)

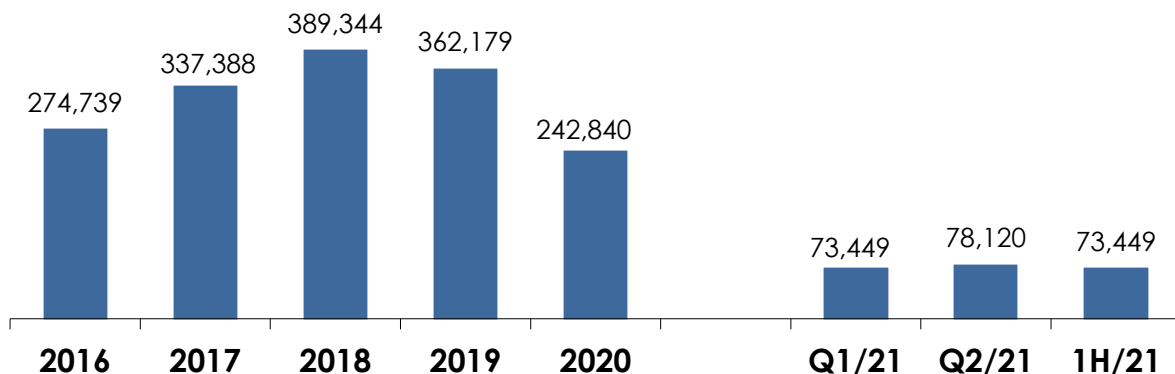
■ Operating Cost ■ Interest Expense (net)  
(excl. one-time non-operating item)



# Financial Performance

## Sales Revenue

Unit: Million THB

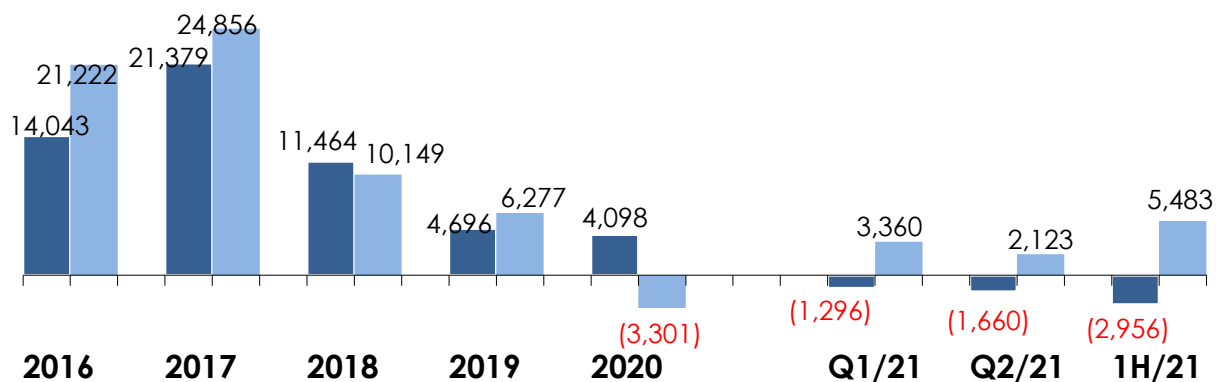


## Net Profit

Unit: Million THB

■ NP (excl stk G/L before tax)

■ NP (incl stk G/L)



<sup>R</sup> Restated financial statement

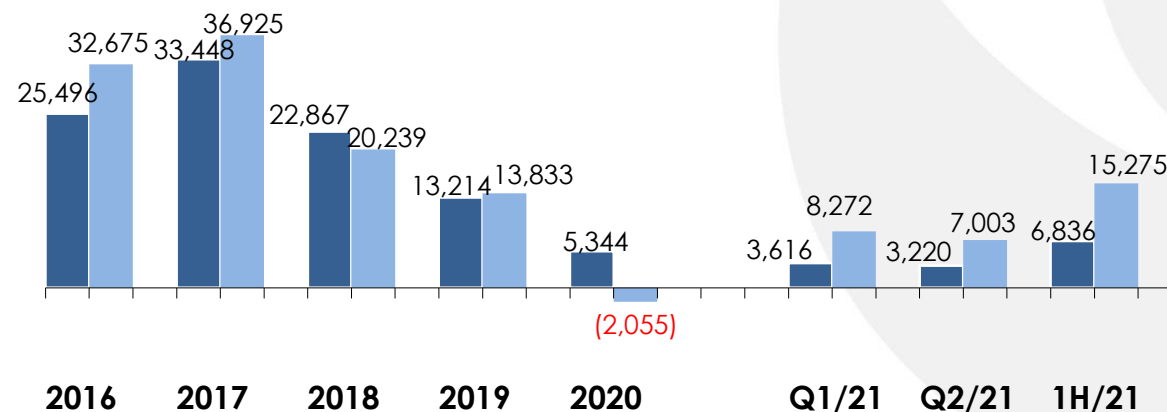
\* Free Cash Flow (FCF) = Operating cash flow – Net CAPEX(PP&E)

## EBITDA

Unit: Million THB

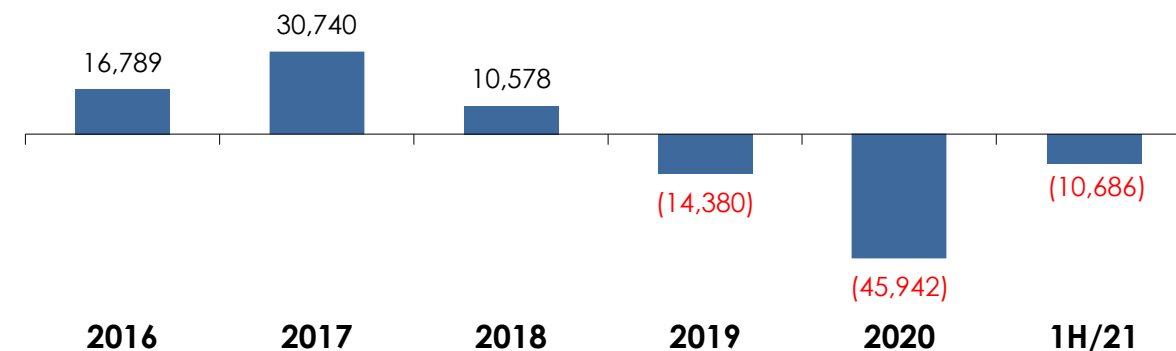
■ EBITDA (excl stk G/L)

■ EBITDA (incl stk G/L)



## Free Cash Flow\*

Unit: Million THB



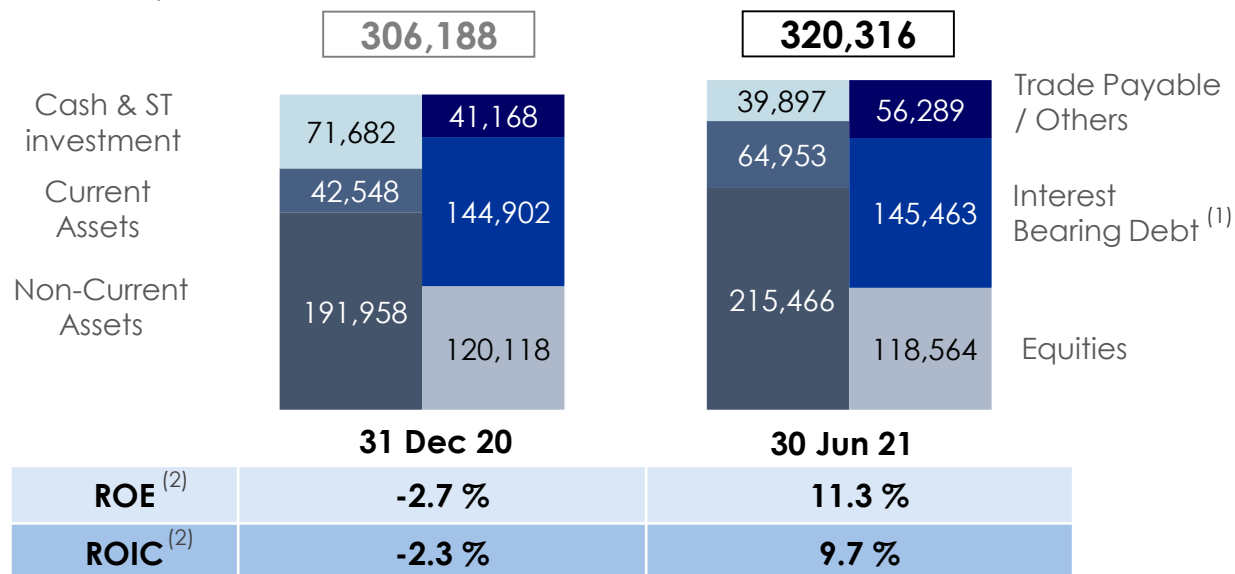
## Net CAPEX (PP&E)

10,830	6,392	3,677	7,735	27,467	48,377	19,086
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# Q2/21 TOP Group Strong Financial Position & Financial Ratios

## Statements of Financial Position

(Unit: million THB)

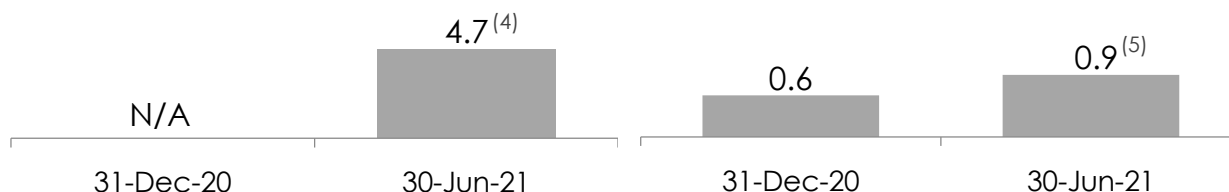


(1) Including current portion of Long-Term Debt  
 (2) Based on actual performance in the past 12 month

## Financial Ratios

### Net Debt / EBITDA

### Net Debt / Equity



(4) Based on actual performance in the past 12 month  
 (5) As of 30 Jun 21 Net Debt 105,566 MB or 3,278 M\$

## Consolidated Long-Term Debt as at 30 Jun 21

### Total IBD

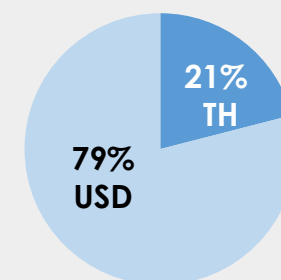
145,463 million THB  
 (US\$ 4,517 million equivalence)

### Net Debt

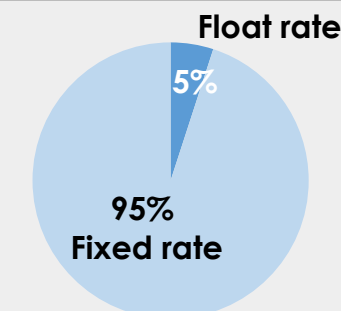
105,566 million THB  
 (US\$ 3,278 million equivalence)

As at 30 Jun 21 (32.22 THB/US\$)

### Currency Breakdown



### Interest Rate Breakdown



Avg. Debt Life (yrs)

16.6 yrs

Cost of Debt (Net)

3.93% <sup>(3)</sup>

(Gross)

4.20%

(3) Due to yield enhancement

Moody's

Final rating

Baa3  
Negative Outlook

STANDARD  
& POOR'S

BBB  
Stable Outlook

FitchRatings

A+(Tha)  
Negative Outlook



# TOP Group Strategic Investment Plan

## CAPEX Plan (Unit US\$ million)

Updated as of July 2021

Project	Actual 1H/21	Estimated Budgeting for Investment Plan 2021 - 2024
<b>CFP project *</b>	<b>579</b>	<b>1,902</b>
<b>Total Ongoing CAPEX</b>	<b>22</b>	<b>201</b>
Reliability, Efficiency and Flexibility Improvement	3	48
Infrastructure Improvement ( i.e. Jetty 7&8, Office Relocation & New Crude Tank, Site office preparation for fire water & fire water improvement, New Bangphra Raw Water Line )	13	72
Other Investments ( i.e. Corporate Venture Capital - CVC , Digital Transformation )	6	81
<b>TOP SPP Expansion</b>	<b>19</b>	<b>145</b>
<b>Olefins Investment</b>	<b>-</b>	<b>1,183</b>
<b>Total CAPEX</b>	<b>620</b>	<b>3,431</b>

\* CAPEX of CFP Project including the disposal of asset to transfer ownership in the Energy Recovery Unit (ERU) which is a part of the CFP Project

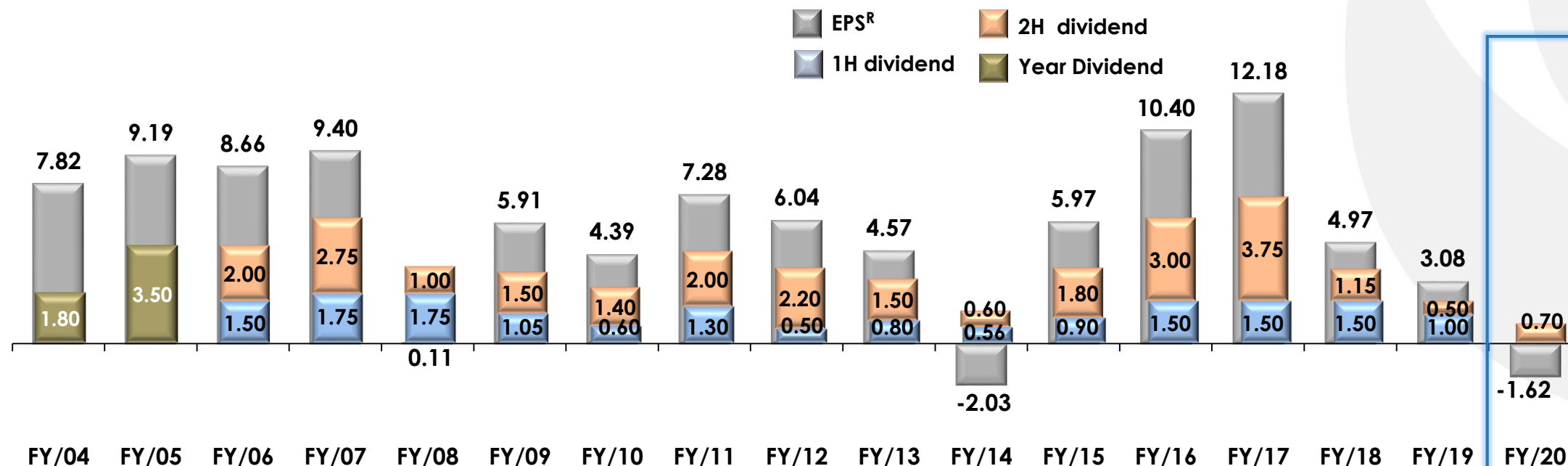
Notes: Excluding approximately 40 M\$/year for annual maintenance

# Dividend Payment

## Dividend Policy :

Not less than 25% of consolidated net profit after deducting reserves, subject to cash flow and investment plan

Unit : THB/share



	FY/04	FY/05	FY/06	FY/07	FY/08	FY/09	FY/10	FY/11	FY/12	FY/13	FY/14	FY/15	FY/16	FY/17	FY/18	FY/19	FY/20
Annual DPS (Baht/share)	1.80	3.50	3.50	4.50	2.75	2.55	2.00	3.30	2.70	2.30	1.16	2.70	4.50	5.25	2.65	1.50	0.70
Dividend Payout	23%**	38%	40%**	48%	N/A	43%	45%	45%	45%	50%**	N/A	45%	43%	43%	53%	49%	N/A
Dividend Yield*	4.0%	5.6%	5.6%	6.2%	5.2%	7.1%	4.0%	4.7%	4.2%	3.6%	2.3%	5.0%	6.7%	6.2%	3.1%	2.2%	1.6%
Avg TOP price	44.7	63.0	62.7	72.7	53.3	35.9	49.9	69.8	65.1	64.6	50.4	53.5	66.7	84.2	86.9	68.3	44.0

<sup>R</sup> Based on restated financial statement

\* Based on average TOP share price in each year

\*\* Dividend payout before restated ; 2004 = 25% , 2006 = 43% , 2013 = 45%



# STRATEGIC INVESTMENT PLANS

# Thaioil's 2021 Strategic Direction : Building on Our Strong Foundation

## Vision



Empowering Human Life  
through Sustainable Energy and Chemicals

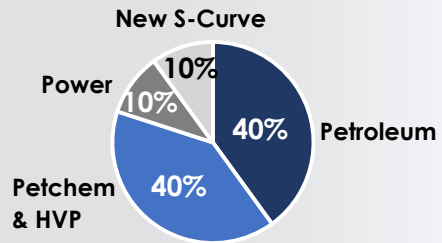
## Strategic Objective

To be a competitive Energy & Chemicals company that  
delivers sustainable returns & better quality of life to all stakeholders

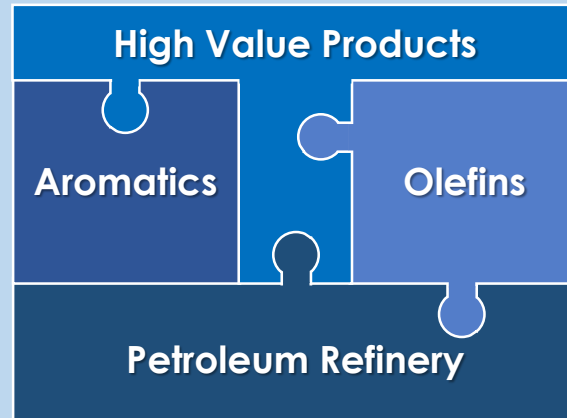
## Measurement

Growth / Earnings Diversity / Returns / Sustainability / Stakeholders

## Portfolio Strategic Direction



Value Maximization :  
Integrated Crude to Chemical



Value Enhancement :  
Integrated Value Chain Mgmt.



Value Diversification



## Effective Execution



People + Patronage + Partnership + Platform

## Drive for Sustainability

Environment + Social + Governance



# 3-Pronged Strategy (3V)



## **V**alue Maximization : Integrated Crude to Chemicals

### “Build on our strong foundation”

- Strengthen core through CFP project
- Speedup growth by building on our strong foundation
- Existing value chain (Aromatics, Lube & LAB) & HVP via revamp/debottleneck & partnership
- Olefins value chain, jumpstart via JV/partnership & bypass to downstream HVP
- Expand product portfolio & develop HVP through customer orientation, technical expertise & partnership



## **V**alue Enhancement : Integrated Value Chain Management

### “Know your customers & knowledge-based”

- ASIAN region as our investment playground & market
- Prepare for CFP & PetChem
- Move closer to customers to promote HVP's



## **V**alue Diversification

### “Stable Earnings & New S-Curve”

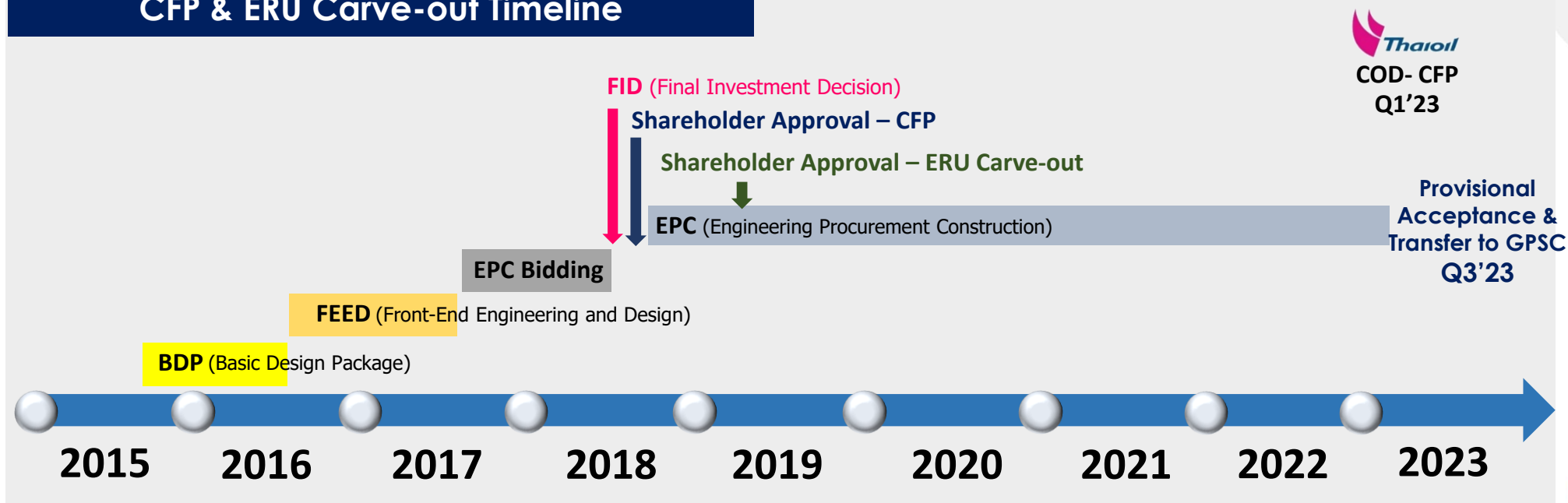
- Power to provide stable earnings
- Step up effort on New Ventures
- Window to identify new S-curve opportunities & diversity sources of earnings

# CFP Rationale & Timeline

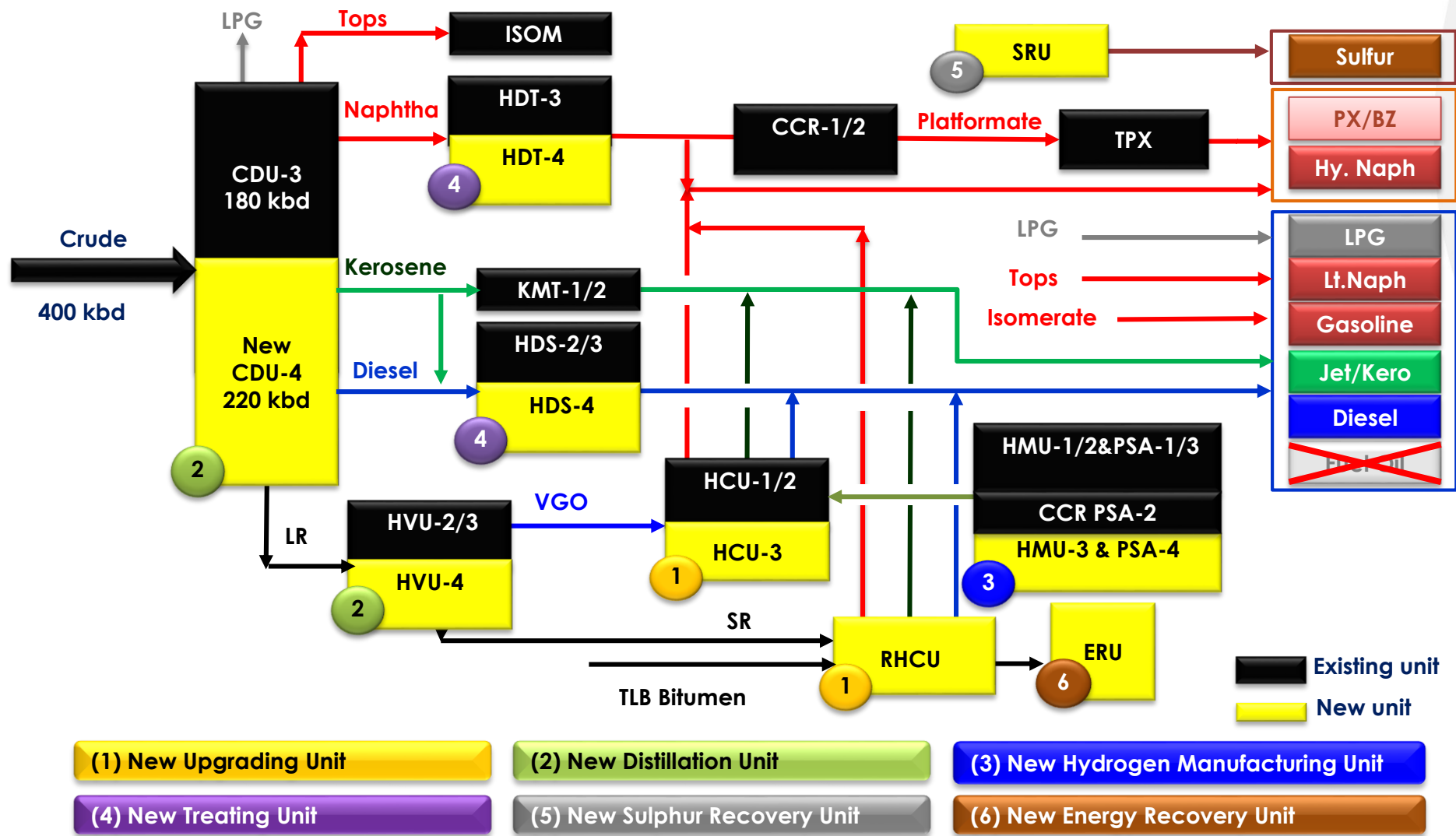
## Project Rationale

- Risk of losing competitiveness to others regional refineries as more new refineries with higher capacity and more advanced technologies are on stream.
- Adjust product portfolio by producing high demand and clean product to serve customer needs and country's energy stability.
- Replace units i.e. CDU 1,2 which have been operating more than 50 and 40 years respectively.

## CFP & ERU Carve-out Timeline



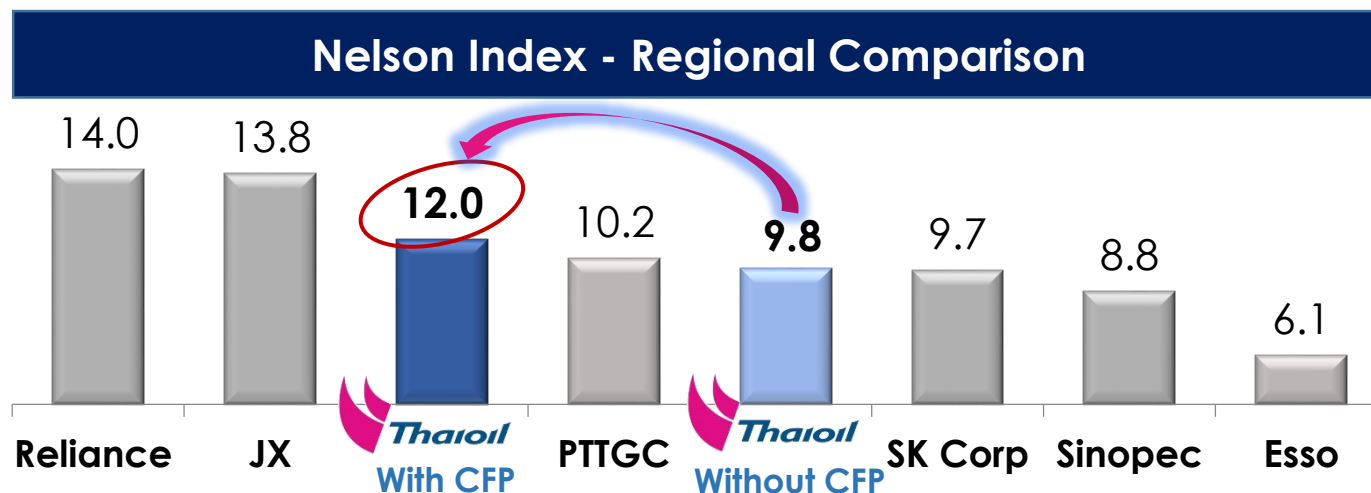
# Scope of CFP & Technical Aspect



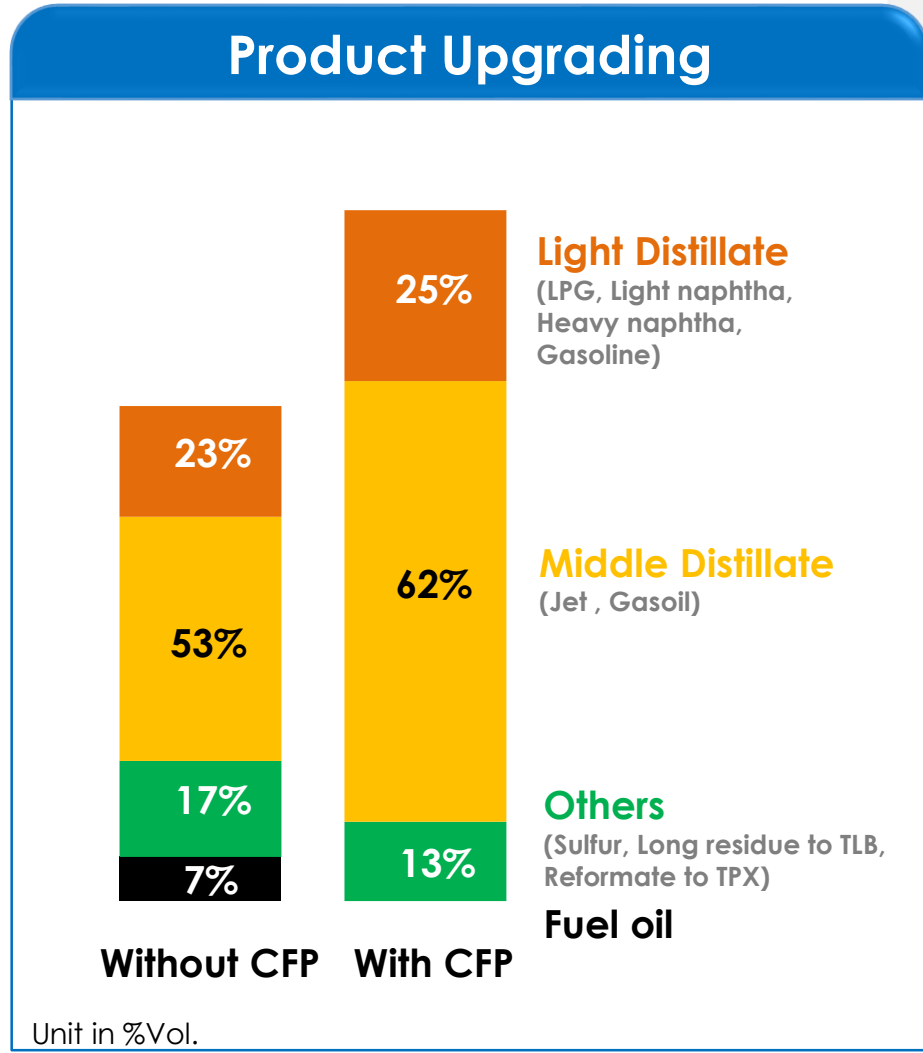
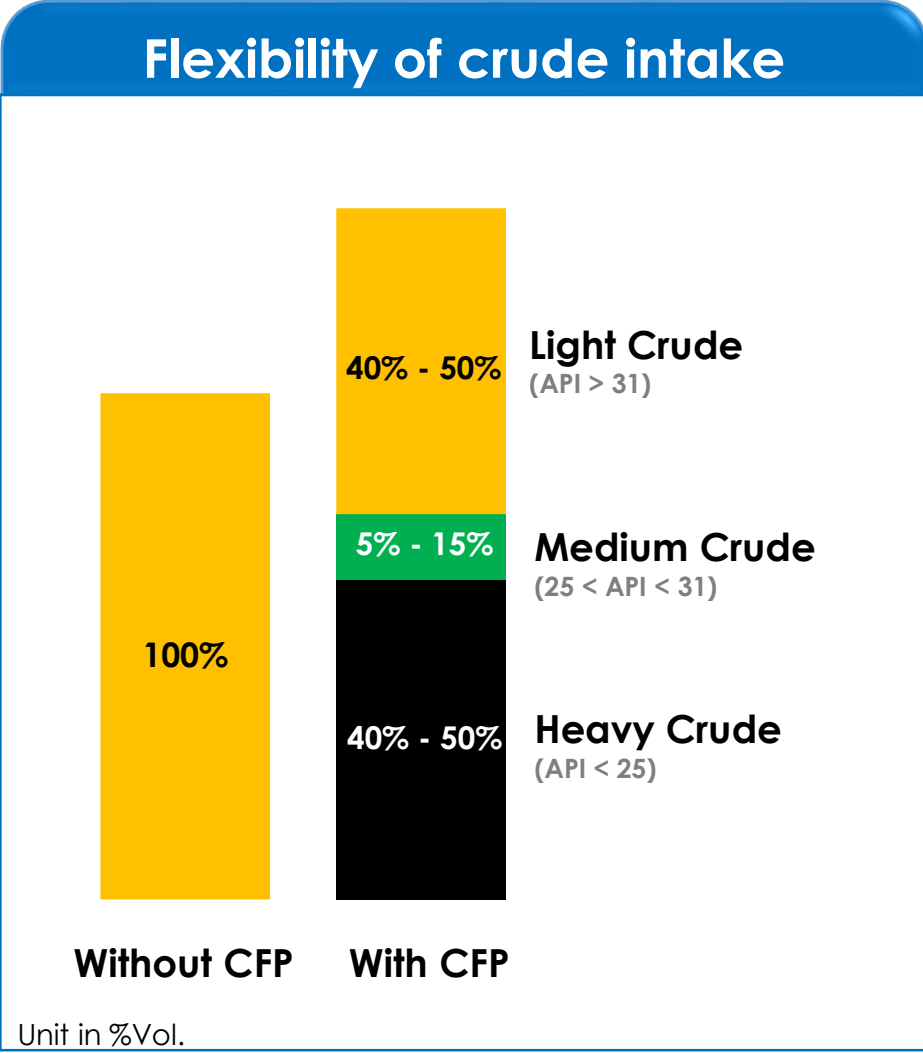
# CFP Competitiveness

Without CFP	With CFP
<ul style="list-style-type: none"> <li>• <b>CDU Capacity</b> 275,000 bbl per day</li> <li>• <b>Upgrading Ratio</b> <b>28 %</b> (upgrading capacity<sup>(1)</sup> over CDU capacity)</li> </ul>	<ul style="list-style-type: none"> <li>• <b>CDU Capacity</b> 400,000 bbl per day</li> <li>• <b>Upgrading Ratio</b> <b>50%</b> (upgrading capacity<sup>(2)</sup> over CDU capacity)</li> <li>• <b>Power Plant</b> <b>250 MW</b></li> </ul>

Remark : (1) including HCU 1/2, FCCU, TCU      (2) including HCU 1/2/3, RHCU



# CFP Value Proposition

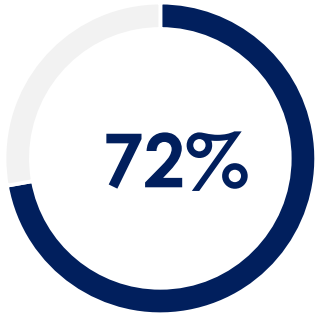


Note : After CFP, all products based on average data 2023-2043

# Clan Fuel Project (CFP)

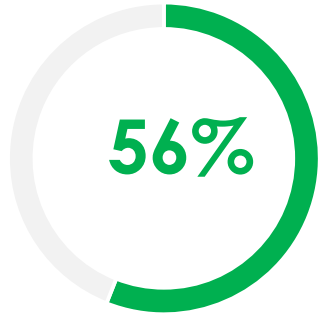
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## Overall CFP Progress



### Project Progress

As of end Jun'21



### Budget Utilization

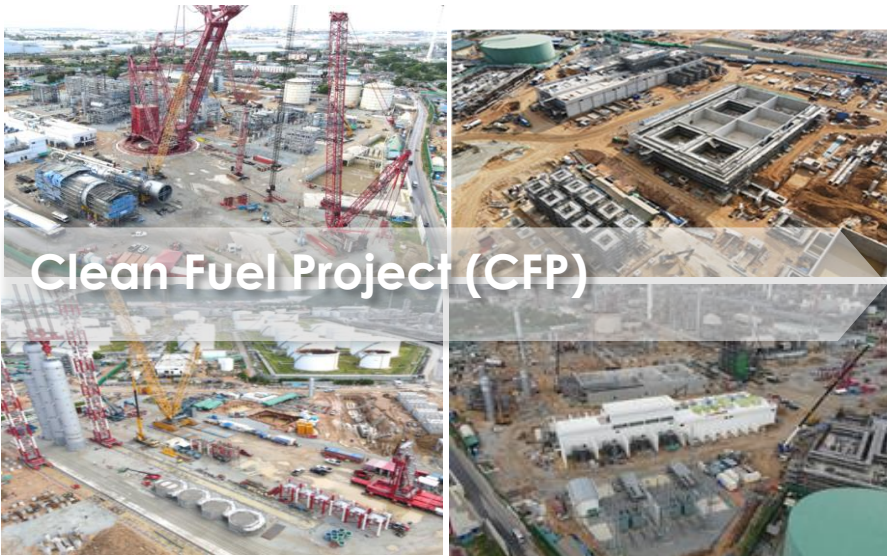
As of end Jun'21

## 1H/21 Progress

- Continuing equipment and module arrival to Thailand
- Massive progress of heavy lifting work for critical equipment and module installation
- Completed main substation structure construction for energization by 2022
- Maximized manpower in critical construction area and balanced personnel in non critical area to control COVID-19 situation
- Continuing construction at site amid strict COVID-19 control measures

## Going Forward in 2H/21- 2022

- Focus on construction at site i.e. equipment and module installation work
- Most of equipment and module will be arrived Thailand and ready to be installed until next year







# OLEFINS INVESTMENT

# Achieving TOP's Strategic Objectives: Integrated Crude to Chemicals



## TOP's Strategic Direction

### Value Maximization



Further extend Hydro-Carbon value chain to Olefins PetChem, in addition to existing Aromatics

### Value Enhancement



Geographic expansion



Platform for international growth

## Strategic Objectives Achieved



A jumpstart into Olefins value chain



Minimum investment in existing facilities & growth plan



Avoid adding new capacity



Instant upgrade of LPG & Naphtha value from CFP



Partner with reputable & experienced local Indonesian & Thai



Strategic market location – supply shortfall & growing

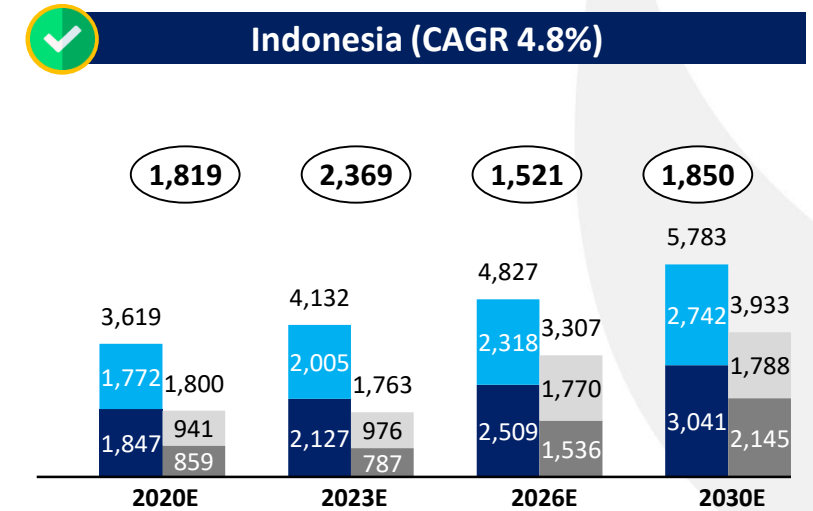
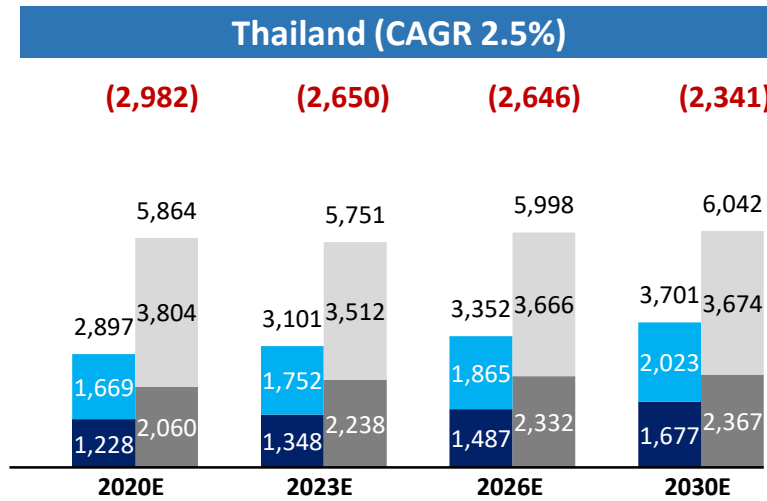


Opportunity to expand to other businesses



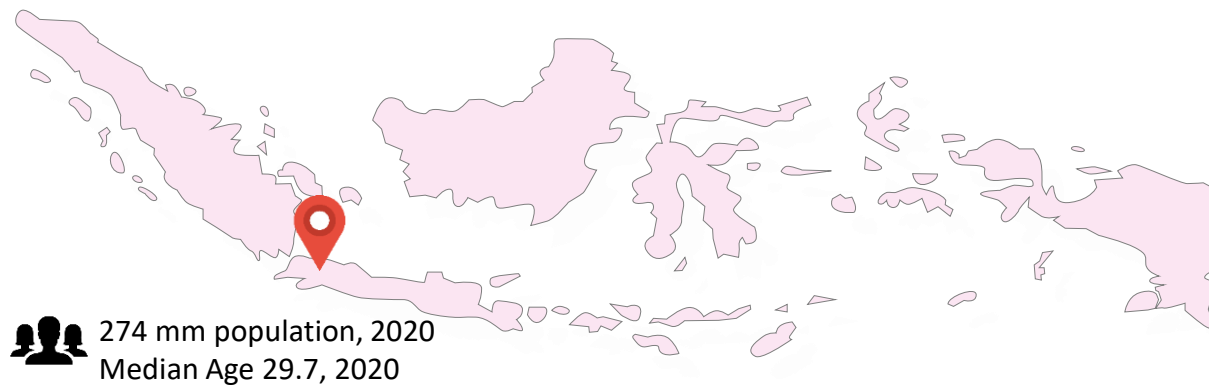
Gateway to Indonesia

# Attractive Indonesian Growth Fundamentals



○ Net Imports ■ PP Domestic Demand ■ PE Domestic Demand ■ PP Production ■ PE Production

\*Production includes utilization rate



**INDONESIA** has the **4<sup>th</sup> largest population in the world** with enormous potential of plastic consumption growth



**INDONESIA continues to be net-import** going forward, despite new additional capacities.

## Source:

- (1) Market information from IHS2021 Edition: Spring 2021 Update
- (2) Supplies from CAP2 and Lotte have been added into Indonesia's supply volume

# CAP is Indonesia's Premier Petrochemical Producer

## 1. Market Leading Position



PP 32%

PE 30%

Olefins 50%

# #1

**The Largest & Dominant Integrated Petrochemical Producer in Indonesia**

**Note:**

(1) Comparable Asian players

## 2. Operational Excellence

**29**  
Years

In petrochemical industry



**Only integrated Naphtha cracker in Indonesia**

**25%**

**Superior profitability relative to peers**  
Q1 2021 EBITDA margin VS peers average of 20%<sup>(1)</sup>



**Plans to double Naphtha Cracker capacity within 2026**

## 3. Strong Sponsorship



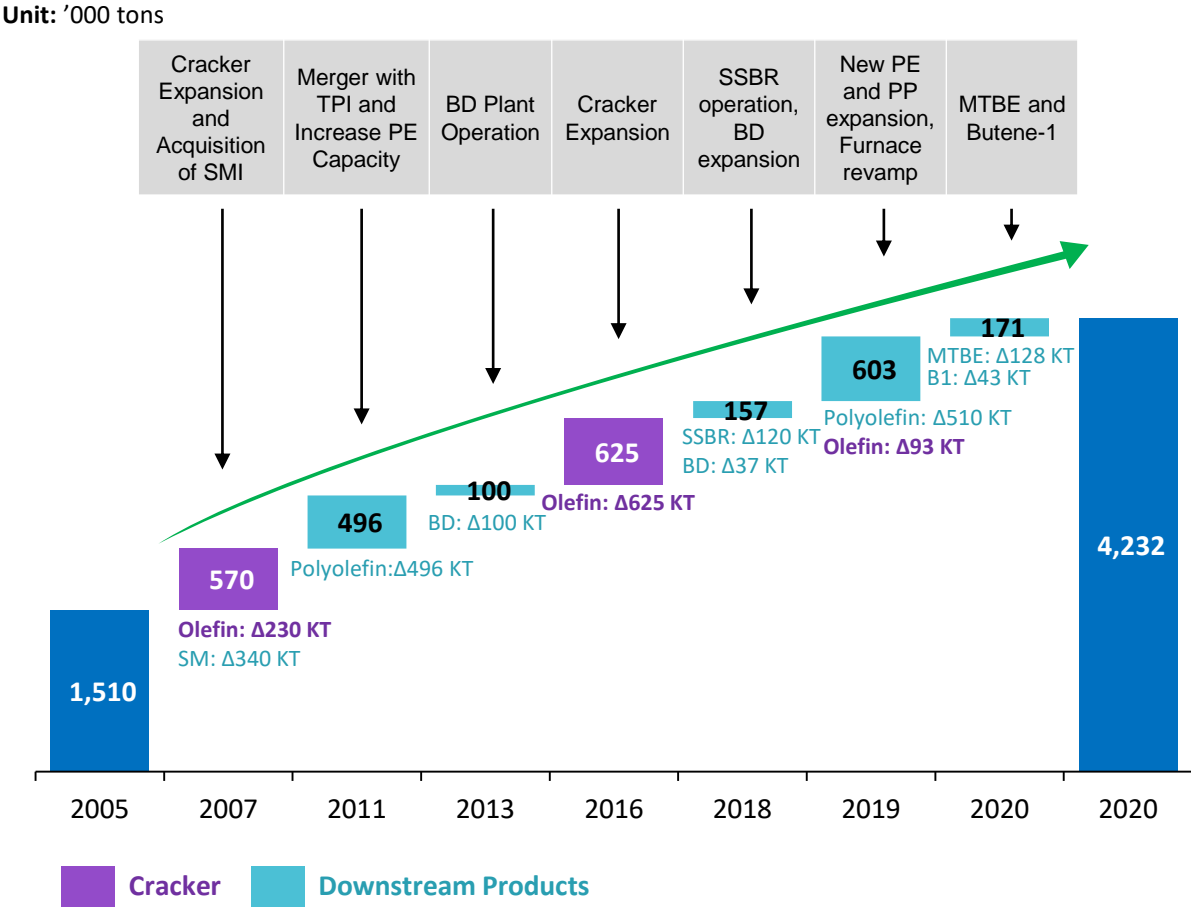
**Strong Shareholder Group** including Barito Pacific and SCG Chemicals

**Support from Indonesian Government** - CAP as a strategic vital national entity to support country's growth

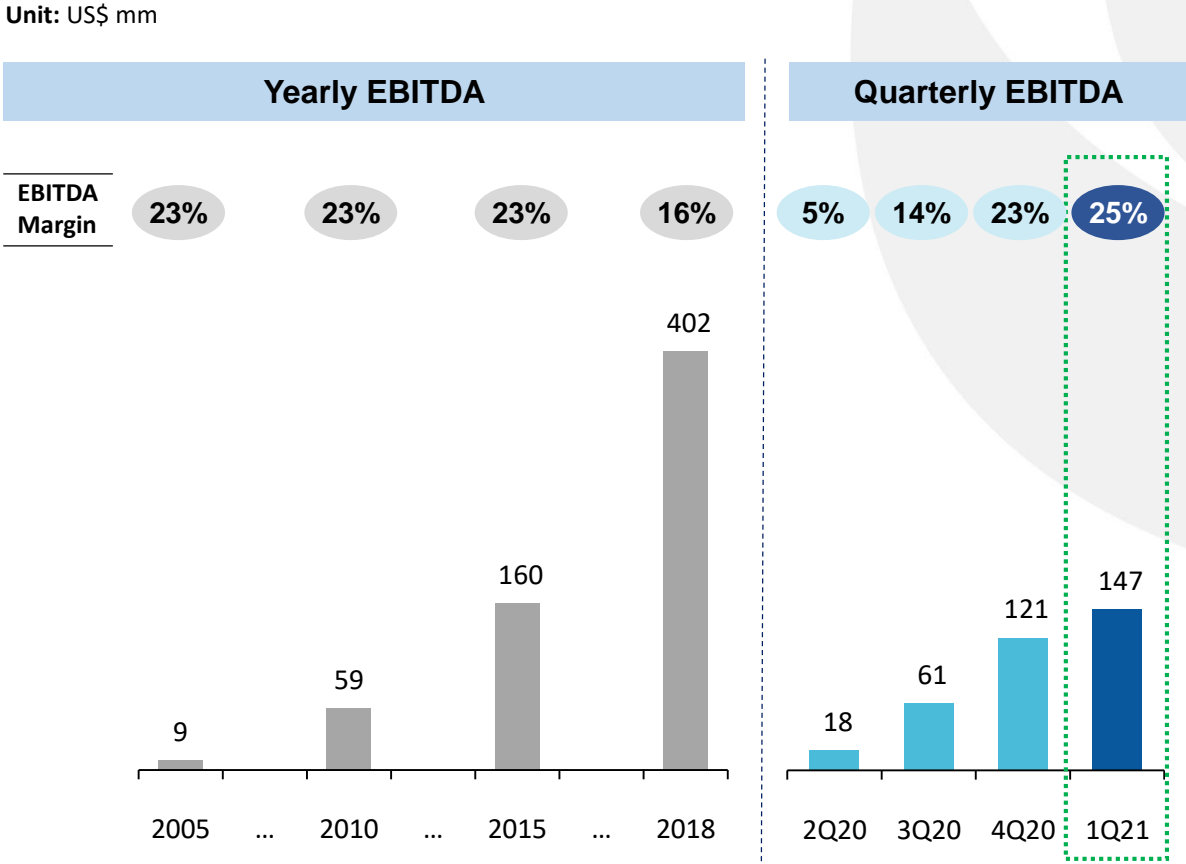
10 years of good governance in **Indonesia Stock Exchange (IDX)**

# Continuous Expansions and Debottlenecking with High Profitability

## Expansions and debottlenecking executed successfully



## Revenue and profit are on upward trend.



Source:  
 (1) CAP's Presentations  
 (2) 2005 – 2020 EBITDA from Bloomberg and 2Q2020 – 1Q2021 EBITDA from company presentation





# CAP2 Expansion is a Transformative Project for CAP

## CAP2 Project Overview



**Approx. USD 5 bn new plant to double CAP's Petrochemical Capacity**



**Flexible Feedstock Configuration**



**Synergy with Existing Plant**

- 93% of Land has been secured adjacent to the existing plant



**Strong Support From the Government**

- 20+2 year Corporate Income Tax Holiday (even pre-FID)<sup>(1)</sup>
- EIA approved



**Rights issue**

- Expected primary proceeds of USD1.1bn
- Doesn't expect another capital increase to develop CAP2

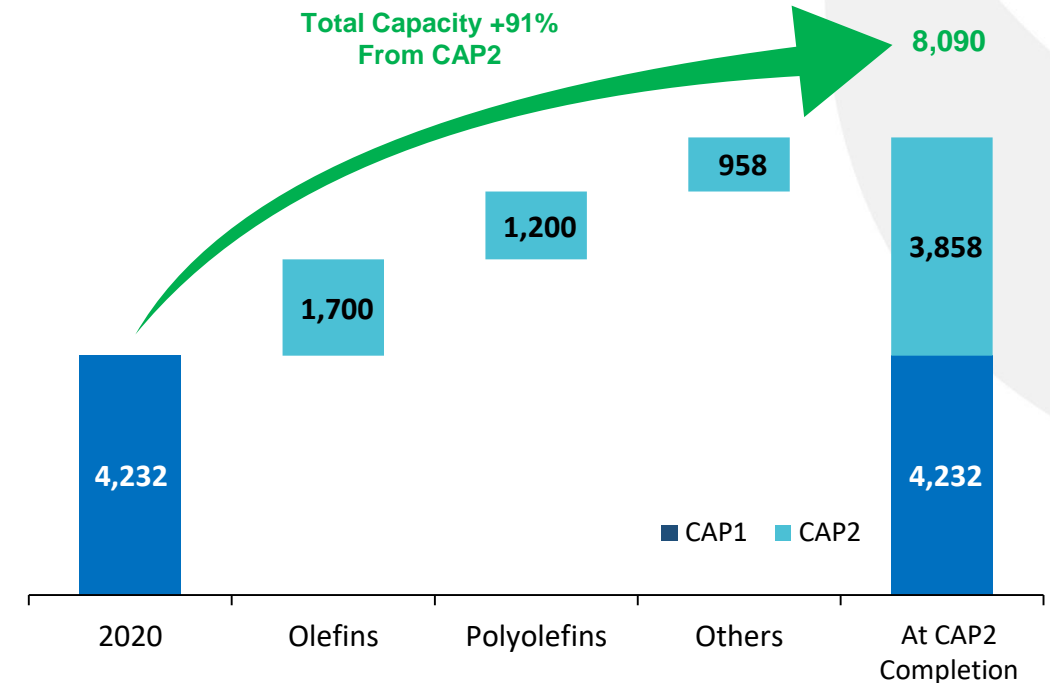


**Expected Final investment decision (FID) in 2022  
Expected COD in 2026**



## CAP2 Will Double The Capacity of CAP

Unit '000 tons





# Win-Win-Win Partnership



## TOP Key Value Adds

- **Long-term feedstock supply security**
- Expertise in **margin improvement program** and **operational excellence program**
- Recent **experience in mega project** development, i.e. CFP
- **Equity funding** for development of CAP2

## CAP Key Value Adds

- **Leading operator of petrochemical complex** in Indonesia
- Track record of **sustainable and profitable growth**
- Highly visible **growth opportunity** from **development of CAP2**
- **Sponsored by Barito Group**

## SCG Chemicals Key Value Adds

- **CAP's long-term partner**
- **Long track record and expertise in PetChem**
- Recent **experience in mega project** development, i.e. Longson PetChem project in Vietnam
- **Equity funding** for development of CAP2

## Strategic Collaboration & Synergies



Planning, development and construction of **CAP2**



**Feedstock supply by TOP** to enhance feedstock security for CAP



**Product distribution by TOP** to further expand CAP distribution network



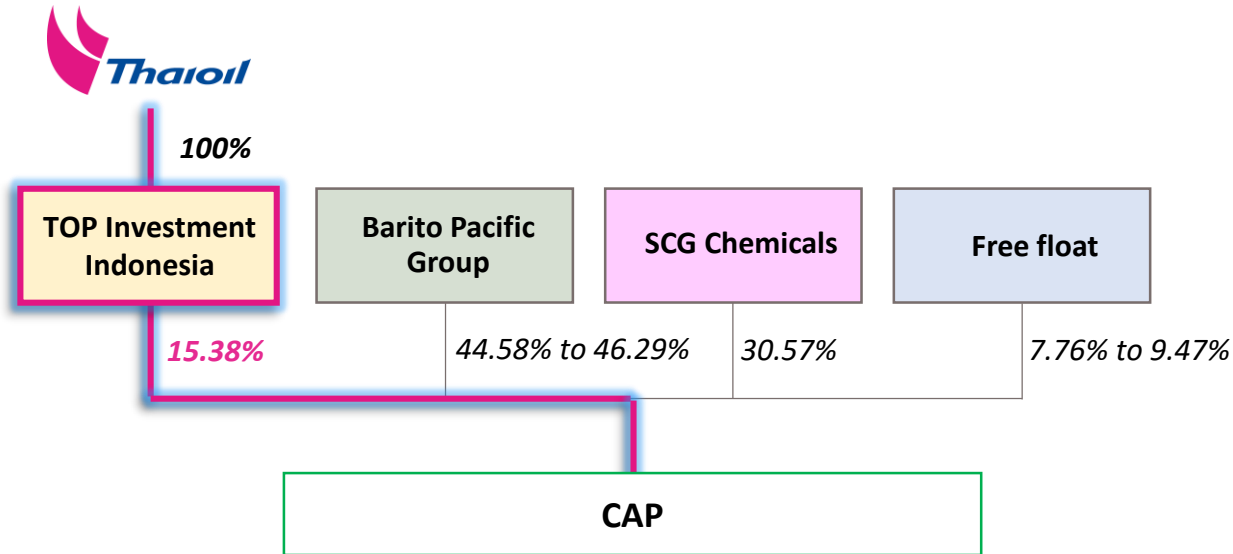
**Knowledge / expertise transfer** between both organizations



**Future additional collaborations** between TOP, CAP and SCG Chemicals



# Details of Investment



## Investment for 15.38% in CAP split into 2 tranches

	Payment (US\$ mm)	% Share
1 <sup>st</sup> Tranche	913	15.0%
2 <sup>nd</sup> Tranche (when CAP2 FID in 2022)	270	0.38%
<b>Total</b>	<b>1,183</b>	<b>15.38%</b>

### Use of Proceeds



All primary proceeds to CAP will be used for the development and construction of CAP2 Project

### Condition Precedents



All necessary approvals including approval from the OJK are obtained

### Timing



Closing for the 1<sup>st</sup> transaction is expected within 30 September 2021

### Equity Accounting



TOP can apply equity accounting method after the 1<sup>st</sup> transaction

# Summary of Investment Price

LTM CAP Share Price (USD)



**Blended Price Per Share (with FID):**  
US\$0.3532 or total investment size of US\$1,183mm by TOP

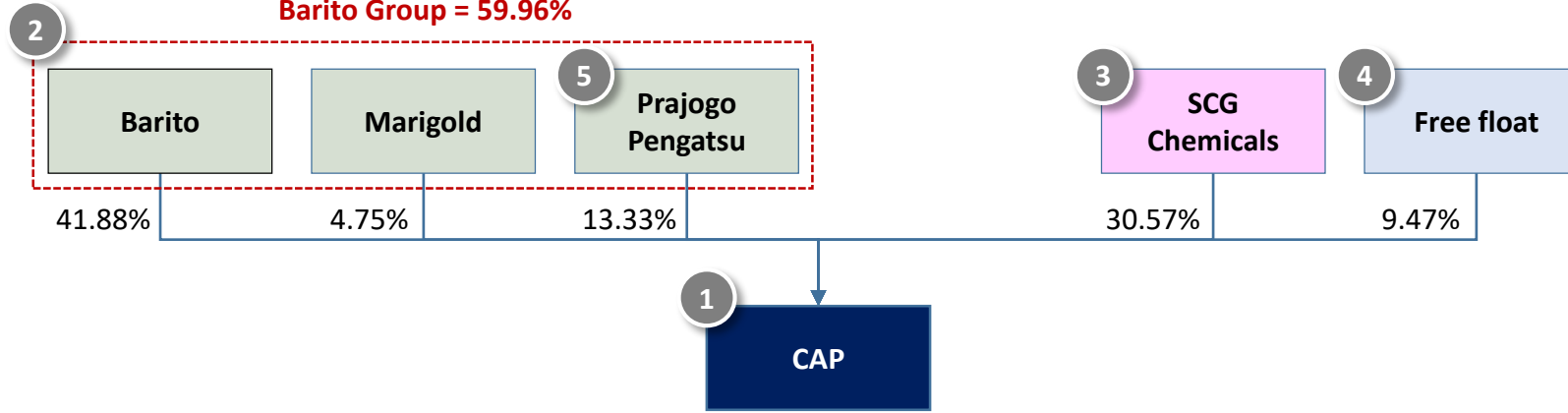
**Price per Share for 1<sup>st</sup> Tranche:**  
US\$0.2815 or investment size of US\$913mm by TOP

**Equivalent to EV/EBITDA of 11.3**  
**Based on LTM EBITDA 457 mnUSD as of Q2/21**

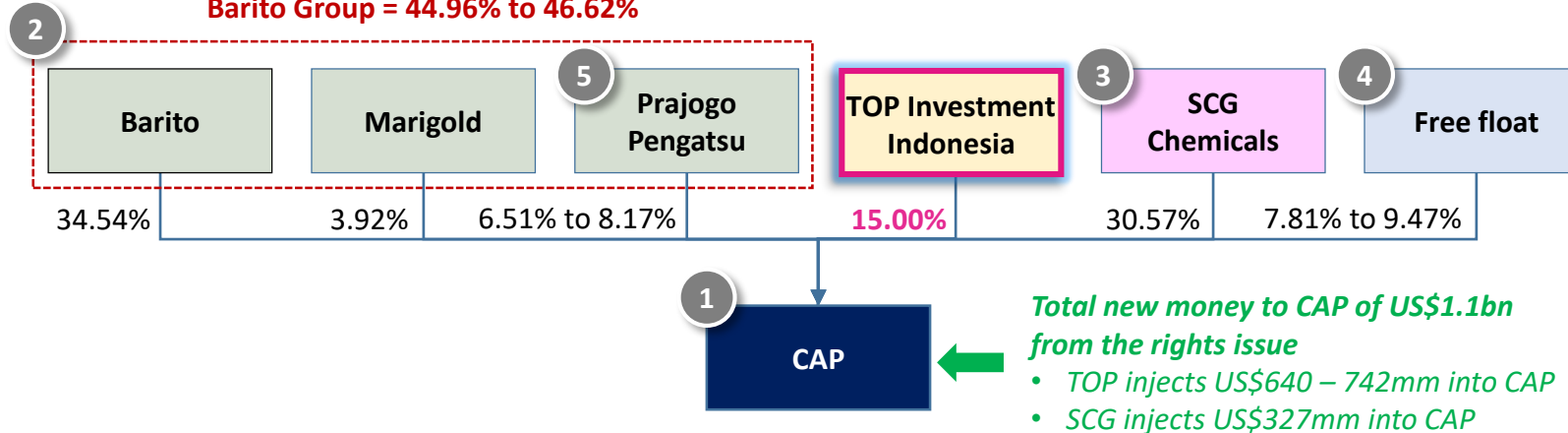
# Investment Mechanics

## Illustration of Investment

Barito Group = 59.96%



Barito Group = 44.96% to 46.62%



## 1<sup>st</sup> Tranche Mechanics

- 1 CAP carries out rights issue<sup>(1)</sup> by issuing 3.79 billion new shares to existing shareholders (17.5% of outstanding shares after rights issue) at US\$0.2815 cents per share
- 2 TOP acquires rights from Barito Group and subscribe to new CAP shares according to such rights
- 3 SCG Chemicals exercise its rights and subscribe to new shares to maintain its current shareholding
- 4 TOP acts a standby purchaser to acquire and exercise all unexercised rights by the public
- 5 Top up from Mr. Prajogo Pangetsu such that TOP holds exactly 15.00% in CAP after the 1<sup>st</sup> tranche

## 2<sup>nd</sup> Tranche Mechanics

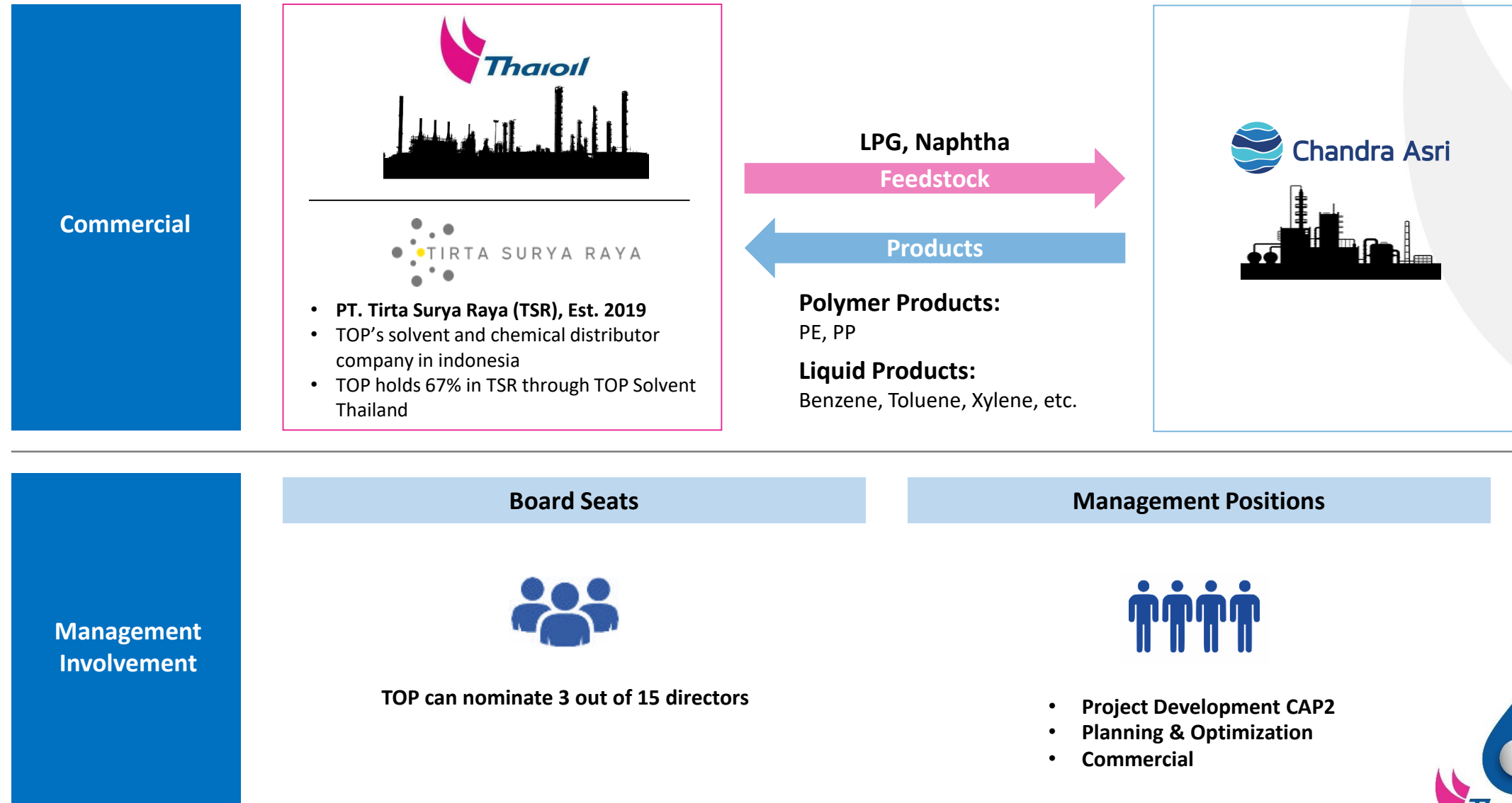
- With FID of CAP2, TOP will invest another **US\$270mm to reach shareholding of 15.38%**

### Note:

Barito refers to PT Barito Pacific Tbk; SCG refers to SCG Chemicals Company Limited; Marigold refers to Marigold Resources Pte. Ltd.; TOP refers to Thai Oil Public Company Limited

(1) Rights issue instead of private placement is used due to (a) regulatory considerations in Indonesia make private placement impractical; and (b) rights issue allows other shareholders of CAP to participate in the transaction as well

# Key Partnership Arrangements





# Investment Attractiveness

1



## Rare & Attractive Investment Opportunity to Jump-start TOP's Olefins Value Chain

- Strategic fit with TOP's Value Maximization
- Rare opportunity creating global scale
- Avoid adding new capacity

2



## CFP Products Value Upgrade

- Reliable outlet for TOP's products as feedstock for CAP
- Extension of TOP value chain

3



## Strategic Market Locations

- Net importing country despite new additions
- High potential for strong local market demand

4



## Experienced Partners & Well-Established Infrastructure

- Largest player in Indonesia
- Proven track record
- CAP2 advanced development
- Long-term partnership with SCG and CAP

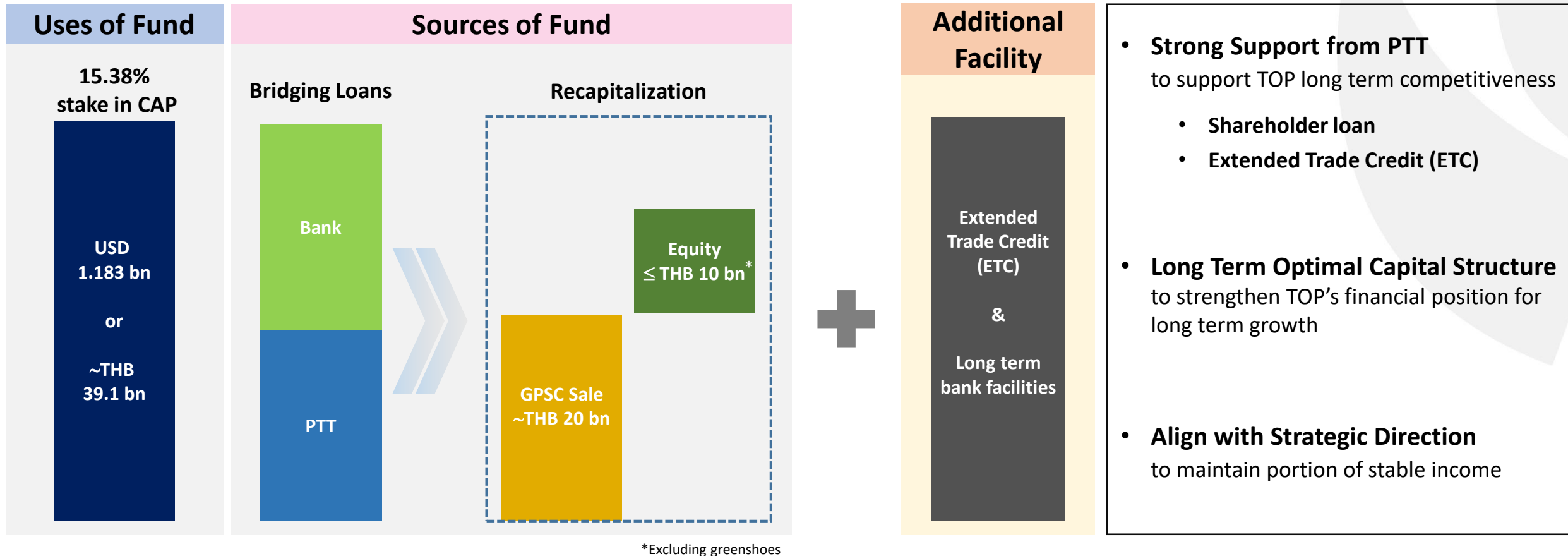
5



## Gateway to Indonesia

- Opportunities for HVP in high demand country
- Future business collaborations

# Funding Plan for the Transaction



- **Strong Support from PTT** to support TOP long term competitiveness
  - Shareholder loan
  - Extended Trade Credit (ETC)
- **Long Term Optimal Capital Structure** to strengthen TOP's financial position for long term growth
- **Align with Strategic Direction** to maintain portion of stable income

# Long-Term Recapitalization Plan and Short-term Liquidity Support

## Objectives

- ✓ Return **Optimal Capital Structure** With Net D/E ~ 1.0x <sup>(1)</sup>
- ✓ Maintain **Investment Grade Credit Rating** in Short-term and **Credit Rating Upgrade** in Long-term <sup>(2)</sup>
- ✓ Minimize **Impact to Shareholders**

## Recapitalization



## Short-term Liquidity Support



*Recapitalization Plan will Strengthen TOP's Capital Structure and Provide a Strong Foundation for the Next Stage of TOP's Growth Journey*

(1) In line with internal policy and refinery and petrochemical peers

(2) RCF net debt to recover to over 10% after CFP COD

(3) Further details of the transaction to be announced and approved by the board of directors meeting and EGM (if required)

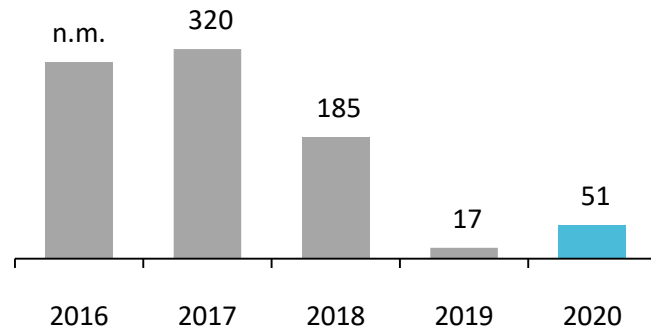
(4) Further details of the offering structure to be announced and approved by the board of directors meeting and EGM

# Expected Financial Benefits From the Transaction

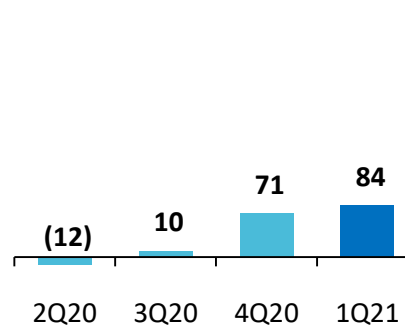
## Share of Profit from CAP to Enhance TOP's Performance

Annual Net Income from 2016 to 2020

Unit: USD mm



Quarterly Net Income from  
2Q2020 to 1Q2021



### Higher income stability

from more diversified income source



### ~ USD 40 – 50 mm of annual share of profit

in early years (based on 1Q2021 performance)

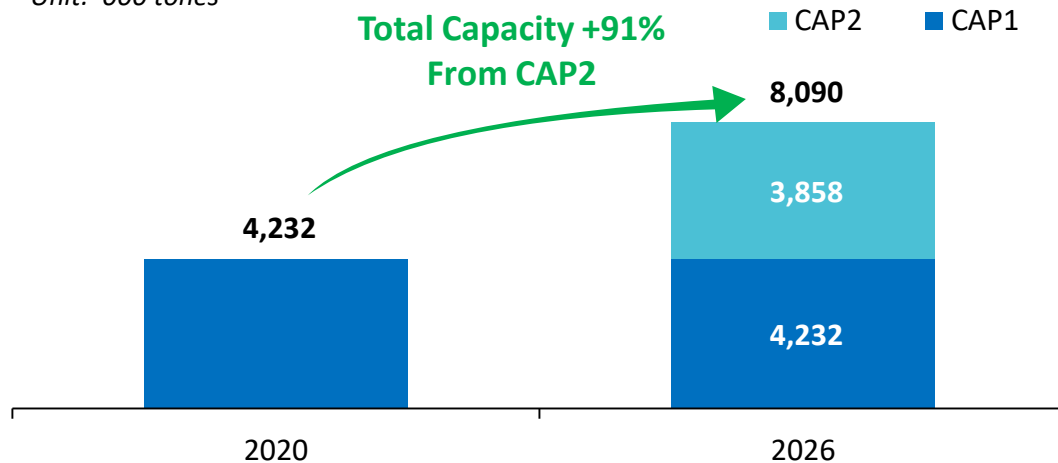


### Secured demand

from feedstock supply agreement

## Performance Expected to Increase Significantly From CAP2 Operations

Unit: '000 tones



### Production capacity to increase over 90%

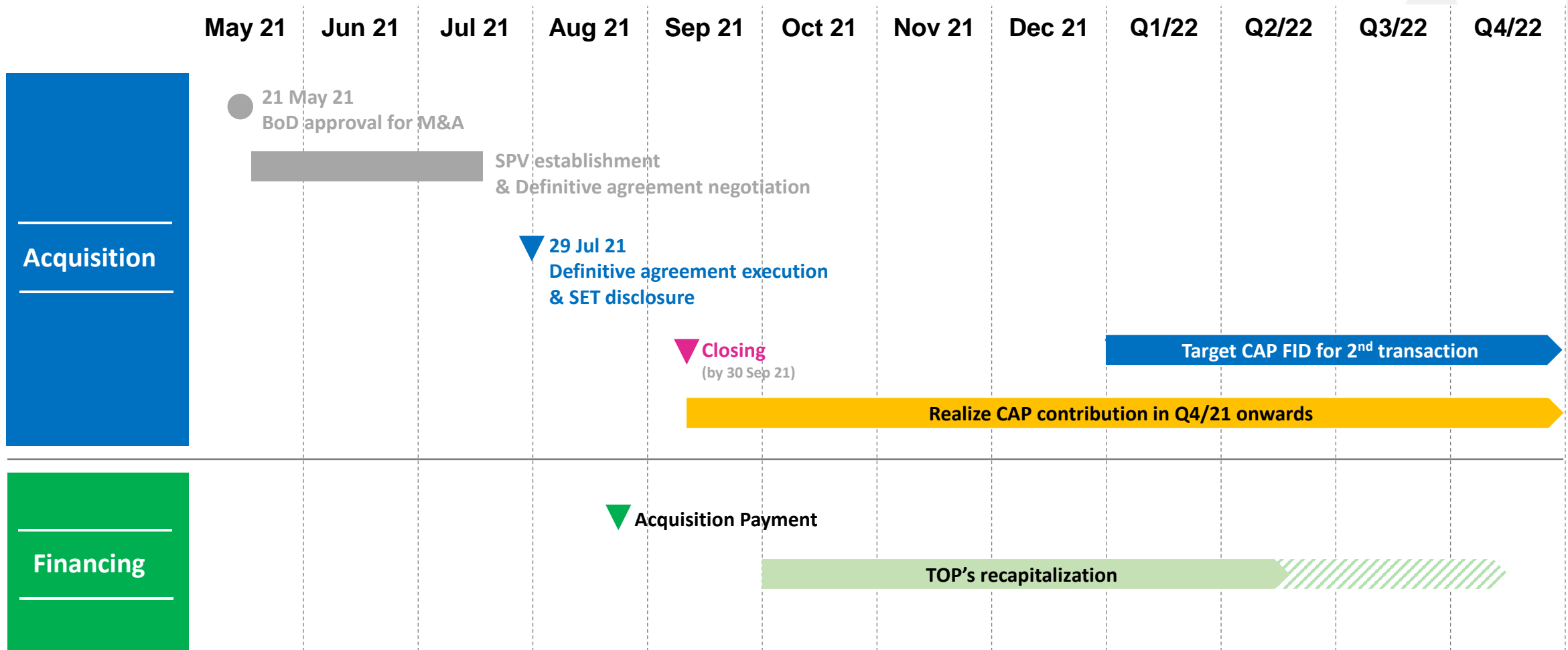
from CAP2 operations could result in double share of profit



### Expected margin improvement

from operational synergy between CAP1 and CAP2 to enhance share of profit from CAP

# Illustrative Timeline





# Key Investment Summary



## 1. Strategic Fit to TOP

- Jump-start our Olefins value chain
- Perfectly timed with CFP project
- Avoid adding new capacity
- Allow to concentrate on downstream HVP



## 2. Indonesia – A Strategic Market

- The region is our investment playground
- Young & fastest growing economy
- Net importer & growing PetChem market
- Our gateway to Indonesia



## 3. CAP – A Premier Operator

- Largest PetChem producer in Indonesia
- Market share over 50%
- Proven track record of sustainable & profitable growth



## 4. Tangible Strategic Collaboration

- Advance develop stage of expansion project
- CAP2 more than double capacity to 8 MTPA
- Capital injection by TOP & SCG will anchor CAP2 investment
- TOP to supply feedstock and distribute products



## 5. Well-Defined & Well-Balanced Funding Plan

- Investment is financed by loans from banks & PTT
- Take-out plan designed to optimize long-term capital structure



## 6. Win-Win-Win Partnership TOP-CAP-SCG

- Represent a strong and mutually beneficial partnership between TOP, CAP and SCG

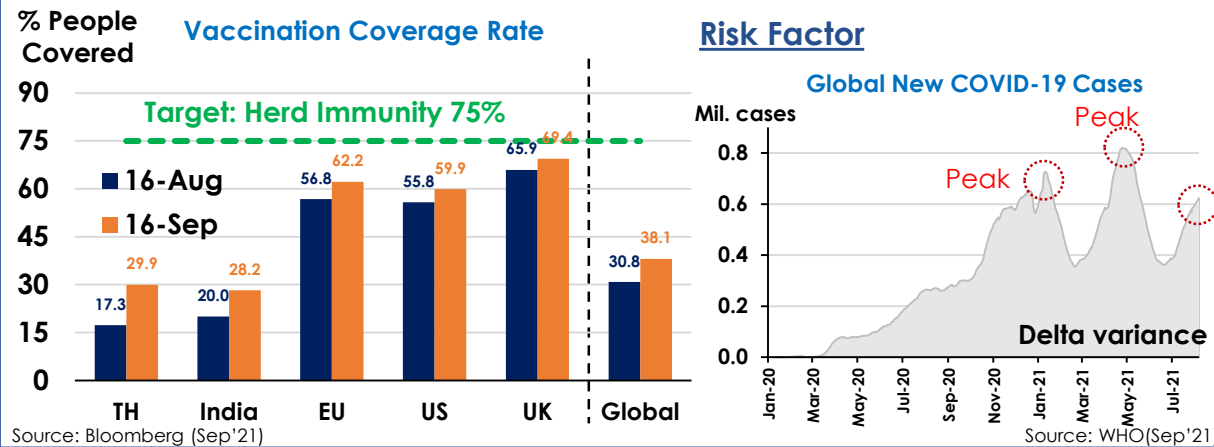


## 2H/21 OUTLOOK

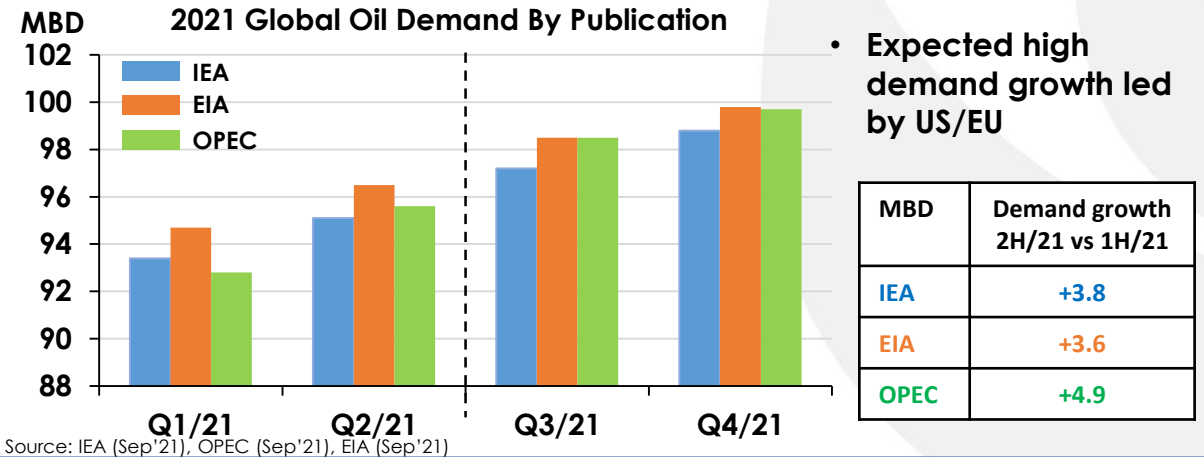
- Crude Oil
- Refinery
- Aromatic
- Base Oil & Bitumen

# Stable Oil Price on Improved Demand Amid Higher OPEC+ Supply in 2H/21

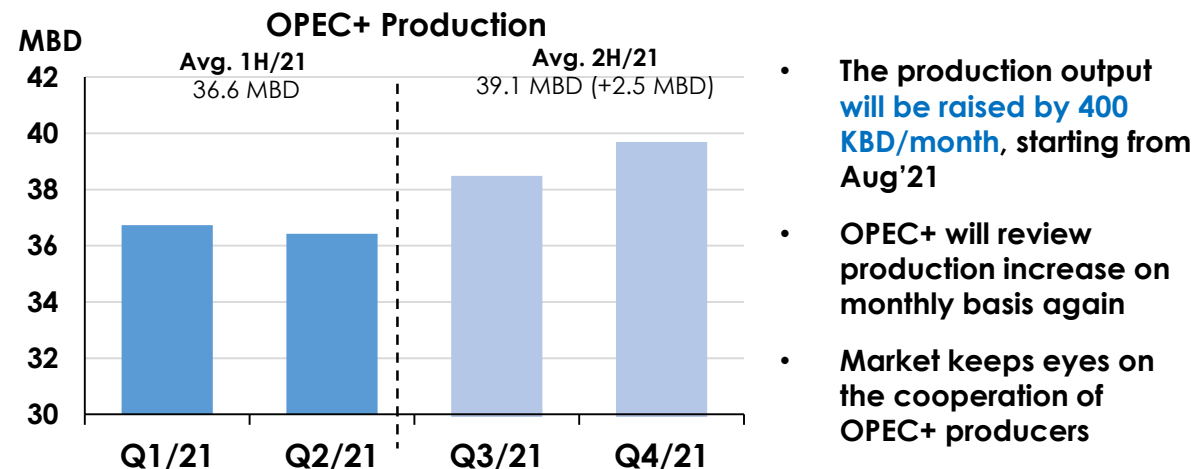
## A High Global Vaccination Coverage Rate amid High Delta New Cases



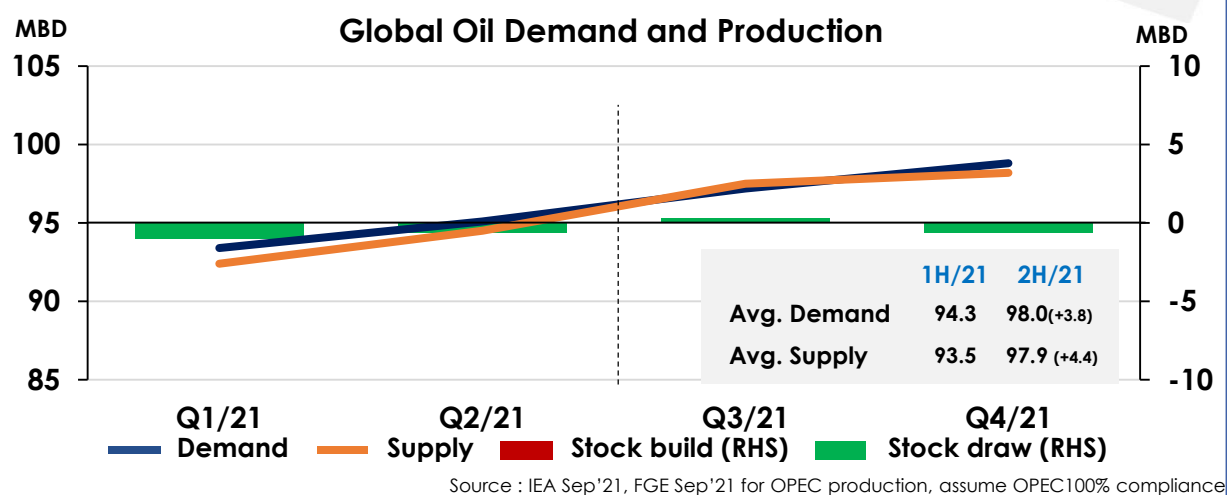
## B Expected Higher Global Demand with Limited Lockdown



## C Higher Supply on OPEC+ Agreement to Increase Production in 2H/21

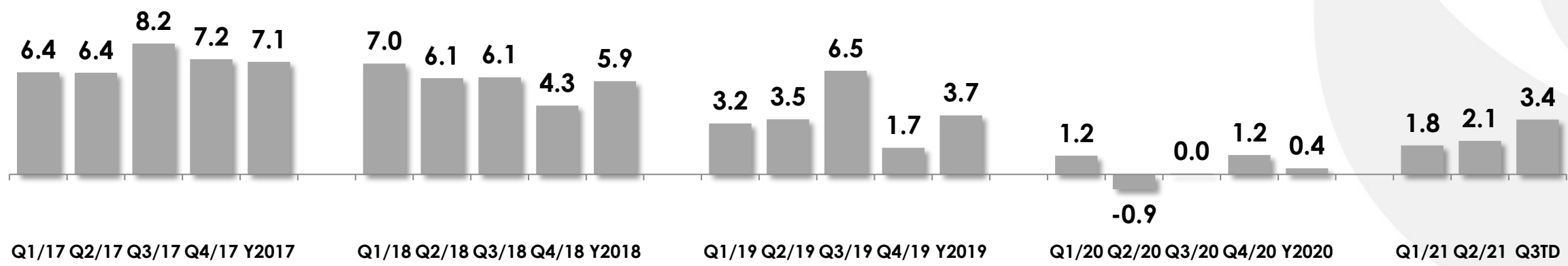


## D Expected Tight Crude Market in 2H/21 from Demand Improved



# Increasing Refinery Margin on Recovering Economic after Easing Restrictions

## Singapore Cracking GRM (\$/BBL)



Source : Reuters Sep'21, Exclude Fuel and Loss

Remark : QTD as of 16 Sep'21

### 2H/21 Key Highlights: GRM to Recover on Resuming Petroleum Product Demand

- Improving Gasoline Demand on Higher Global Mobility after Easing Lockdown
- Recovering Jet Demand on Re-Opening Border
- Gradually Improving Economic Activities to Support Global Gasoil Demand
- Improving Fuel Oil Market on Higher Trading Activities and ME Summer Demand

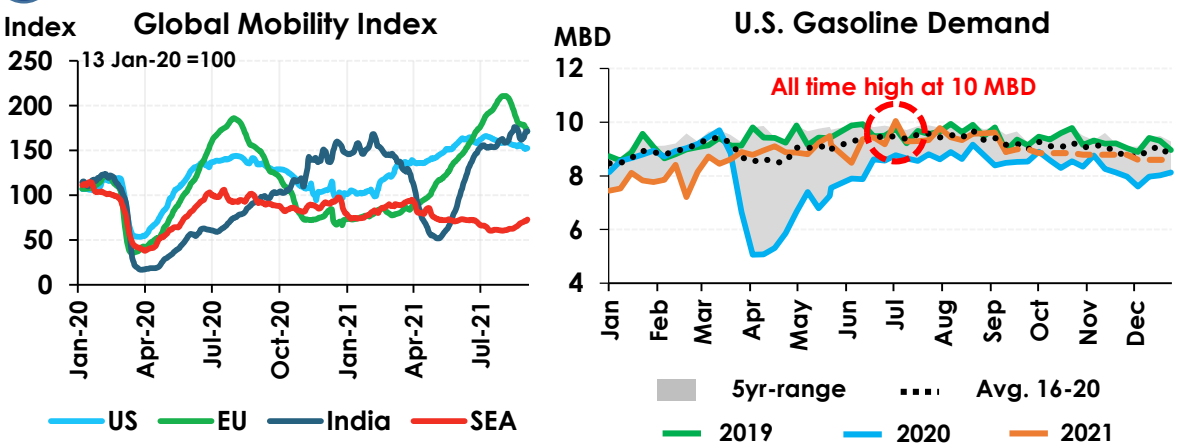


# Improving Gasoline Demand on Higher Global Mobility after Easing Lockdown

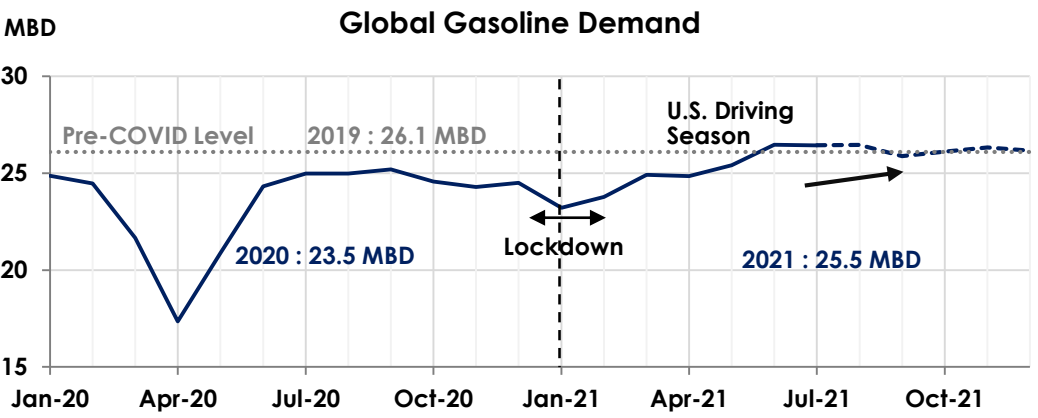
## Recovering Jet Demand on Re-Opening Border

### Higher Gasoline Demand in 2H/21 on Easing Lockdown

#### A Increase EU/US Gasoline Demand amid Slower Recovery in SEA

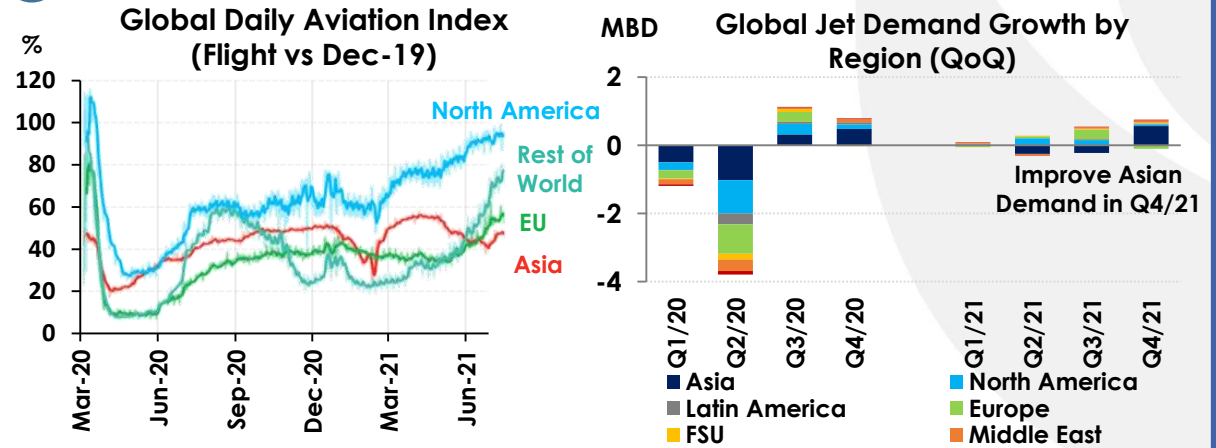


#### B Demand to be Above Pre-COVID Level in 2H/21

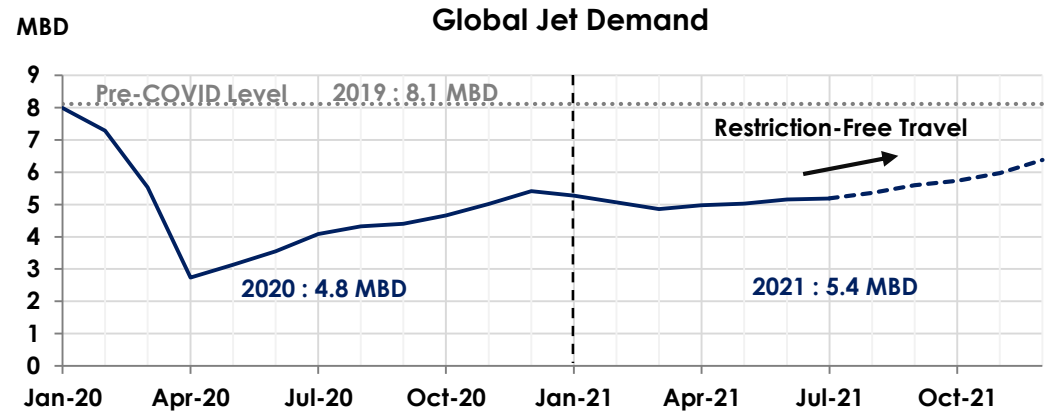


### Higher EU/US Demand following by Asia's Demand in Q4/21

#### A Asian Jet Demand to Improve in Q4/21 on Reopening Borders



#### B Increase Jet Demand Driven by Tourism Resumption

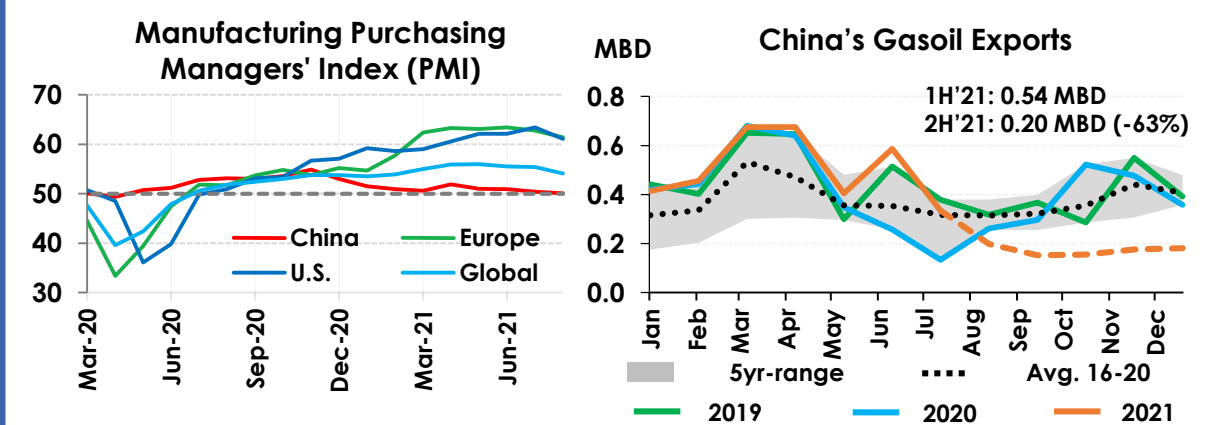


# Gradually Improving Economic Activities to Support Global Gasoil Demand

## Improving Fuel Oil Market on Higher Trading Activities and ME Summer Demand

### Improving Gasoil Demand on Economic Recovery

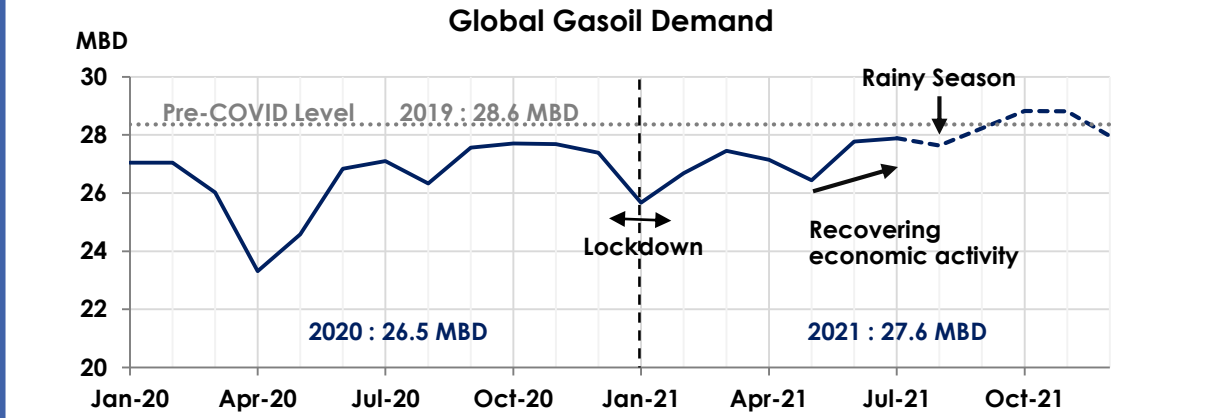
#### A Expanding Global Economy to Support Demand and Lower China's Gasoil Exports in 2H/21



Source: Markit economics (Aug'21)

Source: FGE (Aug'21)

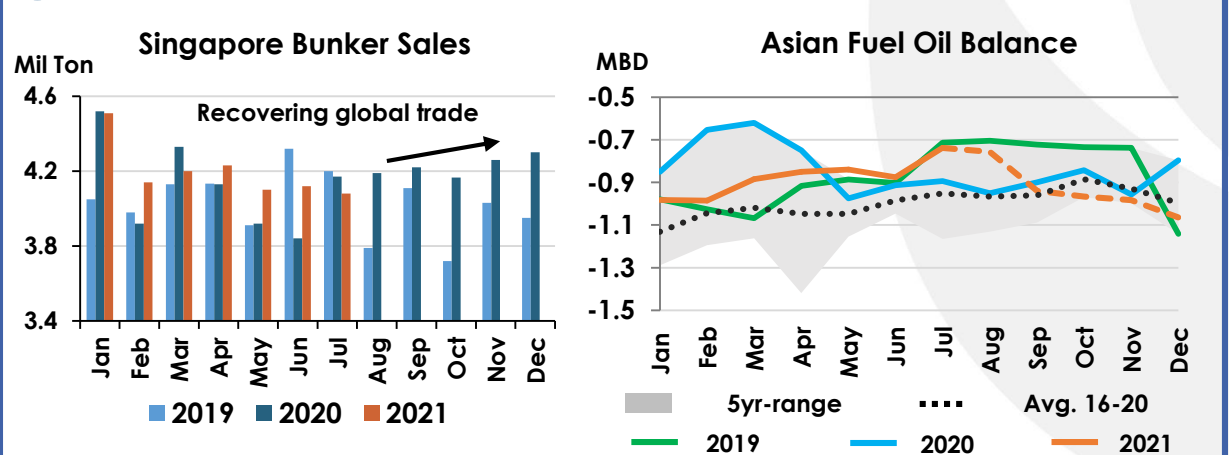
#### B Improve Gasoil Demand to Hit Pre-COVID by 2H/21



Source: Energy Aspects (Aug'21)

### Rising Trading and ME Demand to Support Fuel Oil Market

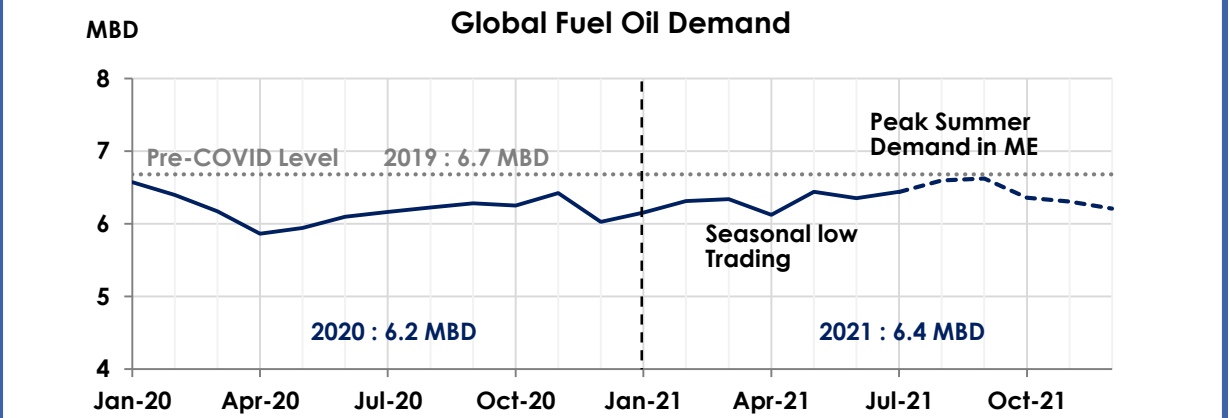
#### A Deficit Asian Market in 2H/21 on Rising Bunker Demand



Source: FGE (Sep'21)

Source: FGE (Aug'21)

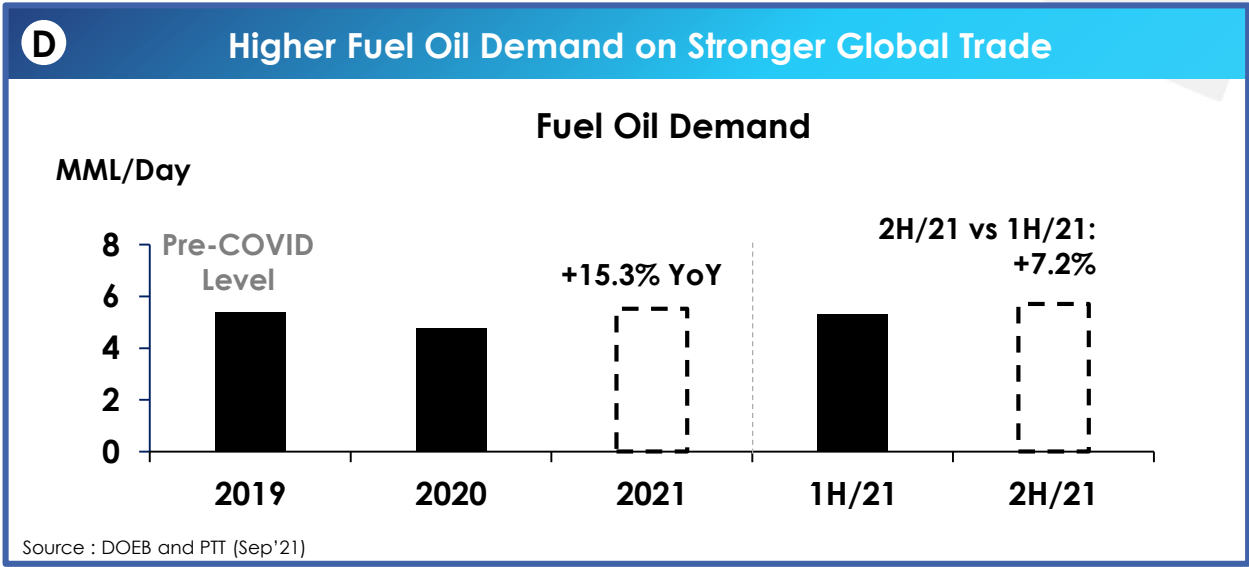
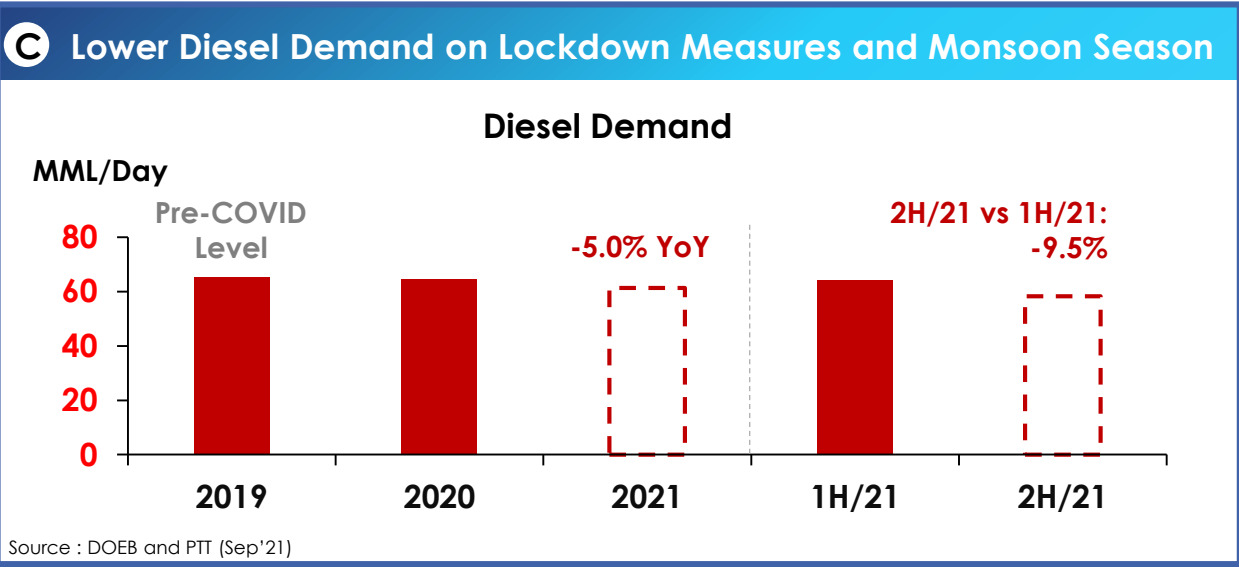
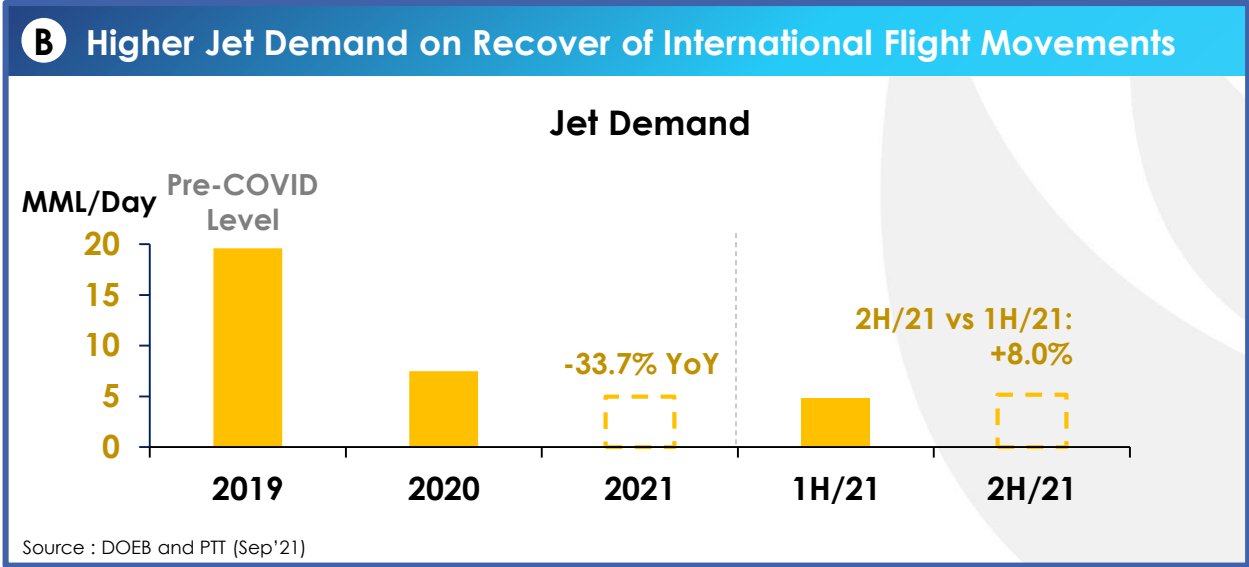
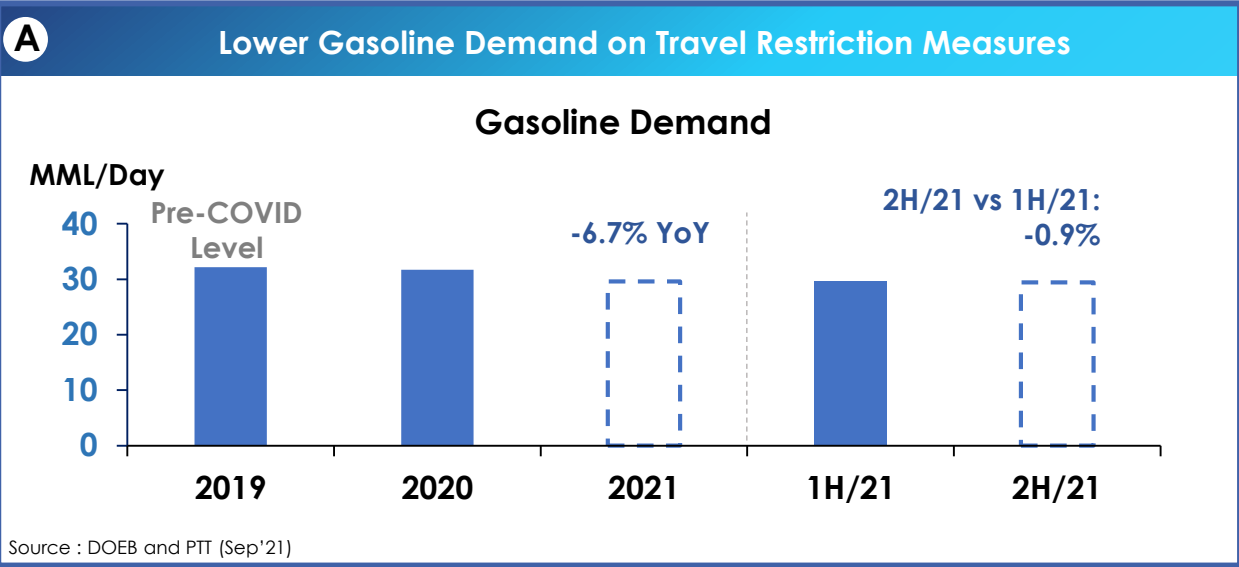
#### B Recovering Demand during Summer Season in the Middle East



Source: Energy Aspects (Aug'21)



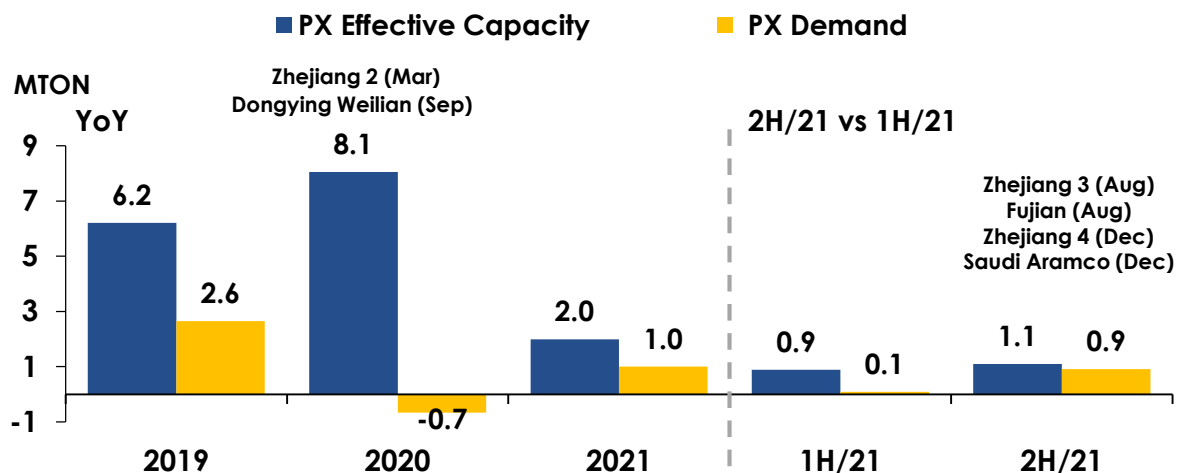
# Fluctuating Domestic Demand in 2H/21 amid the 4<sup>th</sup> Wave of COVID-19



# More Aromatics Supply from Mega Capacity amid Good Demand Growth

## A More Capacity Addition amid Recovered Demand

AP/ME PX Capacity Addition vs. Demand Growth



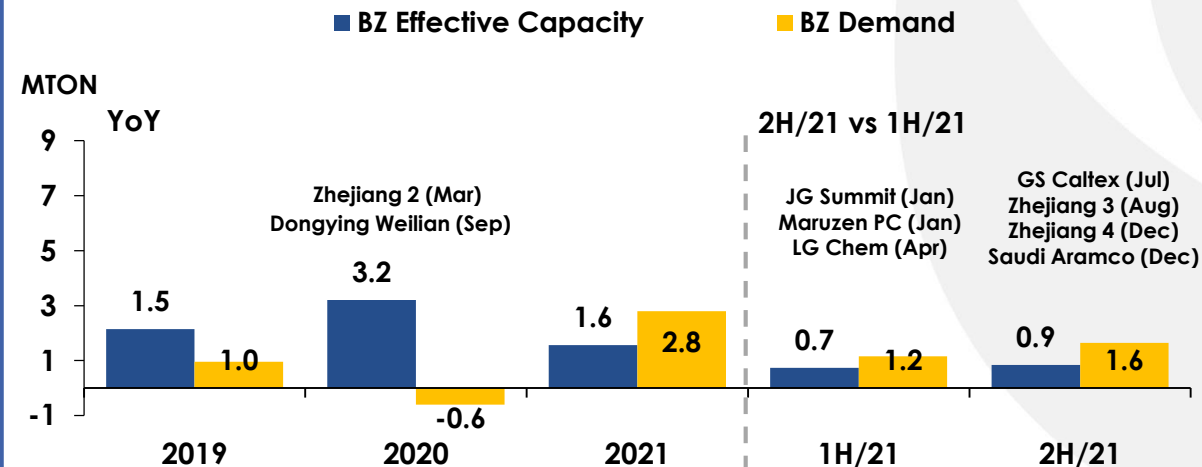
More Waves of PX Plant Start-up in 2H/21

Country	PX Company	Nameplate Capacity (KTON)	Startup Period
China	Fujian Refining PC	300	Q3
China	Zhejiang PC #3	2200	Q3
China	Zhejiang PC #4	2200	Q4
Saudi Arabia	Saudi Aramco Jizan	800	Q4

Source: WM Chemicals (Aug-21) and TOP's Estimate

## B More Capacity Addition amid Recovered Demand

AP/ME BZ Capacity Addition vs. Demand Growth

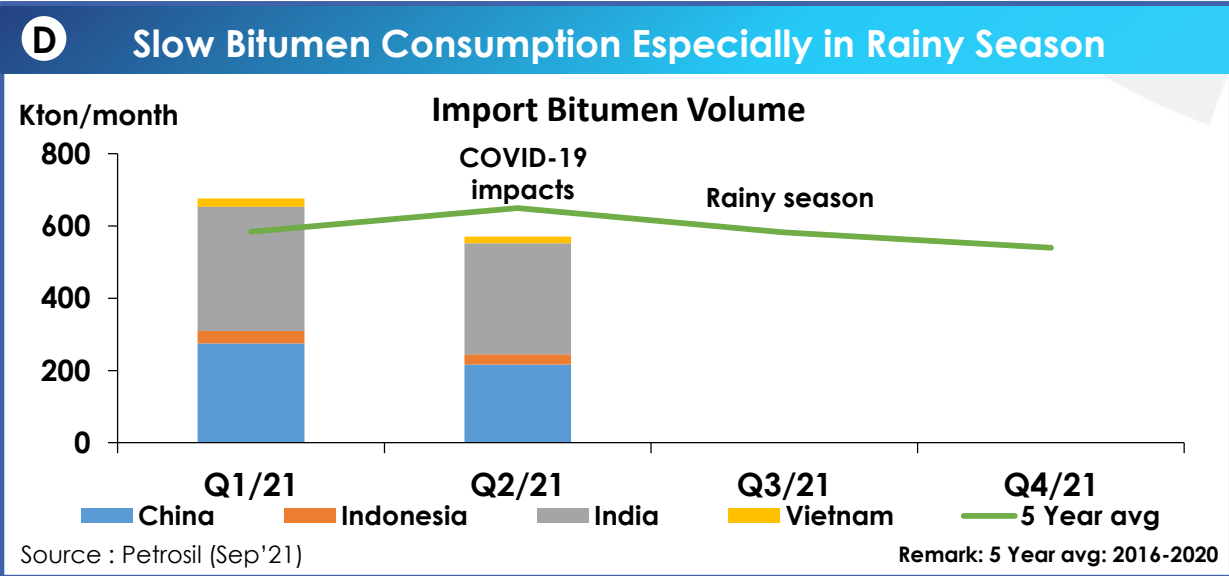
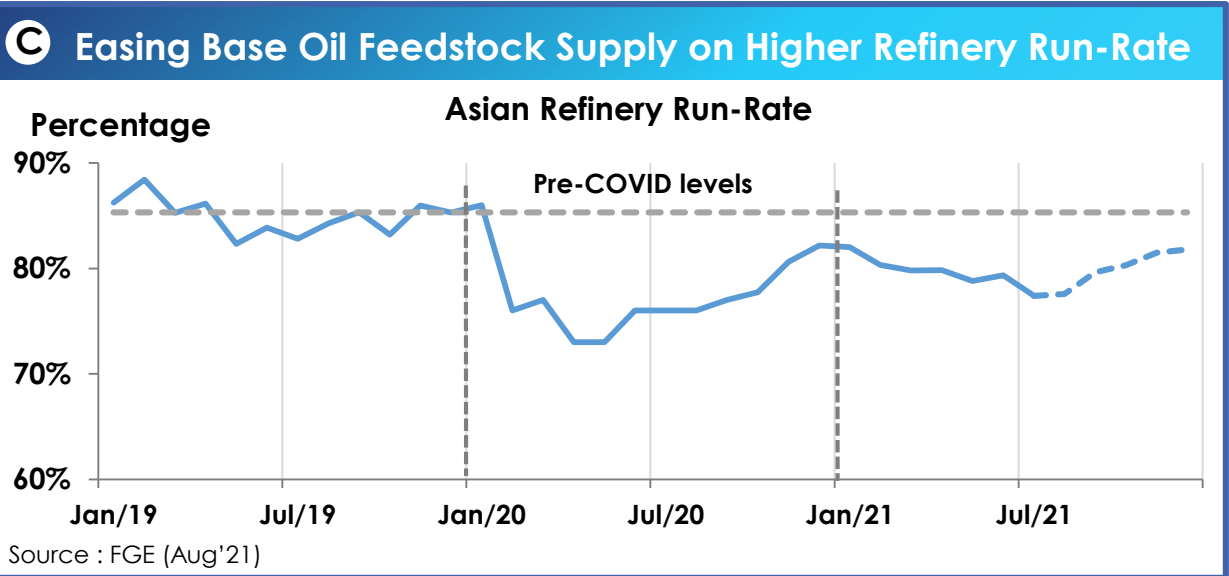
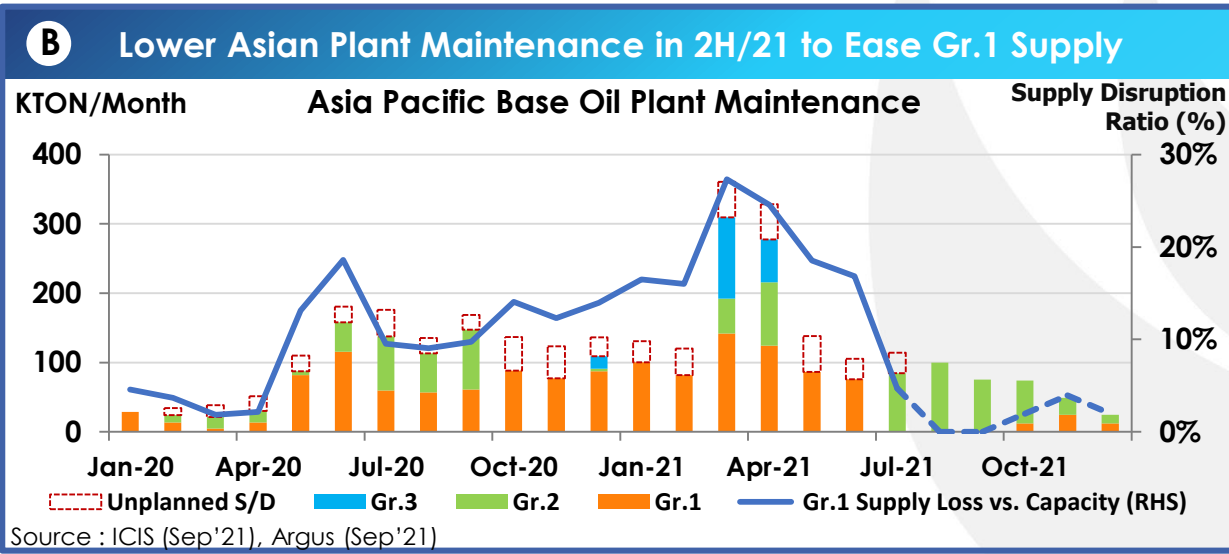
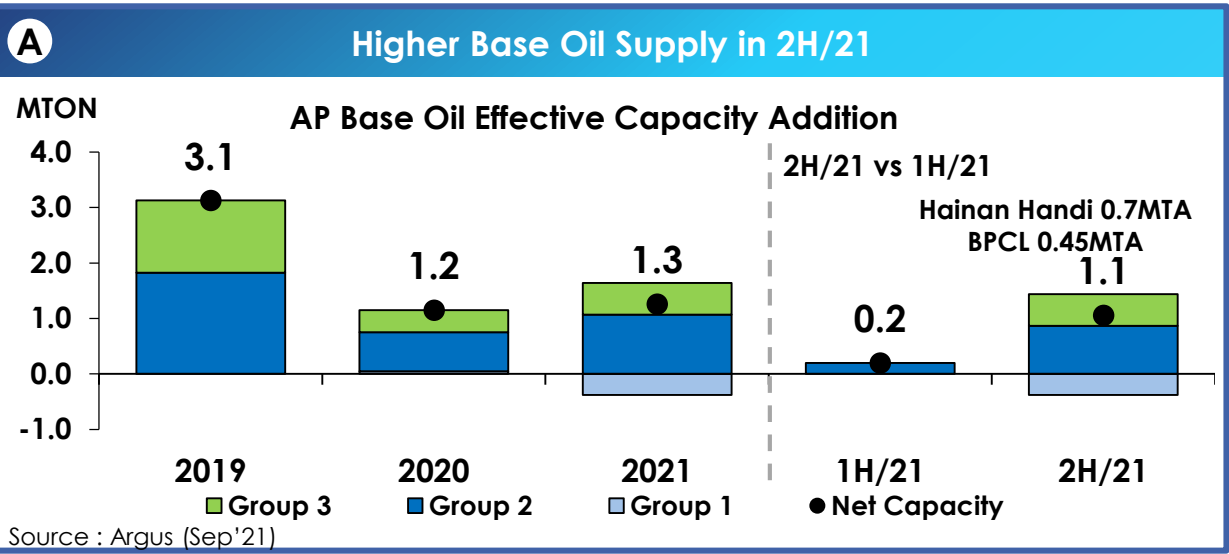


Additional BZ Capacities in 2H/21

Country	BZ Company	Nameplate Capacity (KTON)	Startup Period
South Korea	GS Caltex	140	Q3
China	Zhejiang PC #3	650	Q3
China	Zhejiang PC #4	650	Q4
Saudi Arabia	Saudi Aramco Jizan	420	Q4

Source: IHS Spring 2021 and TOP's Estimate

# Higher Base Oil Capacity Addition and Easing Tight Feedstock Supply Situation



# 2H/21 Outlook Conclusion

(vs. 1H/21)

-56-



## Crude Oil

Supportive Oil Market on Improved Demand due to Widely Vaccine Roll Out amid Higher OPEC+ Supply



## Refinery

Increasing Refinery Margin on Gradually Expanding Economic Activities after Easing COVID-19 Restrictions



## Aromatics

More Aromatics Supply from Mega Capacity amid Good Demand Growth



## Lube Base

Higher Base Oil Capacity Addition and Easing Tight Feedstock Supply Situation

# FINAL REMARKS



# Looking Forward

## 2H/21 Market



**Stable crude oil prices** on improving demand amid higher OPEC+ supply



**Market GRM** improves on higher oil demand from less COVID-19 restriction and lower crude premium



**Robust aromatic & LAB and lube** contribution



**Optimized overall utilization** to cope with low oil demand



# Looking Forward

## 2021-2023 Roadmap



## APPENDIX

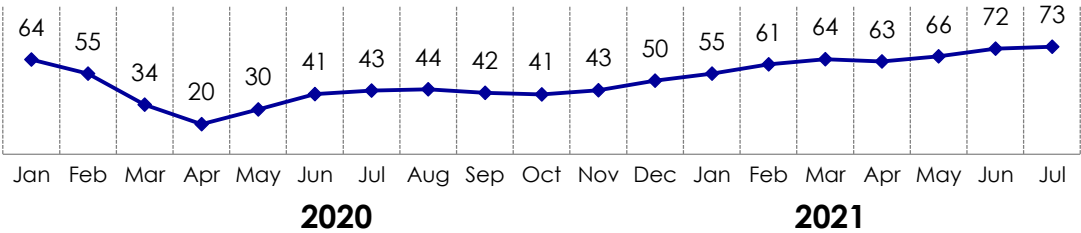
- Performance analysis
- Sustainability / ESG
- Refinery capacity addition
- Aromatics
- World GRM / Inventories
- Thailand petroleum demand by products

# Refinery: Softening Mkt GRM Pressured by Higher Crude Premium

Dubai Crude Price & Key Petroleum Product Spreads									
	2020				2021				2020
\$/bbl	Q1	Q2	Q3	Q4	Q1	Q2	1H	Q3TD*	FY
DUBAI (DB)	50.9	30.6	42.9	44.6	60.0	66.9 ↑	63.5	72.1	42.2
ULG95 - DB	6.7	2.6	4.4	4.1	7.1	9.9 ↑	8.5	12.5	4.5
JET - DB	8.6	(0.1)	(0.7)	2.4	3.3	4.5 ↑	3.9	4.6	2.5
GO - DB	11.1	5.7	4.2	3.7	4.7	5.3 ↑	5.0	5.1	6.2
VLSFO - DB	13.8	5.3	3.2	5.5	7.6	5.0 ↓	6.3	4.6	7.0
HSFO - DB	(7.5)	(1.6)	(2.5)	(0.6)	(3.5)	(5.8) ↓	(4.6)	(6.0)	(3.0)

Refinery Utilization			
Q1/21	Q2/21	1H/20	1H/21
100%	98%	105%	99%
% MB Intake/ MB-DB (\$/bbl)			
17%/0.7	8%/1.3	20%/(1.1)	13%/1.0
% Middle East crude intake			
52%	53%	50%	52%

Dubai Price  
(US\$/bbl)



\*Q3TD as of 13 Aug'21

Gross Refinery Margins - GRM							
	2020				2021		
\$/bbl	Q1	Q2	Q3	Q4	Q1	Q2	1H
Market GRM	0.1	1.4	(1.1)	1.2	0.7	0.4	0.6
Stock G/(L)	(12.3)	(1.8)	4.0	2.3	6.2	4.9	5.5
Accounting GRM	(12.2)	(0.4)	2.9	3.4	6.9	5.3	6.1

## Q2/21 Market GRM

- **Higher crude premium** due to tight crude oil market and stronger oil demand in the U.S.
- **Higher fuel & loss** following rising crude price
- + **Improving Gasoline spread** due to rising demand in the U.S. and Europe from easing COVID-19 restrictions and higher summer driving season demand in the U.S.
- + **Improving Middle Distillates margins** due to improving demand from higher economic activities from easing COVID-19 restrictions in the U.S. ,Europe & China

## Q2/21 Performance

- **Lower refinery run rate to 98%** due to softening domestic oil demand from the new wave of COVID-19 in Thailand

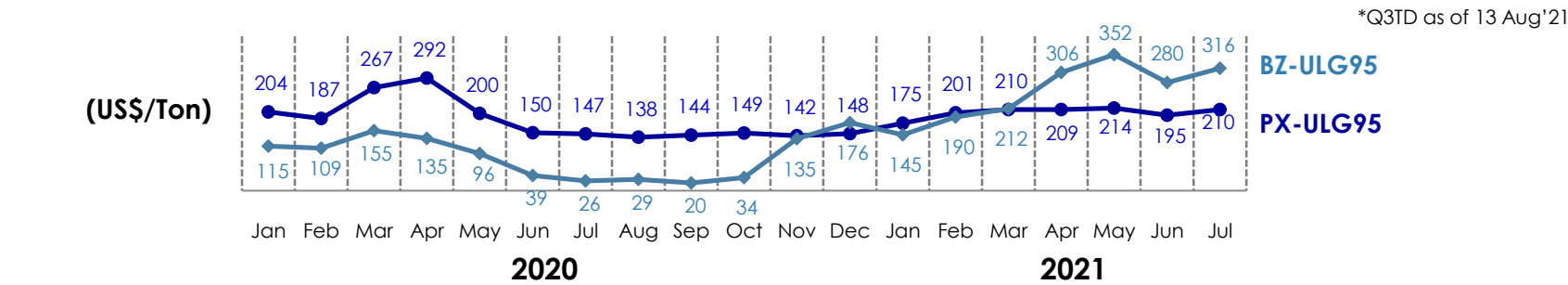
# Aromatic: Higher Contribution Supported by BZ & LAB Margins

Aromatic Spreads and Margins									
	2020				2021				2020
\$/ton	Q1	Q2	Q3	Q4	Q1	Q2	1H	Q3TD*	FY
PX-ULG95	218	214	143	146	195	206 ↑	201	223	180
BZ-ULG95	126	90	25	115	182	313 ↑	247	284	89

Aromatics Production			
Q1/21	Q2/21	1H/20	1H/21
80%	89%	78%	85%

## Q2/21 Market

- + **Improving PX margin** due to greater demand for downstream products i.e. PET & polyesters
- + **Strong BZ margin** due to higher demand from new SM plant start-up (1.2 mtpa) and supply disruption in the U.S. following historic cold blast
- + **Robust LAB Contribution** from growing demand for hygiene products during COVID-19 pandemic amid limited supply



## Aromatic's Sales (excluding by product) & Product-To-Feed Margin (P2F)

(Unit : KTon)

	2020				2021			2020
	Q1	Q2	Q3	Q4	Q1	Q2	1H	FY
P2F -\$/ton	85	77	68	76	106	112	110	77
P2F -\$/bbl	11.1	10.0	8.9	9.9	13.9	14.8	14.3	10.0
GIM -\$/bbl <sup>(1)</sup>	1.5	1.6	1.2	1.6	2.0	2.4	2.2	1.5

(1) Including LAB contribution

## Q2/21 Performance

- + **Higher utilization rate at 89%**
- + **Increasing LAB utilization rate to 117%** after LABIX's maintenance for 18 days in Q1/21

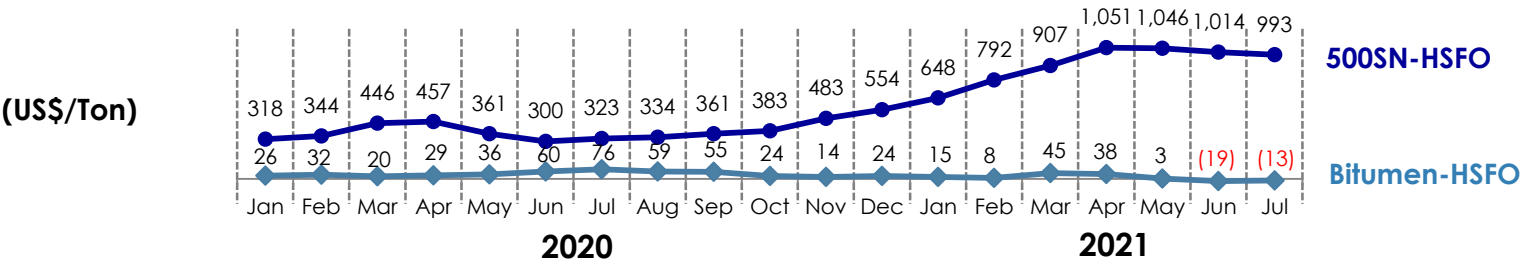
# Base Oil: Robust Contribution Supported by Strong Lube Spread

Base Oil & Bitumen Spreads & Margins									
	2020				2021				2020
\$/ton	Q1	Q2	Q3	Q4	Q1	Q2	1H	Q3TD*	FY
500SN-HSFO	369	372	340	474	783	1,037 ↑	910	979	389
BITUMEN-HSFO	26	42	63	21	23	7 ↓	15	(25)	38

Base oil Production			
Q1/21	Q2/21	1H/20	1H/21
93%	95%	85%	94%

## Q2/21 Market

- + **Record high Base Oil margin** due to limited supply from refinery run cuts and regional demand recovery
- **Softening Bitumen margin** due to weak regional demand from COVID lockdown in many countries



\*Q3TD as of 13 Aug'21

## TLB's Sales (excluding by product) & Product-To-Feed Margin (P2F)

(Unit : KTon)

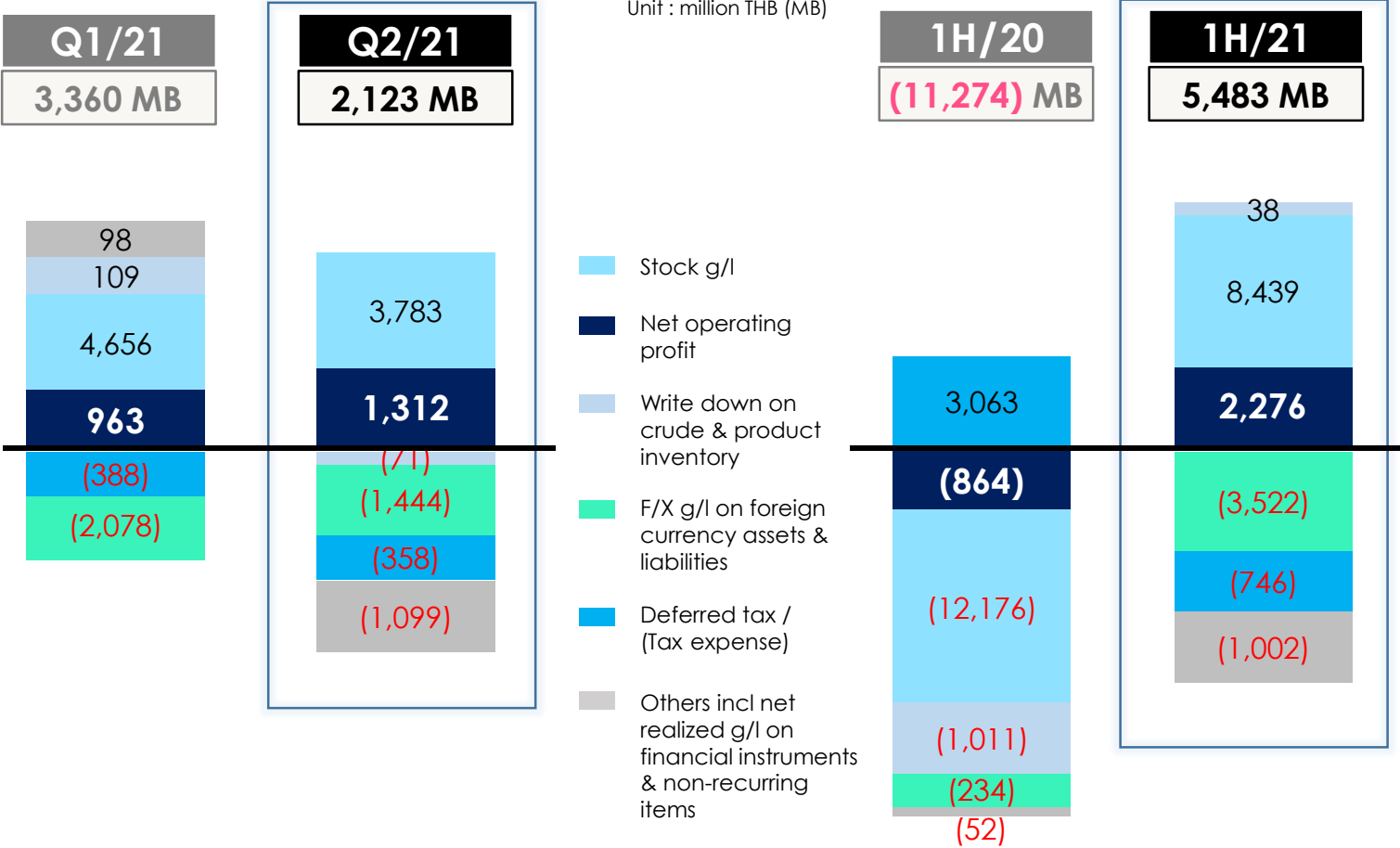
	2020				2021			2020
	Q1	Q2	Q3	Q4	Q1	Q2	1H	FY
P2F -\$/ton	86	24	100	105	170	231	202	79
P2F -\$/bbl	13.1	3.6	15.1	15.9	25.7	34.9	30.3	11.9
GIM -\$/bbl	0.6	0.0	0.8	0.8	1.5	2.4	1.9	0.5

## Q2/21 Performance

- + **Higher utilization rate at 95%** to capture strong base oil margin

# Q2 & 1H/21- Financial Performance

## TOP Group Net Profit



## Gross Refining Margin - GRM

	\$/bbl	Q1/21	Q2/21	1H/20	1H/21
Market GRM		0.7	0.4	0.7	0.6
Stock Gain/(Loss)		6.2	4.9	(7.3)	5.5
Accounting GRM		6.9	5.3	(6.7)	6.1

## Gross Integrated Margin - GIM

Aromatics & LAB	2.0	2.4	1.5	2.2
Lube base	1.5	2.4	0.3	1.9
Market GIM	4.1	5.2	2.5	4.7
Accounting GIM	10.2	10.0	(4.8)	10.1

## Utilization / Production Rate

Refinery	100%	98%	105%	99%
Aromatics	80%	89%	78%	85%
LAB	91%	117%	113	104%
Base Oil	93%	95%	85%	94%

**Remark**

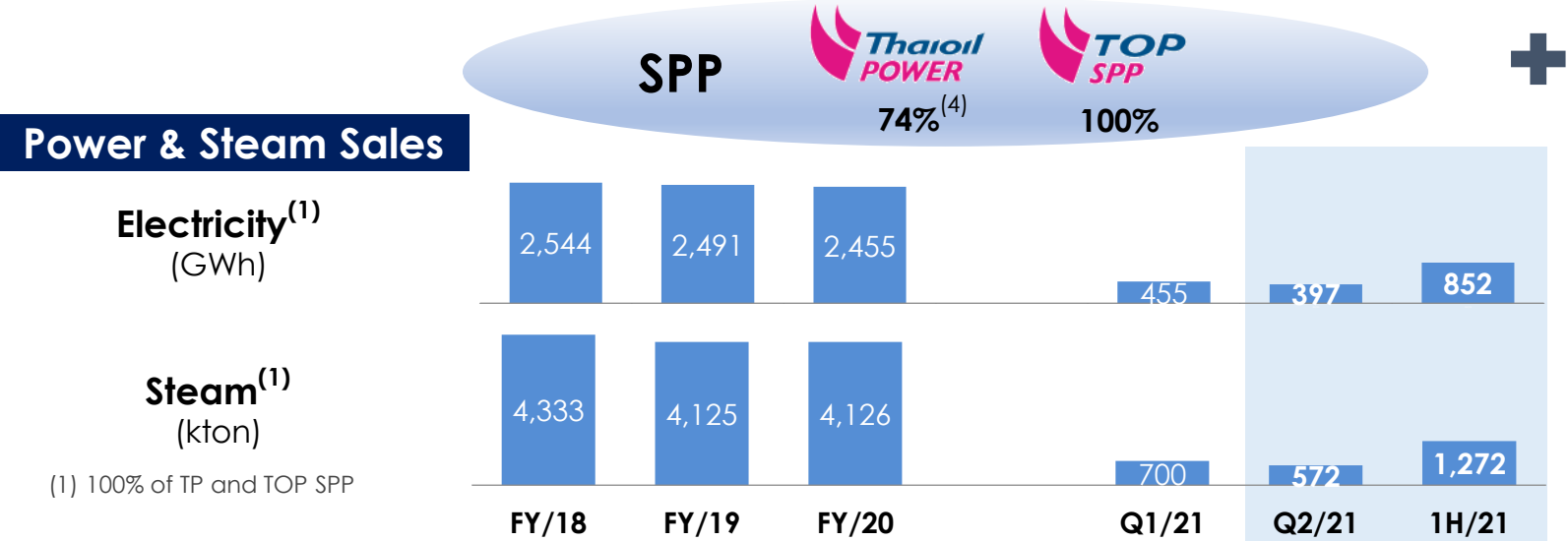
- Stock gain/(loss) : Q1/21 4,656 MB, Q2/21 3,783 MB, 1H/20 (12,176) MB, 1H/21 8,439 MB
- Reversal/ (write-down) on crude and petroleum product inventory : Q1/21 109 MB, Q2/21 (71) MB, 1H/20 (1,011) MB, 1H/21 38 MB
- F/X gain/(loss) on gain on foreign currency assets & liabilities : Q1/21 (2,078) MB, Q2/21 (1,444) MB, 1H/20 (234) MB, 1H/21 (3,522) MB
- (Tax expense)/Reversal of Tax expense : Q1/21 (388) MB, Q2/21 (358) MB, 1H/20 3,063 MB, 1H/21 (746) MB
- Net realized gain/(loss) on financial instruments : Q1/21 (119) MB, Q2/21 (56) MB, 1H/20 (64) MB, 1H/21 (175) MB
- Non-recurring item: Impact of TFRS-9 : Q1/21 217 MB, Q2/21 (1,043) MB, 1H/20 12 MB, 1H/21 (827) MB



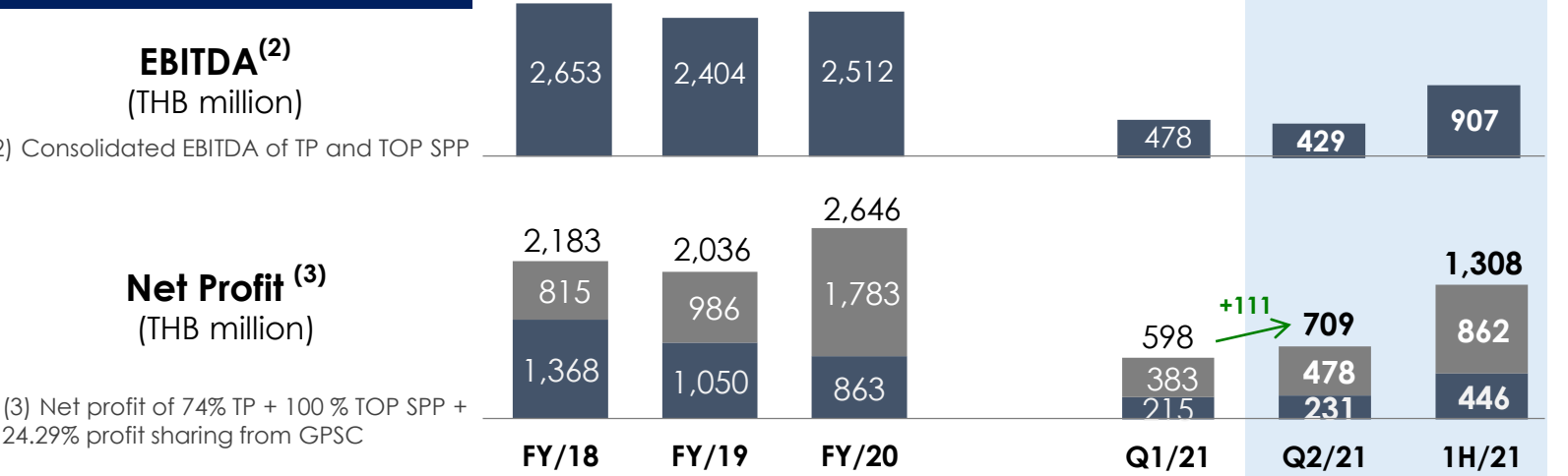
# Power Sector Performance...Growing Contribution to the Group

## Power Business Sector

### Power & Steam Sales



### EBITDA & Net Profit



(4) Thaioil Power(TP) completely transferred whole business to be under TOP in Feb'21

(5) TOP shareholding in GPSC decreased from 24.29% to 15.38% in Nov'20 – Jan'21, and increase to 20.78% in Feb'21 after TP's EBT completion

# Performance Breakdown

	Petroleum	Petrochemical & Lube Base <sup>(1)</sup>	Power <sup>(2)</sup>	Others & New Business <sup>(3)</sup>	Consolidated Net Profit (incl. Stock G/(L))	Stock Gain/ (Loss)	Consolidated Net Profit (excl. Stock G/(L))
Q1/21	898	1,431	598	380	3,360	4,656	(1,296)
Q2/21	(1,014)	2,302	709	260	2,123	3,783	(1,660)
1H/20	(13,302)	1,118	1,302	446	(11,274)	(12,176)	902
1H/21	(117)	3,734	1,307	639	5,483	8,439	(2,956)

## Q2/21 Key Points

**Petroleum**

- Lower utilization rate to 98%
- Lower market GRM (from \$0.7 /bbl in Q1/21 to \$0.4/bbl in Q2/21)
- Huge stock gain of \$4.9/bbl as rising crude price

**Petrochemical & Lube**

- Aromatics & LAB** : strong contribution supported by improving BZ from greater demand for new SM plant start up, as well as strong LAB margins
- Lube** : record high contribution supported by strong lube spread from improving demand amid limited supply

**Power**

- Higher contribution from TOP SPP due to higher electricity & stream demand and higher selling prices
- Higher contribution from GPSC mainly from XPCL and insurance claim

**Others & New Business**

- Solvent** : lower contribution due to narrower gross margin from weak demand from the new wave of COVID-19 in Southeast Asia
- Ethanol** : lower contribution due to weak demand from the new wave of COVID-19 in Thailand
- Marine** : successful completion of marine business restructuring in Apr'21

(1) Includes 75% of LAB net profit Q1/21 54 MB, Q2/21 197 MB, 1H/20 9 MB, 1H/21 251 MB  
(2) Apply on an equity accounted basis in the consolidated financial statement.  
(3) Consisting of Solvent, Ethanol and other business

# Q2 & 1H/21 TOP Group Consolidated P&L

(Unit : MB)	Q2/21	Q1/21	QoQ+ / (-)	Q2/20 Represented	YoY+ / (-)	6M/21	6M/20 Represented	YoY+ / (-)
Sales Revenue	78,120	73,449	4,671 <sup>(A)</sup>	49,246	28,874	151,570	125,815	25,755 <sup>(C)</sup>
Net Realized G/(L) on Financial Instrument	(56)	(119)	63	(45)	(11)	(175)	(64)	(111)
<b>EBITDA</b>	<b>↓ 7,003</b>	<b>8,272</b>	<b>(1,269) <sup>(B)</sup></b>	<b>2,881</b>	<b>4,122</b>	<b>↑ 15,275</b>	<b>(9,367)</b>	<b>24,642 <sup>(D)</sup></b>
<b>EBITDA excl. Stk G/(L)&amp;NRV</b>	<b>3,291</b>	<b>3,507</b>	<b>(216)</b>	<b>1,816</b>	<b>1,475</b>	<b>6,798</b>	<b>3,820</b>	<b>2,978</b>
Net Loss on FV of Financial Instrument	(1,043)	217	(1,260)	389	(1,432)	(827)	12	(839)
FX G/(L) & CCS	(1,286)	(2,604)	1,318	2,049	(3,335)	(3,889)	(294)	(3,595)
Financial cost	(907)	(796)	(111)	(1,049)	142	(1,703)	(2,134)	431
Tax Expense	(358)	(388)	30	(494)	136	(746)	3,063	(3,809)
<b>Net Profit</b>	<b>↓ 2,123</b>	<b>3,360</b>	<b>(1,237)</b>	<b>2,480</b>	<b>(357)</b>	<b>↑ 5,483</b>	<b>(11,274)</b>	<b>16,757</b>
EPS (THB/Share)	1.04	1.65	(0.61)	1.22	(0.18)	2.69	(5.53)	8.21
Stock G/(L) and NRV	3,712	4,765	(1,053)	1,065	2,647	8,477	(13,187)	21,664
<b>Net Profit excl. Stk G/(L)&amp; NRV</b>	<b>(1,589)</b>	<b>(1,405)</b>	<b>(184)</b>	<b>1,415</b>	<b>(3,004)</b>	<b>(2,994)</b>	<b>1,913</b>	<b>(4,907)</b>
THB/US\$ - average selling	31.53	30.46	1.07	32.11	(0.58)	30.98	31.77	(0.80)
THB/US\$ - ending	32.22	31.51	0.72	31.07	1.16	32.22	31.07	1.16

Analysis

QoQ

(A) Higher sales revenue due to improving average selling prices

(B) Lower EBITDA from lower stock gain \$4.9/bbl in Q2/21vs \$6.2/bbl in Q1/21

YoY

(C) Higher sales revenue due to higher average selling prices

(D) Higher EBITDA from improving MKT GIM and huge stock gain

# 1H/21 Consolidated Cash Flow

(Unit: MB)

	1H/21	1H/20 Represent
<b>Operating Cash Flow (CFO)</b>	<b>1,059</b>	<b>(899)</b>
Net income	5,731	(10,947)
Depreciation & NRV	3,628	4,641
Other adj.	5,344	(1,737)
Change in working capital	(13,643)	7,144

<b>Free Cash Flow (CFO +CFI)</b>	<b>(10,618)</b>	<b>(67,339)</b>
----------------------------------	-----------------	-----------------

	1H/21	1H/20 Represent
<b>Investing Cash Flow (CFI)</b>	<b>(11,745)</b>	<b>(66,440)</b>
Dividend income	757	841
ST investments	5,252	(42,009)
Sell / (Invest) in a associate	1,560	-
CAPEX (PP&E) & others	(19,315)	(25,272)

<b>Financing (CFF)</b>	<b>(17,890)</b>	<b>26,894</b>
Loans proceeding	3,652	4,499
Loans repayment	(7,284)	(3,970)
Bond issue	(3,000)	31,120
Interest	(3,303)	(2,905)
Dividend& Lease	(7,954)	(1,851)

<b>Beginning 2021</b>					<b>Ending Q2/21</b>
Cash					Cash
53,244	+	Increase / (Decrease)	+	Effect of FX changes <sup>(1)</sup>	25,489
		(28,576)		820	
<b>Cash + S/T Investment</b>					<b>Cash + S/T Investment</b>
71,681					39,897

(1) Effect of FX changes mainly from the FX gain/loss of FCD



# ESG/Sustainability Highlights

## Environmental

Toward Green Economy

### Greenhouse Gases (GHGs)

- Reduced 4% direct GHG emission from BAU by 2022
- Participated in low emission supporting scheme: LESS and Thailand voluntary mission reduction program: T-VER



### Circular Economy

- **Water and Waste Management**
  - Water Saving: Study pilot projects of "Reverse Osmosis" for seawater and for recycling wastewater



- 3Rs in process: Zero waste to landfill
- **Energy Efficiency**
  - 19 Energy efficiency projects solar cell at engineering building center
- **Green Label Focus**
  - Green procurement: ISO 20400

## Social

Toward Better Quality of Life

### Communities

- Thaioil CSR program supported medical staffs and communities with hygiene equipment including protective suits PAPR, cloth masks, face shields, and alcohol gel hand sanitizer



### Health care

- **Sustainable energy for health care**  
Installed solar roof for 3 hospitals, Leam-Chabang, Panusnikom, Banbueng hospital



## Governance

Toward Transparency

### Structure & Oversight

- **Sustainable Procurement**
  - 100% of strategic supplier signed acknowledge on "Thaioil Group Supplier Code of Conduct"
  - Strengthen ESG practices and performance in supply chain through ISO 20400 : "Sustainable Procurement"



### Transparency

- **Strengthen GRC**
  - Continue with GRC Roadmap Implantation
  - Applying digital technologies in the GRC Process
- **ZERO case non-compliance & fraud incidents**
  - Operated without corruption cases
  - Operated without cases of non compliance with business ethics



**Zero** case of non-compliance & fraud incidents through GRC roadmap

# ESG/Sustainability Highlights 2020 – 1H/21

Member of  
**Dow Jones  
Sustainability Indices**

Powered by the S&P Global CSA

**Industry Leader**

in oil & gas refining and  
marketing industry for 6  
years

8 consecutive year  
recognized as member

**Sustainability Award**  
Gold Class 2021

**S&P Global**

**Sustainability Award  
(Gold Class)**

in oil & gas refining  
and marketing industry  
for 7 years from 2014 –  
2018 & 2021

**INTEGRATED  
REPORTING <IR>**  
**Leading Practices**

**Leading Practices**

for Business Model-Value  
Creation disclosed IR 2019



**Platinum Award**



**Listed in Thailand  
Sustainability  
Investment as  
sustainable stock**  
in SET THSI index for 6<sup>th</sup>  
Consecutive year

## Environment



**Energy Efficiency**

2020 Certificate of Honor for  
Role Model Organizations in  
Greenhouse Gas Reductions



**Carbon credit**

Accredited by the Thailand  
Voluntary Emission  
Reduction Program (T-VER)  
for 0.64 M Ton CO<sub>2</sub>e

## Society



**Sustainable Energy for Health Care**

2020 Prime Minister's Industry  
Awards for outstanding  
achievements in CSR



**Human rights management**

2020 Human Rights Awards

## Governance & Economics



**Corporate Governance**

One of the top 3 Thai listed  
companies with The highest ASEAN  
CG Score



**Corporate Governance**

Maintains the "Excellence" level of  
CGR Score for 12<sup>th</sup> consecutive year

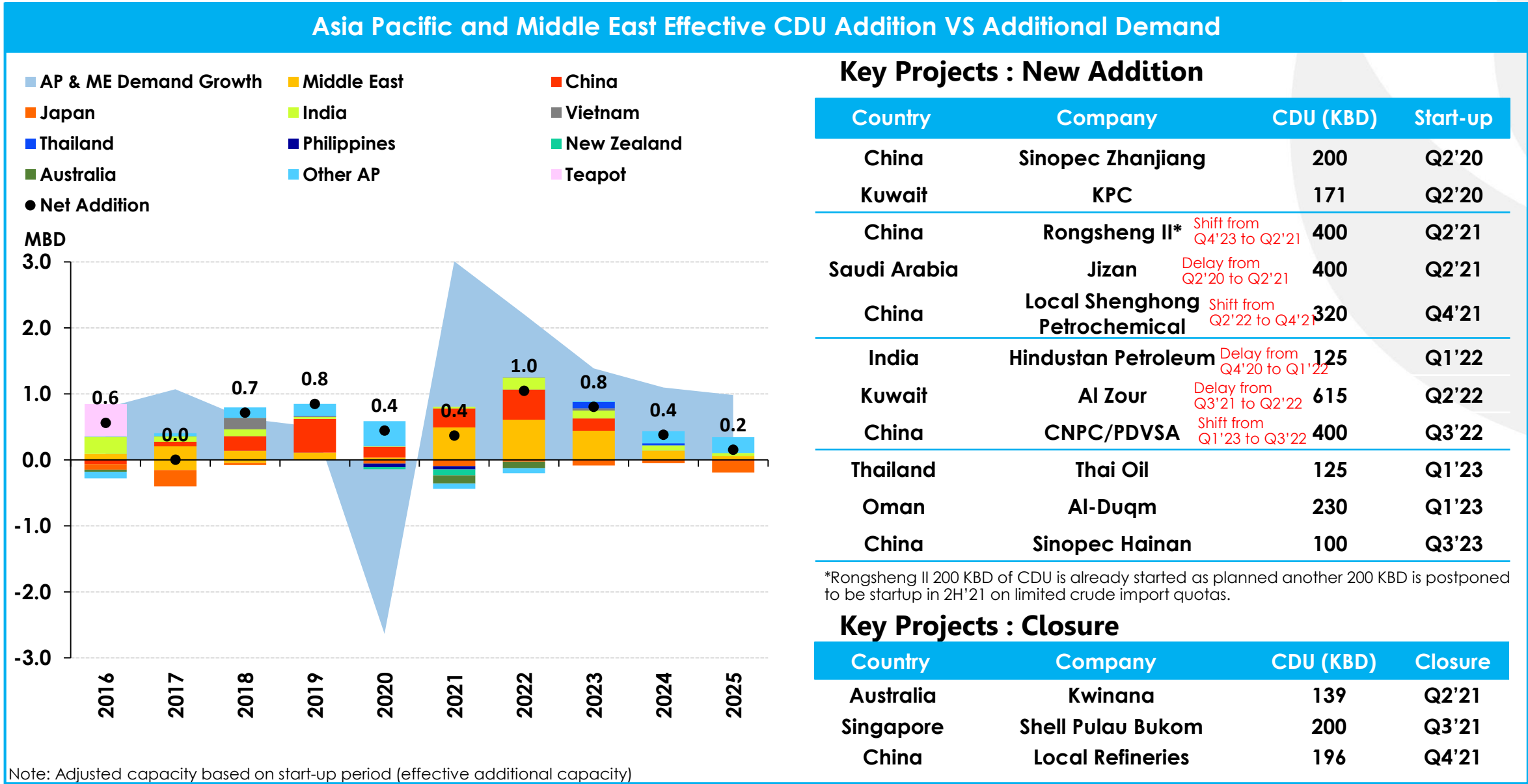


**Sustainable Procurement**

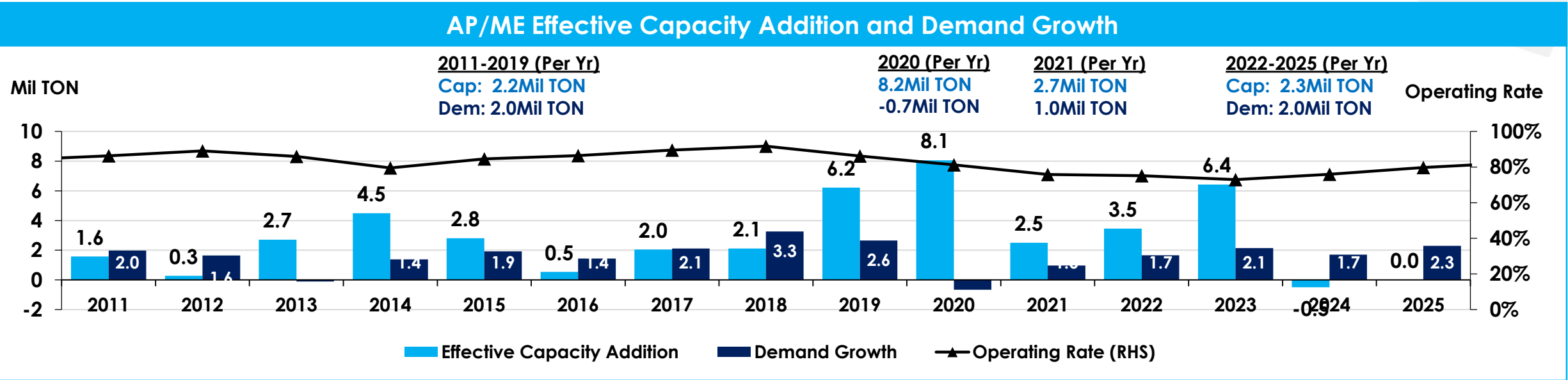
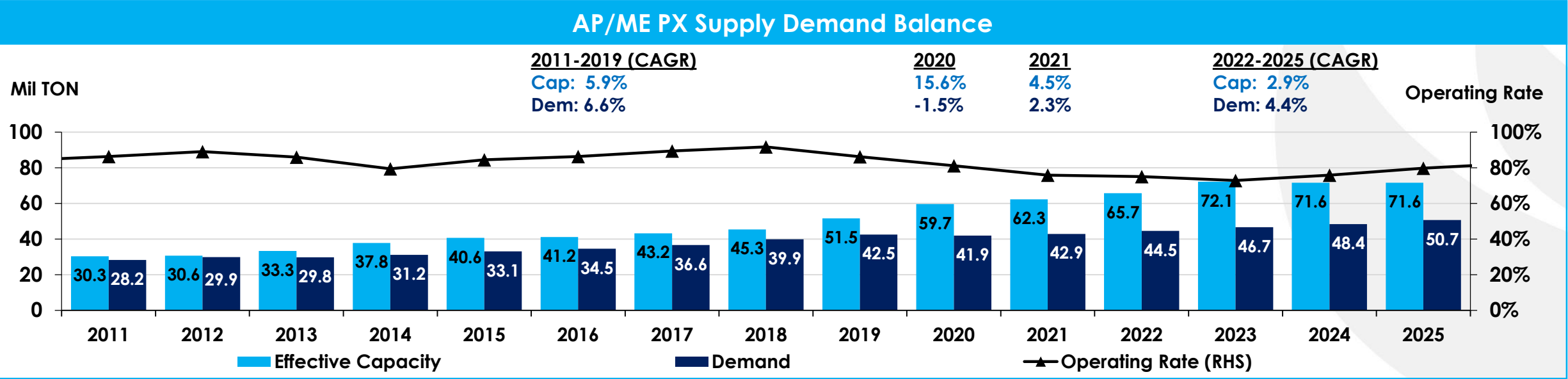
Accredited by the 3<sup>rd</sup> party for ISO  
20400 for Sustainable Procurement  
process



# Demand Growth to Outpace Refining Capacity Addition in Medium Term

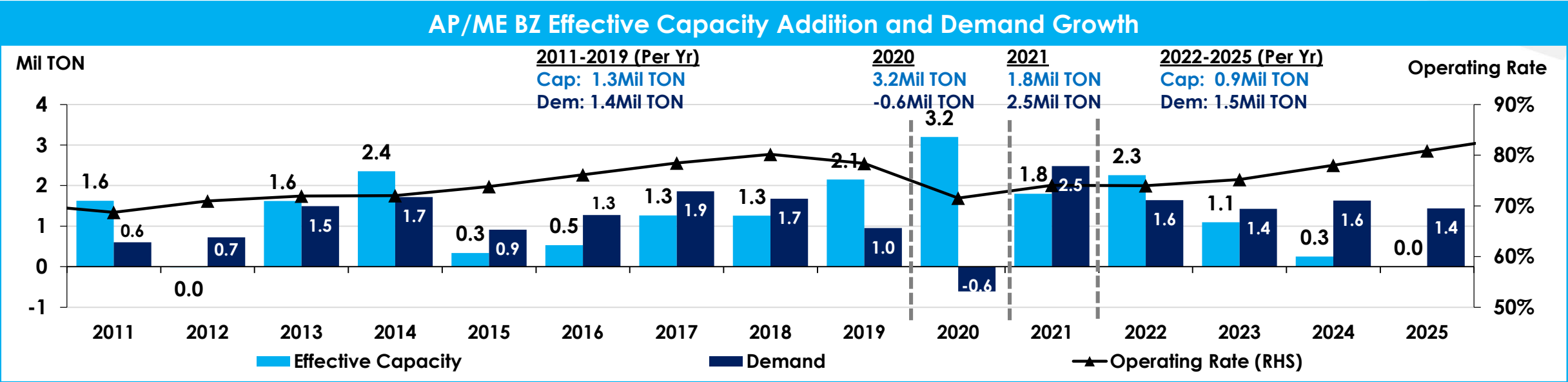
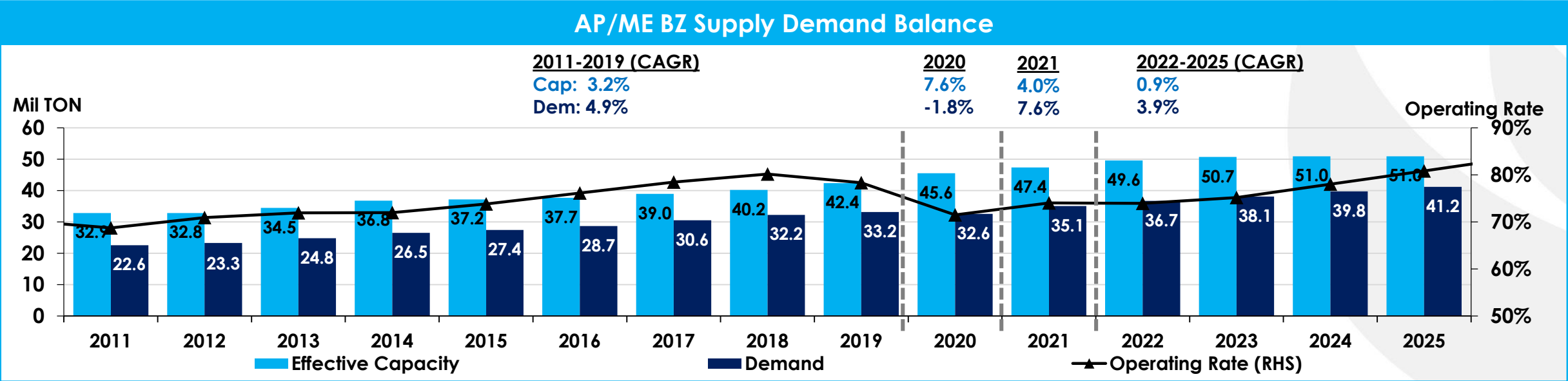


# AP/ME PX Balance



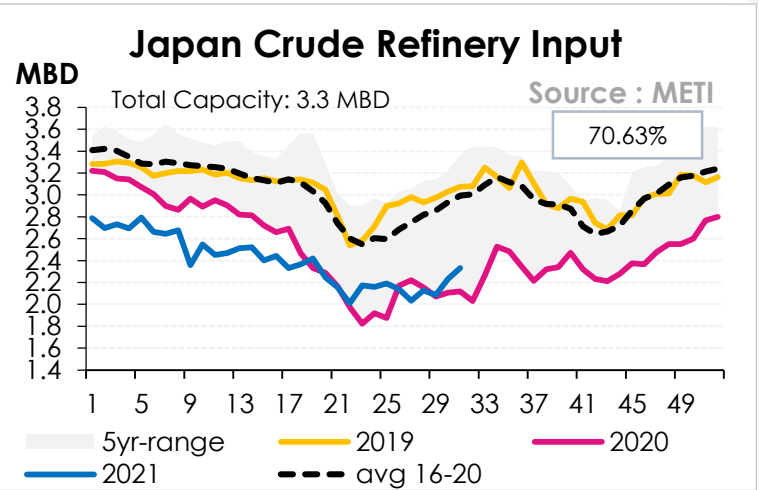
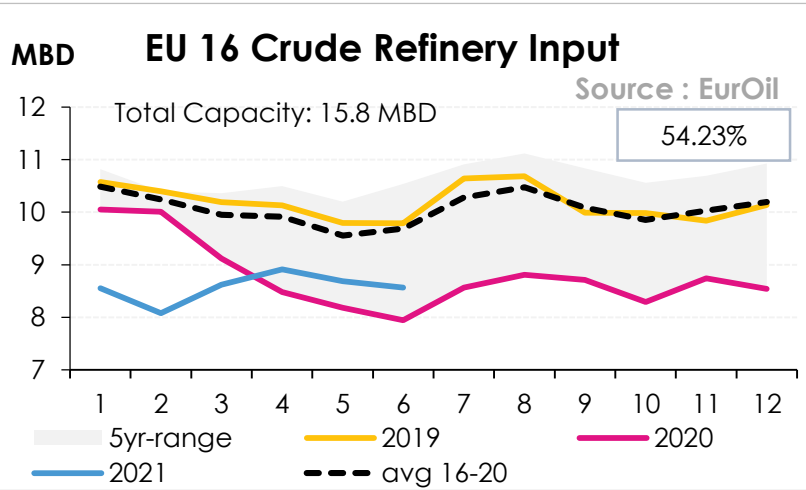
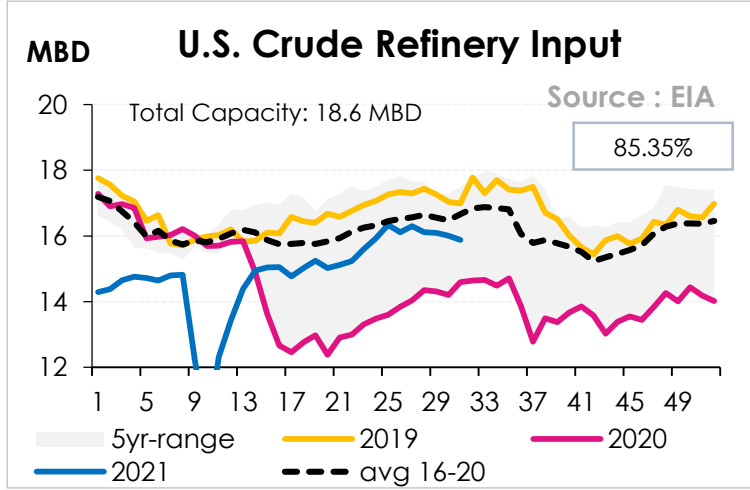
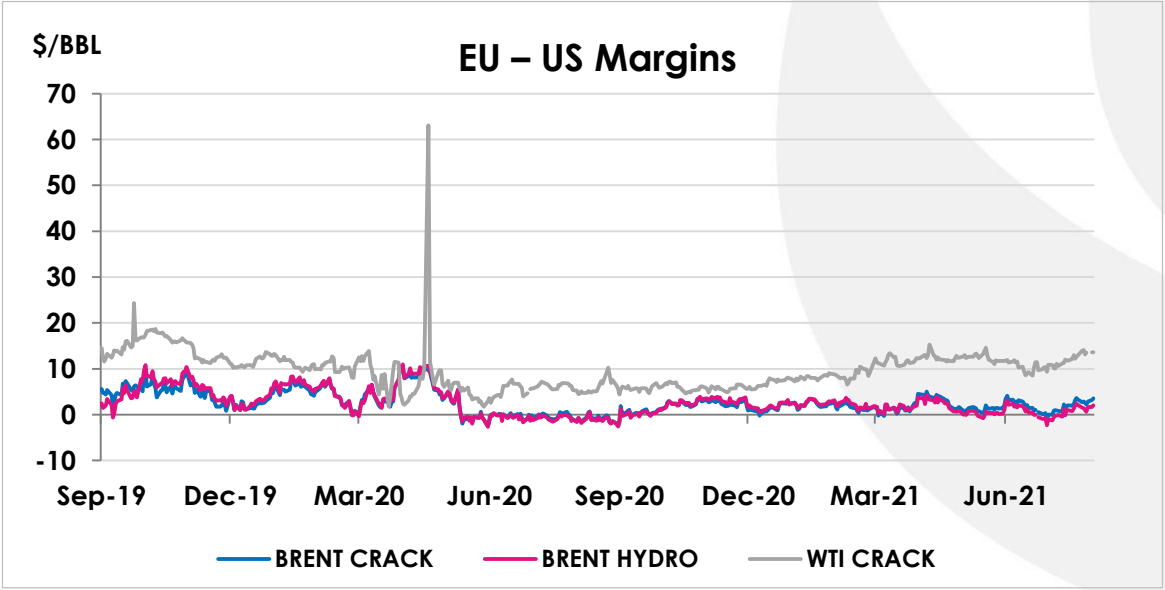
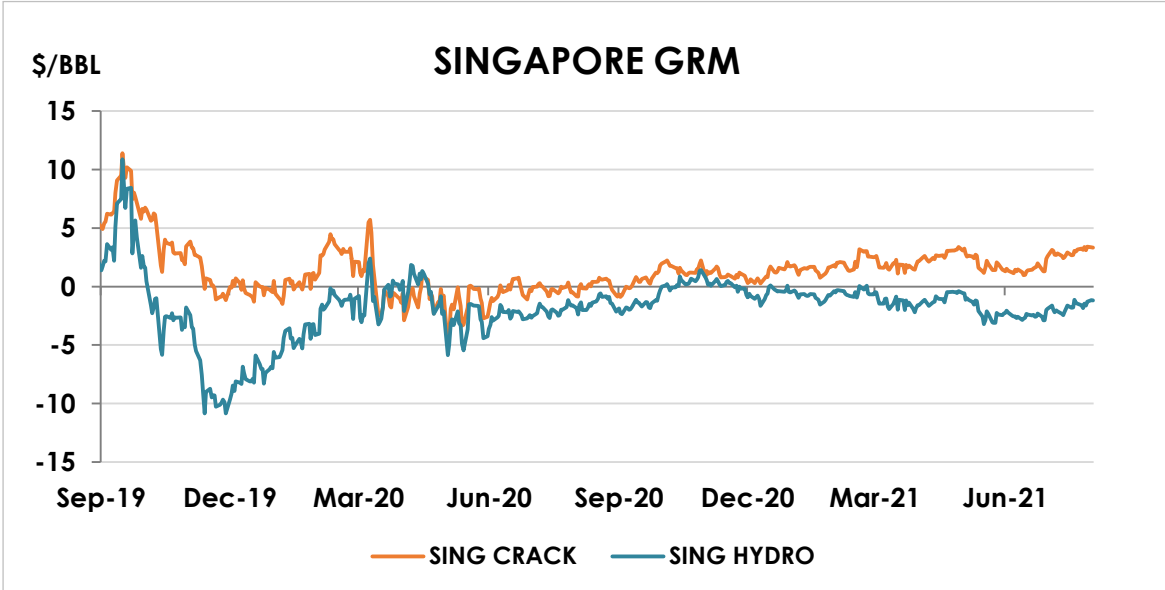
Sources: WM Chemicals (May-21) and TOP's Estimate

# AP/ME BZ Balance

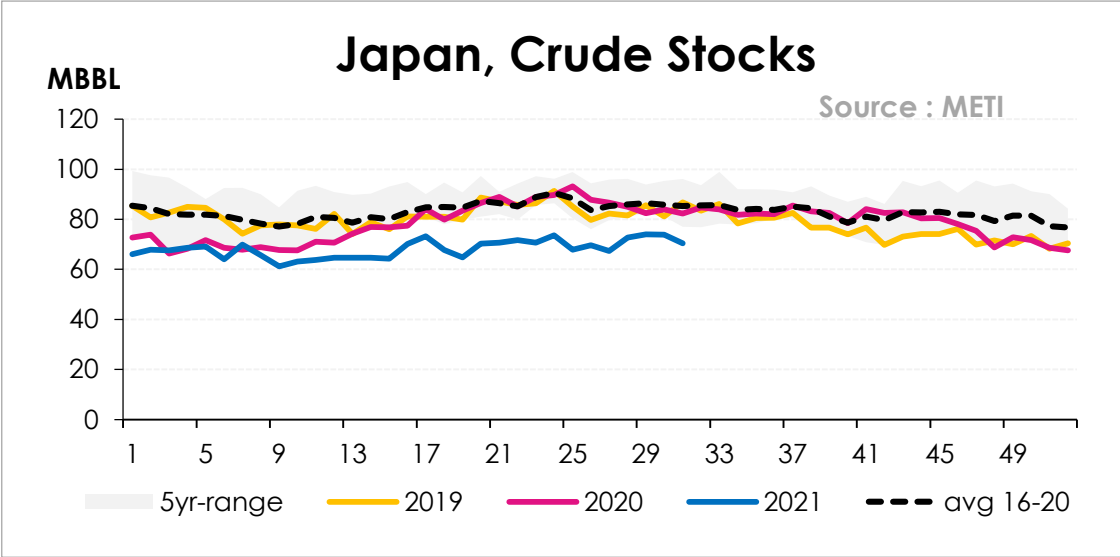
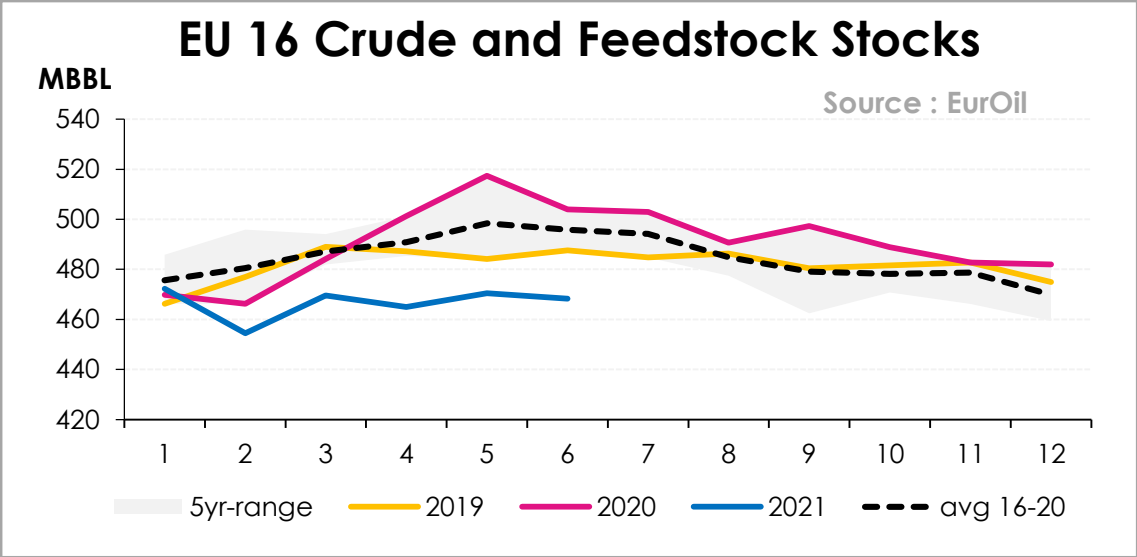
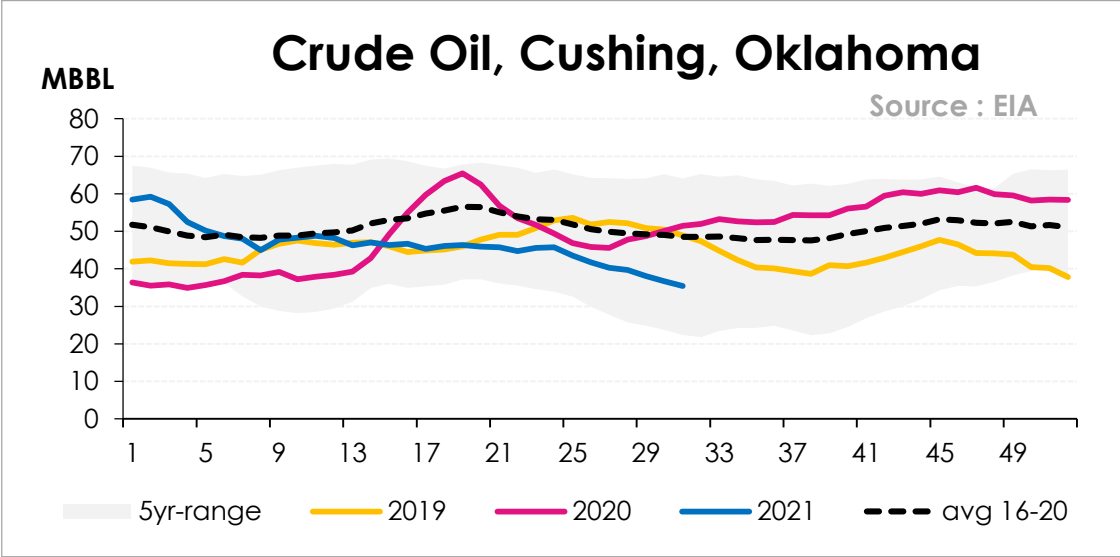
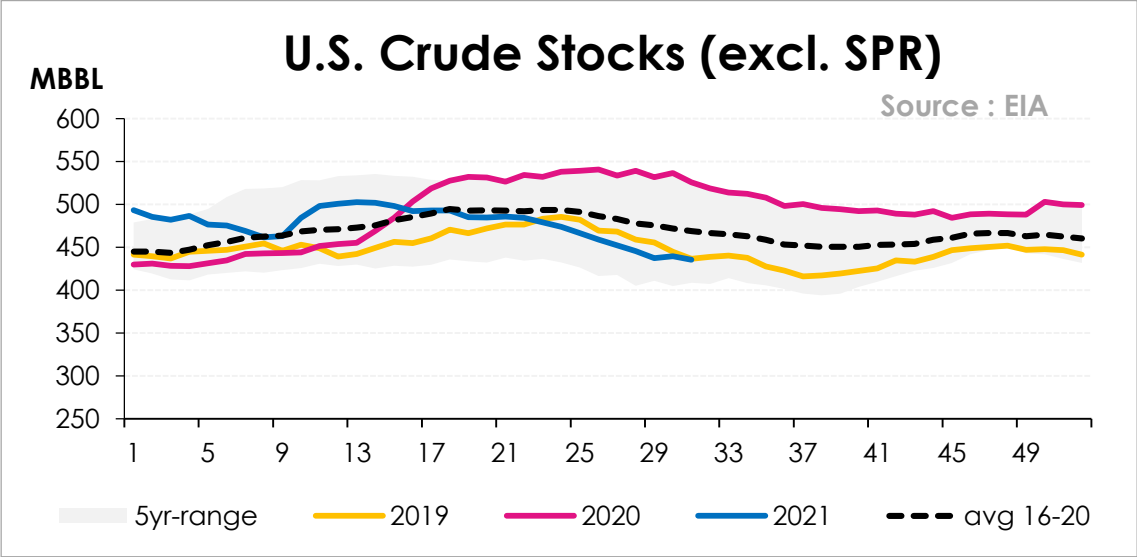


Sources: IHS Spring 2021 and TOP's Estimate

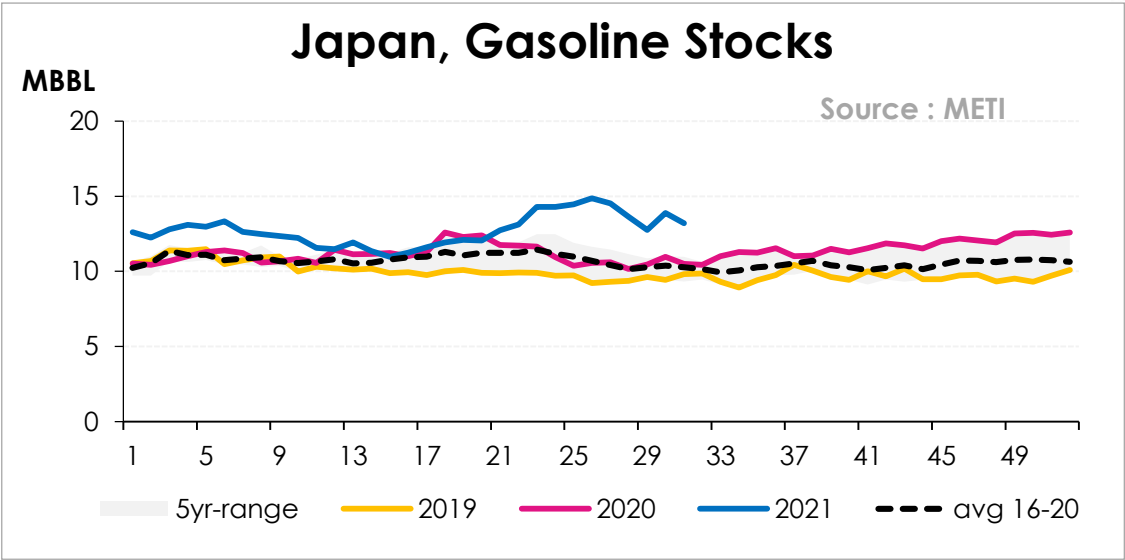
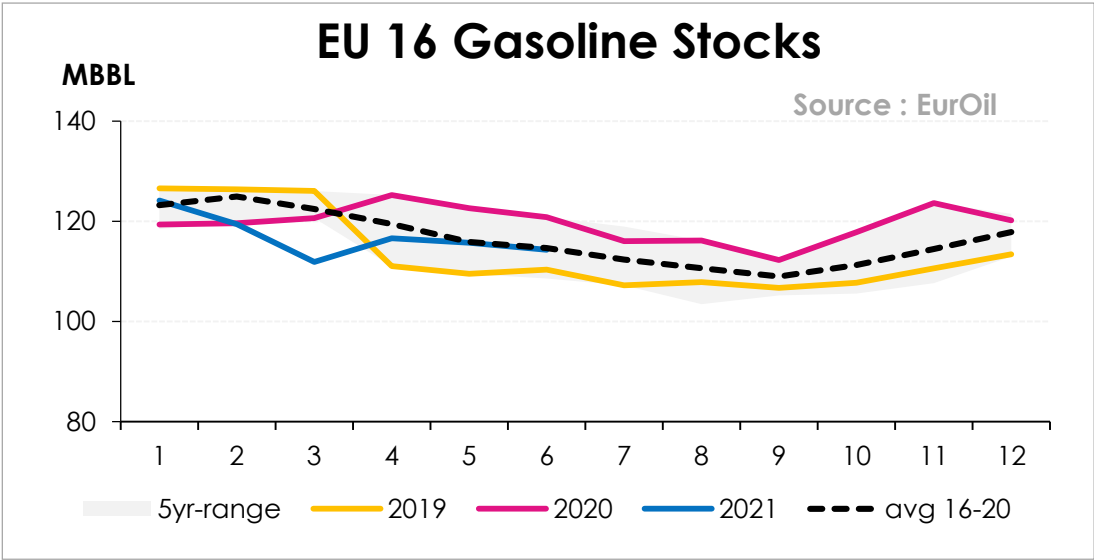
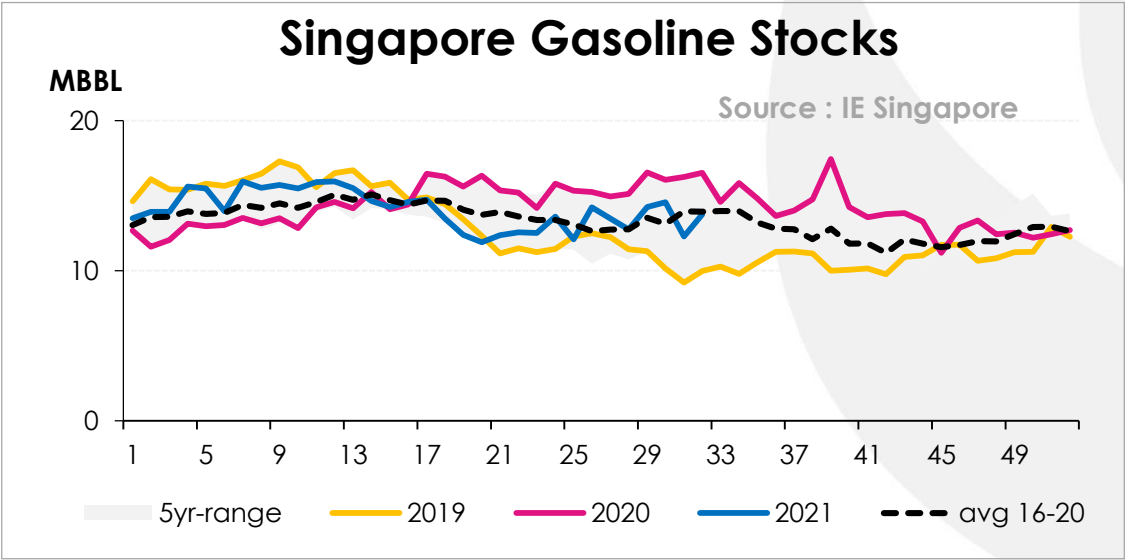
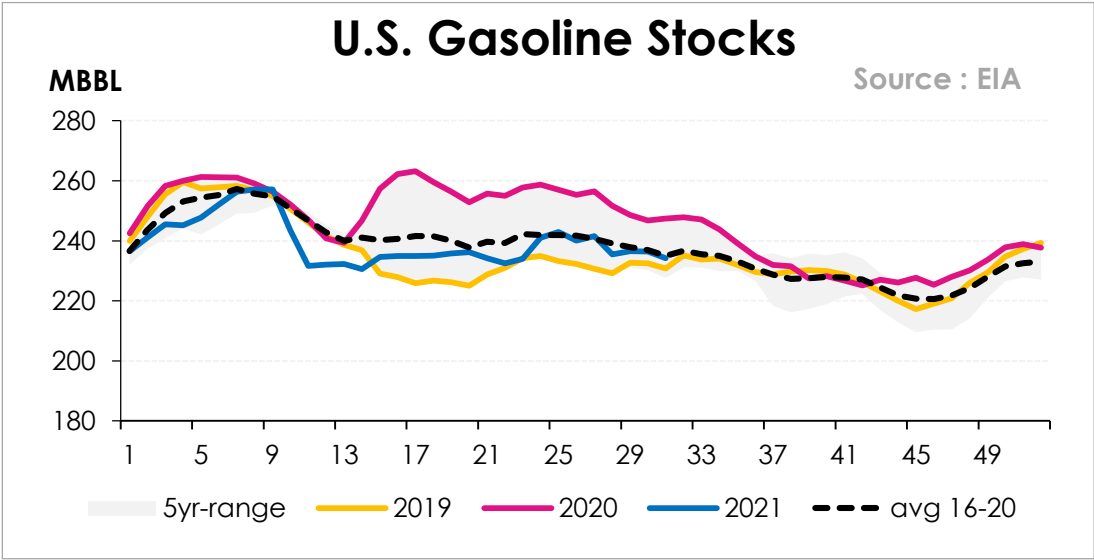
# Asian Margin Vs. US-EU margin



# Global Crude Oil Inventories

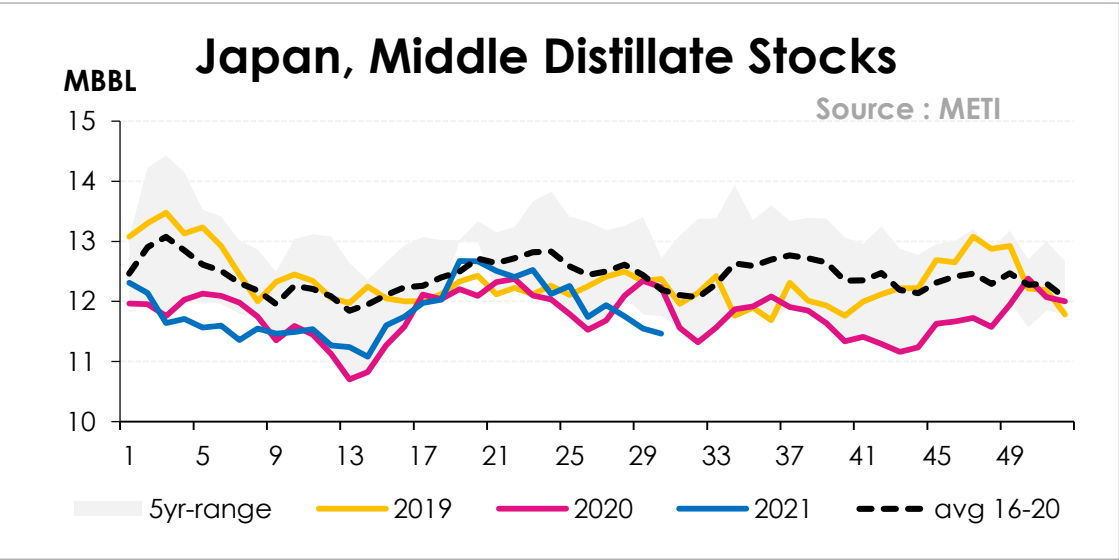
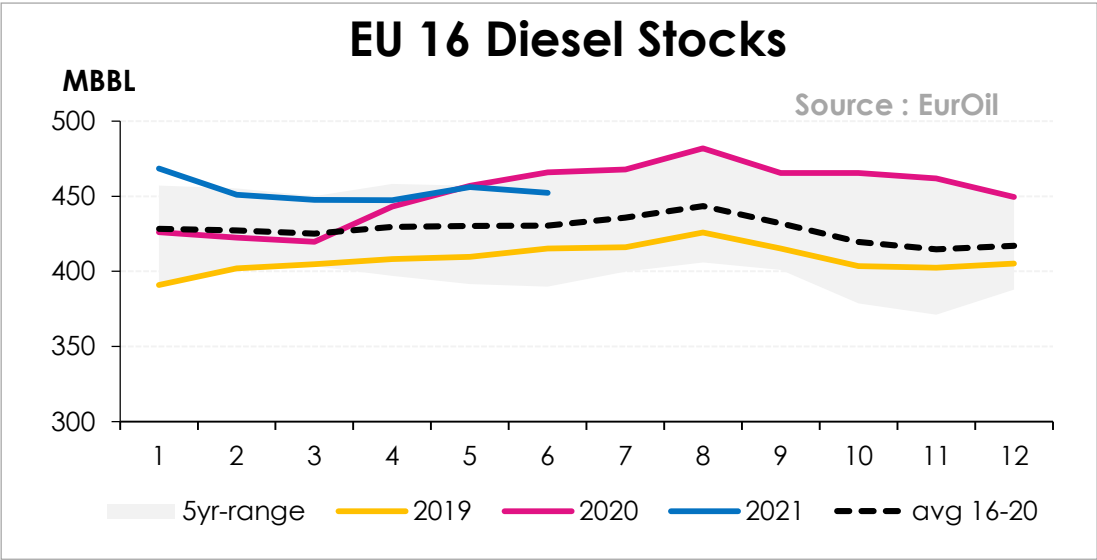
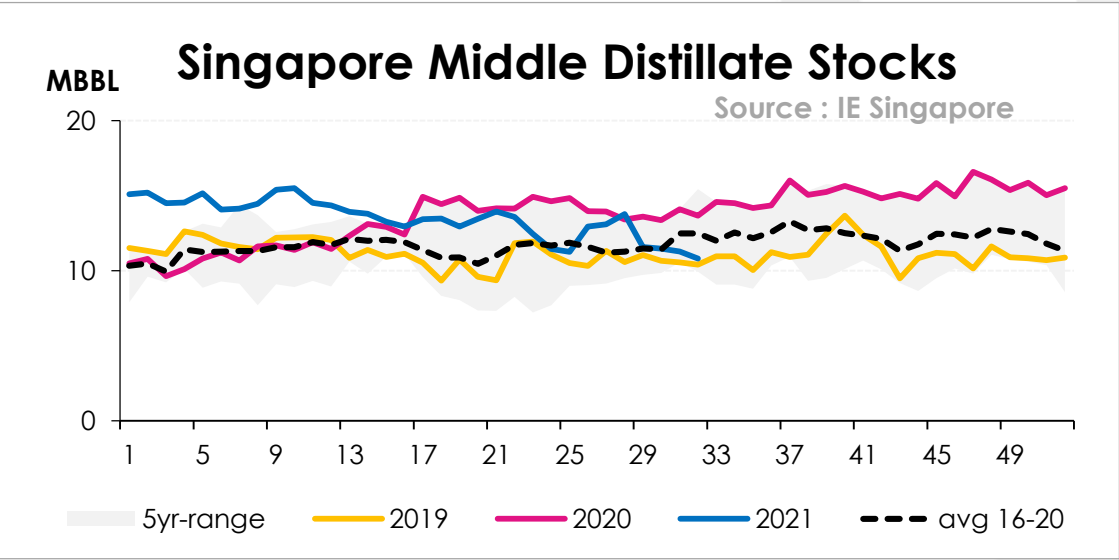
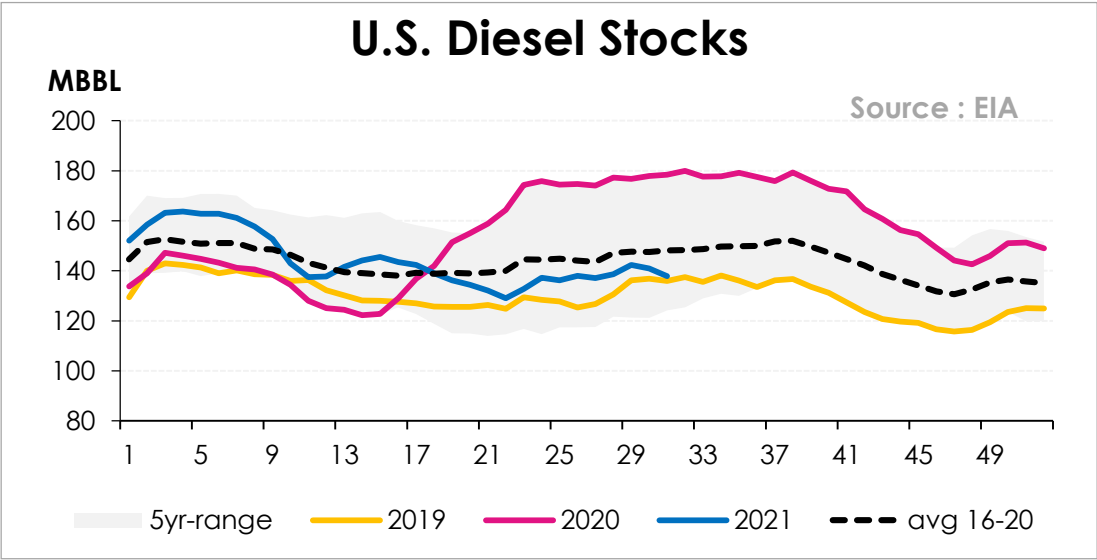


# Global Gasoline Inventories

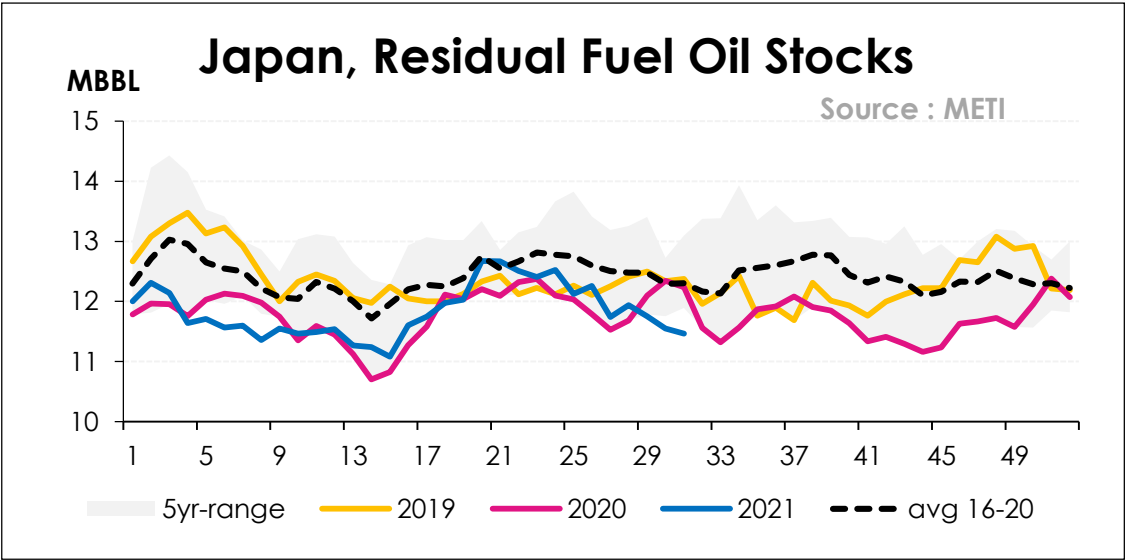
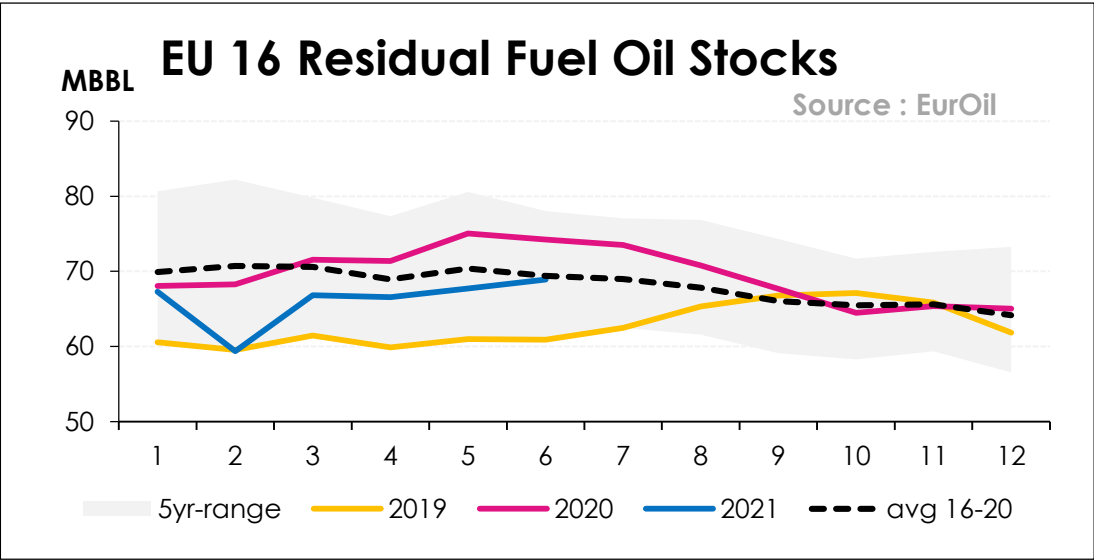
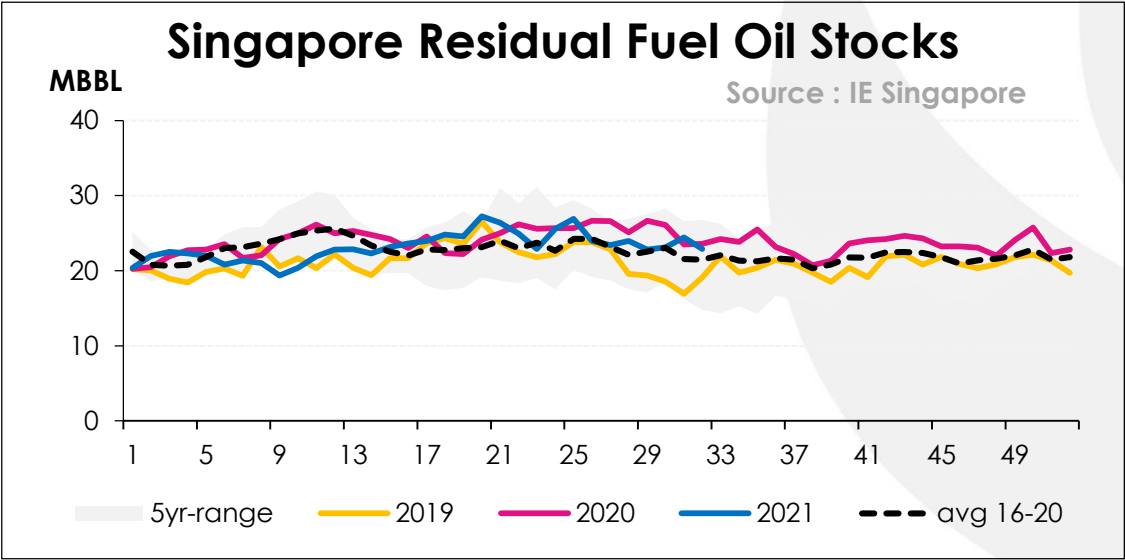
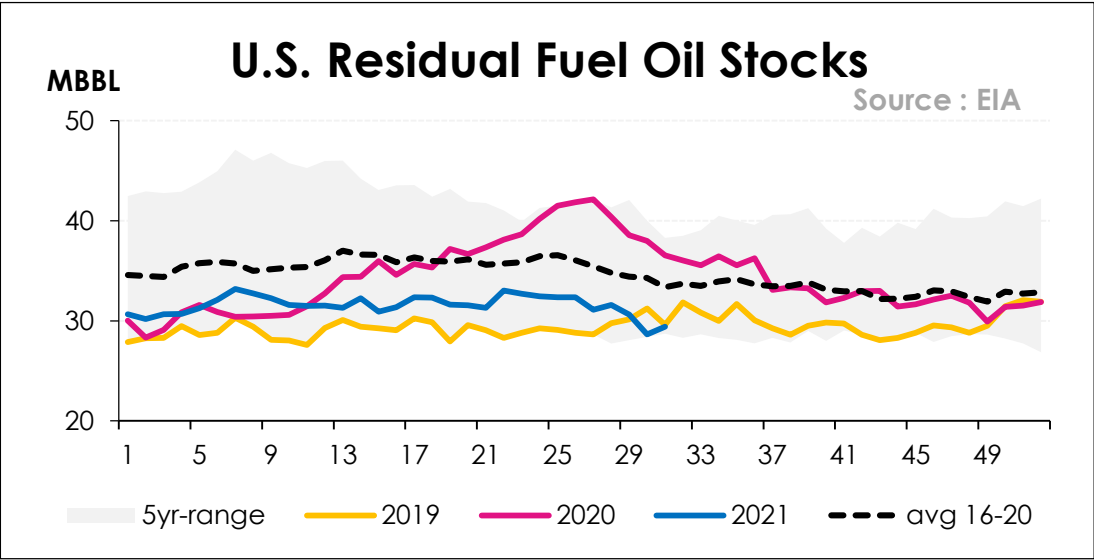




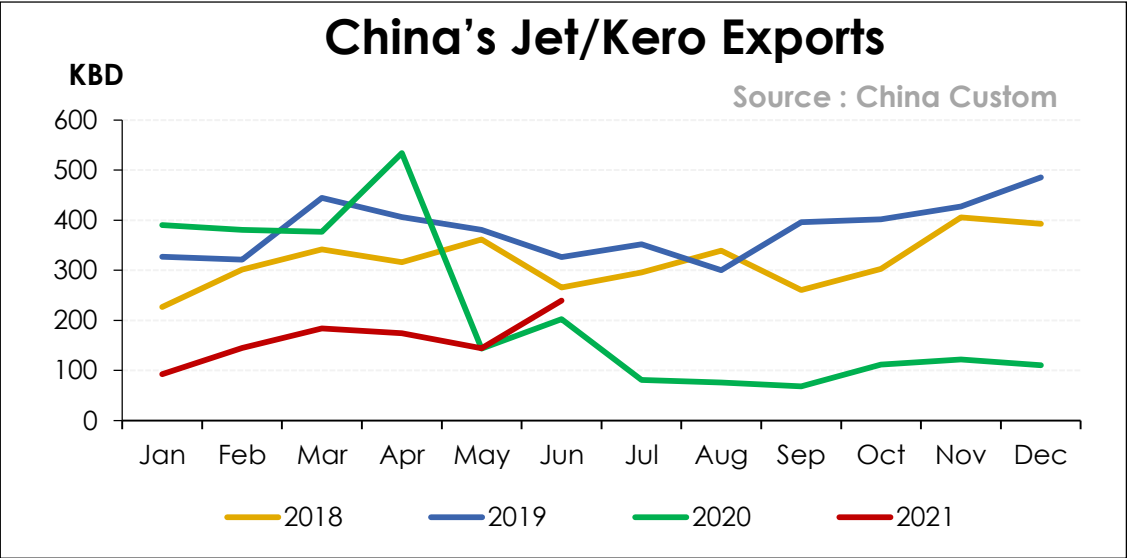
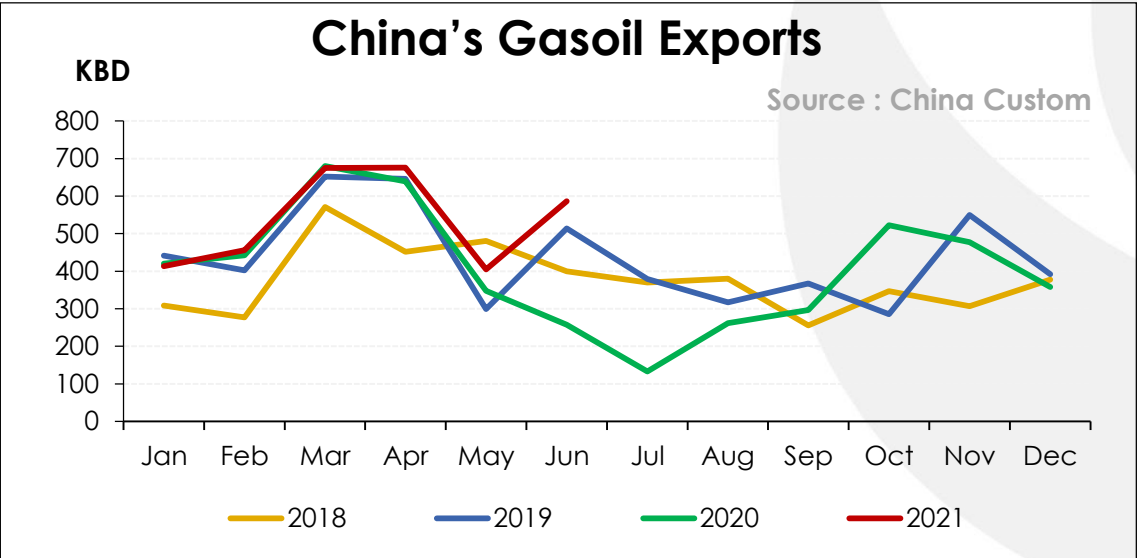
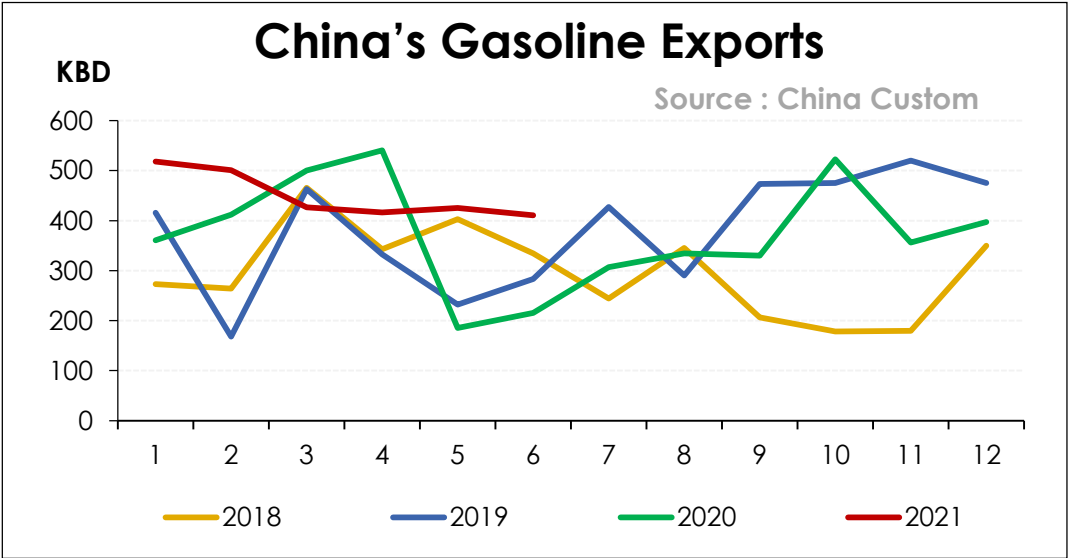
# Global Middle Distillate Inventories



# Global Fuel Oil Inventories

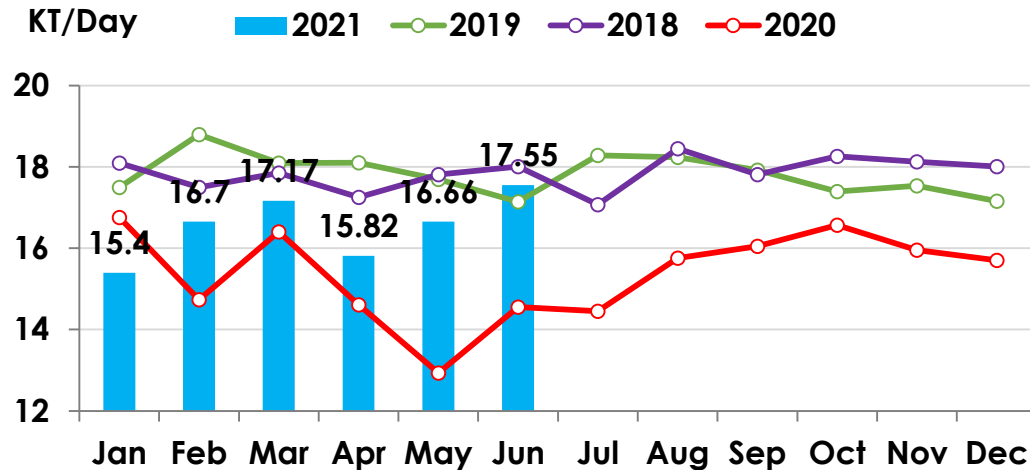


# China's Refined Product Exports



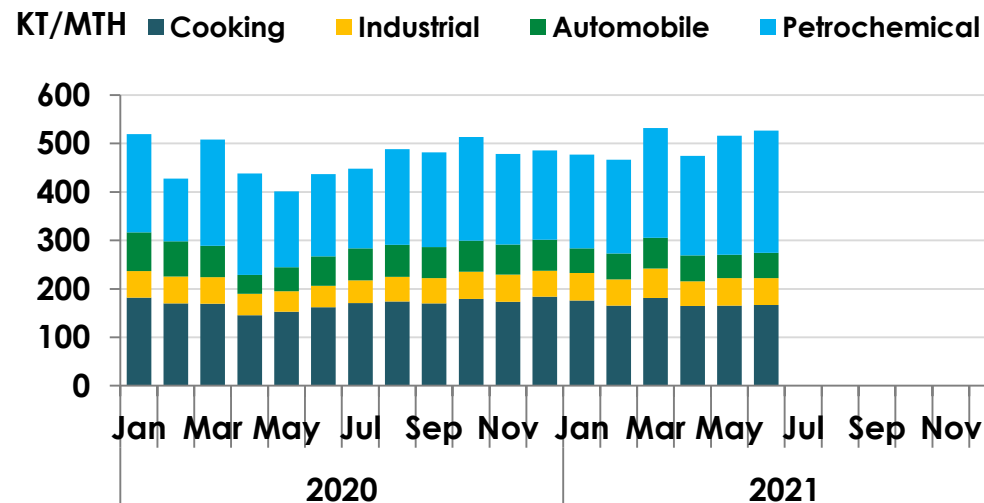
# Domestic LPG Demand

## Thailand LPG Demand



Remark : LPG demand includes Petrochemical consumption

## LPG Demand by Sector



## LPG Demand Highlight

- In 1H'21, LPG demand increased by 10.2% YoY mainly following the increase in industrial and petrochemical sectors. LPG demand in the industry and petrochemical sector rose by 13.7% and 21.8% YoY, respectively as the manufacturing production started to be recovered following the reopen of factories. In addition, cooking demand also increased by 4.4% YoY from last year. However, the demand in automobile sector still plunged by 11.5% YoY, as the pandemic partially pressured the transportation activities compared to pre-COVID level demand during Jan'20-May'20.

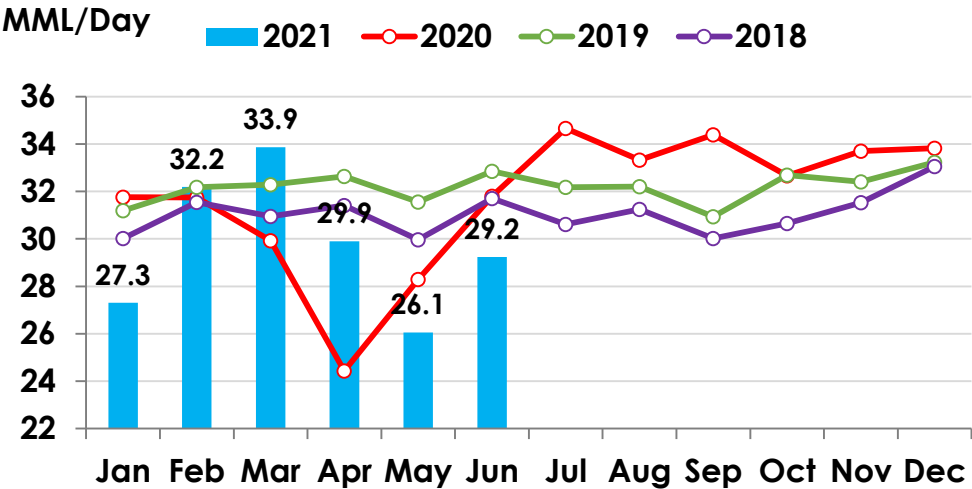
## Outlook for 2021

- In 2021, LPG demand is expected to recover by 0.8% YoY, mainly from the industrial sector. Industrial demand tends to increase by 8.5% YoY as the demand will be supported by the reopening of factories as well as the higher production for exporting demand. Besides, Cooking demand tends to increase by 2.1% YoY as the demand would recover from the low base volume effect from the COVID-19 pandemic last year. However, demand in the automobile sector is expected to decrease by 9.0% YoY as most of the registered taxis powered by LPG have gradually expired since 2021 onwards leading to the lower vehicles that run on LPG.

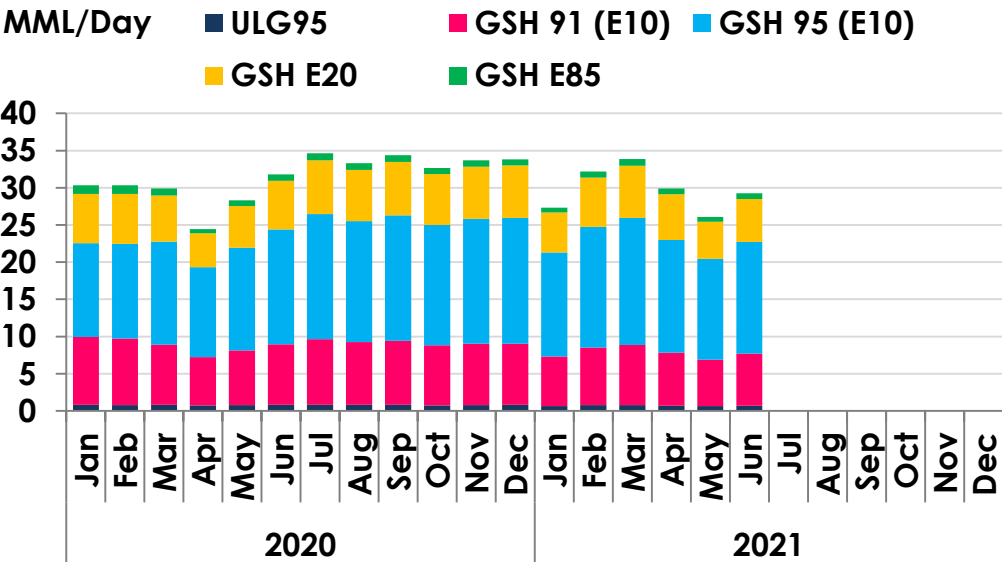
Source: EPPO, DOEB (As of Aug 2021)

# Domestic Gasoline/Gasohol Demand

## Thailand Gasoline/Gasohol Demand



## Gasoline/Gasohol Demand by Grade



### GASOLINE/GASOHOL Demand Highlight

- In 1H'21, Gasoline demand was slightly increased by 0.2% YoY to an average of 29.7 MML/day while Gasohol demand increased by 0.6% YoY, settling at 29.0 MML/day. The demand growth was supported by the low base volume last year. The demand was mainly pressured by the second wave of COVID-19 started in Jan'21 as well as the third wave in Apr'21 onwards, leading to lower transportation activities in most sectors. Besides the effect of the pandemic, the narrow price gap between GSH95 and E20 partly supported the GSH95 demand to grow by 9.0%. While E85 demand plunged by 17.6% YoY following 4.8% lower oil stations providing E85 compared to last year.

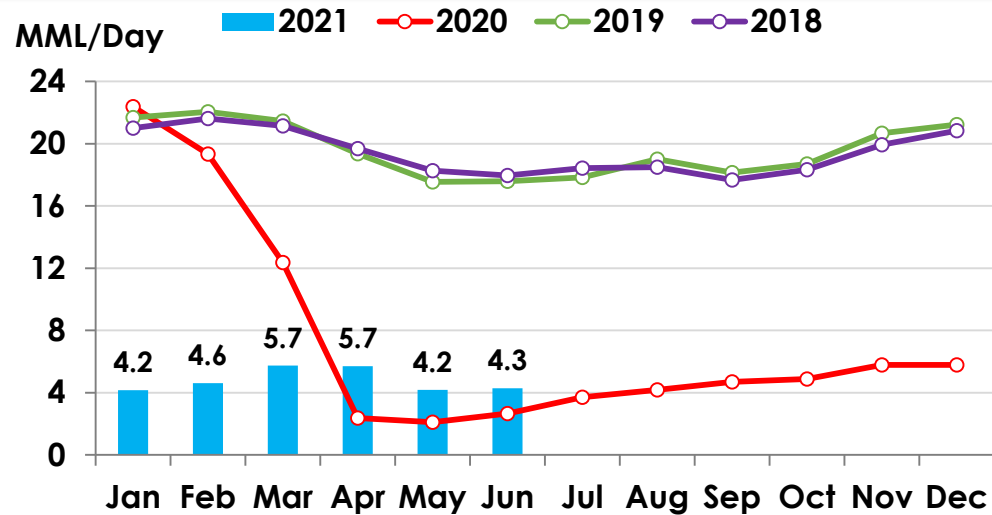
### Outlook for 2021

- Gasoline consumption is expected to increase by 0.8% YoY which are still mainly pressured by the travel restriction measures for halting the second and third wave of COVID-19 pandemic since Jan'21 and Apr'21 onwards. Moreover, the stagnant economy would suppress people spending resulting in lower passenger car sales.

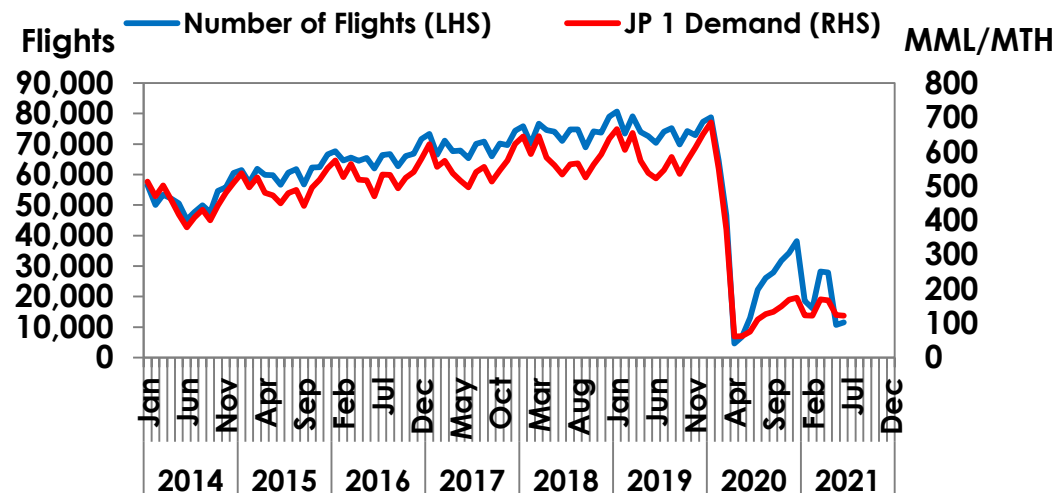
Source: DOEB (As of Aug 2021)

# Domestic Jet Demand

## Thailand JET Demand



## JET-A1 demand and Number of flights



## JET Demand Highlight

- In 1H'21, Jet consumption decreased by 53.1% YoY. Although the demand was recovered in Mar-Apr'21, the demand started to decrease again in May'21 as the COVID-19 infection rate was accelerated. The domestic flight in 1H'21 dropped by 27.1% YoY from the flight suspension due to the second wave and the third wave of COVID-19 outbreak, while the international flight continued to contract sharply by 68.0% YoY as travel restrictions remained in place. Although the Thai government started to allow foreigners who hold the Special Tourists Visa (STV) to visit Thailand since Oct'20 onwards to stimulate the tourism sector, the number of foreign tourist arrivals remained small, resulting in a 70.8% slump in the passenger number in 1H'21.

## Outlook for 2021

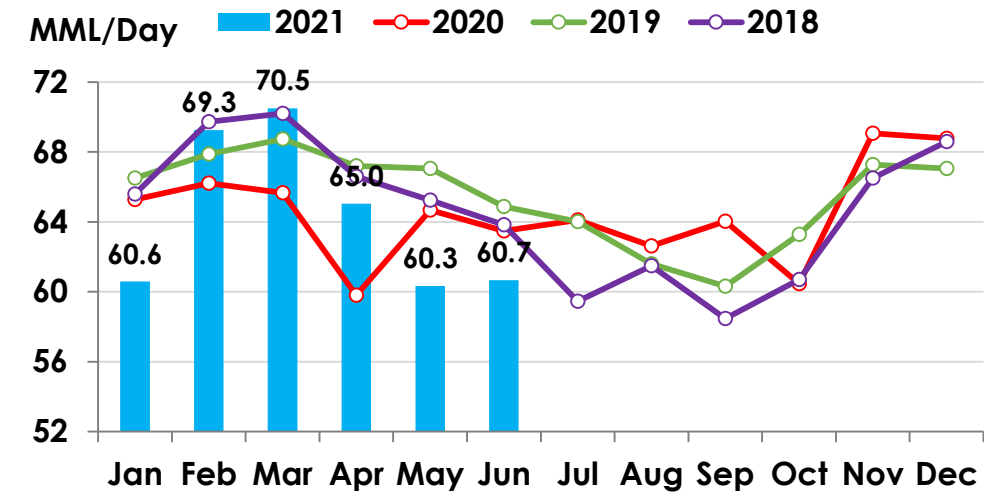
- Jet demand growth is expected to decline by 25.0% YoY, as the second and the third wave of COVID-19 outbreak in Thailand will cause longer damage to the Thai tourism, both in the domestic and international sector. Although the Special Tourists Visa (STV), country reopening scheme and vaccination plan may support the flight movements, low and long recovery of tourism will still pressure the demand.

Source: DOEB, AOT, Department of Tourism (As of Aug 2021)

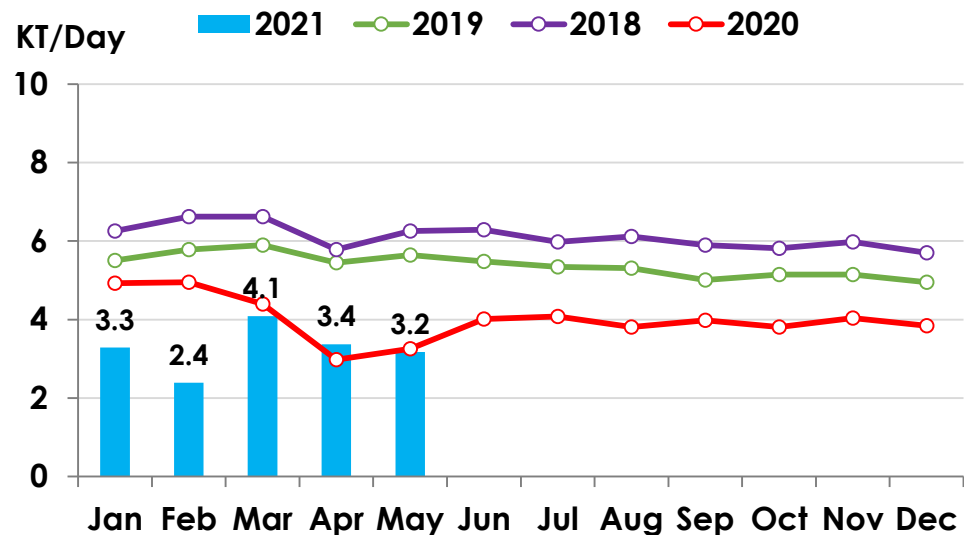


# Domestic Gasoil and NGV Demand

## Thailand Gasoil Demand



## NGV Demand



### Gasoil Demand Highlight

- In 1H'21, Gasoil demand increased by 0.2% YoY. After Gasoil demand was supported by the economic improvement in Feb-Mar'21, the Thai economy was slow down again in Apr'21 onwards following the third wave of COVID-19 outbreak in every region of Thailand. Thus, the demand was pressured by the lower economic activities and the drop of logistic movements.

### Outlook for 2021

- Gasoil demand is expected to slightly grow by 0.8% YoY as the demand will be supported by the recovery of economic activities from the stimulus packages and other relief measures, as well as the vaccination plan. However, the uncertainty amid the third wave of the COVID-19 pandemic will still pressure Gasoil demand this year.

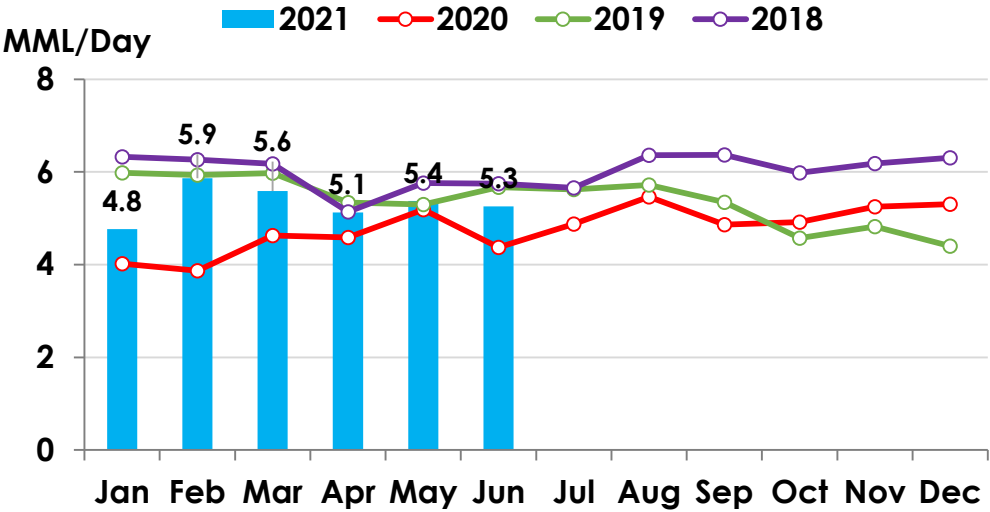
### NGV Demand Highlight

- In 5M'21, NGV demand fell significantly by 20.0% YoY. Apart from the effect of COVID-19 pandemic, the demand was also pressured by the uncompetitiveness of the NGV retail price compared to the other fuels. As a result, NGV users have switched to use a substitute for NGV.

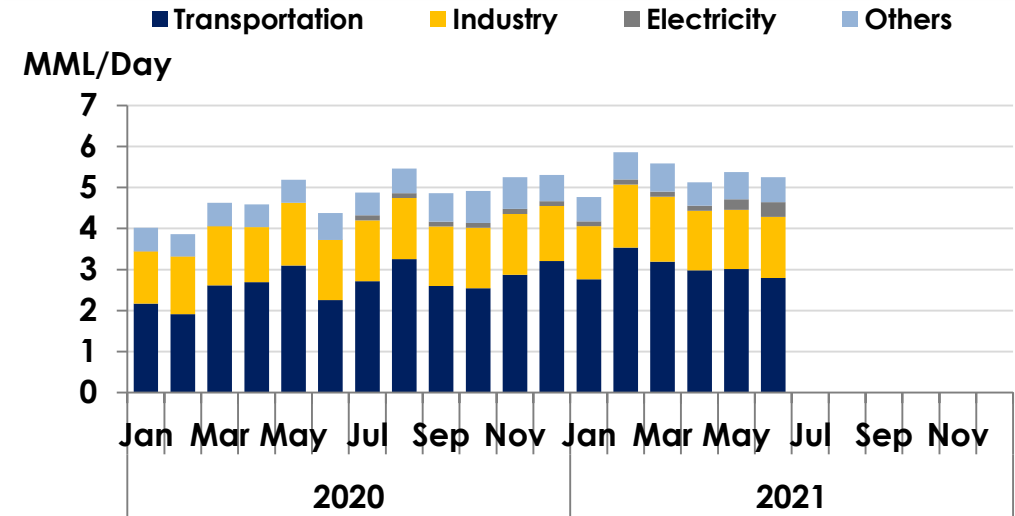
Source: DOEB (As of Aug 2021)

# Domestic Fuel Oil Demand

Thailand Fuel Oil Demand



Thailand Fuel Oil Demand by Sector



## Fuel Oil Demand Highlight

- In 1H'21, Fuel Oil consumption rose by 19.6% YoY, as the demand in the transportation sector, which accounted for 57.1% of total Fuel Oil demand, rose by 23.9% YoY due to higher import and export volume as well as the low base volume effected from the IMO transition phase last year. Moreover, demand in the industrial sector, which accounted for 27.5% of total Fuel Oil demand, increased by 4.2% YoY due to the recovery of the economy and competitive prices compared to the other alternative fuels.

## Outlook for 2021

- Fuel Oil demand is expected to increase by 16.0% YoY, mainly due to the higher import and export activities following the global economic recovery. Besides, the abilities to procuring and distributing vaccines across the world is the key factor to support the demand.

Source: DOEB (As of Aug 2021)

# Thank You

Any queries, please contact:



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