



Analyst Meeting 1Q2021

24 May 2021



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KEY ACTIVITIES IN 1Q2021



1. Gas business

- 1 Jan 2021: NGV retail price for public sector adjusted to equal private sector
- First LNG reloading cargo
- LNG Truck loading

2. Establishment of

- Innopolymed Company Limited to operate Life science business
- PTT MEA Ltd. to operate trading business esp. in the Middle East and Asia
- On-I on Solutions Co., Ltd to operate EV Charging station (outside station)



1. Acquisition of 20% stake in Oman Block 61
2. Gas & Oil Discovery in Malaysia field (SK417 SK405B and SK438)
3. First Gas production of Block H Project in Malaysia



Acquisition of Vinythai shares at 16.24% through Delisting Tender Offer












1st Trading day on 11 Feb 21
Market Cap. > 200,000 MB
IPO at Baht 18 per share



Investment in Anhui Axxiva New Energy Technology Co., Ltd. which operate battery manufacturing business

SUBSEQUENT EVENTS

- ❖ **Acquired** 6.66% stake in Lotus Pharmaceutical Company Limited; Listed company in Taiwan  
- ❖ **Establishment** of T-ECOSYS Company Limited ("T-ECOSYS") to operate the industrial digital platform business 
- ❖ **Joint investment** to operate the entire supply chain of Plant-based protein business  
- ❖ **Restructure** of PTT Public Company Limited's Power Business (+12.73% stake increased)  
- ❖ **Purchased** Thai Airway International Public Company Limited's land with buildings  

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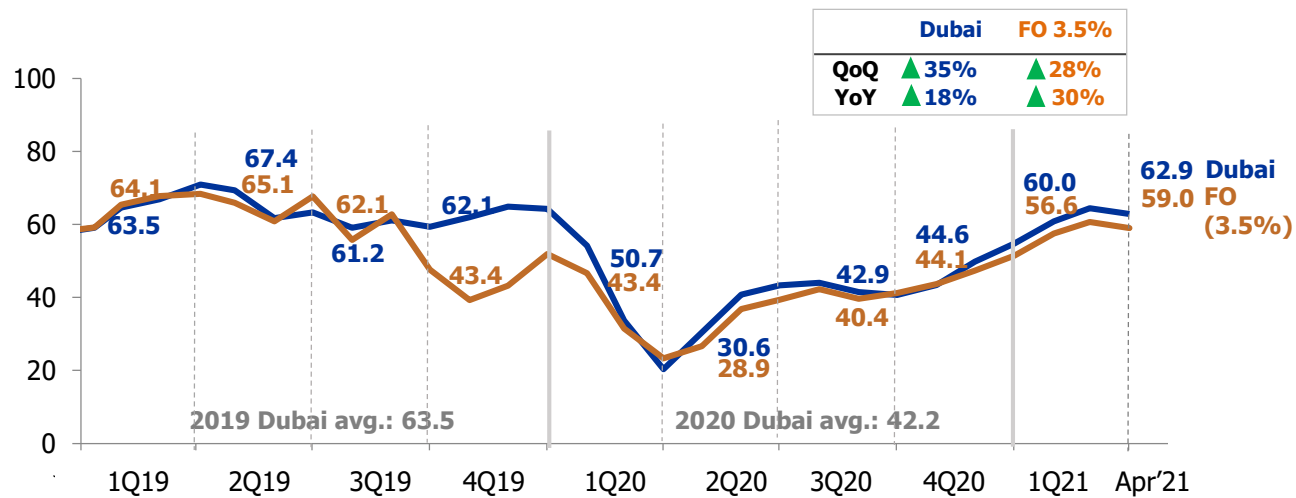
04

Outlook

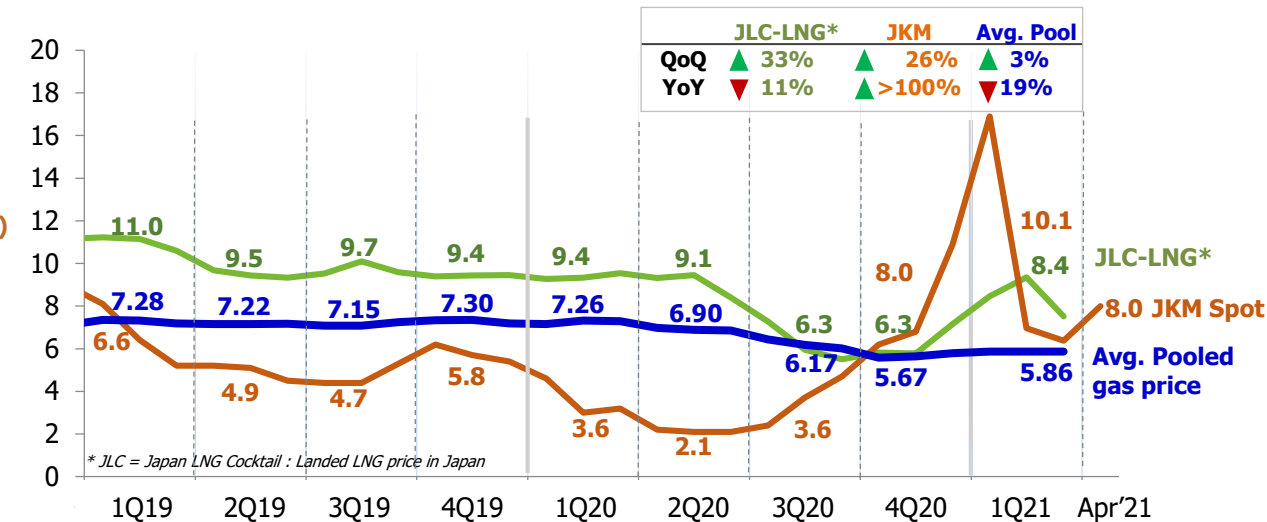
Key Business Drivers:

QoQ: Increased in all product prices due to demand recovery and tight supply from OPEC+ while gas pooled price stabilized
YoY: Petroleum and petrochemical prices recovered from good news of vaccines and demand recovery while pooled gas price dropped

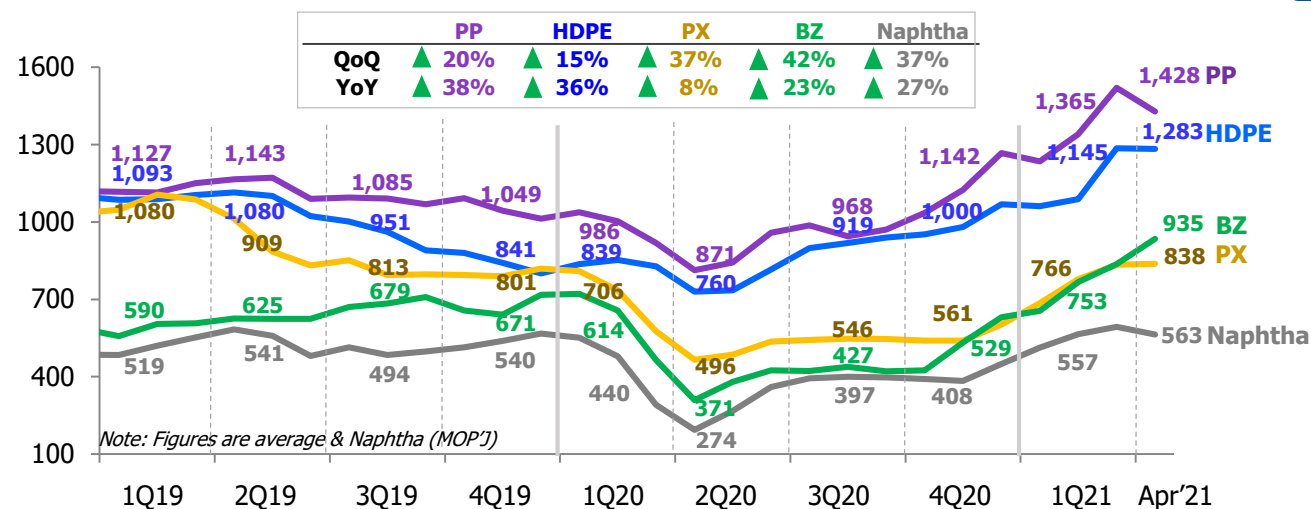
AVG. Petroleum Prices (\$/bbl)



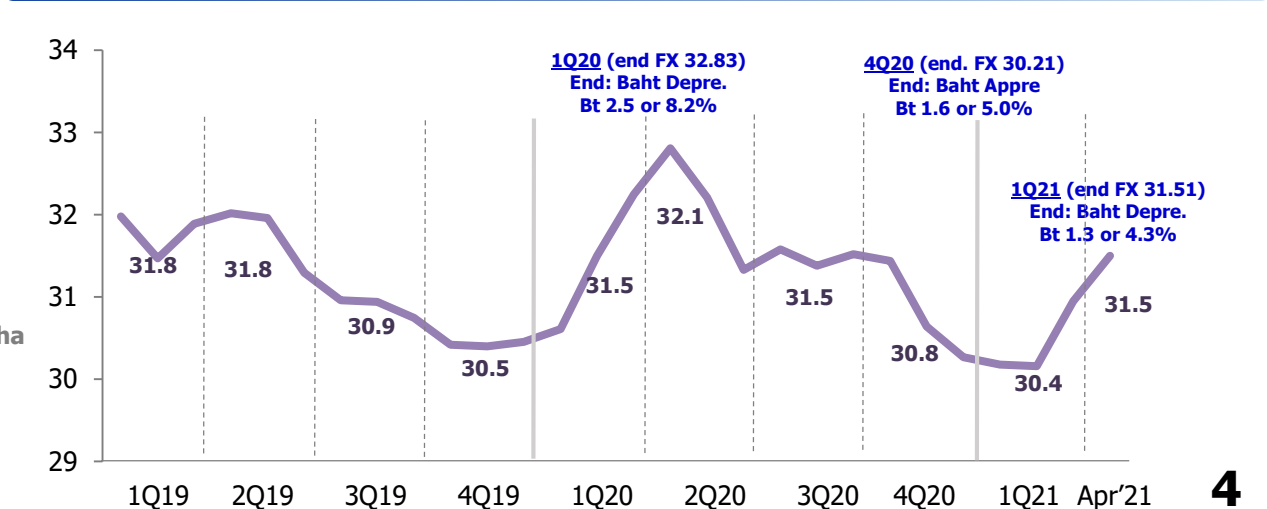
AVG. Petroleum Prices (\$/bbl)



Petrochemical Prices (Avg. \$/ton)



AVG. FX (THB/USD)



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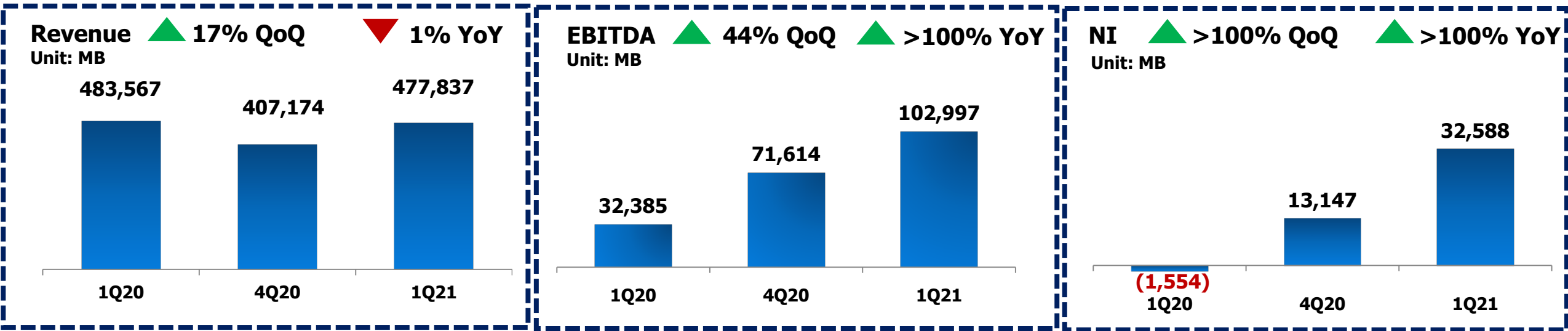
1Q2021 Performance

04

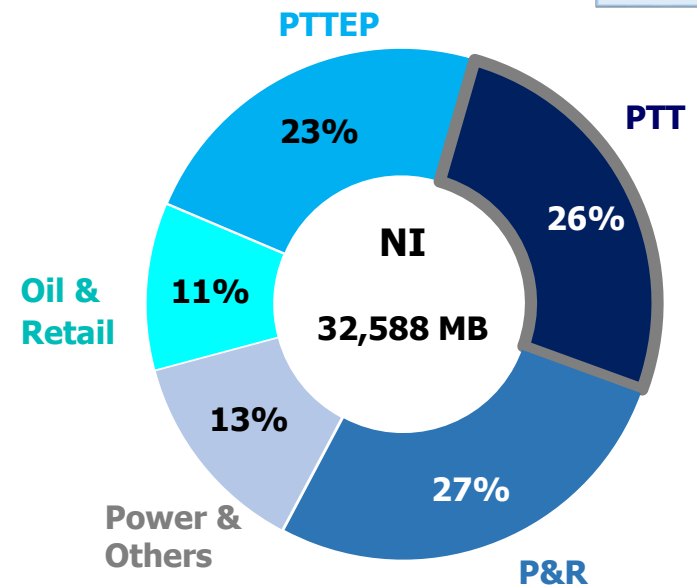
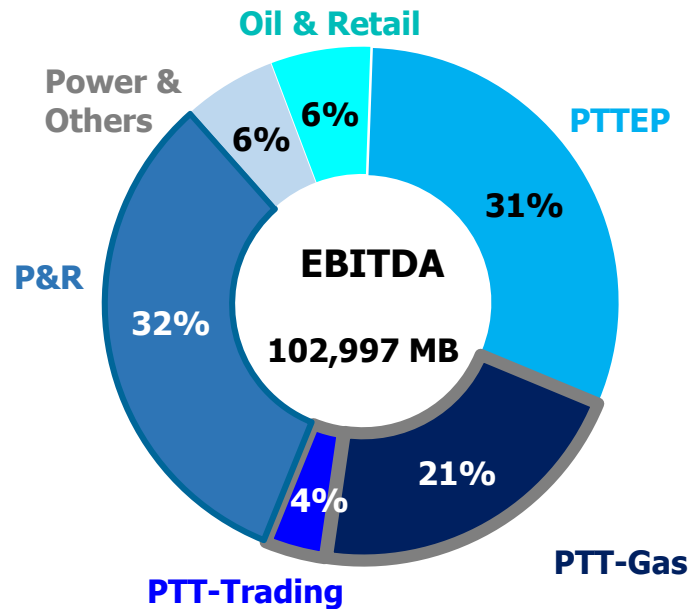
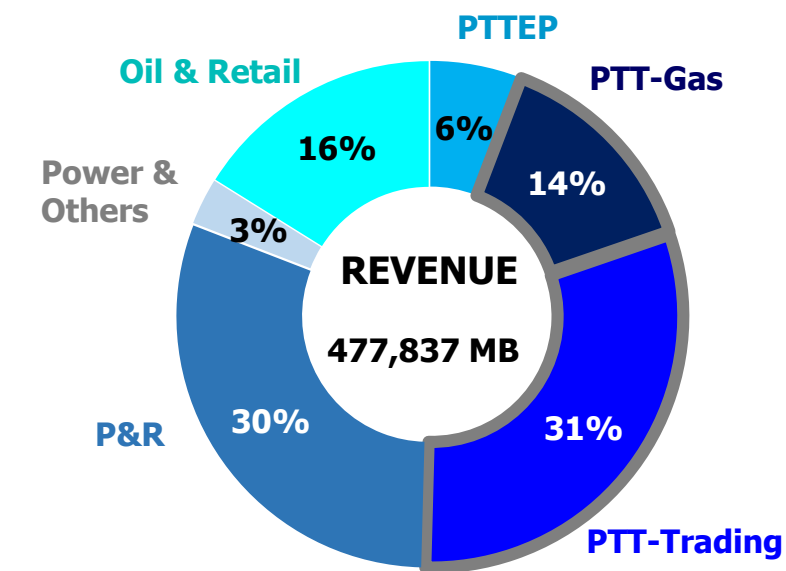
Outlook

PTT Consolidated Performance: 1Q2021

Resilient performance as a result of petroleum & petrochemical demand recovery



1Q2021

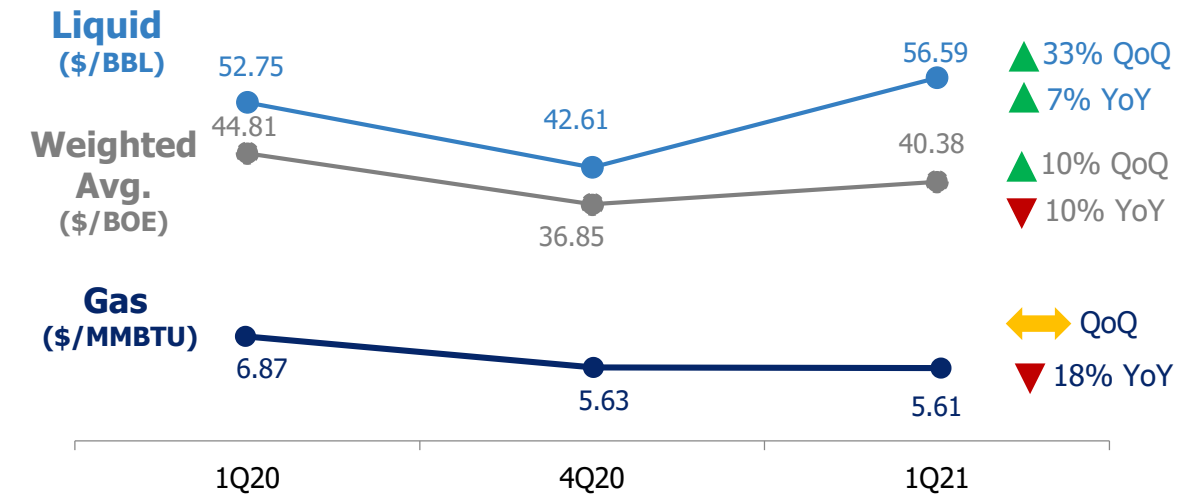


E&P Performance

QoQ: Strengthen performance from higher selling prices and lower operating cost

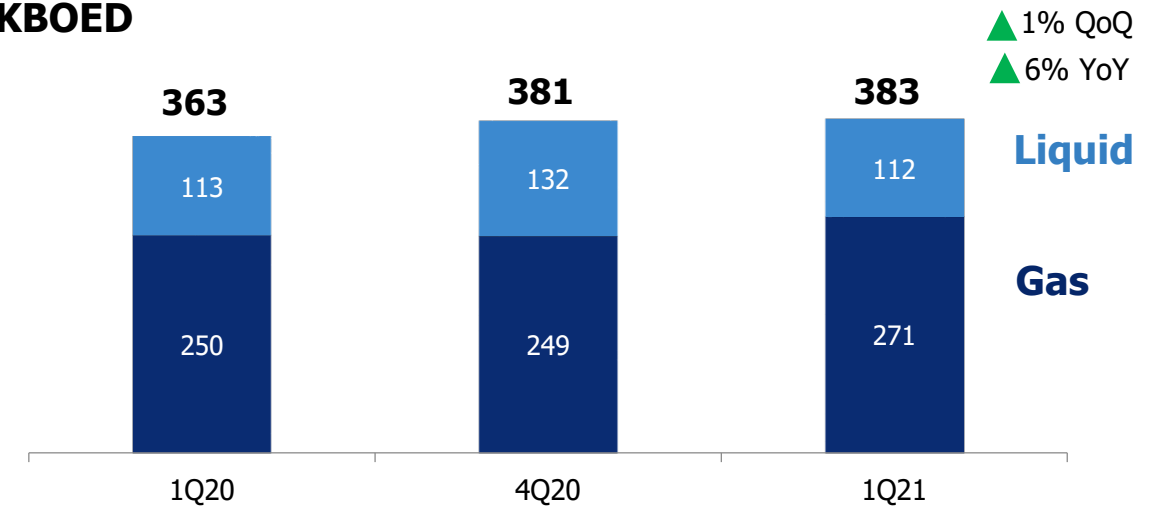
YoY: Increased earning from gain on bargain purchase of Block 61 despite soften recurring NI

Product Prices



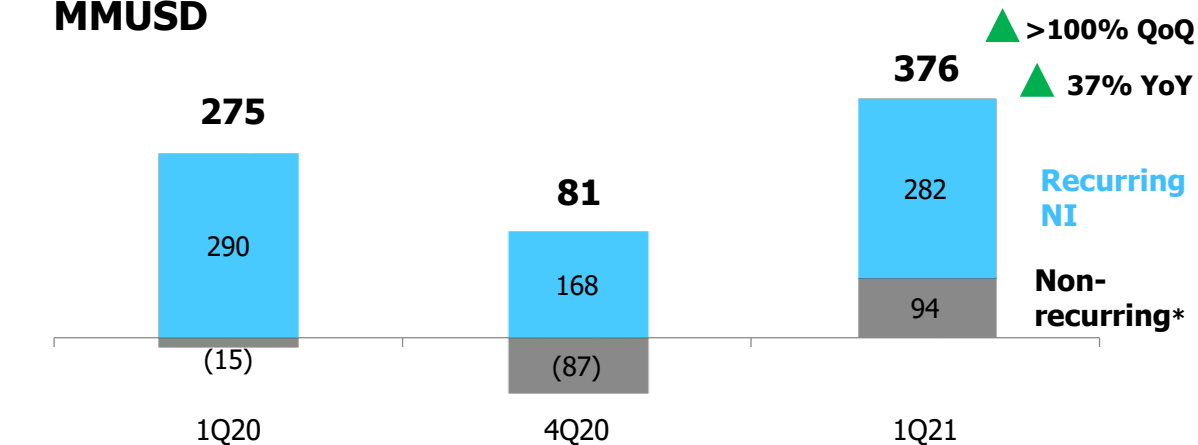
Sales Volume

KBOED



Net Income (100%)

MMUSD



QoQ ▲

+ Recurring NI : improved from higher liquid prices and lower operating cost
 + Non-recurring : mainly from gain on bargain purchase in Oman Block 61 offset with write-off of the exploration project in Brazil

















YoY ▲

- Recurring NI : decreased from gas prices dropped
 + Non-recurring : Recognition of gain from bargain purchase offset with exploration assets write-off and oil price hedging loss

* Includes Gain/(Loss) on FX, Deferred tax from Functional currency, Current Tax from FX Revaluation, Gain/(Loss) from Financial Instruments, Impairment loss on assets and etc.

PTT EBITDA Breakdown by Business

Unit: MMTHB

	1Q20	4Q20	1Q21	QoQ	YoY
GAS	14,433	16,202	21,775	 34%	 51%
S&M	1,924	2,796	4,775	 71%	 >100%
TM	9,079	8,084	8,120	 0%	 11%
GSP	1,803	2,969	6,220	 >100%	 >100%
NGV	(580)	(159)	(221)	 39%	 62%
Others	2,207	2,512	2,881	 15%	 31%
Trading	907	265	1,138	 >100%	 25%
Total	15,340	16,467	22,913	 39%	 49%

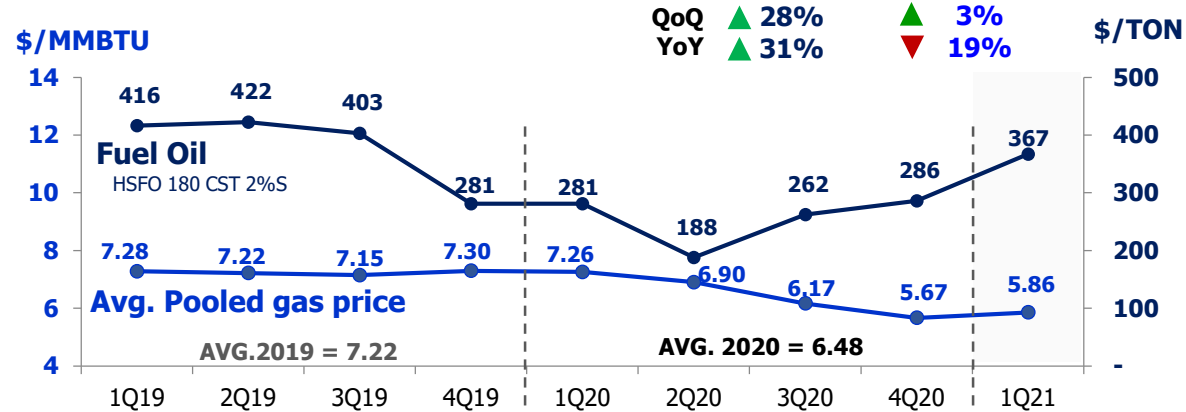
Gas Business

QoQ : NG vol. rose from power plants while pool price started to increase

YoY : Benefit from lower pool gas cost while NG demand still not recovered to normal level before Covid-19 pandemic

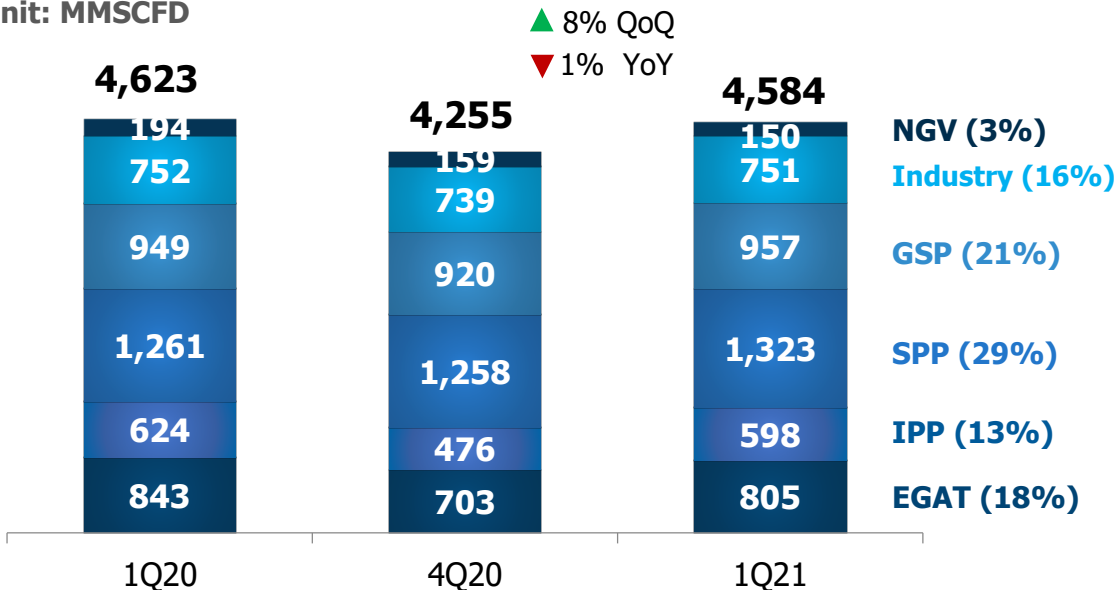
NG Price VS FO & Customer Breakdown

NG Price



NG Vol.

Unit: MMSCFD



NGV Price & Sales Volume

NGV Avg. price

Unit: THB/KG

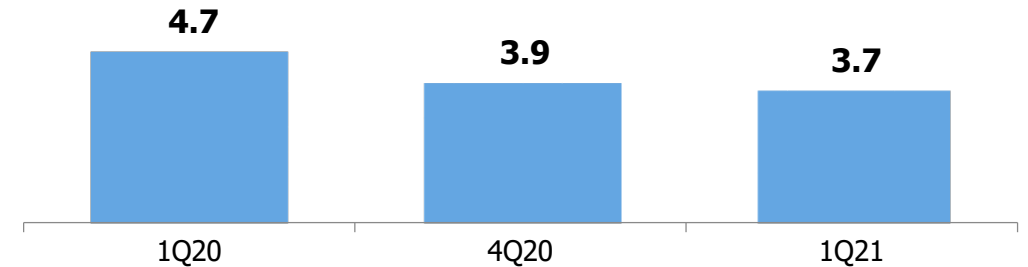
▼ 1%QoQ
▼ 9%YoY



NGV Sales Vol.

Unit: K.Ton/Day

▼ 5% QoQ
▼ 21% YoY



Key Highlights

QoQ

+ Increased NG sales volume from unplanned shutdown of domestic coal power plant while electricity consumption has not recovered from COVID-19 impact

YoY

+ Lower pool gas cost benefit to overall gas business
+ Lower NGV's subsidy from decreasing sales volume and no more capped on the selling price of public sector

Gas Business Performance

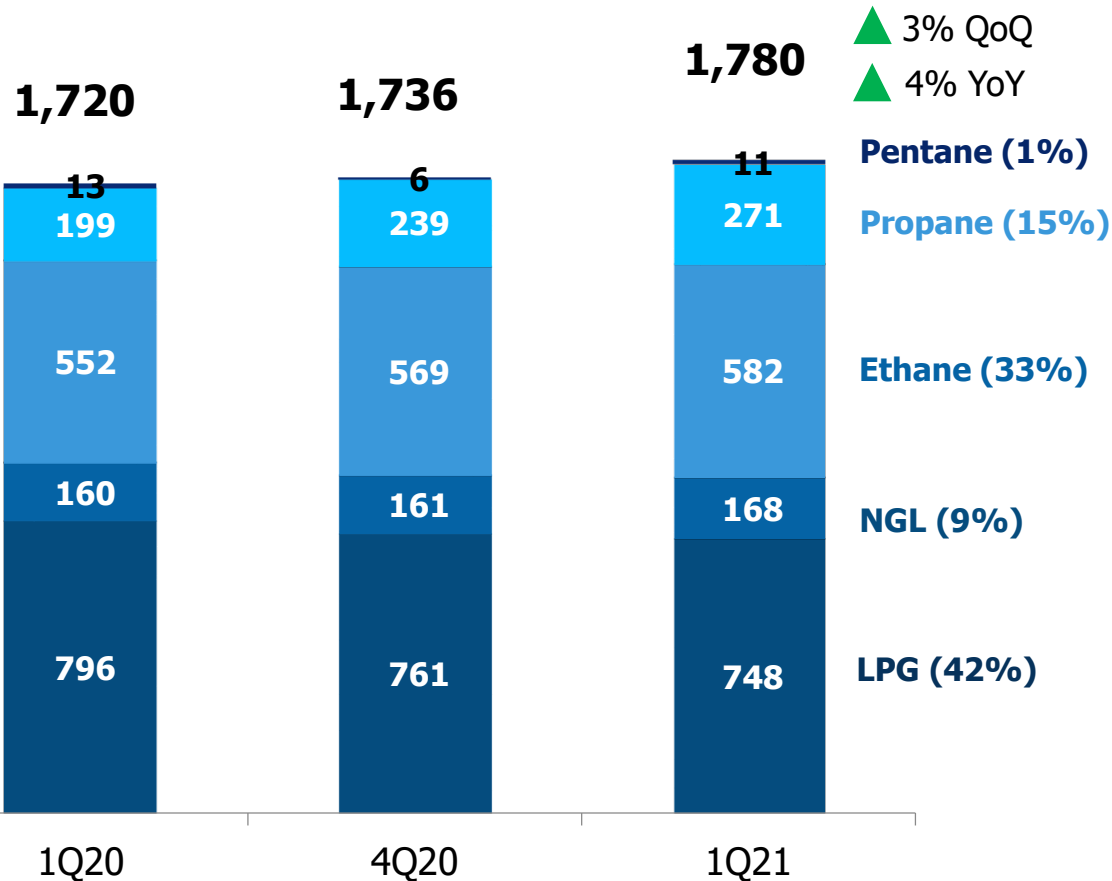
QoQ & YoY : Outperformed GSP performance due to higher selling prices & volume

GSP Sales Vol. & U-Rate

U-Rate

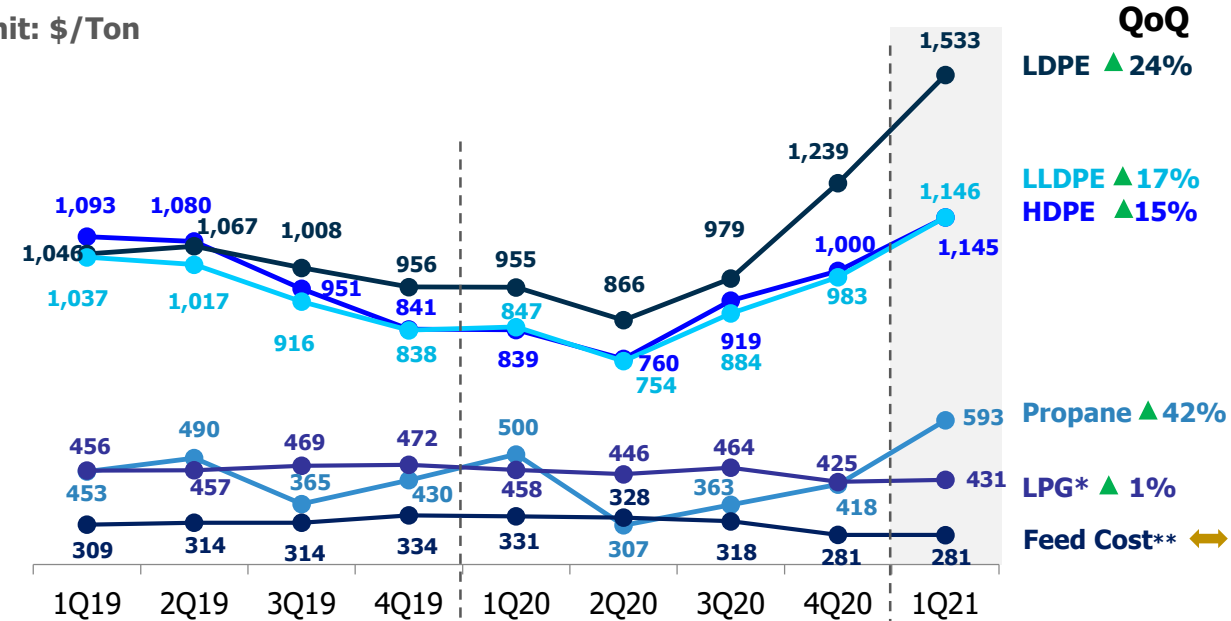
92.1% 88.5% 94.7%

Unit : kTon



GSP Feed Cost vs Petchem. Price

Unit: \$/Ton



*LPG Domestic ** feed cost calculation per GSP production volume

Key Highlights

QoQ & YoY ▲

- + Higher GSP's selling prices following global petrochemical prices
- + Increased sales volume & U- Rate according to higher petrochemical demand & lower shutdown days
- + Feed gas cost remained low

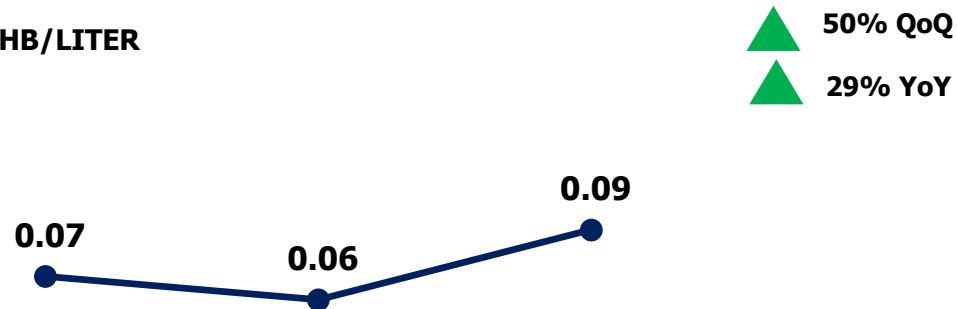
Trading Business:

QoQ: Robust performance owing to higher gross margin and volume

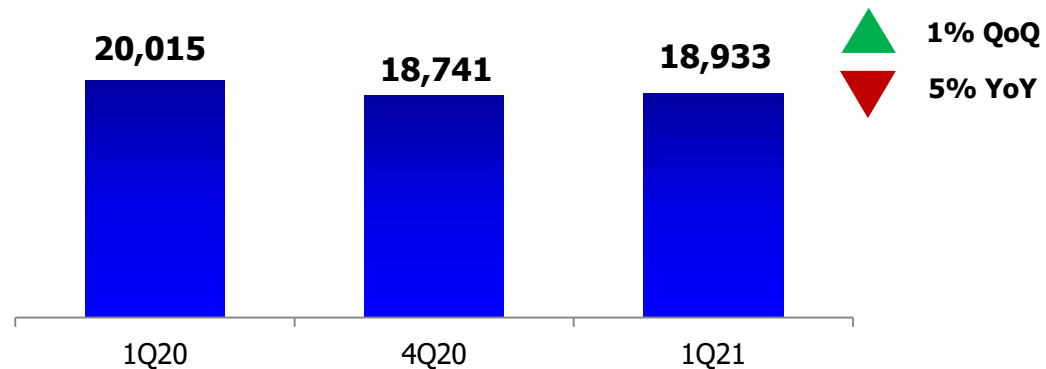
YoY: Performance improved from better domestic condensate margin despite reduced volume

Gross Margin¹/ Sales Volume²

Unit¹: THB/LITER



Unit²: MM Liter

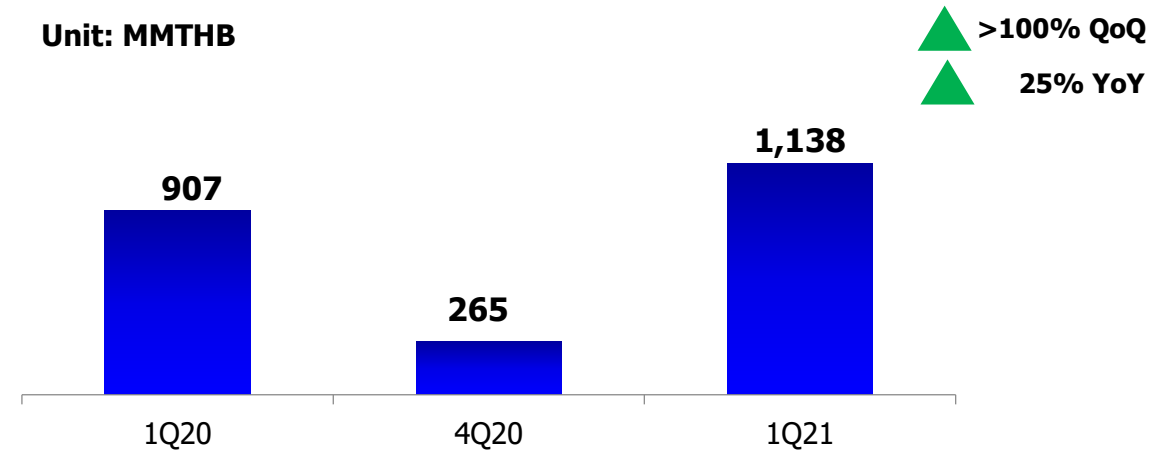


¹ PTT Trading BU + trading subsidiaries: FX Adjusted + gain/loss on derivatives + JTA

² PTT Trading BU + trading subsidiaries + JTA

Trading – EBITDA³

Unit: MMTHB



³ PTT Trading BU + trading subsidiaries: FX Adjusted + gain/loss on derivatives

Key Highlights



Expanding on LNG business by increasing our shipments across the world (6 shipments; 3,441 Kbbbl in 1Q2021)

QoQ

- + Higher domestic condensate margin from lower discount rate
- + Higher joint trade agreement sharing
- + Higher sales vol. from LNG & LPG (out-out) and petchem products

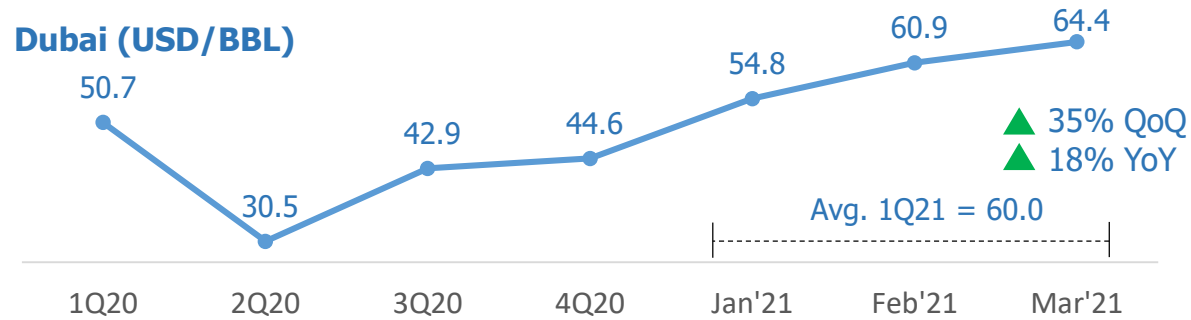
YoY

- + Higher domestic condensate margin
- Lower Sales vol. (out-out) from Covid-19 impact

Oil Business : OR Group

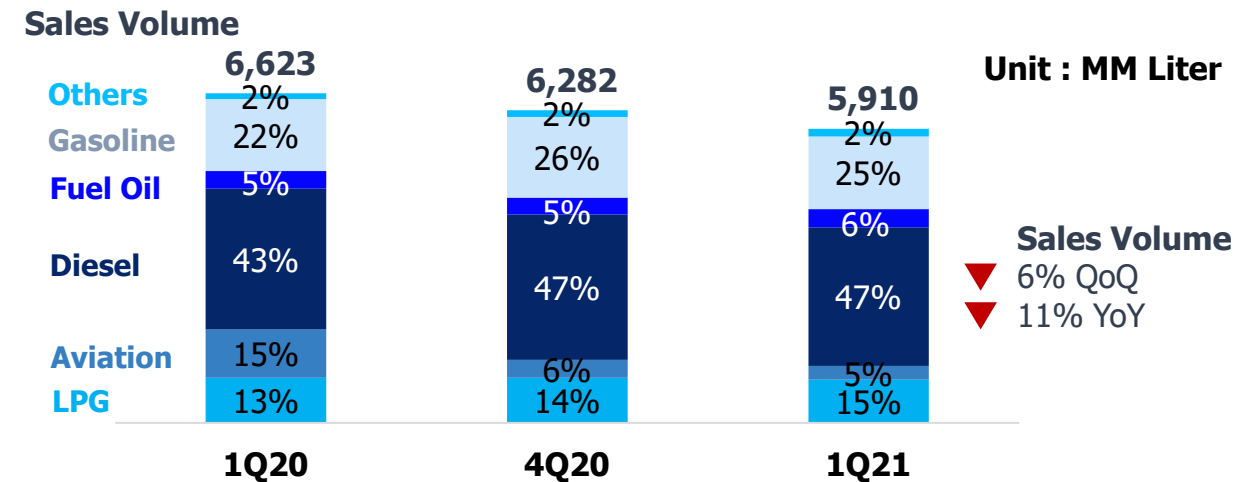
QoQ & YoY: Improved performance from higher gross margin while volume pressured from COVID-19 new wave

Oil Business



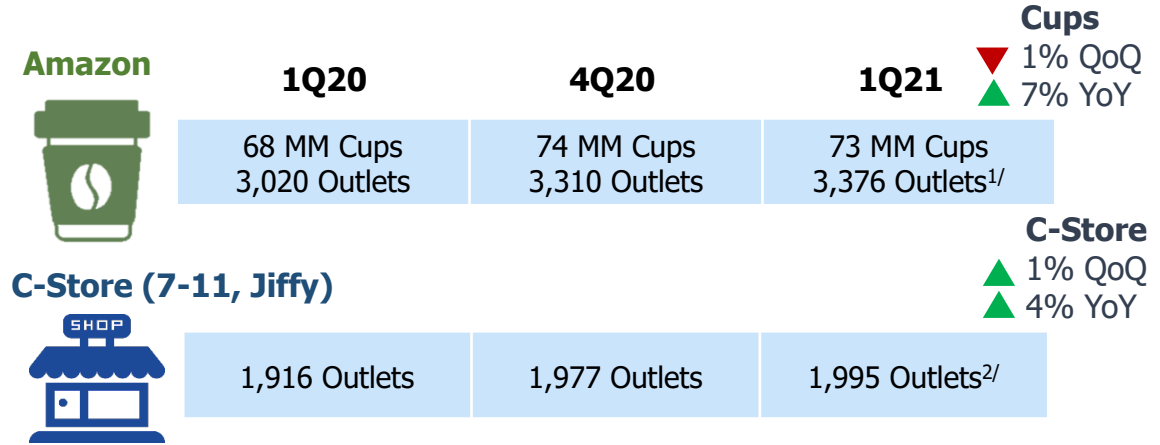
Stock Gain/(Loss) **Unit : MMTHB**

1Q20	4Q20	1Q21	QoQ	YoY
(3,014)	2,539	3,613	1,074 / ▲42%	6,627 / ▲>100%



Gross margin included stock gain/(loss)

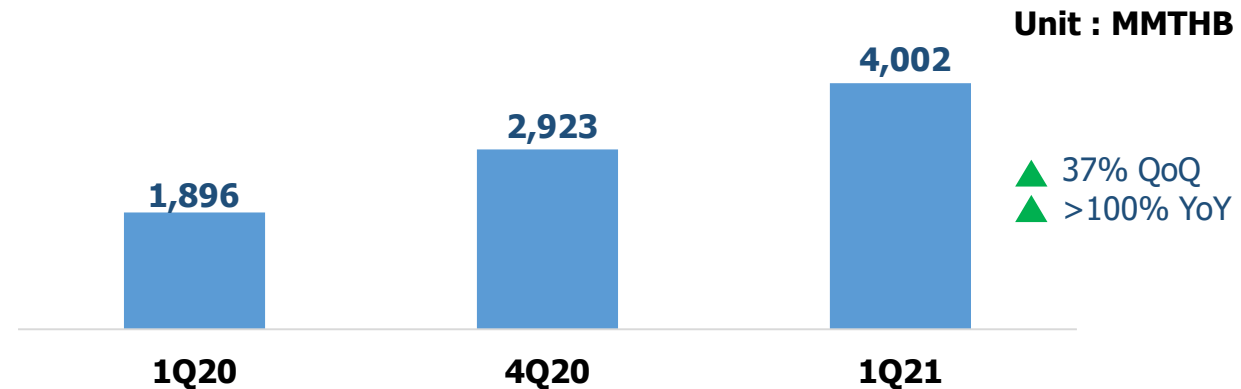
Non-Oil Business



^{1/} Thailand, Japan, Oman, Myanmar, and Malaysia

^{2/} Domestic, and Laos

Net Income



QoQ & YoY:

▲ Oil : Better gross margin

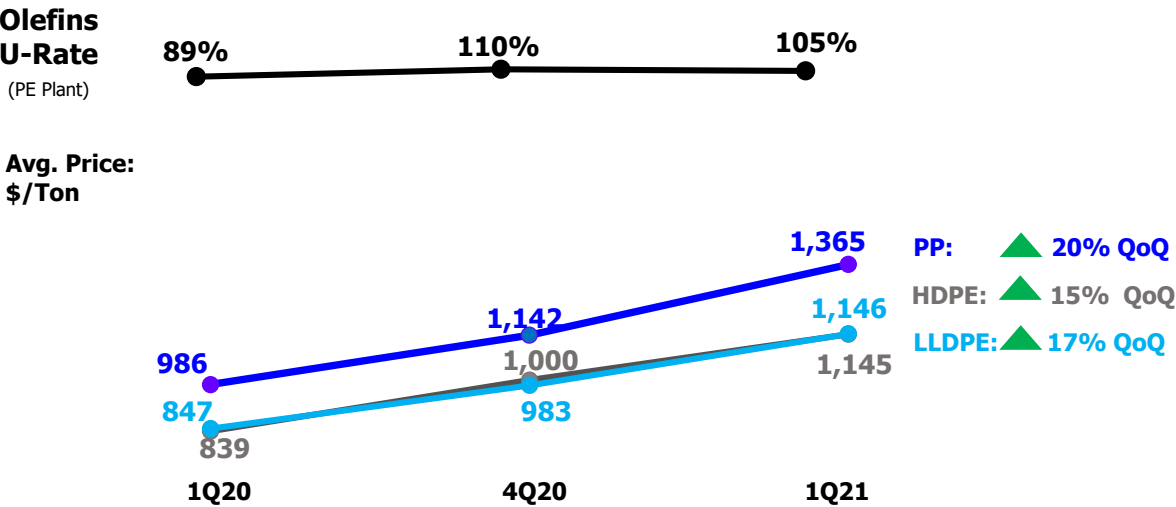
▼ Non-Oil : Dropped sales impacted from Covid-19 pandemic

P&R Businesses

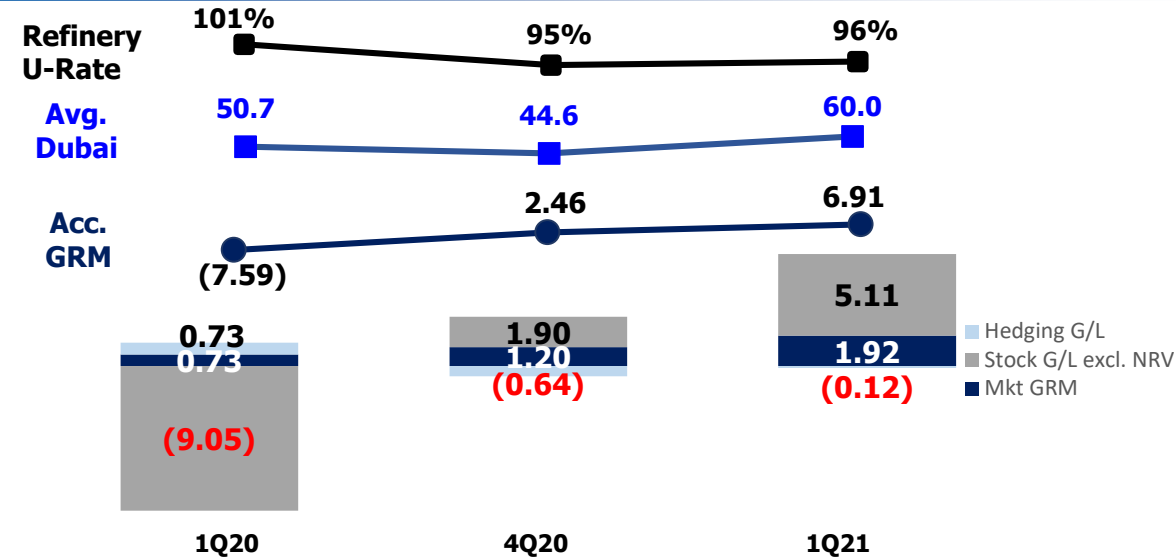
QoQ: NI improved from oil demand recovery and petrochemical prices hiked

YoY: Enhanced performance from stock gain vs. loss and recovered petrochemical prices

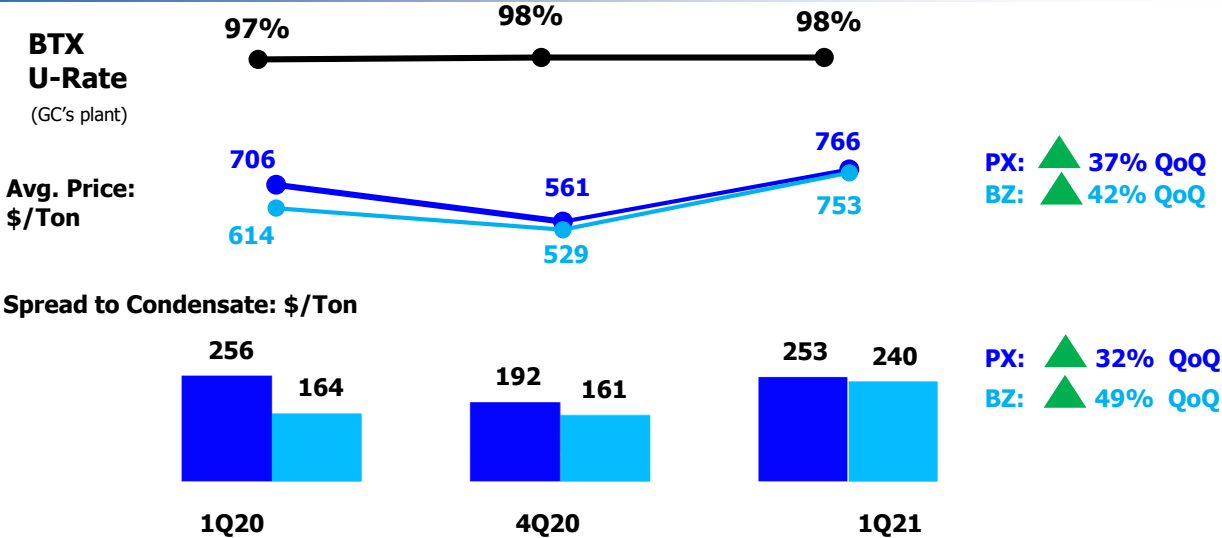
Olefins



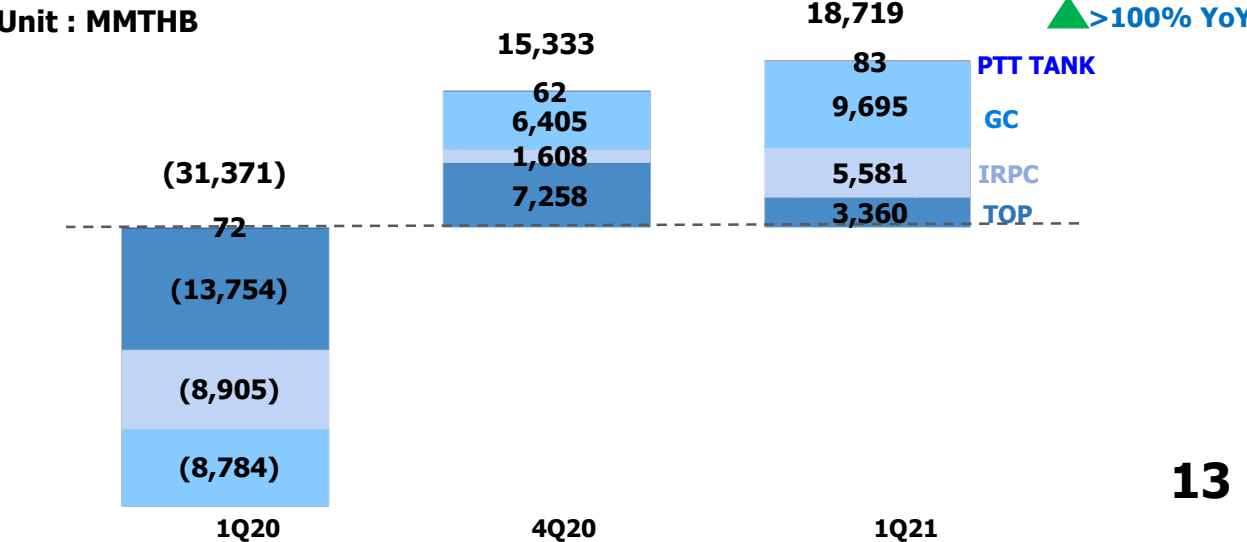
Refinery



Aromatics



Net Income (100%)



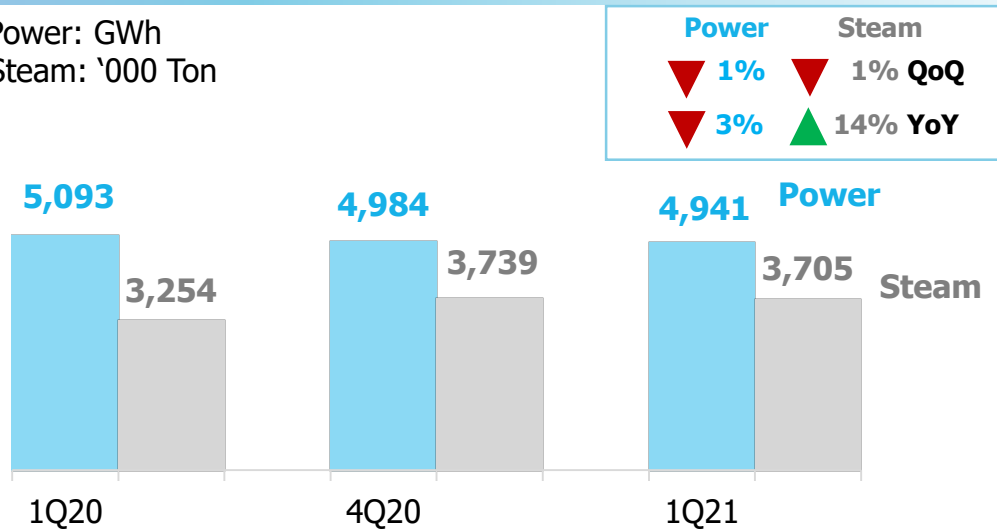
Other Businesses : Power - GPSC

QoQ: NI increased due to higher SPP margin from industrial customers and lower maintenance cost

YoY: More contribution from XPCL and dividend from RPCL while gross profit remained stable

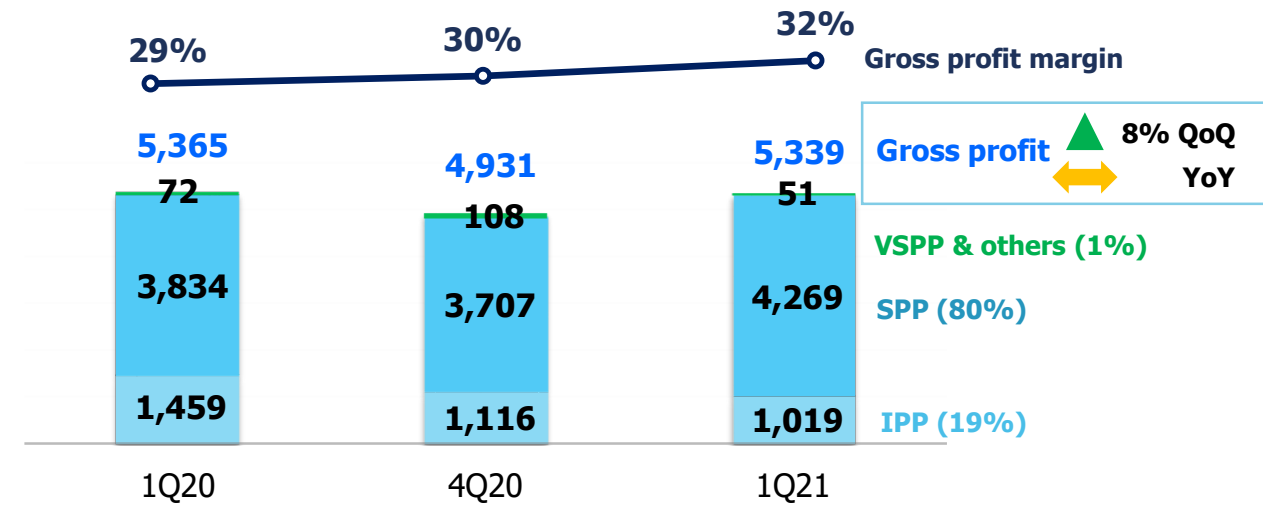
Sales Volume

Unit: Power: GWh
Steam: '000 Ton



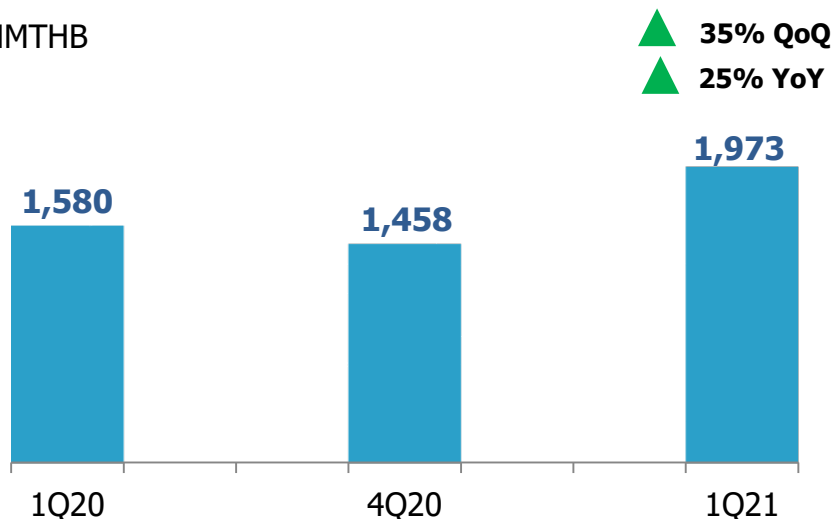
Gross profit & Gross profit margin

Unit: MMTHB



Net Income

Unit: MMTHB



QoQ ▲

- + Higher SPP margin selling to industrial customers
- + Lower maintenance cost of SPP
- + Gain on selling 50% share of GRP to PTT

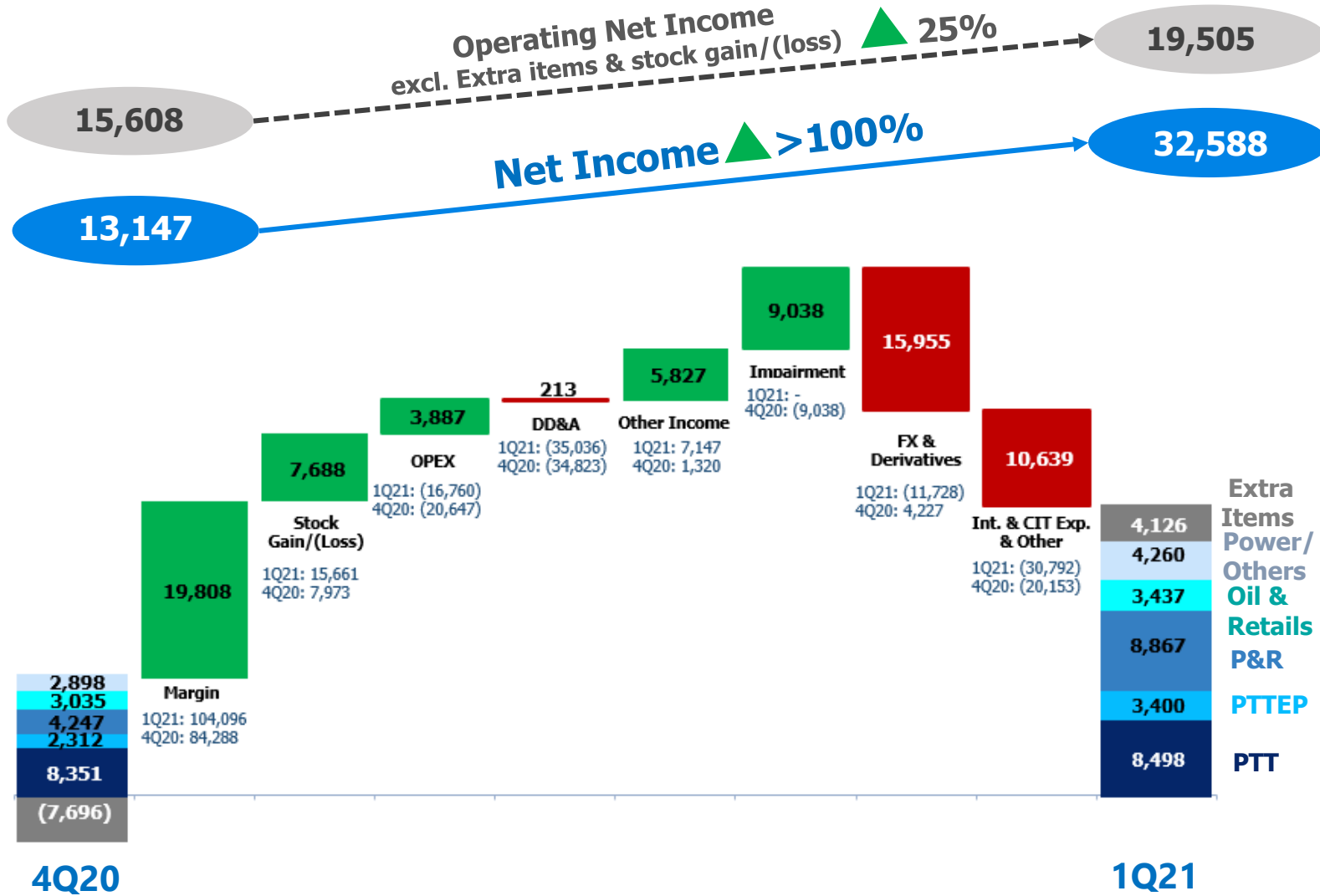
YoY ▲

- ↔ Stable gross profit
 - + Higher SPP margin from lower feed cost
 - Lower IPP's profit from GHECO-One and GIPP's maintenance
- + Higher share of profit of XPCL and dividend received from RPCL
- + Gain on selling 50% share of GRP to PTT

1Q21 vs 4Q20 PTT Consolidated Performance (QoQ):

Enhanced performance in all PTT Group Businesses

MMTHB



Extra Items*

4Q20 : Coal mining: asset impairment loss of 6,800 MB
EP's impairment loss of 689 MB; mainly Yetagun

1Q21 : EP: Gain on bargain purchase of Oman Block 61 7,033 MB, offset write-off assets in Brazil 2,909 MB
(*PTT's portion net tax amount)

Power/ Others

+ **Power**: Higher SPP margin & Lower maintenance cost

+ **PTT LNG** : Stable revenue & higher gain on derivatives

+ **PTTT** : Improved margin and sales volume from LPG/LNG and petrochemical products

Oil & Retail

+ Improved Gross margin

- Lower sales volume both oil and non-oil businesses

Petrochemical & Refining

+ **Refinery**

+ Higher Stock gain in 1Q21

+ Higher Mkt GRM despite higher crude premium

Petrochemical

+ **Olefins**: Improved product prices from demand recovery

+ **Aromatics**: Increase in BZ & PX spreads

PTTEP

+ Higher ASP from liquid prices increased

+ Higher Sales vol. from Bongkot and Oman Block 61

+ Lower unit cost

PTT

Gas

+ **GSP**: Higher avg. selling prices & volume

+ **S&M**: Higher sales vol. from power sector & industrial customers' selling price linked to rising FO price

Trading

+ Strong margin from domestic condensate

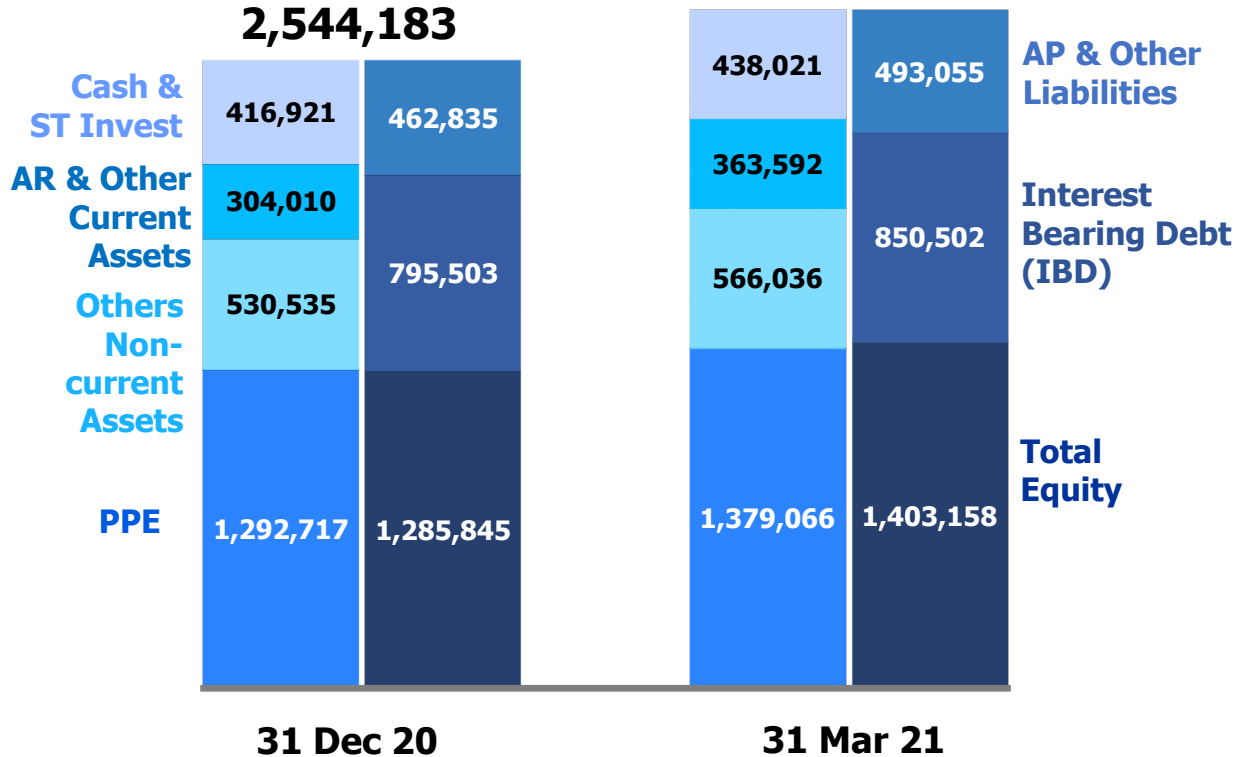
Financial Position

Strong Balance Sheets maintained credit ratings

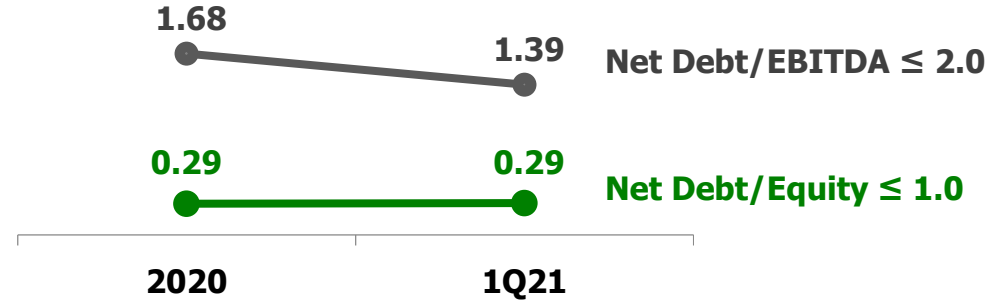
Consolidated Balance Sheets

MMTHB

▲ 8% 2,746,715



Key Financial Ratios



PTT Ratings at Sovereign Level

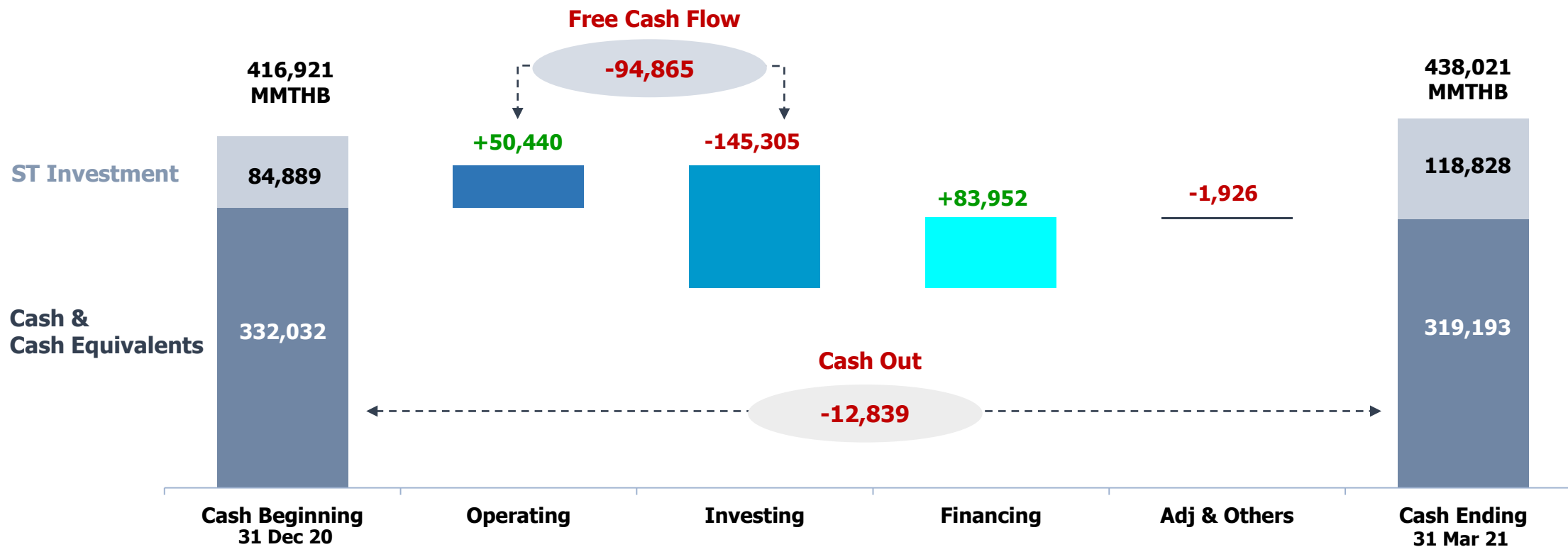
	Moody's	S&P Global Ratings	Fitch Ratings
Foreign Currency	Baa1	BBB+	BBB+
Local Currency	Baa1	BBB+	BBB+

- + Increase in Account Receivables and Inventories from the higher product prices
- + Higher PPE from PTTEP's business acquisition of Oman Block 61 and TOP's additional construction in progress of CFP
- + Higher Interest Bearing Debt (IBD) from increase in long-term borrowing mainly from GC
- + Increase in Equity due to OR's capital increase and higher net income

PTT Consolidated Cash Flows



Unit : MMTHB



Operating	50,440
Non-Cash Adjustment	66,826
Net Income	32,588
Changes in assets & liabilities	(46,131)
Income Tax	(2,843)

Investing	(145,305)
Investment (Sub. & Affiliates)	(72,655)
CAPEX	(37,040)
Current investment	(31,847)
Others	(4,653)
Dividend/Interest Received	890

Financing	83,952
Ordinary share issuance of subsidiaries	53,665
Received from loans/Bonds	44,494
Loan Repayment	(7,410)
Finance cost paid	(6,784)
Derivatives	(13)

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Global Economic Outlook:

Global Economy on Firmer Footing, but with Divergent Recoveries

IMF Forecast – 2021 GDP Growth



World: 6.0%



US: 6.4%



Euro area: 4.4%



China: 8.4%



Japan: 3.3%



India: 12.5%*



Thailand: 2.6%

* India's mismanagement of COVID-19 crisis leading to a surge in new infections of more than 300,000 daily cases since late Apr, with analysts expecting ensuing local lockdowns could shave off 1-3 percentage points of GDP growth



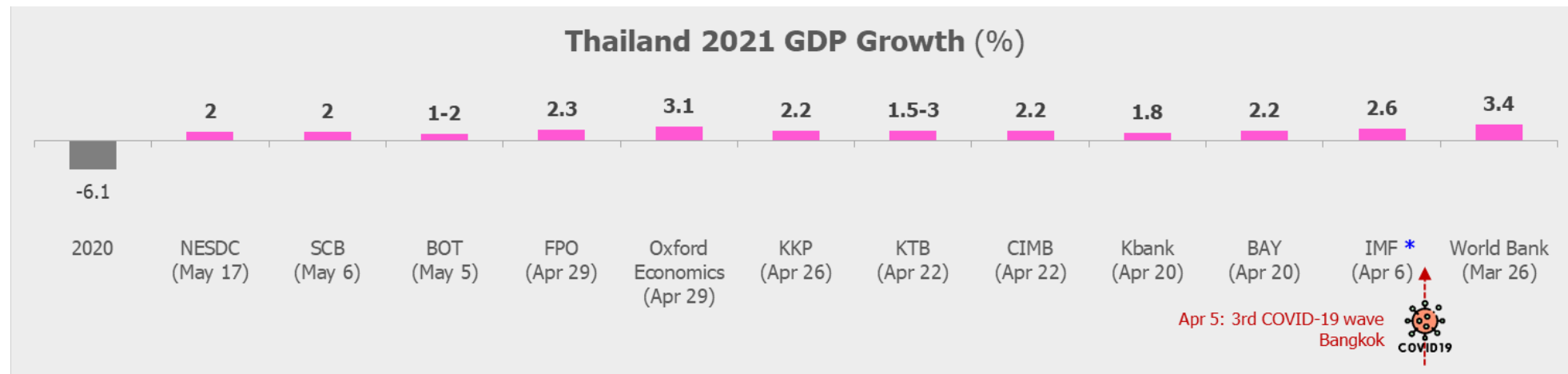
- + **Additional fiscal support** in a few large economies (particularly, the Biden administration's \$1.9 trillion rescue package approved in Mar)
- + **Anticipated vaccine-powered recovery in 2H2021**, as hundreds of millions of people are being vaccinated in many countries
- + **Economies continuing to adapt to pandemic life and new ways of working** despite reduced mobility



- **The virus yet to be defeated**, with virus mutations and accelerating cases in many countries forcing occasional and localized lockdowns
- **Divergences in the speed of recovery both across and within countries**, as economies with slower vaccine rollout, more limited policy support, and more reliance on tourism do less well

Thailand Economic Outlook:

Gradual Recovery amid Virus Resurgence and Slow Vaccine Rollout



* IMF forecast not yet taking into account 3rd COVID-19 wave in Thailand



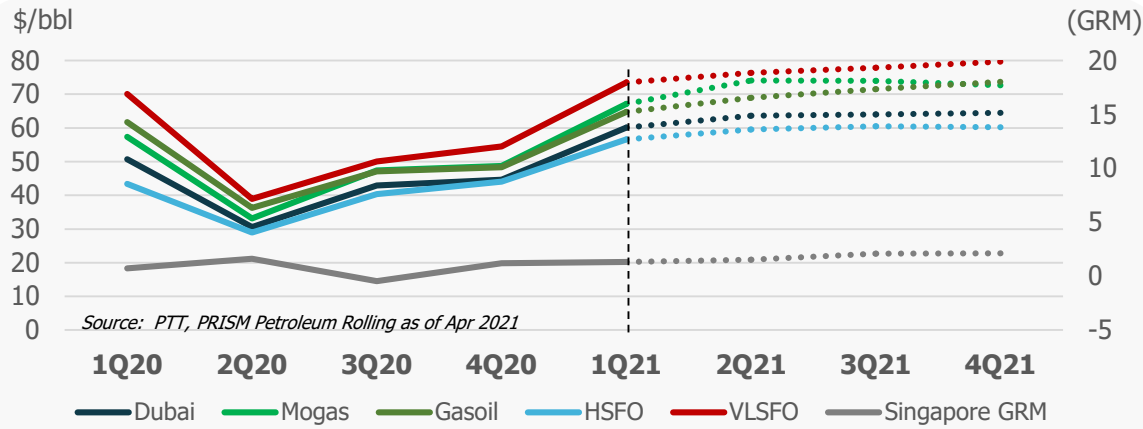
- + **Improving global growth prospects to help support merchandise exports**
- + **Vaccine rollouts**, though slower than elsewhere, to allow for a firmer recovery in 2H2021, with the government pledging 100 million vaccinations in 2021
- + **Additional COVID-19 relief measures, and fiscal and monetary stimulus**



- Virus resurgence and reintroduction of some social distancing posing near-term drag
- Subdued cross-border tourism until the pandemic is brought under control everywhere
- Scarring from COVID-19, i.e. firm closures, unemployed workers, and changed behavior

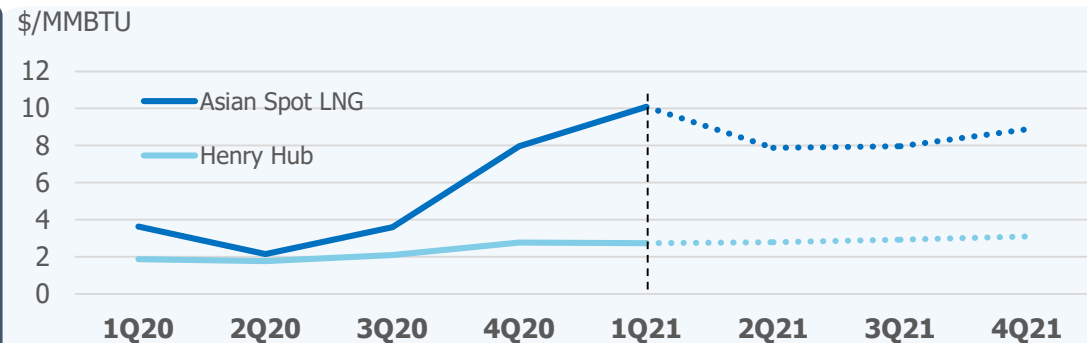
2021 Petroleum and Gas Outlook

Petroleum



Price	2020(A)	1Q21(A)	2Q21 (E)	2021(E)
Dubai	42.2	60.0	61-66	60-65
Mogas	46.6	67.1	71-76	67-77
Gasoil	48.4	64.8	66-71	65-75
HSFO (3.5%S)	39.2	56.6	57-62	54-64
VLSFO (0.5%S)	53.4	73.5	68-73	66-76
Singapore GRM	0.4	1.8	1.8-2.0	2.0-2.5

Gas/LNG



Price	2020(A)	1Q21(A)	2Q21(E)	2021(E)
Asian Spot LNG	4.3	10.9	7.6 - 8.5	8.2 - 9.2
Henry Hub (HH)	2.1	2.7	2.6 - 2.9	2.5 - 3.1

▲ Dubai

- + **Global economy and oil demand recover** after vaccine rollout
- + **OPEC+ & Saudi Arabia manage market balance but will ease crude oil output cut**
- + **Geopolitical risks**; Unrest in oil producing countries i.e. Libya, U.S.'s sanction on Iran
- **COVID-19 resurgence in India, Brazil, Japan, and several other countries**

▲ Mogas

- + **Increasing demand** following easing lockdown restrictions in major regions
- + **Singapore light distillate inventories** back to normal level
- + **Healthy summer driving demand** in the US (June-July) to boost gasoline price

▲ Gasoil

- + **Demand is expected to recover** following global economic recoveries in 2H20
- **Higher supply** as refineries shifting Jet/Kerosene yield to produce more Gasoil
- **Singapore middle distillate inventories remained at high level**

▲ Fuel Oil

- + **HSFO: Strong demand** supported by the upcoming summer power demand & **Lower supply** amid reduced term lifting of medium-heavy sour crude from OPEC+
- + **VLSFO: Healthy bunker demand** following the global trade recovery

▲ Singapore GRM

- + **Improved crack margins** from the recovery of gasoline demand

▲ Gas/LNG

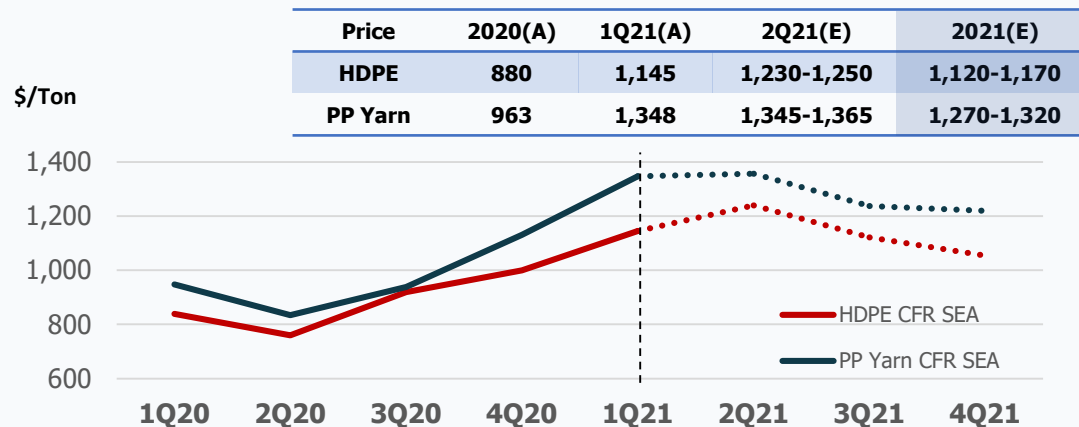
Asian Spot LNG:

- + Strong European price from cold weather support Asian spot price
- Asian buyers have already been stocking ahead of time

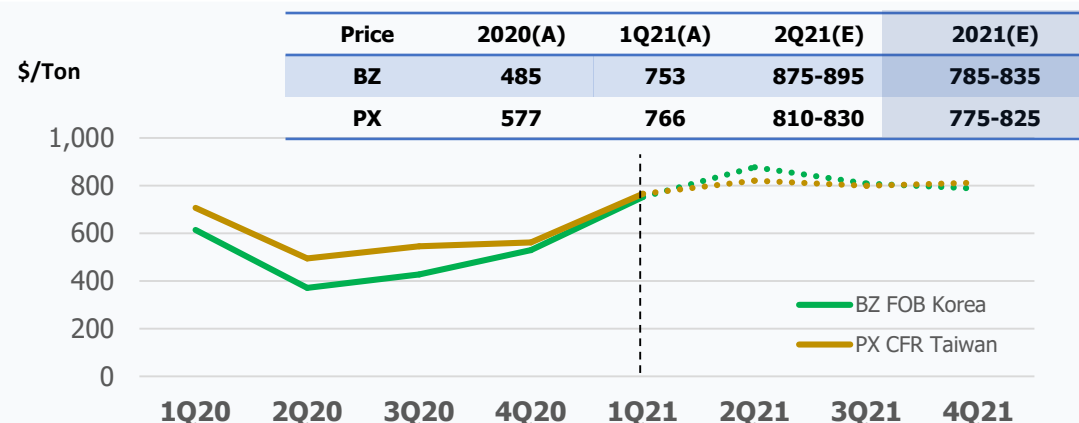
Henry Hub:

- + Higher price due to continued growth in LNG exports

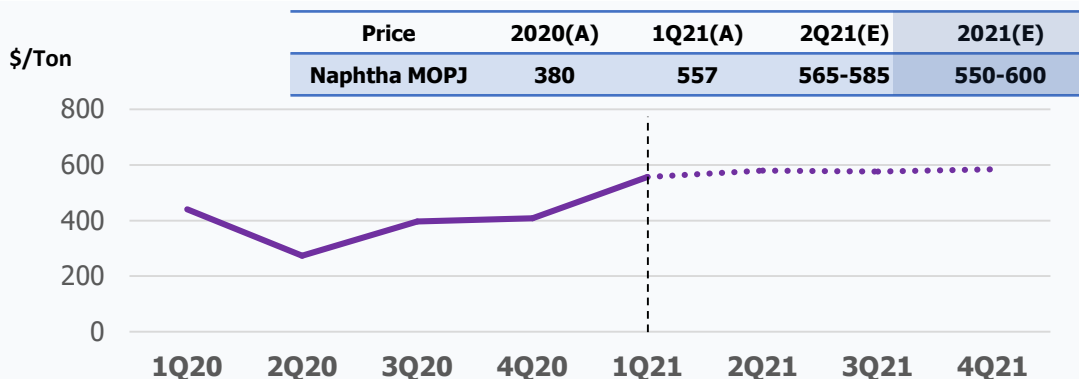
Olefins



Aromatics



Naphtha



▲ Olefins

- + **Remaining tight PE/PP supply in the short term** after the US plant outages from Polar Vortex
- + **Delayed startup at PRefChem** to 2H21
- **Slowdown demand** amid Ramadan period, Chinese Labour holidays, and Golden week in Japan together with unexpected surging Covid-19 pandemic cases and lockdowns in many regions
- **Incoming additional Asian capacities** from Northeast Asia and Southeast Asia to pressure the olefins markets from 2Q21 onwards

▲ Aromatics

- + **PX/BZ markets expected to be more balance** according to the economic recovery and the improved demand from additional downstream PTA ramp-up production in 1H21 and SM capacities startup in 2H21
- + **Low Chinese BZ inventories** to bolster the Asian demand growth
- **Capped PX price gains** from persistent squeezed PTA and end-products margins
- **Additional PX/BZ capacities** from China's Zhejiang PC and Saudi Aramco expected to startup in 2H21

▲ Naphtha

- + **Additional demand from new cracker startup**, particularly in Northeast Asia, to bolster demand
- **Eased supply as refinery runs will be higher** regarding better COVID-19 situation

PTT Group 2021 Guidance



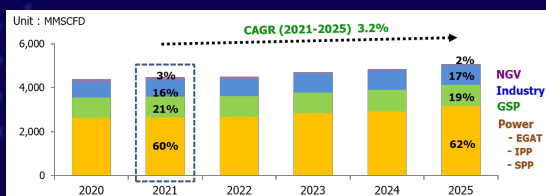
Performance Recovery

Gas Business



- **NG Demand**
Increase ~1% vs 2020

- **Gas Volume Growth:**
CAGR 3.2 % during 2021 -2025



- **Improve GSP U-Rate**
GSP's U-Rate = 92-94% in 2021

- **Flat Pooled gas cost**

PTT Group



E&P : + Crude oil price recovery
+ Vol. rise ~14%
+ Unit Cost drop ~5%

OIL : + Oil Stations +192 stations
+ Café Amazon + 552 outlets

P&R : + Refinery U-Rate ~97-99%
+ SG GRM → \$2.0 - 2.5 /bbl
+ Petrochemical spread increase

Power : + Industrial demand increase ~4%



Maintenance Schedule in 2021

Gas Separation Plants



3Q: **GSP#6** Major TA : 26 days
3Q-4Q: **GSP#3 & ESP** Major TA : 23 days
ESP TD 60% : 15 days



Upcoming project

2Q2021

99.8% **RA#6 : Ratchaburi - Wangnoi**
COD: 2Q2021

98.8% **Rayong Waste to Energy**
COD: 2Q2021

95.3% **30 MWh Semi-Solid ESU**
COD: 2Q2021

100.0% **MTP Retrofit : 750 KTA**
COD: May 2021

PTA & PET Capacity Enhancement
• PTA : +470 KTA ,COD: Apr 2021
• PET: +53 KTA, COD: Jun 2021

2H2021

5th Pipeline

Phase I
97.5%
COD:3Q2021

Phase II
81.8%
COD:1Q2022

Phase III

In the process of sourcing contractor :
To COD in Dec 2022



High-quality Circular Plastic Resin Plant
: 45 KTA COD: 4Q2021

Petrochemical Plants



2H21: Planned Major TA : Ethane Crackers

- Oleflex : ~ 1 month
- OLE3 : ~1 month
- HDPE2 : ~1 month

Thank you



PTT Public Company Limited Investor Relations Department



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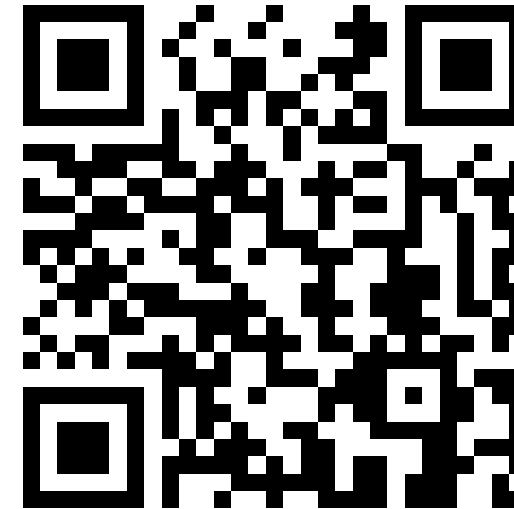


E-mail: ptt-ir@pttplc.com



Website: <http://www.pttplc.com>

Questionnaire



Disclaimer

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The information contained in this presentation is subject to change without notice and PTT does not undertake any duty to update the forward-looking statements, and the estimates and assumptions associated with them, except to the extent required by applicable laws and regulations.

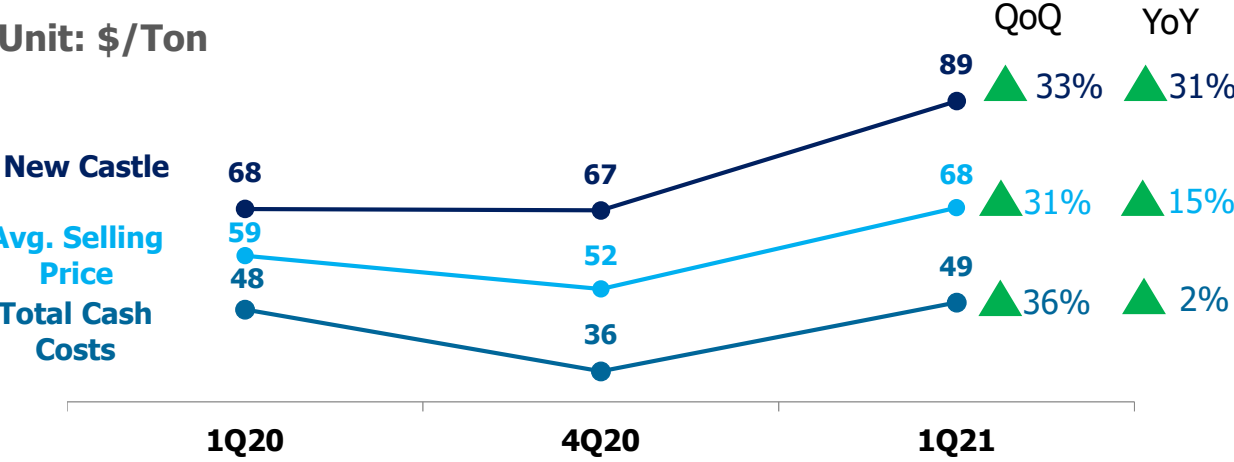
Other Business : Coal business (SAR)

QoQ: NI increased from higher referenced New Castle price and no impairment

YoY : Strengthen performance from higher referenced New Castle price

Avg. Selling Price^{1/} & Cash cost^{1/}

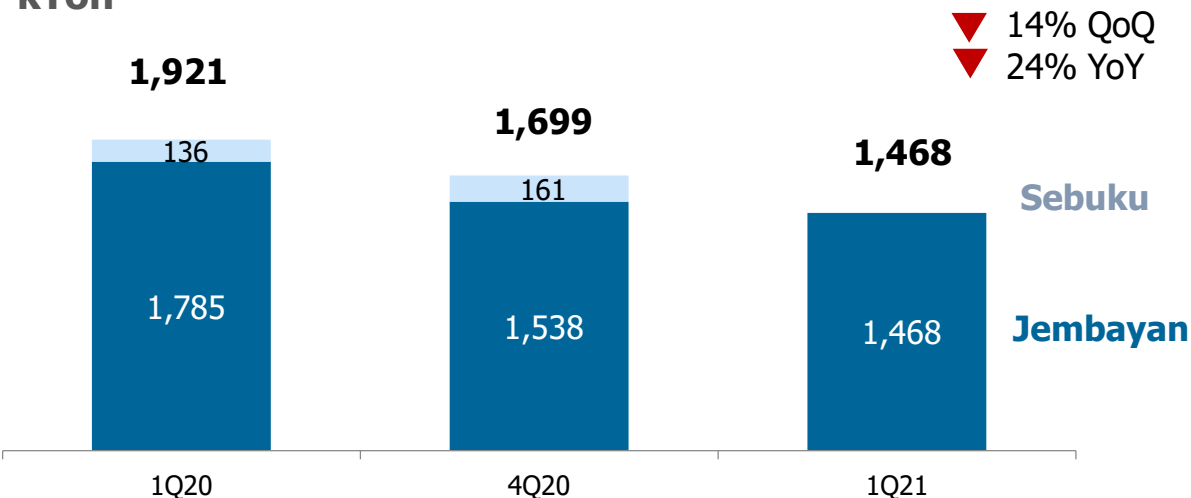
Unit: \$/Ton



^{1/} Average Calorific value ~ 5,400 kcal/kg

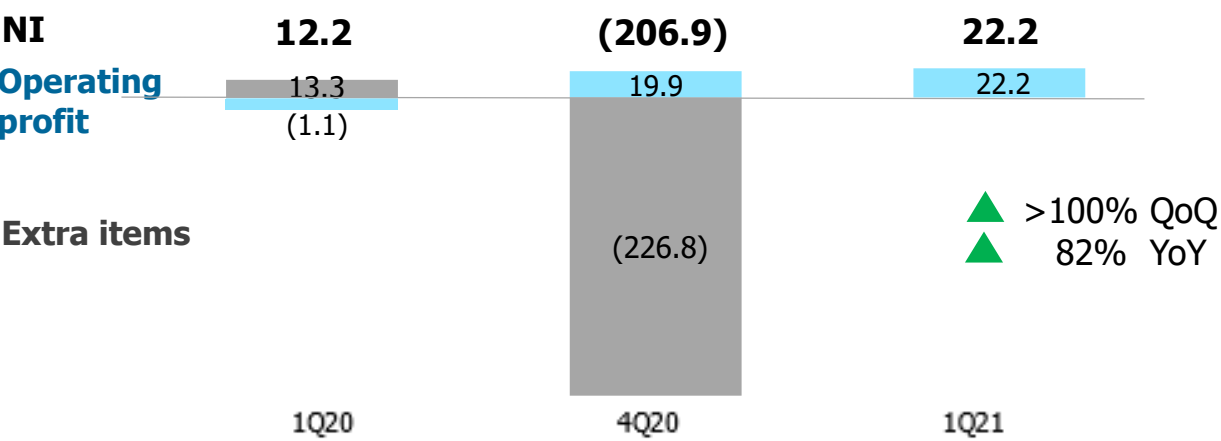
Sales Volume

kTon



Net Income (100%)

Unit: MMUSD



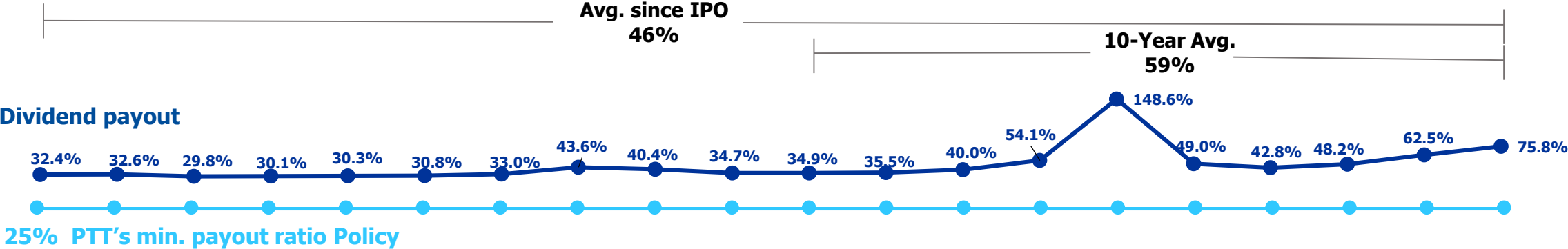
Key Highlights

- QoQ & YoY** ▲
- + higher referenced New Castle price and no impairment
 - Lower sales volume caused by warm weather during late 1Q2021 and cease operating of the Sebuk coal mine

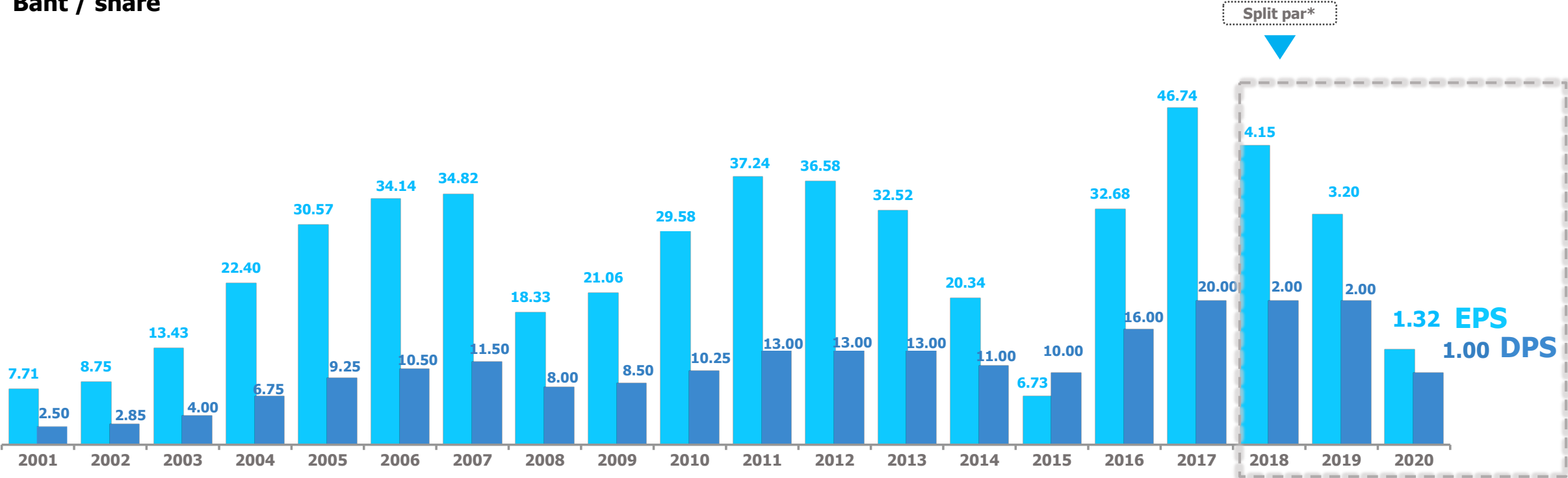
Dividend Policy & Historical Payments



Y2020 Dividend payout at 75.8%

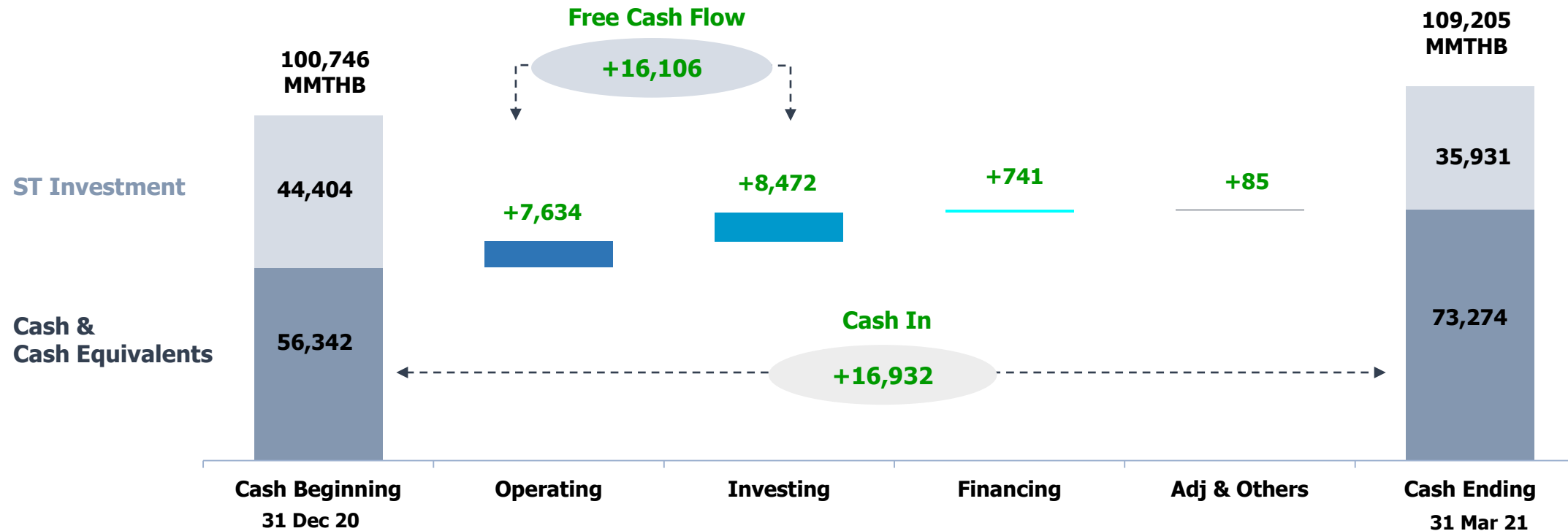


Baht / share



* Split par value from 10 to 1 Baht/share since 24 April 2018

PTT Only Cash Flows



Operating	7,634
Net Income	14,170
Non-Cash Adjustment	5,233
Changes in assets & liabilities	(11,541)
Income Tax	(228)

Investing	8,472
Current investment	7,271
Dividend/Interest Received	6,257
Others	580
Investment (Sub. & Affiliates)	(3,112)
CAPEX	(2,524)

Financing	741
Loan Repayment	2,455
Finance cost paid	(1,714)

PTT Group Performance : 1Q2021 (QoQ & YoY)



Unit : MMTHB	Performance 100%					% PTT holding	Equity Method % PTT				
	<u>1Q20</u>	<u>4Q20</u>	<u>1Q21</u>	<u>QoQ</u>	<u>YoY</u>		<u>1Q20</u>	<u>4Q20</u>	<u>1Q21</u>	<u>QoQ</u>	<u>YoY</u>
PTT Net operating Income	1,716	8,351	8,498	2%	>100%		1,716	8,351	8,498	2%	>100%
E&P - PTTEP	8,613	2,527	11,534	>100%	34%	63.79%	5,596	1,623	7,524	>100%	34%
Petrochemical	(8,712)	6,467	9,778	51%	>100%		(4,058)	2,885	4,675	62%	>100%
- GC	(8,784)	6,405	9,695	51%	>100%	45.41%	(4,131)	2,824	4,592	63%	>100%
- Other	72	62	83	34%	15%		73	61	83	36%	14%
Refining	(22,659)	8,866	8,941	1%	>100%		(10,623)	1,187	4,192	>100%	>100%
- TOP	(13,754)	7,258	3,360	-54%	>100%	45.03%	(6,363)	455	1,615	>100%	>100%
- IRPC	(8,905)	1,608	5,581	>100%	>100%	45.05%	(4,260)	732	2,577	>100%	>100%
Others Business	7,672	579	24,525	>100%	>100%		6,217	(916)	7,399	>100%	19%
Inter - PTTER/PTTGM	106	(5,799)	531	>100%	>100%	100%	322	(6,010)	493	>100%	53%
Gas - PTTLNG/PTTNGD/PTTGL/TTM(T)/TTM(M)	2,353	1,037	2,255	>100%	-4%		2,386	1,157	2,029	75%	-15%
Utilities - GPSC/TP/DCAP/PTTME/PTTES/PTTDIGITAL/ENCO	2,234	2,104	17,037	>100%	>100%		564	587	739	26%	31%
Oil & Oth. - PTTT/OR/Others^{1/}	2,979	3,237	4,702	45%	58%		2,945	3,350	4,138	24%	41%
Shared of Net Income from Affiliates	(15,086)	18,439	54,778	>100%	>100%		(2,868)	4,779	23,790	>100%	>100%
Tax adjustment for gain on disposal of investment and asset	(402)	17	300	>100%	>100%		(402)	17	300	>100%	>100%
PTT Conso. Net Income	(13,772)	26,807	63,576	>100%	>100%		(1,554)	13,147	32,588	>100%	>100%

1/Including PTTGE,BSA, PTT TCC and RTC

PTT Group Accounting Structure



Data as of 31 Mar 2021

E&P and Gas Business Group			International Trading Business Group			Petrochemicals & Refining Business Group		
Subsidiaries PTT Exploration & Production Plc. PTTEP 65.29%** PTT Natural Gas Distribution Co., Ltd. PTTNGD 58.00% PTT LNG Co., Ltd. PTTLNG 100.00% PTT Global LNG Co., Ltd. PTTGL 50.00%			Subsidiaries PTT International Trading Pte. PTTT 100.00% PTT International Trading London Ltd PTTT LDN 100.00% PTT International Trading USA Inc. PTTT USA 100.00%			Petrochemical Subsidiaries PTT Global Chemical Plc.* GC 48.42%** PTT Tank Terminal Co., Ltd. PTTTANK 100.00%		
Joint Ventures Trans Thai-Malaysia (Thailand) Co., Ltd. TTM (T) 50.00% Trans Thai-Malaysia (Malaysia) Sdn. Bhd. TTM (M) 50.00% Map Ta Phut Air Products Company Limited MAP 49.00%			Oil Business Group			Refining Subsidiaries Thai Oil Plc.* TOP 48.03%** IRPC Plc.* IRPC 48.05%**		
			Subsidiaries PTT Oil & Retail Business Co., Ltd. OR 75%					
Technology and Engineering Business Group			International Investment Business Group			Others		
Subsidiaries Global Power Synergy Co., Ltd* GPSC 31.72% Thai Oil Power Co., Ltd.* TP*** 26.00% PTT Digital Solutions Co., Ltd.* PTT DIGITAL 20.00% PTT Energy Solutions Co., Ltd.* PTES 40.00% Energy Complex Co., Ltd. EnCo 50.00%			Subsidiaries PTT Energy Resources Co., Ltd. PTTER 100.00% PTT Green Energy Pte. Ltd. PTTGE 100.00% PTT Global Management Co., Ltd. PTTGM 100.00%					
Joint Ventures District Cooling System and Power Plant DCAP 35.00%						Subsidiaries Business Service Alliance Co., Ltd.* BSA 25.00% PTT Regional Treasury Center Pte. Ltd. PTTRTC 100.00% PTT Treasury Center Co. Ltd. PTT TCC 100.00%		
Others Baania (Thailand) Company Ltd. Baania 2.89% HG Robotics Plc. HG Robotics 9.49% Innospace (Thailand) Innospace 15.75% Sunfolding, Inc. Sunfolding 5.24%						Joint Ventures Suez Environmental Services Co.,Ltd. SES 40.00%		
						Others Sarn Palung Social Enterprise Company Ltd. SPSE 20.00% Dhipaya Insurance Plc. TIP 13.33%		

Remark : * Subsidiaries that PTT holds less than 50% but being consolidated because PTT has the power to control the financial and operating policies.

**Holding portion of PTT Group (direct & indirect)

***Entire business transfer to TOP on 1 Feb. 2021

Debt Profile : Control Cost & Manage Risk



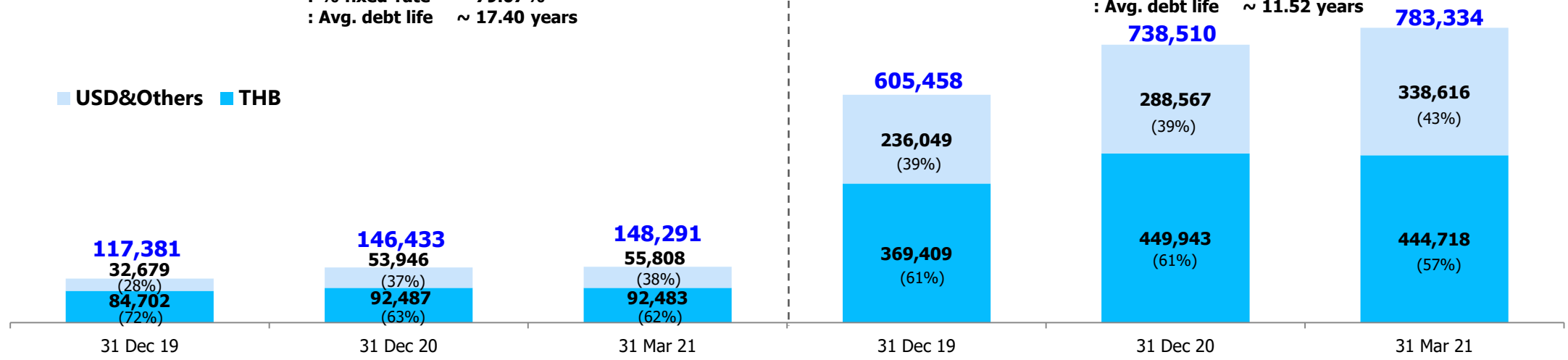
Managed debt according to financial risk and policy

Debt Portfolio

Unit : MMTHB

PTT Only : Cost of debts ~ 4.63%
: % fixed-rate ~ 79.07%
: Avg. debt life ~ 17.40 years

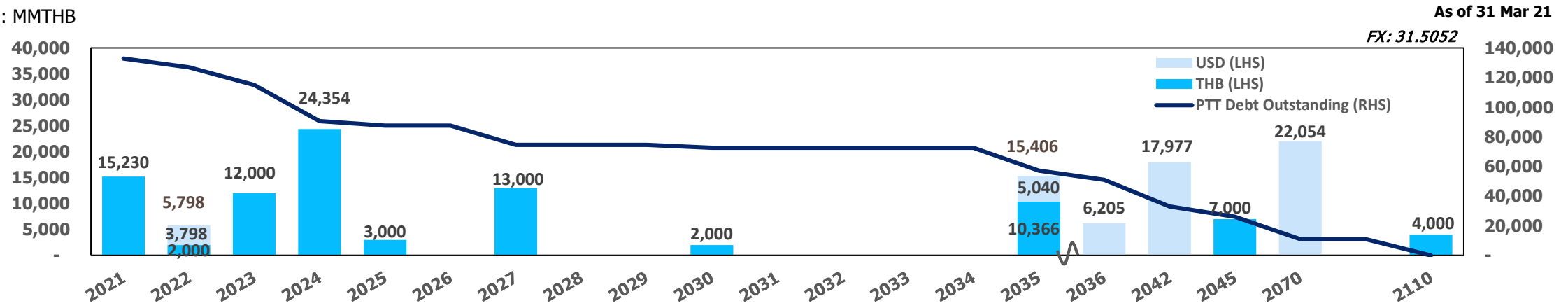
Consolidated : Cost of debts ~ 3.58%
: % fixed-rate ~ 73.09%
: Avg. debt life ~ 11.52 years



Note : 1. PTT Data as of 31 Mar 21 (THB/USD = 31.5052 THB/JPY = 0.2869) excluding liabilities from finance leases.
2. Debt Outstanding represents amount and portion before derivative swaps, and reconciled with accounting.
3. Cost of debts, % fixed rate, and avg. debt life took into account the derivative transactions, including withholding tax (update as of 31 Mar 21).

Debt Outstanding and Repayment Profile

Unit : MMTHB

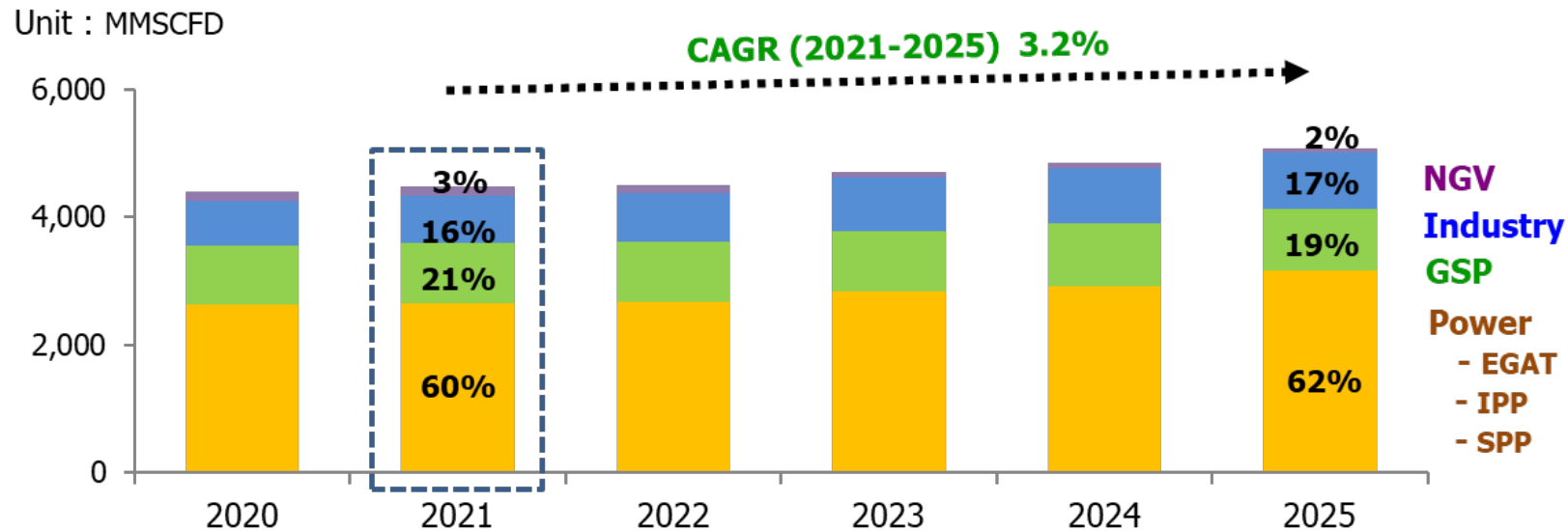


Note: 1. Debt Outstanding for Repayment Profile represents financial data and portion after derivative swaps
2. Bond repayment amounting 3,798 MB in 2022 is THB swaps to USD and amounting 4,366 MB in 2035 is USD swaps to THB
*PTTC10DA (Century Bonds) is due on 2 Dec 2110

Gas Business Roadmap

Short term Gas Demand growth be maintained

Thailand Gas Demand Outlook (Short Term – 5 year plan)



New Supply
Additional capacity
(mmscfd)

Bongkot Erawan
700 800

**Major Project : COD
& Capacity**

**5th pipeline
RA#6 Pipeline**
4,702 KM

**LNG
Terminal 2**
+7.5 MTA

GSP#7*
460 mmscfd

BPK-SB
pipeline**
4,776 KM

*Replace GSP#1

**Bang Pakong– South Bangkok
Power Plant

Overview

- ✓ Sole owner and operator of entire gas transmission pipelines in Thailand (~ 4,000 km), a regulated business
 - IRROE ranges between 12.5% - 18% for transmission pipeline investment
- ✓ Supply & marketing of natural gas provides fixed margin with long-term contracts of 25-30 years
- ✓ 6 Gas Separation Plants; Total production 6.7 MTA; are on petrochemical market price-linked profit sharing basis

Gas transmission pipeline capacity

