

(Translation)



PTT Global Chemical Public Company Limited

Management Discussion and Analysis

Q2/2017



Executive Summary

In Q2/2017, PTT Global Chemicals Public Company Limited (“the Company”) reported net profit of Baht 6,603 million (Baht 1.48 earnings per share), increased 34% from Q2/2016 which had net profit of Baht 4,924 million (Baht 1.10 earnings per share). For 1H/2017 period, the Company had net profit of Baht 19,785 million, increased by 105% from the same period of last year.

Table 1 : Performance Summary

(Unit: Million Baht)	Q2/2016	Q1/2017	Q2/2017	YoY % +/-	QoQ % +/-	6M/2016	6M/2017	YoY % +/-
Sales Revenue	65,543	107,149	100,772	54%	-6%	146,307	207,920	42%
EBITDA	10,119	18,616	11,640	15%	-37%	19,634	30,256	54%
EBITDA Margin (%)	15%	17%	12%	-25%	-34%	13%	15%	8%
Net Profit	4,924	13,182	6,603	34%	-50%	9,632	19,785	105%
EPS (Baht/Share)	1.10	2.96	1.48	34%	-50%	2.16	4.44	105%
Adjusted EBITDA*	7,938	18,108	12,744	61%	-30%	17,727	30,852	74%
Adjusted EBITDA Margin (%)	12%	17%	13%	4%	-25%	12%	15%	22%

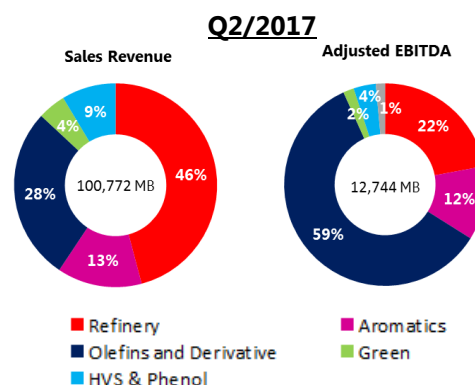
Note: * Adjusted EBITDA refers EBITDA excluding impact of oil stock value

In Q2/2017, the Company reported sales revenue at Baht 100,772 million, increased by 54% from Q2/2016 as a result of higher sales volume from having fewer planned maintenance shutdown days. Comparing to Q1/2017, sales revenue declined by 6% from a decrease in product price, followed declined crude oil price and lower utilization rate. On the operation of this quarter, the Company had planned maintenance shutdown of Olefins unit 2/1 and Aromatics unit 2 that affected to lower utilization rate in both businesses. On spreads, for Refinery business, almost of products spread rose up from Q2/2016 especially Fuel Oil spread that significantly increased in this quarter, driven GRM to stand at 6.1 USD/bbl higher than Q2/2016 at 4.6 USD/bbl and Q1/2017 at 6.0 USD/bbl. For Aromatics business, Benzene spread also increased from Q2/2016 supported by better Styrene price while decreased from Q1/2017, affected to higher Market P2F margin in this quarter at 212 USD/ton, 44% increased from Q2/2016 but dropped by 34% from previous quarter. Moving to Olefins and Derivatives business, Polyethylene price slightly dropped from both Q2/2016 and Q1/2017, followed crude oil price trend and resulted in lower Olefins and Derivatives business, especially when compare to last quarter when Butadiene price averaged at a high level but decreased to a normal level in this quarter. As a result, adjusted EBITDA margin of this business reported at 27% this quarter, increased from Q2/2016 at 24% but decreased from Q1/2017 at 35%. In addition to operational performance, the Company also booked additional gain of Baht 130 million from insurance claim for unplanned shutdown of olefins unit 3 and also realized benefit from MAX project or operation efficiency improvement project in this quarter at amount of Baht 581 million.

According to factors mentioned above, the Company reported adjusted EBITDA at Baht 12,744 million, increased by 61% from Q2/2016 while dropped by 30% from previous quarter. However, in this quarter, the Company realized stock loss net NRV of Baht 1,104 million but realized profit from foreign exchange of Baht 275 million. The Company reported net profit of Baht 6,603 million in Q2/2017, 34% increased but decreased 50% from Q2/2016 and Q1/2017 respectively.

Table 2 : Adjusted EBITDA Margin

% Adj. EBITDA Margin	Q2/2016	Q1/2017	Q2/2017	6M/2016	6M/2017
Business Unit :					
Refinery	3	6	6	6	6
Aromatics	7	22	11	10	17
Olefins and Derivatives	24	35	27	22	31
Green	10	7	5	9	6
HVS	(1)	6	5	(2)	6
Average	12	17	13	12	15



Considering performance in 1H/2017, the Company had better performance which mainly derived from higher sales volume and significantly increase in products spread. Also realized benefit from Max project which implemented since Q4/2016, booked higher profit from investment in Associated and Joint Venture Company, and gained profit from exchange rate. In accordance with all reasons above, the net profit in 1H/2017 reported at Baht 19,785 million, 105% increase from the same period in last year.

The Company reported importantly progress on Asset Injection project or PTT Group shareholding restructure project of Petrochemical business in Propylene chain, Green chemical and Service of the Company. On July 3, 2017 the Company had purchased share in 6 companies and accept the transfer of study results from PTT Public Limited Company with final amount after value adjustment at Baht 25,061 million, this transaction will potentially enhance efficiency and effectiveness in management and operation.

Performance Analysis by Business Unit

Refinery Business Unit

Table 3 : Crude Price & Petroleum Product Spreads

(Unit: USD/bbl)	Q2/2016	Q1/2017	Q2/2017	YoY % +/-	QoQ % +/-	6M/2016	6M/2017	YoY % +/-
Dubai Crude Oil	43.18	53.12	49.77	15%	-6%	36.82	51.44	40%
Gasoline-Dubai	14.45	14.78	14.21	-2%	-4%	16.64	14.50	-13%
Jet-Dubai	11.15	11.32	10.81	-3%	-5%	11.36	11.07	-3%
Diesel-Dubai	10.51	11.83	11.38	8%	-4%	10.07	11.60	15%
Fuel Oil-Dubai	-8.76	-3.14	-1.85	79%	41%	-6.98	-2.49	64%

Crude oil market in Q2/2017 softened from market concerns on the United States' increasing crude supply, while the agreement among OPEC and Non-OPEC members to reduce crude production level has extended for another 9 months to end in March 2018, however, there has been no sign of further reduction volume within the group. In addition, Nigeria and Libya that were exempted from the OPEC and Non-OPEC production cut agreement increased crude production rate which further pressure the market. Moreover, the inventory level in the United State and Europe still at peak, became a signal that volume reduction from OPEC has not enough to balance the market in the first half of 2017, affected crude oil price to volatile in the range of 43.50-54.65 USD/bbl and averaged at 49.77 USD/bbl in Q2/2017.

Almost of Petroleum product spreads over crude oil price declined from both Q2/2016 and Q1/2017. Spread of Gasoline over Dubai crude oil averaged at 14.21 USD/bbl, slightly dropped by 0.24 USD/bbl and 0.57 USD/bbl from Q2/2016 and Q1/2017 respectively due to the resume of Refineries in Asia after turnaround period and ramping up operation rate in Western countries to serve demand in travelling season. Although, there had some shutdown in this quarter, such as Ruwais in UAE with capacity of 417,000 barrels per day but Gasoline inventory level in the United State still kept at peak and did not materially declined even though the demand was in an uptrend. Jet spread over Dubai crude oil also decreased to 10.81 USD/bbl, decreased by 0.34 USD/bbl from Q2/2016 and 0.51 USD/bbl from Q1/2017, resulted from an incremental supply from higher operating rate of Refinery, however, spread impact was limited as additional supply was offset by healthy demand in this quarter. Moving to Diesel spread over Dubai crude oil, averaged at 11.38 USD/bbl, rose by 0.87 USD/bbl from Q2/2016 but dropped by 0.45 USD/bbl from previous quarter due to supply from Refineries after turnaround, along with high inventory level and lower demand in monsoon season. Spread of Fuel oil over Dubai crude oil averaged at -1.85USD/bbl, increased from both Q2/2016 and Q1/2017 by 6.91 USD/bbl and 1.29 USD/bbl respectively as a result of better demand from bunker and demand for power plant in Middle East, supporting with maintenance shutdown of coal power plant in South Korea, lower production volume from Venezuela and a decrease in Arbitrage volume to Asia.

Table 4 : Refinery Intake

	Q2/2016	Q1/2017	Q2/2017	YoY % +/-	QoQ % +/-	6M/2016	6M/2017	YoY % +/-
Crude (Mbbbl)	4.60	13.31	13.61	196%	2%	16.93	26.92	59%
(KBD)	50.50	147.94	149.51	196%	1%	93.02	148.73	60%
Condensate Residue (Mbbbl)	1.21	2.75	2.63	118%	-4%	4.21	5.37	28%
(KBD)	13.26	30.51	28.87	118%	-5%	23.15	29.69	28%
Total Intake (Mbbbl)	5.80	16.06	16.23	180%	1%	21.14	32.29	53%
(KBD)	63.76	178.45	178.39	180%	0%	116.17	178.42	54%
CDU Utilization Rate	35%	102%	103%			64%	103%	

In Q2/2017, Refinery business unit reported CDU utilization rate at 103%, increased from Q2/2016 at 35% mainly from planned maintenance shutdown for 2 months last year and slightly rose from previous quarter at 102%. However, condensate residue intake volume decreased from previous quarter due to Aromatics unit 2 planned maintenance turnaround in this quarter.

Table 5 : Petroleum Sales Volume

(Unit: '000 barrels)	Q2/2016	Q1/2017	Q2/2017	YoY % +/-	QoQ % +/-	6M/2016	6M/2017	YoY % +/-
Naphtha	257	570	624	143%	9%	656	1,194	82%
Reformate	92	1,405	1,863	1920%	33%	976	3,268	235%
Jet/Kero	1,092	2,070	1,710	57%	-17%	3,221	3,780	17%
Diesel	2,728	7,980	8,543	213%	7%	10,490	16,523	58%
Fuel Oil	1,145	2,006	2,129	86%	6%	3,589	4,135	15%
Others	450	1,554	1,338	197%	-14%	2,910	2,893	-1%
Total	5,765	15,586	16,207	181%	4%	21,841	31,792	46%

Table 6 : Gross Refinery Margin

(Unit: USD/bbl)	Q2/2016	Q1/2017	Q2/2017	YoY % +/-	QoQ % +/-	6M/2016	6M/2017	YoY % +/-
Market GRM	4.57	6.02	6.11	34%	1%	5.27	6.06	15%
CDU GRM	5.71	6.36	6.63	16%	4%	5.70	6.53	15%
CRS GRM	3.35	4.40	3.40	1%	-23%	3.50	3.74	7%
Hedging Gain/(Loss)	0.00	0.02	0.03	0%	43%	0.05	0.05	0%
Stock Gain/(Loss) Net NRV	4.07	0.72	-1.59	-139%	-320%	0.44	-0.87	-295%
Accounting GRM	8.64	6.76	4.55	-47%	-33%	5.76	5.24	-9%
Adjusted EBITDA (MB)	389	2,827	2,813	623%	-1%	2,875	5,641	96%
Adjusted EBITDA (%)	3%	6%	6%	3%	0%	6%	6%	0%

Petroleum sales volume in Q2/2017 was at 16.2 Mbbbl, increased by 181% from Q2/2016 and 4% from Q1/2017, resulted from higher production volume. Furthermore, reformate and light naphtha sales volume also increased due to Aromatics unit 2 and Olefins unit 2/1 were shut for maintenance, thus Refinery sold these products to external customer instead. Consequently, better sales volume of reformate and light naphtha by 33% and 9% respectively, compared to previous quarter.

In this quarter, almost of petroleum products spread moved up from Q2/2016 especially Diesel spread and Fuel oil spread which increased by 8% and 79%, impacted to higher Market GRM in Q2/2017 to stand at 6.11 USD/bbl, increased by 34% from Q2/2016 at 4.57 USD/bbl. Therefore, the Company reported Adjusted EBITDA of Refinery business at Baht 2,813 million, 623% rose from Q2/2016 as well as Adjusted EBITDA Margin also increased to 6% in this quarter from 3% in the same quarter of last year.

Comparing to previous quarter, Fuel oil spread increased by 41% while other petroleum products spread slightly declined. It had an impact on Market GRM to steadily increased 1% from 6.02 USD/bbl in Q1/2017. For Adjusted EBITDA and Adjusted EBITDA Margin, it maintained at the same level with previous quarter that reported at Baht 2,827 million and 6% respectively.

Additionally, the Company realized stock loss in Q2/2017 at 1.59 USD/bbl or Baht 885 million, resulted from a decline of crude oil price in this quarter. In contrary, the Company recorded Hedging gain at 0.03 USD/bbl, affected to Accounting GRM to report at 4.55 USD/bbl, dropped from both Q2/2016 and Q1/2017 which was at 8.64 USD/bbl and 6.76 USD/bbl respectively.

Aromatics Business Unit

Table 7 : Aromatics Product Prices and Spreads over Condensate

(Unit: USD/ton)	Q2/2016	Q1/2017	Q2/2017	YoY % +/-	QoQ % +/-	6M/2016	6M/2017	YoY % +/-
Condensate	394	465	431	9%	-7%	348	448	29%
Paraxylene (FECP)	799	885	815	2%	-8%	758	850	12%
Paraxylene-Condensate	405	420	383	-5%	-9%	410	402	-2%
Benzene (Spot Korea)	628	923	769	23%	-17%	601	846	41%
Benzene-Condensate	234	458	338	45%	-26%	253	398	58%
Naphtha-Condensate	17	34	15	-12%	-56%	29	24	-15%

Paraxylene

In Q2/2017, Paraxylene spread over Condensate was averaged at 383 USD/ton, steady drop from Q2/2016 at 405 USD/ton or 5%, also dropped from previous quarter at 420 USD/bbl or 9% drop, mainly from a descend of crude oil price that directly affect to Paraxylene price. Furthermore, demand for PX declined as PTA inventory in China remained at high level since the beginning of this quarter, therefore PTA producers decided to slow down their production. Also, planned and unplanned shutdown of PTA plants and the delay of some plants restart has put addition pressure to PX demand, for instance JBF Petrochemical Ltd. in India with capacity of 1.25 Mton per year and Xianglu Petrochemical Co. Ltd. with capacity of 4.5 Mton per year and Reignwood (Yuandong) Co. with capacity of 1.4 Mton per year in China. Another factor that pressured Paraxylene price was the startup of Reliance Industries Limited in India with PX capacity of 2.2 Mton per year at the end of this quarter. Nevertheless, downstream business such as Polyester, able to run with high utilization rate especially in China and India, along with continuously decrease of Polyester inventory that support Paraxylene price. Reliance Industries Limited also shut Reformer unit in the end of this quarter, affected to lower Paraxylene volume enter to the market than expected.

Benzene

For Benzene spread over Condensate averaged at 338 USD/ton, increased 45% from Q2/2016 but decreased 26% from Q1/2017 which averaged at 458 USD/ton due to healthier demand in previous quarter, especially in China as Styrene product price significantly rose, thus Benzene imported volume as feedstock was strongly increased, and resulted in higher Benzene price in Q1/2560. While in Q2/2017, the market is set with high inventory level of both Benzene and Styrene, also some Styrene plants in Asia had planned maintenance shutdown, influenced to lower Benzene demand and followed by a decrease in Benzene price in this quarter. However, in the end of this quarter Benzene volume in the market became more balanced due to some Aromatics plant shutdown in June and the resume of Styrene plant, cumene plant of Petro Rabigh with Phenol capacity of 275,000 tons per year and Acetone 160,000 tons per year.

Table 8 : Aromatics Intake and Productions

(Unit: '000 tons)	Q2/2016	Q1/2017	Q2/2017	YoY % +/-	QoQ % +/-	6M/2016	6M/2017	YoY % +/-
Condensate	1,284	1,174	1,142	-11%	-3%	2,644	2,316	-12%
Others	166	199	102	-39%	-49%	403	301	-25%
Total Intake	1,450	1,373	1,244	-14%	-9%	3,047	2,617	-14%
BTX Production	531	495	421	-21%	-15%	1,087	916	-16%
BTX Utilization Rate	83%	78%	66%			87%	72%	

In Q2/2017, BTX utilization of Aromatics was at 66%, decreased from Q2/2016 and previous quarter as a result of planned maintenance shutdown of Aromatics unit 2 at the end of quarter.

Table 9 : Aromatics Sales Volume

(Unit: '000 tons)	Q2/2016	Q1/2017	Q2/2017	YoY % +/-	QoQ % +/-	6M/2016	6M/2017	YoY % +/-
Benzene (BZ)	142	146	127	-10%	-12%	318	273	-14%
Cyclohexane	57	35	51	-11%	45%	83	86	3%
Paraxylene (PX)	324	276	225	-30%	-18%	633	501	-21%
Other BTX Products	18	19	33	86%	74%	39	52	35%
Total BTX Products	541	476	437	-19%	-8%	1,073	912	-15%
Naphtha	181	233	250	38%	7%	431	483	12%
Other By-Products	136	49	42	-69%	-15%	194	90	-53%
Total	857	758	728			1,698	1,486	

Table 10 : Aromatics market P2F

(Unit: USD/ton)	Q2/2016	Q1/2017	Q2/2017	YoY % +/-	QoQ % +/-	6M/2016	6M/2017	YoY % +/-
Market P2F	147	321	212	44%	-34%	174	269	55%
NRV	0.0	0.0	0.0	0%	0%	0	0	0%
Hedging Gain/(Loss)	0.0	0.0	0.0	0%	0%	0	0	0%
Stock Gain/(Loss)	58.3	6.5	-15.9	-127%	-345%	37	-4	-111%
Accounting P2F	205	327	196	-5%	-40%	211	265	26%
Adjusted EBITDA (MB)	1,088	3,639	1,509	39%	-59%	3,218	5,147	60%
Adjusted EBITDA (%)	7%	22%	11%	4%	-11%	10%	17%	7%

In Q2/2017, Paraxylene spread over Condensate dropped by 5% from Q2/2016 to 383 USD/ton in this quarter while Benzene spread moved up to 338 USD/ton or 45% increase. These affected to Market P2F per BTX ton to report at 212 USD/ton in Q2/2017, increased by 44%. For Adjusted EBITDA in Q2/2017, it also increased to Baht 1,509 million from Q2/2016 at Baht 1,088 million or 39%. For Adjusted EBITDA Margin, the Company recorded better margin at 11% from 7% in Q2/2016.

Comparing to Q1/2017, Aromatics product spread continuously dropped from previous quarter. Paraxylene spread over Condensate decreased by 9% as well as Benzene spread over Condensate that decreased by 26%. Refer to reasons above, Market P2F per BTX ton in Q2/2017 declined by 34% to 212 USD/ton, included planned maintenance shutdown factor in this quarter, it affected to lower Adjusted EBITDA and Adjusted EBITDA Margin from Q1/2017 which reported at Baht 3,639 million and margin at 11% from 22% in previous quarter.

The Company realized stock loss from Aromatics business in Q2/2017 at amount of Baht 239 million or 15.9 USD/ton as a consequence of declined condensate price, followed crude oil price in this quarter. Therefore, the Company reported Accounting P2F at 196 USD/ton, dropped from both Q2/2016 at 205 USD/ton and previous quarter at 327 USD/ton.

Olefins and Derivatives Business Unit

Table 11 : Prices and Spreads of Olefins and Derivatives

(Unit: USD/ton)	Q2/2016	Q1/2017	Q2/2017	YoY % +/-	QoQ % +/-	6M/2016	6M/2017	YoY % +/-
Naphtha (MOPJ)	411	499	446	9%	-11%	377	472	25%
Ethylene (SEA)	1,099	1,090	990	-10%	-9%	1,056	1,040	-1%
HDPE	1,153	1,176	1,133	-2%	-4%	1,128	1,154	2%
HDPE-Naphtha	743	677	687	-8%	2%	751	682	-9%
LLDPE	1,181	1,215	1,158	-2%	-5%	1,147	1,187	3%
LLDEP- Naphtha	770	716	712	-8%	-1%	770	714	-7%
LDPE	1,183	1,330	1,265	7%	-5%	1,150	1,297	13%
LDPE- Naphtha	773	831	819	6%	-1%	773	826	7%
MEG (ACP)	820	1,078	940	15%	-13%	776	1,009	30%
MEG-0.65 Ethylene	105	370	296	181%	-20%	90	333	271%

Ethylene market in Q2/2017 soften from Q2/2016 and Q1/2017 to average at 990 USD/ton, dropped by 10% from Q2/2016 and 9% from previous quarter as a result of weak demand in Ramadan period along with downstream plant shutdown that impacted to lower Ethylene demand. Additionally, oversupply from restarted plant in the region since the beginning of June and Ethylene flow from Middle East to Asia also pressured Ethylene price in this quarter.

For Polyethylene market in Q2/2017 also decreased as HDPE price averaged at 1,133 USD/ton, slightly declined by 2% from Q2/2016 and 4% from previous quarter, parallel with crude oil price trend. Converters slow down their purchasing order while speculating crude oil trend. Moreover, Butadiene price significantly dropped by 57% from previous quarter to 1,094 USD/ton but higher than Q2/2016 around 11% mainly from demand and natural rubber price was back to balance in this quarter.

MEG price was increased by 15% from Q2/2016 but decreased by 13% from previous quarter as a consequence of Polyester demand that still firm and better PET demand to serve in summer season around Western countries, supported with tight supply from shutdown period in China.

Table 12 : Sales volume and utilization rate of Olefins and Olefins derivatives

(Unit: '000 tons)	Q2/2016	Q1/2017	Q2/2017	YoY % +/-	QoQ % +/-	6M/2016	6M/2017	YoY % +/-
Olefins								
Sales Volume*	170	149	131	-23%	-12%	326	280	-14%
U-Rate	85%	95%	89%	5%	-6%	83%	92%	11%
Polyethylene								
Sales Volume	329	401	405	23%	1%	673	807	20%
U-Rate	93%	116%	108%	16%	-7%	91%	112%	23%
MEG								
Sales Volume	103	88	101	-2%	15%	210	190	-9%
U-Rate	91%	67%	90%	-1%	34%	93%	78%	-16%

Note : *Sales Volume of Olefins is external volume.

Table 13 : Adjusted EBITDA of Olefins and Derivatives

(Unit: Million Baht)	Q2/2016	Q1/2017	Q2/2017	YoY % + /(-)	QoQ % + /(-)	6M/2016	6M/2017	YoY % + /(-)
Adj. EBITDA	6,137	10,665	7,559	23%	-29%	11,092	18,224	64%
Adj. EBITDA Margin	24%	35%	27%	3%	-8%	22%	31%	9%

In Q2/2017, Olefins business managed feedstock by feed Natural Gas 91% as main feedstock and Naphtha 9% and reported total Olefins utilization rate at 89%, increased from Q2/2016 at 85% but dropped from previous quarter at 95% due to planned maintenance shutdown of Olefins unit 2/1 while MEG had better utilization rate at 90% as a result of plant restarted from maintenance shutdown since at the ending of last quarter until the beginning of Q2/2017.

Table 14 : Gas/Liquid Ratio

	Q2/2016	Q1/2017	Q2/2017	YoY % + /(-)	QoQ % + /(-)	6M/2016	6M/2017	YoY % + /(-)
Gas	86%	88%	91%	5%	2%	87%	89%	4%
Naphtha	14%	12%	9%	-5%	-2%	13%	11%	-3%
Total Intake (Ktons)	917	981	898	-2%	-8%	1,800	1,879	4%

For Ethylene price in Q2/2017, it averaged at 990 USD/ton, decreased by 10% from Q2/2016 whereas Polyethylene price steadily increased to average at 1,186 USD/ton or 1% from Q2/2016. Furthermore, MEG spread also increased by 181% YoY to 296 USD/ton in this quarter as it had maintenance shutdown of Olefins unit 3 in Q2/2016. In accordance with above factors, it drove Adjusted EBITDA to increase by 23% to Baht 7,559 million from Baht 6,137 million in Q2/2016. On the margin side, Olefins business had Adjusted EBITDA Margin at 27%, increased 3% from the same quarter in the last year.

Comparing to Q1/2017, Ethylene price was decreased by 9% along with Polyethylene price that also decreased by 4% from last quarter. For MEG spread over Ethylene, it declined by 20% as MEG price was dropped by 13%. Butadiene also kept continuously decreased to 1,094 USD/ton, 57% dropped from Q1/2017. According to significantly decline of core and by products price in this quarter, affected to lower Adjusted EBITDA by 29% from previous quarter, also Adjusted EBITDA Margin that dropped by 8% from 35% in previous quarter.

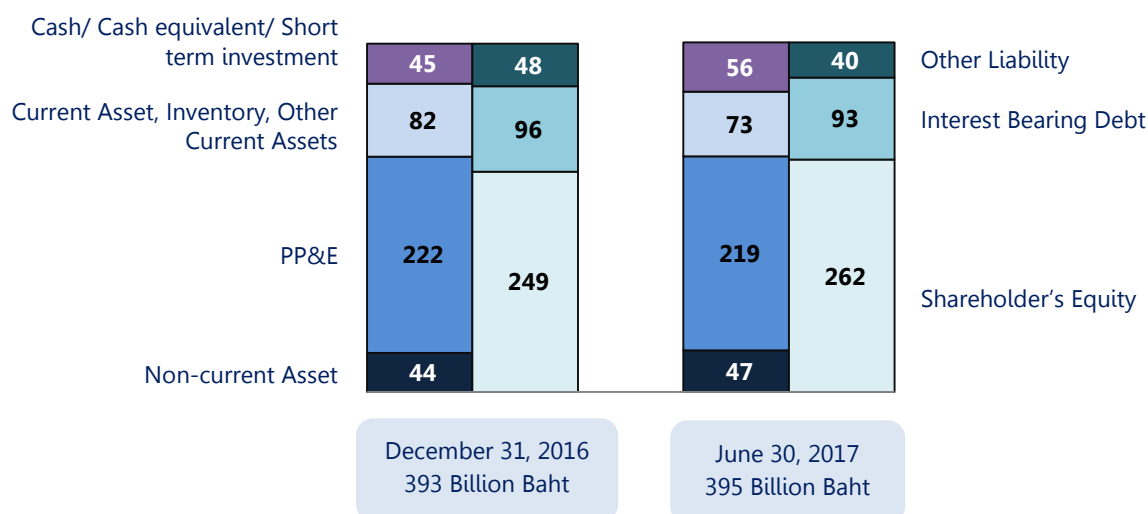
Operating Performance

Unit : MB

	Q2/2016	Q1/2017	Q2/2017	YoY % + /(-)	QoQ % + /(-)	6M/2016	6M/2017	YoY % + /(-)
Sales Revenue	65,543	107,149	100,772	54%	-6%	146,307	207,920	42%
Feedstock cost	(46,620)	(77,504)	(76,915)	-65%	1%	(106,255)	(154,418)	-45%
Product to Feed Margin	18,923	29,645	23,857	26%	-20%	40,052	53,502	34%
1 Variable Cost	(5,569)	(6,265)	(5,957)	-7%	5%	(11,467)	(12,222)	-7%
2 Fixed OH	(4,161)	(3,762)	(3,899)	6%	-4%	(8,339)	(7,661)	8%
3 Stock Gain/(Loss) and NRV	2,181	508	(1,104)	-151%	-317%	1,907	(596)	-131%
4 Gain/(Loss) on Hedging Commodity	(0)	11	15	0%	36%	43	26	-40%
5 Other Revenue	1,124	1,124	1,296	15%	15%	2,102	2,421	15%
6 SG&A Expenses	(2,379)	(2,645)	(2,568)	-8%	3%	(4,664)	(5,214)	-12%
7 Extra item	0	0	0	0%	0%	0	0	0%
EBITDA	10,119	18,616	11,640	15%	-37%	19,634	30,256	54%
Depreciation & Amortization	(4,158)	(5,032)	(4,864)	-17%	3%	(8,299)	(9,896)	-19%
EBIT	5,961	13,584	6,776	14%	-50%	11,335	20,360	80%
8 Net financial expense	(834)	(804)	(739)	11%	8%	(1,656)	(1,541)	7%
9 FX Gain(Loss)	102	1,529	275	170%	-82%	734	1,804	146%
10 Share of gain/(loss) from investment	54	538	351	550%	-35%	232	888	283%
11 Corporate Income Tax	(380)	(1,597)	33	109%	102%	(1,003)	(1,564)	-56%
12 Net Profit after Tax	4,903	13,250	6,696	37%	-49%	9,642	19,947	107%
Profit/(loss) attributable to:								
13 Owners of the Company	4,924	13,182	6,603	34%	-50%	9,632	19,785	105%
14 Non-controlling interests	(21)	68	93	543%	37%	10	162	1520%
15 Adjusted EBITDA*	7,938	18,108	12,744	61%	-30%	17,727	30,852	74%

Note: * Adjusted EBITDA = EBITDA excluded Stock Gain/Loss and NRV.

Statement of Financial Position



Asset

As of June 30, 2017, the Company had total asset of Baht 394,509 million, increased from December 31, 2016 by Baht 1,343 million mainly from an increment of both current asset and non-current asset by Baht 1,066 million and Baht 277 million respectively.

1) Current asset increased by Baht 1,066 million as the following reasons;

- Cash and cash equivalents and current investments increased by Baht 10,299 million or 23% mainly from cash received from operation at amount of Baht 29,888 million while had cash paid for asset purchasing and projects investment around Baht 9,812 million and invested in asset available for sale at Baht 693 million, also had cash paid for loan repayment and interest at amount of Baht 8,878 million.
- Account receivable decreased by Baht 10,133 million or 25%, resulted from a decrease of Account receivable in Refinery business by Baht 3,142 million as sales volume in June 2017 was lower than December 2016 around 1.5 Mbbl. Moreover, Account receivable of Aromatics business also dropped by Baht 4,246 million from planned maintenance shutdown of Aromatics II in the end of this quarter. Olefins business recorded a decrease of Account receivable by Baht 1,625 million as a consequence of lower sales volume from maintenance shutdown of Olefins unit 2/1 in June.
- Inventory increased by Baht 1,701 million or 5% due to an increase of Petroleum product inventory by Baht 1,042 million, Aromatics product by Baht 636 million and Polymers product by Baht 698 million due to planned maintenance of Aromatics unit 2 that impacted to high feedstock inventory, compared to the end of last year.
- Other current assets decreased by Baht 801 million which mainly from insurance claim received from Dhipaya Insurance company in Olefins unit 3 case (Radiant Coil) at amount of Baht 805 million and had cash received from Commodity Hedging around Baht 339 million.

2) Non-current asset increased by Baht 277 million which mainly from;

- Property, plant and equipment decreased by Baht 2,619 million mainly from adjusted asset value in foreign countries because of Baht appreciation around Baht 84 million, included asset

amortization at Baht 210 million. On the other hand, the Company purchased and built new assets during the period around Baht 6,476 million for ongoing projects, such as mLLDPE, Material upgrade for Evaporator Equipment of TOCGC and Methyl Ester 2.

- Other non-current asset increased by Baht 2,896 million or 7%, resulted from purchasing Catalyst for Aromatics around Baht 1,814 million while realized profit from investment in associated company and Joint Venture Company that increased around Baht 338 million. Moreover, there had an increased investment in bond and asset available for sale, included private fund by Baht 769 million.

Liability

As of June 30, 2017, the Company had total liability of Baht 132,386 million, decreased from December 31, 2016 by Baht 12,111 million or 8%.

- Accounts payable decreased by Baht 5,410 million or 20% from Accounts payable of Refinery business that dropped by Baht 1,970 million. For Accounts payable of Aromatics business, it also dropped by Baht 1,418 million from a decline in condensate price, compared to the end of last year and lower feedstock volume purchase, followed planned maintenance shutdown of Aromatics 2. Furthermore, Accounts payable of Olefins business was decreased by 1,471 million as a result of planned maintenance shutdown of Olefins unit 2/1 and 2/3 in June that affected to lower feedstock purchase.
- Current Liabilities decreased by Baht 3,181 million or 22% due to a decrease of Accounts payable from Commodity Hedging around Baht 1,533 million, VAT payable and Excise tax payable around Baht 652 million, contractor payable by Baht 221 million and accrued corporate income tax around Baht 281 million. In addition, liability for Vencorex's share purchase followed sales contract also dropped by Baht 226 million as the Company acquired more share from Vencorex from 85% to 90.82% holding.
- Interest bearing debt decreased by Baht 3,484 million or 4% from PTTGC's loan repayment during the period around Baht 2,072 million subsidiary's repayment around Baht 3,747 million. Furthermore, USD loan and USD debenture of the Company also decreased around 1,942 million, according to Baht appreciation at 1.85 Baht/USD compared to the end of 2016 (referenced BOT averaged selling rate as of Q2/2017 at 34.15 Baht/USD and December 31, 2016 at 36.00 Baht/USD). Nevertheless, subsidiary company recorded an increment of both short term and long term loan around Baht 4,217 million which mainly belong to PTTME, Vencorex and TSCL.

Shareholder's Equity

As of June 30, 2017, the Company reported total shareholders' of Baht 262,123 million, increased by Baht 13,454 or 5% from December 31, 2016.

- Shareholder's Equity rose by Baht 10,855 million, included Net profit as of June 30, 2017 at Baht 19,785 million. Changing other components of shareholder portion was decreased by Baht 345 million due to loss from financial statement's translation of foreign company and loss from changing the fair value for preventing cash flow's risk (Hedge Accounting), also realized loss from Associates Company and Joint Venture Company through Statement of comprehensive income. Nonetheless, the Company recorded an increase of Non-Controlling Interest by Baht 2,599 million mainly derived from an increment of capital registration and share offering to public of GGC that affected to a decline in PTTGC shareholding's portion from 100% to 72.29%, resulting in higher non-controlling by Baht 2,617 million. During six months period, the Company recorded profit from Non-Controlling Interest of Baht 162

million and profit from financial statement's translation at Baht 10 million, offset by dividend paid at Baht 253 million.

Statement of Cash Flows

As of June 30, 2017 the Company had net cash from operating activities of Baht 29,888 million, net cash used in investment activities of Baht 13,053 million which invested more in short term investment around Baht 2,548 million and cash paid for purchasing land, property and equipment, included intangible asset at amount of Baht 6,961 million, for instance mLLDPE project, Material upgrade for Evaporator Equipment for TOCGC, Methyl Ester 2 project, also turnaround cost. Additionally, the Company recorded cash invested in securities available for sale at amount of Baht 693 million, invested in subsidiary and associated company at amount of Baht 1,249 million which mainly in Vencorex, also had cash paid for catalyst and platinum around Baht 2,555 million. However, the Company recorded an increment in cash received from interest at amount of Baht 415 million and dividend at Baht 538 million. The Company had net cash paid from financing activities of Baht 8,878 million, mainly from both short term and long term loan repayment equal to Baht 5,819 million and interest paid to financial institute and leasing contract of Baht 2,050 million, included dividend paid at Baht 8,282 million. Conversely, the Company had cash received from short term and long term loan at Baht 4,217 million, mainly from Vencorex, PTTME and TSCL and cash received from non-controlling at Baht 3,056 million as a result of increased capital registration of GGC and share offering to the public. Therefore, The Company had cash and cash equivalents as of June 30, 2017 of Baht 39,049 million, included current investments of Baht 16,562 million and long term investment in private fund and in house management of Baht 6,082 million, totally the Company reported cash on hand at amount of Baht 61,693 million.

Key Financial Ratios

Financial Ratios	Q2/2016	Q1/2017	Q2/2017
Current Ratio (Times)	2.88	2.58	2.83
EBITDA to sales revenue (%)	11.26%	15.38%	14.43%
Net Profits to sales revenues (%)	4.62%	9.16%	8.78%
Return on total assets (%)	5.65%	10.63%	11.26%
Return on equity (%)	6.62%	13.79%	14.55%
Interest Bearing Debt to equity (Times)	0.41	0.36	0.35
Net interest bearing debt to equity (Times)	0.20	0.15	0.14
Net interest bearing debt to EBITDA (Times)	1.27	0.69	0.63

Note:

Current ratio	=	Current assets divided by current liabilities
EBITDA to sales revenue	=	EBITDA divided by sales revenue (for the last 4 quarters)
Net profit on sale revenue	=	Net profit divided by sales revenue (for the last 4 quarters)
Return on total assets	=	Net profit/(Loss) divided by average total assets
Return on equity	=	Net profit (for the last 4 quarters) divided by average total shareholder's equity
Interest Bearing Debt to Shareholders' Equity	=	Interest Bearing Debt divided by shareholder's equity
Net Interest Bearing Debt to Shareholders' Equity	=	Interest Bearing Debt net from cash and cash equivalent and current investments divided by shareholder's equity
Net Interest Bearing Debt to EBITDA	=	Interest Bearing Debt net from cash and cash equivalent and current investments divided by EBITDA (for the last 4 quarters)

Market and Business Outlook in 2H/2017

Crude oil price trend in 2H/2017, the Company forecasts that it might average at 49 USD/bbl slightly soften from 1H/2017 due to continuously increasing in production volume from the United States. Although, OPEC decided to extend production cut period but it does not have enough power to drive crude oil price to stand higher than 50 USD/bbl.

For Petroleum market outlook, the Company expects that Diesel and Fuel Oil spread over Dubai crude oil will increase from Q2/2017 while Gasoline spread tend to decrease. For Diesel spread, forecasts to average at 12.8 USD/bbl in 2H/2017 as supported from planned maintenance shutdown of Refinery in India to improve plant efficiency by reducing sulfur in Diesel and Gasoline production to comply with Bharat Stage IV standard that has been deployed since April 2017. Therefore, petroleum production volume will decrease and India who is the biggest Diesel exporter might turn to importer in short period. Moving to Gasoline spread, it is expected to average at 13.1 USD/bbl in 2H/2017 as a consequence of high inventory of summer grade gasoline in the United States. However, in Q3/2017 Gasoline demand will switch to winter grade which will pressure producer to get rid of the no longer in demand summer grade. Fuel Oil spread expects to maintain in healthy level as Fuel Oil market situation is still tight with demand for tankers fuel. As per reasons above, GRM in 2H/2017 is expected to increase to 6.6 USD/bbl and annually average at 6.3 USD/bbl. Moving to Refinery's operation, it does not have plant shutdown in this year, thus the Company expects to run at full capacity.

Aromatics business is forecasted to decrease more than Q2/2017 by estimating Paraxylene spread over Condensate to maintain at the same level with Q2/2017 around 387 USD/ton as Aromatics plant in the region will be restarted from planned maintenance shutdown in Q2/2017, coupled with new Paraxylene capacity from Reliance Industries that already started its operation in this quarter, thus it might pressure Paraxylene price to slightly drops in next quarter. However, on the demand side, Polyester market is still firm which helps support Paraxylene price, and there also have benefit from supply side as it does not have any new capacity enters to the market. For Benzene spread over Condensate is expected to drop to 314 USD/ton mainly from the resume of Aromatics after maintenance shutdown period, in line with continuously decrease of Styrene price as almost of Styrene plant was back from turnaround. Therefore, the Company forecasts Market P2F in the 2H/2017 to average at 240 USD/ton and annually average around 253 USD/ton. For production volume, the Company expects to have utilization rate at 86% in 2H/2017 and 79% for a year.

Moving to Olefins and Derivatives, it is forecasted to decrease by Ethylene price will drop to 957 USD/ton, follow crude oil price trend, also have pressure from new capacity in Saudi Arabia and India that will come on stream in Q3/2017. For Polyethylene price, HDPE price in 2H/2017 might decrease to 1,145 USD/ton, partially result from crude oil price volatility. Moreover, customers prefer to avoid risk by pending purchase order and willing to control inventory level to wait and observe product price trend. Opposing, MEG price tend to increase to 790 USD/ton in 2H/2017 which supports from Polyester demand. Nonetheless, MEG price still have some pressure from new capacity of Reliance Industries that will start operation in July. For operation part, the Company forecasts that total Olefins utilization rate will increase from 1H/2017 to 98% in 2H/2017 and averages around 95% for a year which already includes impact from planned maintenance shutdown of Olefins unit 2/1 and Olefins unit 1.

Planned Maintenance Shutdown Schedule 2017

Plant		2017											
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
OLE	Cracker			31	Oleflex		36	OLE2/1					
							42	Butadiene		17	OLE1		
									13	OLE2/2	29	Oleflex	
POL	HDPE					15	BPE2			15	BPE1		
	LDPE			12					15	HDPE-1			
	LLDPE						26				12		
EOB	TOCGC			44									
PHN	Phenol I			39									
	Phenol II			10									
	BPA							16					
REF	Refinery												
ARO	Aromatics I												
	Aromatics II						45						