



Bangchak Corporation Plc.

Management Discussion & Analysis of Business Operation

For the 1st quarter period
ended March 31st, 2023



S&P Global

MSCI
ESG RATINGS



CCC B BB BBB A **AA** AAA

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INVESTMENT 2022

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Executive Summary

Key Financial Data

Refinery Business Group	Q1/2023	Q4/2022	QoQ	Q1/2022	YoY
Average Crude Run (KBD)	124.7	122.6	2%	122.1	2%
Utilization Rate (%)	104%	102%		102%	
GRM (US\$/BBL)					
- Operating GRM	11.44	14.68	-3.24	6.84	4.61
- Total GRM	10.16	6.64	3.52	13.29	-3.12
Marketing Business Group					
Marketing Margin (Baht / liter) ^{1/}	0.93	0.81	16%	0.72	29%
Sales Volume (Million liters)	1,614	1,713	-6%	1,408	15%
Power Plant Business Group					
Electricity Sales Volume (GWh)	112.8	223.8	-50%	179.3	-37%
Bio-based Product Business Group					
Sales Volume (Million liters)					
- Ethanol	28.1	37.6	-25%	38.2	-26%
- Biodiesel	67.1	63.9	5%	51.1	31%
Natural Resources Business and New Business Development Group					
Production volume-Net to OKEA (kboepd)	37.94	16.32	>100%	15.44	>100%
Realized liquids price (US\$/BBL)	77.70	95.20	-18%	89.60	-13%
Realized gas price (US\$/mmbtu)	20.72	20.06	3%	31.73	-35%

Note: 1/ Marketing Margin of Bangchak and BGN (excluding Inventory gain/(loss) and net realizable value (NRV))

Unit: THB Million	Q1/2023	Q4/2022	QoQ	Q1/2022	YoY
Total Revenue	80,380	84,583	-5%	69,055	16%
Refinery and Trading Business ^{1/}	65,974	74,664	-12%	59,296	11%
Marketing Business ^{2/}	49,220	53,892	-9%	39,426	25%
Power Plant Business ^{3/}	1,057	1,267	-17%	1,158	-9%
Bio-Based Products Business ^{4/}	2,942	3,270	-10%	3,740	-21%
Natural Resources Business and New Business Development ^{5/}	9,772	5,486	78%	5,703	71%
Eliminations and others	(48,585)	(53,995)	10%	(40,268)	-21%
Accounting EBITDA	10,992	6,951	58%	13,714	-20%
Refinery and Trading Business	4,029	2,207	83%	5,021	-20%
Marketing Business	737	120	>100%	1,118	-34%
Power Plant Business	852	1,003	-15%	3,075	-72%
Bio-Based Products Business	107	146	-26%	343	-69%
Natural Resources Business and New Business Development	5,414	3,769	44%	4,251	27%
Eliminations and others	(147)	(294)	50%	(94)	-56%
Profit attributable to owners of the parent	2,741	473	>100%	4,356	-37%
Earnings (Loss) per share (Baht)	1.91	0.26		3.12	

Executive Summary

- Note:
- 1/ EBITDA from Refinery and Trading Business of the company (BCP), BCP Trading Pte. Ltd. (BCPT), Bangchak Fuel Pipeline and Logistic Co., Ltd. (BFPL), BSGF Co., Ltd (BSGF) and others
 - 2/ EBITDA from Marketing Business of the company (BCP), Bangchak Green Net Co., Ltd. (BGN), Bangchak Retail Co., Ltd., (BCR) and others
 - 3/ EBITDA from Power Plant Business of BCPG Plc. (BCPG Group)
 - 4/ EBITDA from Bio-Based Products Business of BBGI Plc. (BBGI Group)
 - 5/ EBITDA from Natural Resources Business and New Business Development of OKEA ASA (OKEA), BTSG Co., Ltd. (BTSG), BCP Innovation Pte. Ltd. (BCPI) and others

In Q1/2023, Bangchak Group earned a sales and services revenue of THB 80,380 million (-5% QoQ, +16% YoY) and EBITDA of THB 10,992 million (+58% QoQ, -20% YoY). In this quarter, the refineries still maintain high production capacity with a record high of 124.7 KBD. However, due to the challenge of plummeting energy prices in the global market, resulting in Bangchak Group's inventory loss of THB 1,916 million (including a reversal of loss on net realized value (NRV)). The Natural Resource Business recorded a new high revenue as the sales volume exceeded the contracted production capacity. This was due to 2 lifting cargoes from Draugen field and full-quarter revenue recognition from Brage field, which has acquired from Wintershall Dea. Also, the Power Plant Business reversed the impairment of assets from the solar power plant project in Japan, which can begin construction and be complete on schedule. Therefore, the **net profit attributable to owners of the parent was THB 2,741 million** (+>100% QoQ, -37% YoY) in Q1/2023, representing the **earnings per share of THB 1.91**. The key operating results of each business group are as follows:



Refinery Business Group

EBITDA +83% QoQ	EBITDA -20% YoY
<p>(+) Bangchak refinery has maintained high production levels which recorded a new high of 124.7 KBD.</p> <p>(+) Recognition of inventory loss totaled US\$ 4.41/BBL or an equivalent of THB 1,687 million (including reversal of loss on net realized value (NRV)) as lower than the previous quarter. This was due to global crude oil prices decreasing at a slower pace than the previous quarter.</p> <p>(+) Recognition of gains from the forward contracts of crude oil and oil products improved from the previous quarter (Q1'23: 3.13, Q4'22: 1.22 \$/BBL).</p> <p>(-) Operating GRM ebbed by US\$ 3.24/BBL to US\$ 11.44/BBL, due mainly to the lower crack spreads of diesel products in line with the global market. Diesel is a product with the highest yields at the Bangchak refinery.</p>	<p>(-) Recognition of inventory loss in Q1/2023, owing to the falling global crude oil prices. Meanwhile, Q1/2022 recorded an inventory gain of US\$ 9.77/BBL (equivalent to THB 3,566 million).</p> <p>(+) Recognition of gains from the forward contracts of crude oil and oil products totaled US\$ 3.13/BBL, whereas Q1/2022 recorded a loss of US\$ 3.32/BBL.</p> <p>(+) Operating GRM rose by US\$ 4.61/BBL, mainly due to the improved crack spreads of almost all finished products as the situation of the COVID-19 pandemic improved. As a result, many countries have relaxed lockdowns, resulting in higher operating GRM.</p>

Executive Summary



Marketing Business Group

EBITDA +>100% QoQ	EBITDA -34% YoY
<p>(+) Marketing margin per unit rose by 16% QoQ as average refined product prices ebbed in line with global market conditions. Other factors leading to the increase were the appropriated marketing margin adjustment and lower contribution for diesel to the Oil Fund per the policy of the Energy Policy and Planning Office (EPPO), Ministry of Energy.</p> <p>(+) Selling and administration expenses shrank, as the fourth quarter of every year is normally a period with high selling and administration expenses. This is mainly due to employee-related and marketing campaign expenses.</p>	<p>(-) Recognized an Inventory Loss in Q1/2023 due to the global market situations, in contrast to an inventory gain in Q1/2022</p> <p>(+) Marketing margin per unit increased by 29% YoY as the government has eased the marketing margin cap on diesel. Meanwhile, in Q1/2022, the company adopted the domestic diesel price cap at THB 30/liter, as suggested by the Thai government. Also, total sales volume rose by 15% YoY from both retail and industrial segments, as fuel demand resumed alongside economic activities following the pandemic improvement.</p>



Power Plant Business Group

EBITDA -15% QoQ	EBITDA -72% YoY
<p>(-) The hydropower plants in Lao PDR halted a generation in this quarter to prepare for the transmission of electricity to Vietnam Electricity (EVN).</p> <p>(+) Recognition share of profit from investments in the associated company increased from the previous quarter. This was mainly from the share of profit from Combined Cycle Gas Turbine (CCGT) power business in the United States of America, which started to recognize profit shares in March 2023.</p>	<p>(-) The operation of hydropower plants in Lao PDR was paused in this quarter.</p> <p>(-) Recognized share of profit from investments in the associated company of THB 40 million decreased by THB 102 million from the previous year as there was no recognition of profit sharing from the geothermal power plants in Indonesia due to the disposal of all investment in such projects in March 2022.</p>



Bio-Based Products Business Group

EBITDA -26% QoQ	EBITDA -69% YoY
<p>(-) For ethanol business, recorded lower sales revenue due to a decrease in sales volume of ethanol by 25% QoQ in accordance with the sales management plan.</p>	<p>(-) For the ethanol business, sales volume of ethanol decreased by 26% YoY in accordance with the sales management plan.</p>

Executive Summary

(+) For biodiesel business (B100), raw material costs, energy costs, and chemical costs of biodiesel business decreased.

(-) For biodiesel business (B100), selling price of biodiesel and selling price of by-products such as glycerin and refined glycerin decreased.



Natural Resource Business Group and New Business Development

EBITDA +44% QoQ

(+) Sales volume of OKEA significantly expanded by >100% QoQ as the sales volume exceeded the contracted production capacity. This was due to 2 lifting cargoes from Draugen field and full-quarter revenue recognition from Brage field, which has acquired from Wintershall Dea. This resulted in OKEA reaching a record high in revenue.

Besides, OKEA has continued to invest and expand its business portfolio. In Q1/2023, OKEA signed an agreement to acquire 28% of the working interest in Statfjord's petroleum field in the Norwegian continental shelf (NCS). The acquisition is anticipated to be completed by Q4/2023 and will result in a significant rise in OKEA's total production capacity from 20,000-25,000 to 40,000 barrels of oil equivalent per day.

EBITDA +27% YoY

(+) Sales volume of OKEA rose by >100% YoY, led by petroleum sales as the sales volume exceeded the contracted production capacity. This was due to 2 lifting cargoes from Draugen field and full-quarter revenue recognition from the Brage field (as detailed previously).

Executive Summary

Financial Position as of 31st March 2023, Bangchak Group had cash and cash equivalents of THB 48,010 million and **total assets of THB 237,756 million**, a decrease of THB 4,588 million when compared to 31st December 2022, Bangchak Group with **total liabilities of THB 151,810 million** which decreased by THB 7,156 million and **total equity of THB 85,946 million**, an increase of THB 2,568 million. Total equity attributable to owners of the parent was THB 65,071 million.

As an energy transition leader, Bangchak Group has expanded our business arms into various segments in order to strengthen a corporate balance while diversifying investment risks. Still, the Refinery Business and the Marketing Business are the key pillars of Bangchak Group, where high quality and standards are our top priorities. At the Thailand Quality Award 2022, Bangchak was honored with the Thailand Quality Award (TQA) from the Refinery and Oil Trading Business Group and was the only organization in Thailand to receive the prize. The Marketing Business Group also won the Thailand Quality Class (TQC) for a second consecutive year. The two distinguished awards highlighted Bangchak Group's success in implementing world-class organizational standards as well as management excellence. The company strives to foster corporate-wide improvement by endorsing the criteria of the Thailand Quality Award, together with a dedicated synergy from executives and all employees who never stop learning, improving, and driving positive changes to the organization. Such efforts thus rewarded us with the prestigious prizes in recognition of our best-in-class performance in organizational management.

In Q2/2023, crude oil prices are expected to be pressured by concerns the economy may enter a recession. However, it was also driven by growing supply tightness concerns after OPEC+ decided to cut oil production. Furthermore, the refining margin of cracking refineries in Singapore is expected to decline from Q1/2023, given an increasing supply of refined products led by middle distillates. The refineries have maintained both production capacity and the share of middle distillates yield at high levels, while new refineries kicked off an operation as planned. Nonetheless, a dormant economic condition—particularly in Europe—would hamper oil demand and thus put downward pressure on the Refinery and Oil Trading Business. Given volatile energy prices and looming concerns over the global economic downturn, which could affect oil consumption, Bangchak Group will remain attentive to market condition, stand ready to adjust our business plan accordingly, in order to sustain its resilience in the face of change.

Other importance events until present

January 2023

- BCPG has entered into a Share Sale and Purchase Agreement to purchase all shares in Asia Link Terminal Company Limited, which operates an oil terminal and seaport business with an investment value not exceeding THB 9,000 million. The transaction is expected to be completed in Q2/2023.
- The company has entered into a Share Sale and Purchase Agreement with ExxonMobil Asia Holding Pte. Ltd. to directly acquire a total of 2,283,750,000 ordinary shares of Esso (Thailand) Public Company Limited, approximately 65.99 percent of the total issued shares. The transaction is expected to be completed in the second half of 2023.

February 2023

- BCPG has established a new subsidiary, BCPG USA Inc., in the United States of America to invest in the power generation business. Subsequently, the Company has entered into a Share Purchase and Sale Agreement with 49% of the membership interests in AP-BCPG CCE Partners LLC ("AP-BCPG CCE") from AP Carroll County Holdings LLC ("APCCH") and 49.00% of the membership interests in AP-BCPG SFE Partners LLC ("AP-BCPG SFE") from AP South Field Holdings LLC ("APSFH") with an aggregated investment value of approximately USD 115.00 million to acquire a generation capacity of 150.98 MW, proportionate to the membership's interest.

March 2023

- On March 1, 2023, the company established a new subsidiary company, Bangchak Treasury Center Company Limited ("BCTC"), with a registered and fully paid-up share capital of THB 10 million. BCTC operates as a treasury center to manage short-term liquidity with subsidiaries under the Bangchak Group in the form of intercompany loans in either Baht or other currencies as agreed. The maximum lending and/or borrowing amount is THB 10,000 million for BCPG and THB 3,000 million for BBGI.
- According to the resolution of the Annual General Meeting of Shareholders held on May 12, 2022, of OKEA ASA ("OKEA", a subsidiary in which the company holds approximately 45% shares), the annual general meeting granted the board of directors' authorization to approve the distribution of dividends based on the company's annual accounts for 2022. The board of directors has subsequently approved the first dividend payment for the year 2022 of NOK 1.00 per share, or approximately NOK 104 million, which was paid on March 15, 2023.
- On March 20, 2023, OKEA entered into an agreement to acquire a 28% working interest in Statfjord's petroleum field in the Norwegian continental shelf (NCS). After completion, OKEA production will increase from 20,000–25,000 to 40,000 boepd, and the 2P reserve will be increased from 60 to 100 million barrels of oil equivalent.
- On March 31, 2023, BCPG USA Inc., a subsidiary of BCPG, entered into the Purchase and Sale Agreement to purchase 25.00 percent of all shares in Hamilton Holdings II, LLC, from Franklin Power Holdings, LLC,

Other importance events until present

with an amount not exceeding USD 260 million (or equivalent to THB 8,919 million). The investment will acquire 2 combined cycle gas turbine projects (Liberty and Patriot) with an installed capacity of 426 MW.

April 2023

- On April 5, 2023, the 2023 Annual General Meeting of Shareholders of BBGI resolved to approve dividend payment for the second-half-year operations of 2022 at THB 0.05 per share (THB 72.3 million). Once the interim dividend payout of the first half of 2022 of THB 0.20 per share (THB 0.15 per share on June 9, 2022, and at THB 0.05 per share on September 7, 2022) is combined with that of the second half of 2022, the annual dividend payout amounts will be THB 0.25 per share. The payment was paid on May 3, 2023.
- On April 10, 2023, the 2023 Annual General Meeting of Shareholders of BCPG resolved to approve dividend payment for the second-half-year operations of 2022 at THB 0.16 per share (THB 465.24 million). Once the interim dividend payout of the first half of 2022 of THB 0.20 per share is combined with that of the second half of 2022, the annual dividend payout amounts will be THB 0.36 per share. The payment was paid on April 21, 2023.
- On April 11, 2023, the 2023 Annual General Meeting of Shareholders resolved to approve as follows.
 - Dividend payment for the second-half-year operations of 2022 at the rate of THB 1.00 per share. Once the interim dividend payout of the first half of 2022 of THB 1.25 per share is combined with that of the second half of 2022, the annual dividend payout amounts will be THB 2.25 per share. The payment was paid on April 24, 2023.
 - The direct acquisition of 2,283,750,000 ordinary shares of ESSO (equivalent to approximately 65.99 percent of the total issued shares of ESSO as of September 30, 2022) from ExxonMobil Asia Holdings Pte. Ltd. and the tender offer for all remaining no more than 1,177,108,000 ordinary shares in ESSO (equivalent to approximately 34.01 percent of the total issued shares in ESSO as of September 30, 2022) after the completion of the Shares Acquisition Transaction to acquire the remaining ESSO shares at the same price as the purchase price of Esso shares from ExxonMobil Asia Holdings Pte.
 - The limit for debenture issuance and offer of up to THB 80,000 million or equivalent currencies at a given period for five years (2023-2027)

May 2023

- According to the resolution of the Annual General Meeting of Shareholders of OKEA held on May 12, 2022, the board of directors' authorization to approve the distribution of dividends based on the company's annual accounts for 2022. The board of directors has subsequently approved the second dividend payment for the year 2022 of NOK 1.00 per share, or approximately NOK 104 million, which is expected to be paid in June 2023.

Statement of Income

Consolidated Statement of Income (THB Million)	Q1/2023	Q4/2022	QoQ	Q1/2022	YoY
Revenue from sale of goods and rendering of services	80,380	84,584	-5%	69,055	16%
Cost of sale of goods and rendering of services	(72,071)	(78,063)	-8%	(56,801)	27%
Gross Profit	8,309	6,521	27%	12,254	-32%
Other income	627	578	8%	349	80%
Selling and administrative expenses	(1,860)	(3,352)	-45%	(1,669)	11%
Exploration and evaluation expenses	(78)	(679)	-89%	(346)	-77%
Gain (loss) from derivatives	1,225	1,147	7%	(1,320)	>100%
Gain (loss) on foreign exchange	292	242	21%	60	>100%
Loss from fair value adjustment of contingent consideration	(52)	-	N/A	-	N/A
Gain from sale of investment	-	-	N/A	2,031	-100%
Reversal of (loss) from impairment of assets	(412)	(786)	48%	563	<-100%
Profit from operating activities	8,051	3,671	>100%	11,922	-32%
Finance costs	(1,032)	(1,005)	3%	(836)	23%
Impairment gain and reversal of impairment loss (impairment loss) determined in accordance with TFRS 9	10	(8)	>100%	(384)	>100%
Share of profit (loss) of associates and joint ventures accounted for using equity method	29	5	>100%	148	-80%
Profit (loss) before income tax expense	7,058	2,663	>100%	10,850	-35%
Tax expense	(3,689)	(1,410)	>100%	(5,347)	-31%
Profit (loss) for the period	3,369	1,253	>100%	5,503	-39%
Owners of the parent	2,741	473	>100%	4,356	-37%
Non-controlling interests	629	780		1,147	
Basic earnings per share (Baht)	1.91	0.26		3.12	
Net profit from normal operations (excluding extraordinary items)	2,936	2,282	29%	1,092	>100%



Statement of Income

Performance of Q1/2023 compared to Q4/2022

Total revenue from sales and services was THB 80,380 million, decreased 5% QoQ, mainly driven by oil-related businesses, which decreased from lower sales volume as the previous quarter was travel season at the end of the year.

Gross profit was THB 8,309 million, increased 27% QoQ, mainly from the Refinery business. Despite the Operating GRM US\$ 11.44/BBL, which declined US\$ 3.24/BBL QoQ. However, the Inventory Loss (including reversal of / loss on net realized value (NRV)) was US\$ 4.41/BBL which decreased by US\$ 4.85/BBL, resulting in higher gross profit. Additionally, in the Natural resources business where the sales volume of crude oil and natural gas increased significantly.

Selling and administrative expenses were THB 1,860 million, decreased 45% QoQ, due to the fourth quarter of every year will be a costly period. This is mainly due to employee-related expenses and marketing campaign expenses.

Profit from derivatives was THB 1,225 million, mainly from gains on fair value measurement of crude and refined products price futures contracts in accordance with accounting standards.

Unit: THB Million	Q1/2023	Q4/2022	QoQ (%)
Extraordinary items	(496)	(2,781)	-82%
Main item as follows:			
Inventory Loss (including reversal of / loss on net realizable value (NRV))	(1,916)	(4,003)	
Gain from unrealized of derivatives	1,432	1,774	
Gain on foreign exchange	292	242	
Loss on impairment of assets	(412)	(786)	

- **Loss from inventory loss (including reversal of loss on net realizable value (NRV))** was due to the decline in global crude oil prices which the pace of decline in this quarter was less than previous quarter.
- **Gain from unrealized derivatives** was mainly due to gains on fair value from the forward contracts of crude oil and oil products in accordance with accounting standards as crack spread tends to decline from the previous quarter.
- **Gain on foreign exchange** slightly increased due to a slight strengthening of the Thai Baht.



Statement of Income

- **Loss on impairment of assets** was due to impairment of assets and spare parts of the Refinery and oil trading business. As well as there was impairment of OKEA's assets from the adjustment of the reserve volume of the Yme field, which Bangchak Group recognized the loss after tax and equity share of approximately THB 31 million in Q1/2023 and THB 90 million in Q4/2022. Meanwhile, the power plant business group reversed the impairment of assets of solar power projects in Japan, which can begin construction and be complete on schedule.

Tax expense was THB 3,689 million, increased >100% QoQ, mainly from lower profits from the Natural Resources and oil-related businesses. The effective tax rate was similar to the previous quarter.

Net profit attributable to the owners of the parent was THB 2,741 million, increased >100% QoQ, with basic earning per shares of THB 1.91.

Net profit from normal operations (excluding extraordinary items) was THB 2,936 million, an increase of 29% YoY.



Statement of Income

Performance of Q1/2023 compared to Q1/2022

Total revenue from sales and services was THB 80,380 million, increased 16% YoY, mainly from revenue of oil-related businesses from higher average selling prices per unit following the increase in crude oil and refined products due to global market conditions, as well as an increase in sales volume.

Gross profit was THB 8,309 million, declined 32% YoY, mainly from the Refinery Business recorded Inventory Loss (including reversal of loss on net realized value (NRV)) US\$ 4.41/BBL whereas Q1/2022 recognized high inventory Gain of up to US\$ 9.77/BBL. Even though, Operating GRM was US\$ 11.44/BBL which increased by US\$ 4.61/BBL YoY. This resulted in decreased gross profit.

Selling and administrative expenses were THB 1,860 million, an increase of 11% YoY, mainly from expenses related to sales which increased in line with revenue from sales.

Profit from derivatives was THB 1,225 million, mainly from gains on fair value measurement of crude and refined products price futures contracts in accordance with accounting standards.

Unit: THB Million	Q1/2023	Q1/2022	YoY (%)
Extraordinary items	(496)	5,326	-109%
Main item as follows:			
Inventory Loss (including reversal of / loss on net realizable value (NRV))	(1,916)	4,116	
Gain from unrealized of derivatives	1,432	(1,060)	
Gain on foreign exchange	266	60	
Loss on impairment of assets	(412)	563	
Gain from sale of investment	-	2,031	

- **Loss from inventory loss (including reversal of /loss on net realizable value (NRV))** was due to the decline in global crude oil prices in Q1/2023, while there was an Inventory gain in Q1/2022 as rising of crude oil prices in the global market.
- **Gain from unrealized derivatives** increased due to declining in crack spread compared to the YoY.
- **Gain on foreign exchange** was increased from the strengthening of Thai Baht.
- **Loss from impairment of assets** mainly from the impairment of OKEA's assets, as a result of the adjustment in reserve of the Yme field. Whereas Q1/2022 recorded the reversal of impairment of OKEA's assets.

Statement of Income

- **Gain from sale of investment** was THB 2,031 million, due to gain from sale of investment from Star Energy Group Holdings Pte. Ltd. (“SEGHPL”) in Q1/2023.

Financial costs was THB 1,032 million, increased 23% YoY, mainly from the company’s debenture issuance in 2H/2022 together with higher interest rates in the market.

Tax expense was THB 3,689 million, decreased 31% YoY, mainly from Q1/2022, due to high income tax expenses due to changes in deferred tax, which significant increase of approximately THB 2,000 million.

Net profit attributable to the owners of the parent was THB 2,741 million, decreased 37% YoY, with basic earnings per shares of THB 1.91.

Net profit from normal operations (excluding extraordinary items) was THB 2,936 million, increased >100% YoY.



Performance by Business Group



1) Refinery and Oil Trading Business Group

Crude Oil and Crack Spread Situation

Crude Oil Price (US\$/BBL)	Q1/2023	Q4/2022	QoQ +/-	Q1/2022	YoY +/-
Dubai (DB)	80.23	84.77	-4.54	96.21	-15.98
Dated Brent (DTD)	81.17	88.87	-7.70	102.23	-21.06
DTD-DB	0.94	4.10	-3.16	6.02	-5.08
Crack Spread (US\$/BBL)	Q1/2566	Q4/2022	QoQ +/-	Q4/2021	YoY +/-
UNL95-DB	18.71	9.53	9.18	17.82	0.89
IK-DB	26.03	33.51	-7.48	16.53	9.50
GO-DB	24.81	39.29	-14.48	19.87	4.94
LSFO-DB	6.45	8.26	-1.81	13.97	-7.52

The average Dubai crude oil price plummeted by US\$ 4.54/BBL in Q1/2023 compared to Q4/2022. Such decline was attributed to looming concerns over a global economic slowdown, as many US banks fell into a liquidity crunch due to the ongoing Federal Reserve (Fed) rate hikes to battle inflation. As the Fed will likely stay the course on policy rate hikes in 2023, there have been growing fears of economic recession, which also depressed the global crude oil demand. Nonetheless, crude oil prices still gained impetus from an anticipated surge in oil demand from China following the easing of the Zero Covid policy and the country reopening in January 2023. Compared to Q1/2022, the average Dubai crude oil price plunged by US\$ 15.98/BBL in Q1/2023 on the back of Fed interest rate hikes and concerns over the global banking crisis which threatened both the overall economy and crude oil demand.

The average Dated Brent-Dubai spread (DTD-DB) in Q1/2023 dropped by US\$ 3.16/BBL compared to Q4/2022, as the European Central Bank's continuous interest rate hikes to rein in inflation have undermined European activities. Apart from that, ongoing labor strikes kept operations at French refineries at low levels and thus hindered demand for light crude. Compared to Q1/2022, the average Dated Brent-Dubai spread (DTD-DB) decreased by US\$ 5.08/BBL in Q1/2023, owing to a slowdown in European economic activities and low demand for heating fuels following a warmer winter in Europe.

The spread between finished products and Dubai Price

- **Gasoline and Dubai crack spread (UNL95-DB)**, on average, increased in Q1/2023 compared to Q4/2022, thanks to an impetus from lower Chinese gasoline exports—as road transport demand sharply rebounded in response to a lockdown easing—and lower US gasoline inventory levels compared to the previous winters, resulting in higher gasoline imports from Asian countries. On a yearly basis, the average Gasoline and Dubai



Performance by Business Group

crack spread (UNL/DB) also increased in Q1/2023 compared to Q1/2022, thanks to an improving pandemic condition and China's lockdown easing, which significantly provided thrust to domestic road activities.

- **Jet (Kerosene) and Dubai crack spread (IK-DB)**, on average, declined in Q1/2023 compared to Q4/2022 as the warmer winter, notably in Europe, kept demand for heating kerosene at low levels. On a yearly basis, the average Jet (Kerosene) and Dubai crack spread (IK-DB) rose in Q1/2023 compared to Q1/2022, backed by a rebound in air travel demand after the country reopening and COVID-19 lockdown easing—particularly in China.

- **Diesel and Dubai crack spread (GO-DB)**, on average, dipped in Q1/2023 compared to Q4/2022. The decline was attributed to easing concerns over tight supply as the European sanctions on Russian refined products on February 5, 2023, did not trigger a severe market disruption as widely anticipated. Meanwhile, European supply was on the rise since many countries stocked up diesel imports, thus resulting in lower diesel shipments from the Asian continent. On a yearly basis, the average Diesel and Dubai crack spread (GO-DB) rose in Q1/2023 compared to Q1/2022. Overall diesel supply remained lower than the previous winters, whereas China's diesel exports receded in response to a domestic demand recovery following the lockdown easing.

- **Low-sulfur fuel oil and Dubai crack spread (LSFO-DB)**, on average, shrank in Q1/2023 compared to Q4/2022, pressured by regional oversupply, after the Kuwait refinery 'Al Zour' commenced the operation in late 2022. The refinery also raised its crude run in Q1/2023 and continuously exported Low-sulfur fuel oil to the global market. Meanwhile, fuel demand from the maritime sector witnessed a slowdown. On a yearly basis, the average Low-sulfur fuel oil and Dubai crack spread (LSFO-DB) declined in Q1/2023 compared to Q1/2022, owing to higher supply from the Kuwait refineries.



Performance by Business Group

Refinery and Oil Trading Business Group Performance

Refinery and Oil Trading Business Group Performance	Q1/2023	Q4/2022	QoQ	Q1/2022	YoY
Revenue (THB Million)	65,974	74,664	-12%	59,296	11%
EBITDA (THB Million)	4,029	2,207	83%	5,021	-20%
Average Crude Run (KBD)	124.7	122.6	2%	122.1	2%
Utilization Rate (%)	104%	102%		102%	
Average FX (THB/USD)	34.07	36.54		33.23	
(Unit: US\$/BBL)					
Operating GRM	11.44	14.68	-3.24	6.84	4.61
Oil Hedging	3.13	1.22	1.91	(3.32)	6.45
Inventory gain/ (Loss) ^{1/}	(4.41)	(9.26)	4.85	9.77	-14.18
Total GRM	10.16	6.64	3.52	13.29	-3.12
Product Yield (%)					
LPG	2%	2%	0.0%	2%	0.4%
Gasoline	19%	19%	1.3%	20%	-0.6%
Jet (Kerosene)	10%	7%	3.2%	4%	6.1%
Diesel	52%	52%	-0.2%	52%	-0.2%
Non-Transportation fuels	0%	0.2%	-0.2%	0%	-0.3%
Unconverted Oil (UO)	8%	10%	-1.3%	12%	-3.2%
Fuel Oil	9%	10%	-1.3%	10%	-1.5%
Total Sales Volume in each market category of the Company ^{2/} (Million liters)					
Marketing Business	1,614	1,713	-6%	1,408	15%
Petroleum traders in accordance with section 7	157	170	-8%	189	-17%
Export	319	362	-12%	421	-24%
Total Sales Volume	2,089	2,244	-7%	2,018	4%

Note: 1/ Inventory gain/(loss) in the table included (reversal of) losses on inventories devaluation (NRV)

2/ Sales volume excluded oil swaps between petroleum traders in accordance with section 7 and sales of crude oil

In Q1/2023, the Refinery and Oil Trading Business Group recorded a total revenue of THB 65,974 million, a decrease of 12% QoQ but an increase of 11% YoY. The EBITDA of THB 4,029 million, an increase of 83% QoQ but a decrease of 20% YoY, as a result of the following factors.

EBITDA +83% QoQ	EBITDA -20% YoY
(+) Bangchak refinery has maintained high production levels which recorded a new high of 124.7 KBD.	(+) Average crude run increased by 2%. The refinery has raised the crude run to a high level in response to a robust rebound in domestic demand as the pandemic subsided.
(-) Operating GRM ebbed by US\$ 3.24/ BBL to US\$ 11.44/BBL, due mainly to the lower crack spreads of diesel	



Performance by Business Group

products in line with global market developments, where sanctions against crude oil imports from Russia did not entail a severe market disruption as widely anticipated easing the concerns over tight supply in Europe. Diesel is a product with the highest yield at the Bangchak refinery.

(+) Recognition of gains from the forward contracts of crude oil and oil products (including fair value measurement per the accounting standards) improved from the previous quarter, since crack spreads of contracted products tended to decline.

(+) Recognition of inventory loss totaled US\$ 4.41/BBL or an equivalent of THB 1,687 million (including reversal of loss on net realized value (NRV)) as lower than the previous quarter. This was due to global crude oil prices decreasing at a slower pace than the previous quarter. Overall, the inventory loss improved in Q1/2023.

(-) BCPT traded 9.3 million barrels of crude oil and refined products and recorded an 2.1 million barrels decline (-19%) led by the gasoline and crude oil products.

(+) Operating GRM rose by US\$ 4.61/BBL with a broad-based increase in the crack spreads of various products following the pandemic improvement, which prompted the lockdown easing in many countries. Thus, the operating GRM significantly increased.

(+) Recognition of gains from the forward contracts of crude oil and oil products (including fair value measurement per the accounting standards) totaled US\$ 3.13/ BBL, whereas Q1/2022 recorded a loss of US\$ 3.32/BBL.

(-) Recognition of inventory loss in Q1/2023, owing to the falling global crude oil prices. Meanwhile, Q1/2022 recorded an inventory gain of US\$ 9.77/BBL (equivalent to THB 3,566 million).

(+) BCPT's total trade of crude oil and refined products was up by 2.6 million barrels (+38%), led by Bangchak refinery crude procurement following the higher run rate.

Performance by Business Group



2) Marketing Business Group

Marketing Business Group Performance

Unit: Sites	Q1/2023	Q4/2022	QoQ	Q1/2022	YoY
Service Stations	1,353	1,343	10	1,292	61
EV Chargers	189	179	10	93	96
Inthanin Coffee Shop	1,021	1,002	19	853	168
Dakasi Shop ^{1/}	53	51	2	40	13
Marketing Business Performance					
Revenue (THB Million)	49,220	53,892	-9%	39,426	25%
EBITDA (THB Million)	737	120	>100%	1,118	-34%
Marketing Margin (Baht / liter) ^{2/}	0.93	0.81	16%	0.72	29%
Net Marketing Margin (Baht / liter) ^{3/}	0.79	0.68	16%	1.11	-29%
Sales Volume (Million Liters)					
Retail (via Service Stations)	1,187	1,248	-5%	1,122	6%
Industrial	428	464	-8%	286	50%
Total	1,614	1,713	-6%	1,408	15%
Sales volume in each product category (Million liters)					
LPG	35	34	1%	25	39%
Gasoline	9	11	-23%	5	65%
Gasohol	422	453	-7%	388	9%
Jet Fuel	167	146	14%	88	89%
Diesel	929	1,025	-9%	849	9%
Fuel Oil and Others	53	43	21%	53	0%
Total	1,614	1,713	-6%	1,408	15%

Note: 1/ Dakasi pearl milk tea shop under the business expansion and rights of BCR

2/ Marketing Margin of Bangchak and BGN (excluding Inventory gain/(loss) and NRV)

3/ Marketing Margin of Bangchak and BGN (including Inventory gain/(loss) and NRV)

As for the performance in Q1/2023, the Marketing Business Group recorded a total revenue of THB 49,220 million (declined 9% QoQ but improved 25% YoY) and EBITDA of THB 737 million (increased >100% QoQ but dropped 34% YoY), as a result of the following factors:

EBITDA +>100% QoQ	EBITDA -34% YoY
(+) Marketing margin per unit rose by 16% QoQ as average refined product prices ebbed in line with global market conditions. Other factors leading to the increase were the appropriated marketing margin adjustment and lower	(+) Marketing margin per unit increased by 29% YoY as the government has eased the marketing margin cap on diesel. The retail prices at service stations in Q1/2023 thus reflect more of the refined products actual cost



Performance by Business Group

<p>contribution for diesel to the Oil Fund per the policy of the Energy Policy and Planning Office (EPPO), Ministry of Energy.</p> <p>(-) Total sales volume of the Marketing Business Group dropped by 6% QoQ to 1,614 million liters. The decline was mainly attributed to a high-base effect, given the travel season in Q4/2022.</p> <p>(-) Recognition of higher Inventory Loss on a quarterly basis as refined product prices decreased.</p> <p>(+) Selling and administrative expenses shrank due to a high-base effect since every fourth quarter normally records high selling and administrative expenses, comprising employee-related expenses and marketing campaign expenses.</p>	<p>compared to Q1/2022, when the company adopted the domestic diesel price cap at THB 30/liter, as suggested by the Thai government.</p> <p>(+) Total sales volume rose by 15% YoY from both retail and industrial segments, as fuel demand resumed alongside economic activities following the pandemic improvement.</p> <p>(-) Recognized an Inventory Loss in Q1/2023, in contrast to an inventory gain in Q1/2022 when the Russian-Ukraine tension drove finished product prices higher.</p>
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Bangchak strives to develop high-quality fuels and deliver the best products to our customers. The company has continued expanding service station coverage countrywide, and recently launched new 11 stations, making a total of 1,353 service stations as of Q1/2023. Apart from that, Bangchak seeks to offer services that cater to every lifestyle of customers under the concept of **“Your Greenovative Destination for intergeneration”** and thus emphasizes strengthening the non-oil business. In this quarter, Bangchak joined forces with seven restaurants awarded a Micheline Star to enhance food service experiences for Bangchak service station customers: (1) Je Dang Somtum-Samyan, (2) Khua Kling Pak Sod, (3) Naiuan Yentafo Bateng, (4) Pad Thai Fai Ta Lu, (5) Fried Banana Rama 5, (6) Chom Café and Restaurant, and (7) Sawang Bami Kam Pu. Furthermore, the company has increased the number of electric vehicle (EV) chargers to accommodate rising demand from EV drivers. EV chargers are currently available at 189 Bangchak gas station across Thailand. Bangchak also continues expanding the café brand branch, Inthanin Coffee. 27 new branches were launched in Q1/2023, making the total number of 1,021 branches nationwide. The efforts also awarded us with record-high sales in this quarter. Besides the branch expansion, BCR targets enhancing a variety of non-beverage products through food and other premium products to deliver the best and most diverse services to Inthanin customers.



Performance by Business Group



3) Power Plant Business Group

Power Plant Business Performance					
(THB Million)	Q1/2023	Q4/2022	QoQ	Q1/2022	YoY
Revenue from sales and rendering of services	1,057	1,267	-17%	1,158	-9%
EBITDA	852	1,003	-15%	3,075	-72%
Share of profit (loss) from associated companies*	40	14	>100%	142	-72%
BCPG Group's contracted capacity (Equity MW)					
Solar Power Plant - Thailand	174.7	173.7	1%	172.5	1%
Wind Power Plant - Thailand	9.0	9.0	0%	9.0	0%
Solar Power Plant - Japan	79.7	79.7	0%	59.7	34%
Hydropower Plant - Lao PDR	114.0	114.0	0%	114.0	0%
Wind Power Plant - Philippines	14.4	14.4	0%	14.4	0%
Natural Gas Power Plants - USA	151.0	-	N/A	-	N/A
Total	542.7	390.7	39%	369.6	47%
Electricity Sales (GWh)					
Solar Power Plant - Thailand	84.5	81.6	4%	84.2	0.3%
Wind Power Plant - Thailand	3.1	2.2	38%	3.2	-4%
Solar Power Plant - Japan	25.2	21.5	17%	14.9	69%
Hydropower Plant - Lao PDR	-	118.4	-100%	76.9	-100%
Total	112.8	223.8	-50%	179.3	-37%

* In March 2022, BCPG disposed the whole investment in SEGHP, which invests in geothermal projects in Indonesia.

In Q1/2023, the Power Plant Business Group's revenue was THB 1,057 million, a decrease of 17% QoQ and 9% YoY. The EBITDA was THB 852 million, decreasing 15% QoQ and 72% YoY, with factors affecting operations as follows:

EBITDA -15% QoQ	EBITDA -72% YoY
(+) The electricity sales volume of solar power plants in Thailand increased 4% QoQ due to higher irradiation as a seasonal factor.	(+) The electricity sales volume of solar power plants in Thailand increased 0.3% YoY due to the additional COD of the solar rooftop project at CMU Project in the past year.
(+) The electricity sales volume of wind power plants in Thailand increased 38% QoQ due to higher wind speeds at the project.	(-) The electricity sales volume of wind power plants in Thailand dropped 4% YoY due to lower wind speed.
(+) The electricity sales volume of solar power plants in Japan increased 17% QoQ due to higher irradiation from a seasonal factor.	(+) The electricity sales volume of solar power plants in Japan increased 69% YoY due to the COD of 2 new solar power plants, including Komagane (COD on 29th March 2022) and Yabuki (COD on 15th April 2022).



Performance by Business Group

(-) The operation of hydropower plants in Lao PDR was paused in this quarter to prepare for the transmission of electricity to Vietnam Electricity (EVN).

(+) The share of profit from investments in the associated company of THB 40 million increased by THB 26 million from the previous quarter. This was mainly from the share of profit from Combined Cycle Gas Turbine (CCGT) power business in the United States of America of THB 36 million, which started to be recognized in March 2023.

(-) The operation of hydropower plants in Lao PDR was paused as stated earlier.

(-) The share of profit from investments in the associated company of THB 40 million decreased by THB 102 million from the previous year as there was no recognition of profit sharing from the geothermal power plants in Indonesia due to the disposal of all investment in March 2022.



4) Bio-Based Product Business Group

Bio-Based Products Business Performance (THB Million)	Q1/2023	Q4/2022	QoQ	Q1/2022	YoY
Sales Revenue	2,942	3,270	-10%	3,740	-21%
EBITDA	107	146	-26%	343	-69%
BBGI Performance					
Gross Profit/(loss)	75	112	-33%	320	-77%
Selling and Administrative expenses	(90)	(85)	5%	(84)	7%
Sales Volume (Million Liters)					
Ethanol	28.1	37.6	-25%	38.2	-26%
Biodiesel	67.1	63.9	5%	51.1	31%

In Q1/2023, Bio-Based Product Business Group recorded revenue of THB 2,942 million, a decrease of 10% QoQ and 21% YoY. EBITDA was recorded at THB 107 million, a decrease of 26% QoQ but a decrease of 69% YoY. These were resulted from the following factors.

EBITDA -26% QoQ	EBITDA -69 % YoY
(-) For the production and distribution of ethanol, recorded revenue decreased. This was mainly due to a decrease in sales volume of ethanol by 25% QoQ in accordance with the sales management plan.	(-) For the production and distribution of ethanol, recorded revenue decreased. This was mainly due to a decrease in sales volume of ethanol by 26% YoY in accordance with sales management plan.
(+) For production and distribution of biodiesel business (B100), raw material costs, energy costs, and chemical costs of biodiesel business decreased.	(-) For production and distribution of biodiesel business (B100), selling price of biodiesel and selling price of by-products such as glycerin and refined glycerin decreased.



Performance by Business Group

(-) For the high-value bio-based product business, sales volume decreased due to the promotional campaigns for the end of the year in Q4/2022.

(-) Distribution costs and administrative expenses increased due to the 1st ethanol production plant of BBGI Bioethanol Public Company Limited, Nam Phong District, Khon Kaen Province, was temporarily shut down in Q1/2023. Therefore, the operating expenses related to the cessation of production were transferred to administrative expenses.

(+) For the high-value bio-based product business, sales volume of the high-value bio-based products increased due to new product launches and the expansion of both online and offline distribution channels.

(-) Selling and administrative expenses increased due to an increase in expenses incurred from the plant's temporary shutdown as stated earlier, and expenses related to the promotion of high-value bio-based products and the development of new products.



5) Natural Resources Business and New Business Development Group

Natural Resources Business and New Business Development (THB Million)	Q1/2023	Q4/2022	QoQ	Q1/2022	YoY
Revenue	9,772	5,486	78%	5,703	71%
EBITDA	5,414	3,769	44%	4,251	27%
OKEA Performance					
Revenue from crude oil and gas sales	9,707	5,408	79%	5,661	71%
EBITDA	5,416	4,044	34%	4,276	27%
Production volume – Net to OKEA (kboepd)	22.21	19.89	12%	14.91	49%
Sales volume – Net to OKEA (kboepd)	37.94	16.32	>100%	15.44	>100%
Realized liquids price (US\$/BBL)	77.70	95.20	-18%	89.60	-13%
Realized gas price (US\$/mmbtu)	20.72	20.06	3%	31.73	-35%

*Natural Resources Business Group has changed the recording of OKEA's performance from share of profit (loss) to consolidated method since Q3/2021.

In Q1/2023, Natural Resources Business and New Business Development Group's revenue was THB 9,772 million, increasing 79% QoQ and 71% YoY. The EBITDA was THB 5,414 million, increase of 44% QoQ and 27% YoY. The factors impacting the performance are as follows.

EBITDA +44% QoQ	EBITDA +27% YoY
(+) Sales volume of OKEA significantly expanded by 132%, owing to the sales volume exceeding the contracted production capacity. This was due to 2 lifting cargoes from Draugen field and full-quarter revenue recognition from Brage field, which has acquired from	(+) Sales volume of OKEA rose by >100%, led by petroleum sales as the sales volume exceeded the contracted production capacity. This was due to 2 lifting cargoes from Draugen field and full-quarter revenue recognition from the Brage field (as detailed previously).



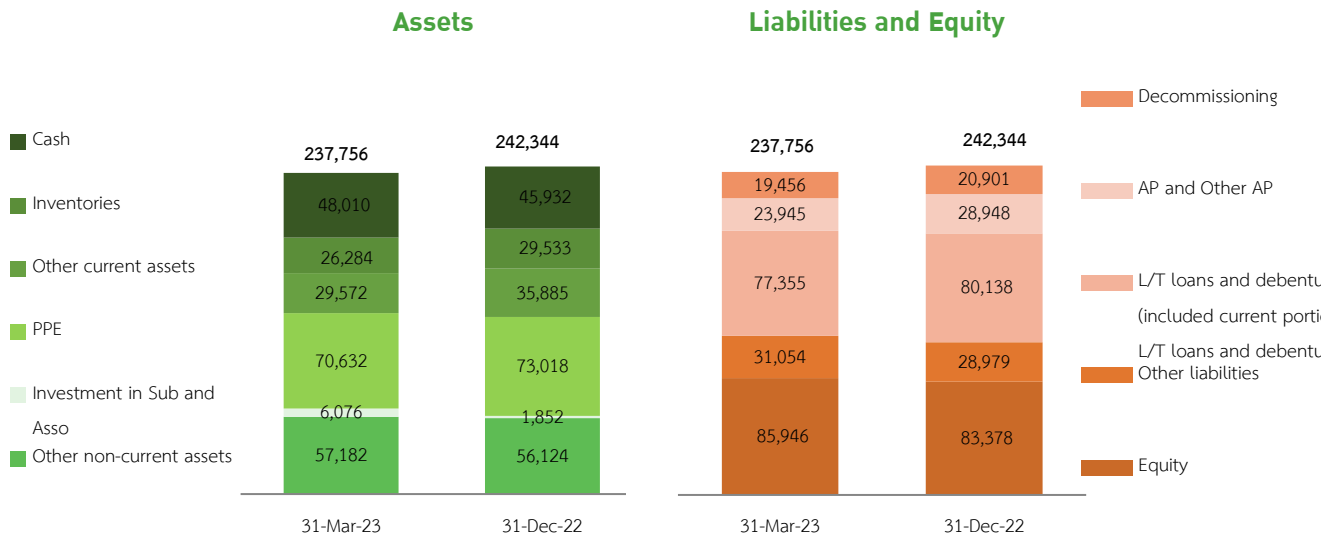
Performance by Business Group

EBITDA +44% QoQ	EBITDA +27% YoY
<p>Wintershall Dea. This resulted in OKEA reaching a new high in revenue.</p> <p>(-) Average selling price of oil and gas (liquid price) tumbled by 18% due to market concerns over global economic slowdown after multiple banks raised interest rates.</p>	<p>(-) Average OKEA's selling price of natural gas dropped by 35% due to high natural gas reserves in Europe. And the average selling price of crude oil and gas (liquids price) fell by 13% in line with the global market condition.</p>



Statement of Financial Positions

Unit: THB Million



Assets

As of 31st March 2023, Bangchak Group had total assets in the amount of THB 237,756 million, a decrease of THB 4,588 million compared to 31st December 2022. Changes in assets are as follow:

- Inventory decreased THB 3,249 million, mainly from lower volume of crude oil and finished products and declining average costs per unit of crude oil and refined products.
- Other current assets decreased by THB 6,313 million mainly from:
 - (1) Accrued oil fund compensation decreased by THB 4,559 million, partly because there was no oil fund compensation provided for diesel from the government in 2023. Whereas in 2022, there was government compensation for diesel at an average rate of 3.99 Baht per liter. And another part of it comes from receiving compensation payments of 2022.
 - (2) Trade and other current receivables decreased THB 992 million due to:
 - (-) Other receivables of the Natural Resources business (OKEA) decreased from the recognition of accrued income.
- Property, plant, and equipment increased THB 2,386 million mainly from:
 - (-) Property, plant, and equipment of OKEA decreased by THB 1,947 million due to translating financial statement impacted by the appreciation of the Thai baht.
 - (-) Impairment of assets in amount THB 462 million from the impairment assets of the Refinery and oil trading business and Natural resources business group, which improved the reserve volume of



Statement of Financial Positions

Yme field. While the Power plant business had a reversal of impairment assets from resumption of construction in solar power project in Japan in Q1/2023.

- Investments in subsidiaries and associated companies increased THB 4,224 million, mainly due to BCPG's investment in the power plant project in the US.
- Other non-current assets increased by THB 1,058 million, mainly from an increase in leasehold assets of THB 1,285 million.

Liabilities

As of 31st March 2023, the company and its subsidiaries had total liabilities THB 151,810 million, a decrease of THB 7,156 million, changes in liabilities are as follow:

- Trade and other current liabilities decrease THB 5,002 million mainly from:
 - (-) Trade account payable of oil business decreased due to lower purchase volume of crude oil and finished products as well as declining in average purchase prices.
 - (-) Other payables of natural resources business (OKEA) decreased.
- Provisions related to decommission costs decreased by THB 1,445 million mainly due to the impact of translating financial statement, which was affected by the appreciation of the Thai Baht exchange rate.
- Other liabilities increase by THB 2,075 million, mainly from an increase in corporate income tax payable from the Natural Resources business (OKEA).

Equity

As of 31st March 2023, the Bangchak Group had total equity in the amount of THB 85,946 million, an increase of THB 2,568 million mainly from:

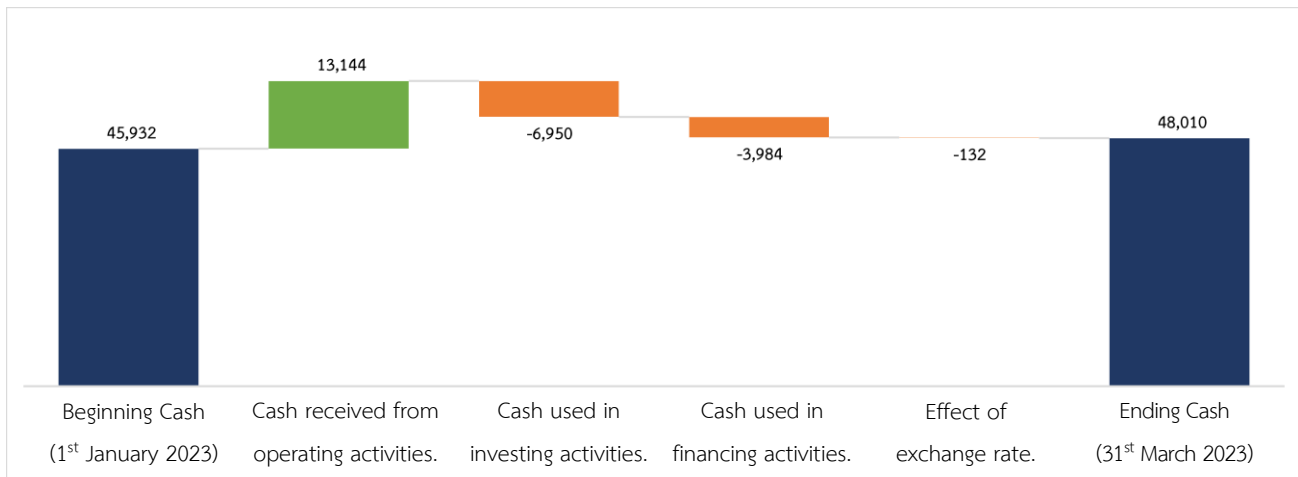
- (+) Profit for the quarter of THB 3,369 million
- (-) Dividend payment of THB 188 million

Total equity attributed to owners of the parent was THB 65,071 million and book value per share (excluding perpetual subordinated bonds) was THB 40.31.



Statement of Cash Flows

Unit: THB Million



As of 31st March 2023, Bangchak Group had cash and cash equivalents in the amount of THB 48,010 million, details for each activity are as follow:

- **Net Cash received from operating activities** was THB 13,144 million, -main items consist of EBITDA of THB 10,992 million and change in working capital. The main items that increased cash flow, namely trade accounts receivables and other current receivables THB 5,227 million, inventory of THB 3,193 million. And, the cash flow decreased, including trade payables and other current liabilities of THB 3,902 million and income tax paid in the amount of THB 698 million.
- **Net Cash used in investing activities** was THB 6,950 million, mainly from cash paid for (1) property, plant, and equipment THB 1,881 million and business acquisition of THB 5,035 million.
- **Net Cash used in financing activities** was THB 3,984 million, mainly from (1) repayment of long-term loans THB 3,778 million (2) dividend payment THB 188 million (3) finance costs THB 601 million (4) payment in accordance with lease agreement THB 454 million. While Cash received from long-term loans from financial institution THB 1,237 million.

Financial Ratio

	Q1/2023	Q4/2022	Q1/2022
Profitability Ratios (%)			
Gross Profit Margin	10.34%	7.71%	17.75%
EBITDA Margin	13.69%	8.22%	19.86%
Net Profit Margin	4.19%	1.48%	7.97%
Return of Equity (ROE)	17.76%	21.65%	17.96%
Efficiency Ratio (%)			
Return on Assets (ROA)	12.39%	14.40%	13.45%

	Q1/2023	Q4/2022	Q1/2022
Liquidity Ratios (Times)			
Current Ratio	2.50	2.33	2.19
Quick Ratio	1.67	1.45	1.46
AR Turnover	24.41	27.42	23.67
Collection Period (days)	15	13	15
AP Turnover	17.06	19.21	16.71
Payment Period (days)	21	19	22
Leverage Ratios (Times)			
Debt to Equity	1.77	1.91	1.78
Interest bearing Debt to Equity	0.91	0.97	0.98
Net Interest-bearing Debt to Equity	0.35	0.41	0.37
Release of Debenture Ratio (Times)			
Net Debt to Equity	0.32	0.37	0.33

Financial Ratios Calculation

Profitability Ratios

- Gross Profit Margin (%) = $\frac{\text{Gross Profit}}{\text{Revenue from sale of goods and rendering of services}}$
- EBITDA Margin (%) = $\frac{\text{EBITDA}}{\text{Revenue from sale of goods and rendering of services}}$
- Net Profit Margin (%) = $\frac{\text{Profit attributable to owners of the parent}}{\text{Revenue from sale of goods and rendering of services}}$
- Return on Equity (%) = $\frac{\text{Profit attributable to owners of the parent}}{\text{Total Equity attributable to owners of the parent (Average)}}$

Efficiency Ratio

- Return on Assets (%) = $\frac{\text{EBIT}}{\text{Total asset (Average)}}$



Financial Ratio

Liquidity Ratios

- Current Ratio (Times) = Current asset / Current liabilities
- Quick Ratio (Times) = (Cash & Equivalents + Short-term investments + Trade and other account receivable) / Current liabilities
- Accounts Receivable Turnover (Times) = Revenue from sale of goods and rendering of services / Accounts receivable before doubtful debt (Average)
- Collection Period (Days) = 365 / Account receivable turnover
- Accounts Payable Turnover (Times) = Cost of sale of goods and rendering of services / Accounts payable (Average)
- Payment Period (Days) = 365 / Accounts Payable Turnover

Financial Policy Ratios

- Debt to Equity (Times) = Total debt / Equity
- Interest Bearing Debt to Equity (Times) = Interest bearing debt / Total equity
- Net Interest-Bearing Debt to Equity (Times) = (Interest bearing debt - Cash and cash equivalents - Short-term investments) / Total equity

Issuance of Debenture Ratio

- Net Debt to Equity (Times) = (Interest bearing debt - Cash and cash equivalents - Short-term investments) / (Total equity - Unrealized gain/loss from derivatives - Unrealized gain/loss on foreign exchange - Inventory gain/loss)

Note:

1/ Average total equity attributable to owners of the parent

- Yearly = (Total equity attributable to owners of the parent of the year before + Total Equity attributable to owners of the Company of this year) / 2
- Quarterly = (Total equity attributable to owners of the parent of the quarter of the year before + Total equity attributable to owners of the parent of the quarter this year) / 2

2/ Average total assets

- Yearly = (Total assets of the year before + Total assets of the Company of this year) / 2
- Quarterly = (Total assets of the quarter of the year before + Total assets of the quarter this year) / 2

3/ The numerator of ROE is defined as the Profit attributable to owners of the parent and have to be annualized.

4/ The numerator of ROA is defined as EBIT and have to be annualized.

5/ Average accounts receivable before doubtful debt

- Yearly = (Accounts receivable before doubtful debt of the year before + Accounts receivable before doubtful debt of the Company of this year) / 2
- Quarterly = (Accounts receivable before doubtful debt of the quarter of the year before + Accounts Receivable before doubtful debt of the quarter this year) / 2

6/ Average accounts payable

- Yearly = (Accounts payable of the year before + Accounts payable of the Company of this year) / 2
- Quarterly = (Accounts payable of the quarter of the year before + Accounts payable of the quarter this year) / 2

7/ Interest bearing debt defined as Short-term loans + Long-term loans (including current portion of long-term loans) + Debentures (including current portion of long-term debentures)



Management Outlook towards the Business in Q2/2023

Economic Outlook

The global economy is poised for a slowdown in Q2/2023. Despite some easing concerns over the recent US banking crisis, there remained an aftermath from the faster policy rate hikes among central banks worldwide to quell inflation spikes. Aside from that, tightening financial conditions and liquidity could hamper economic activities and household spending. Other downside risks come from a prolonged Russia-Ukraine war and a weak rebound in China's economy due to the COVID-19 pandemic. As a result, the International Monetary Fund (IMF) downgraded its global economic growth forecast from 2.9% to 2.8% in 2023.

Meanwhile, Thailand's economic growth will likely continue in Q2/2023. The Monetary Policy Committee (MPC) anticipated a 3.6% growth this year, driven mainly by the buoyant tourism sector and private consumption. Thai exports should see a clearer sign of rebound in the second half of 2023, backed by private consumption recovery in China after an easing of the stringent Zero-COVID policy. Still, several crucial matters require such close monitoring including Thailand's economic outlook after an upcoming election, the household's debt service ability following the policy rate hikes, and rising uncertainties over the global economic developments in the wake of high inflation and the banking crisis among major economies.

Oil Price Outlook

The International Energy Agency (IEA) anticipates buoyant crude oil prices in 2023, given a tight supply in the global market. IEA expects the global oil demand to expand by 2.0 million barrels per day in 2023 to a record 101.9 million barrels per day, with impetus from a rebound in China's oil demand. Aside from that, the OPEC+ group's crude oil production cuts throughout 2023—to shore up oil prices—might result in a tighter oil supply in the second half of the year and affect the global economic recovery.

Based on our assessment, the average Dubai crude oil price in Q2/2023 will likely move between US\$ 73-83 /BBL due to pressure on oil demand brought on by widespread concerns over the banking financial crisis and economy recession. However, the global crude oil supply may become more constrained as OPEC+'s policy of reducing oil production, which will take effect from May onwards.

The Dated Brent-Dubai (DTD-DB) spread is expected to settle between US\$ 1.0-2.0/BBL. Compared to Q1/2023, the spread should widen as European demand for crude oil will likely increase after the refineries return from the maintenance season and worker strikes at French refineries conclude.

In Q2/2023, we expect the refining margin of cracking refineries in Singapore to decline from Q1/2023, given downward pressures from a rising supply of refined products—led by middle distillates. The refineries have kept production capacity and the share of middle distillates yield at high levels, while new refineries commenced their operation as planned. In contrast, the demand side is somewhat gloomy amid subdued economic conditions, particularly in Europe. Growing concerns over an economic recession could undermine demand for middle distillates. Nonetheless, the refining margins should gain significant thrust from a higher



Management Outlook towards the Business in Q2/2023

light distillate crack spread, thanks to a recovery in road transport demand from China following a lockdown easing and the country reopening. As well as the expected regain in US road transport demand during the summer.

