(Translation)



Management's Discussion and Analysis For the operating results of Quarter 2 2017

Global Green Chemicals Public Company Limited





## Management's discussion and analysis

In quarter 2/2017, Global Green Chemicals Public Company Limited ("the company") reported net profit of Baht 71 million (down 78%YoY, down 51%QoQ) with EPS of Baht 0.07(down 84%YoY, down 65%QoQ).

#### Table 1 : Performance Summary

Unit (Million Baht)	2Q/16	1Q/17	2Q/17	% YoY	% QoQ	6M/2016	6M/2017	% YoY
Sales Revenue	4,844	4,246	4,826	0%	14%	9,179	9,073	-1%
EBITDA	436	312	228	-48%	-27%	843	540	-36%
EBITDA Margin (%)	9.0%	7.3%	4.7%	-4.3%	-2.6%	9.2%	5.9%	-3.2%
Net Profit	322	145	71	-78%	-51%	591	216	-63%
EPS (Baht/Share) <sup>(1)</sup>	0.44	0.20	0.07	-84%	-65%	0.80	0.21	-74%
Adjusted EBITDA <sup>(2)</sup>	323	345	660	104%	91%	646	1,005	56%
Adjusted EBITDA Margin (%)	6.7%	8.1%	13.7%	7.0%	5.5%	7.0%	11.1%	4.0%

Note : (1) EPS is calculated from 1,023,666,700 shares (2) Adjusted EBITDA refers to EBITDA excluding impact of Stock Gain/(Loss) and NRV



In the face of volatile crude palm oil and crude palm kernel oil prices' movement, both had continued to decrease from quarter 1/2017 due to high volume of Palm oil in the market. However, the company remained Adjusted EBITDA of Baht 660 million in quarter 1/2016, increased from quarter 2/2016 Adjusted EBITDA of Baht 323 million and increased from quarter 1/2017 Adjusted EBITDA of Baht 345 million.

In quarter 2/2017, domestic and regional palm production rose from quarter 2/2016 and rose from quarter 1/207 mainly due to the end of drought season from El Nino effect. These affected to CPO-DIT reference price in quarter 2/2017 dropped to 25.84 Bt/kg from 30.78 Bt/kg in quarter 1/2017 and decreased from 33.90 Bt/kg in quarter 2/2016. As a result, EPPO Methyl Esther selling price(ME-EPPO) was at 29.74 Bt/litre in quarter 2/2017, decreased from 34.20 Bt/litre in quarter 1/2017 and lowered from 36.67 Bt/litre in quarter 2/2016. With an increase of domestic production and inventory level of crude palm oil, the government decided to increase the biodiesel mandate from B5 to B7 on May 8, 2017. More than that, seasonal impacted to higher yield of crude palm kernel oil which resulted to regional crude palm kernel oil price continuously lowered to 999USD/ton in quarter 2/2017, decreased from 1,265 USD/ton in quarter 2/2016 and 1,516 USD/ton in quarter 1/2017. Accordingly, an average price of Fatty Alcohol in quarter 2/2017 was dropped to 1,783 USD/ton from 2,243 USD/ton in quarter 1/2017 and increased from 1,737 USD/ton in quarter 2/2016.

In quarter 2/2017, the company reported sales revenue of Baht 4,826 million, decreased from quarter 2/2016 which the company reported sales revenue of Baht 4,844 million, mainly attributable to the lower sales revenue of Methyl Ester Business eventhough





sales volume was increased. However, sales revenue of Fatty alcohol business recovered in this quarter due to higher sales volume.

Comparing between quarter 2/2017 and quarter 1/2017, the company reported higher sales revenue, as a result of higher revenue from Methyl Ester and Fatty Alcohol Business Units. Whereas in term of sales volume, Methyl Ester sales volume was increased from the effect of higher government mandate in this quarter, while Fatty Alcohol sales volume was higher than the previous quarter as there was no shutdown activity in this quarter.

According to continuity from fluctuation of crude palm oil and crude palm kernel oil prices from quarter 1/2016, the company recognized stock loss of Baht 413 million and NRV of Baht 19 million in quarter 2/2017.

When compared to 6M/2016, the company reported 6M/2017 sales revenue of baht 9,073 million decreased from 6M/2016 sales revenue of Baht 9,179 million mainly attributable to a decrease in sales revenue of Methyl Ester Business from lower sales volume and lower average selling prices.

The lower sales volume was due to government's biodiesel mandates which was B5 and B7 in 6M/2017 while it was B7 during the whole 6M/2016. Contrary to the lower revenue of Methyl Ester Business Unit, the revenue from Fatty Alcohol business unit increased in 6M/2017 compared to 6M/2016 due to the higher average selling prices of fatty alcohol. The 6M/2017 Adjusted EBITDA was at Baht 1,005 million, increased from 6M/2016 Adjusted EBITDA of Baht 646 million. Whereby the company registered Stock Loss and NRV in 6M/2017 of Baht 465 million, in comparison to registered stock gain of Baht 197 million in 6M/2016.





Market Overview of Major Products

# Market Overview of Methyl Ester (B100)

Table 3: Prices of product and major feedstock

Average Price	Quarter 2/2016	Quarter 1/2017	Quarter 2/2017	YoY	QoQ	6M/2016	6M/2017	YoY
Methyl Ester (B100) (Baht per Litre) <sup>(1)</sup>	36.67	34.20	29.74	- 6.93	- 4.47	34.60	31.97	- 2.63
Crude Palm Oil (CPO) (Baht per Kg) <sup>(2)</sup>	33.90	30.78	25.84	- 8.06	- 4.94	31.74	28.31	- 3.43
Market P2F of Methyl Ester (B100) (Baht per Kg) <sup>(3)</sup>	4.29	5.17	4.95	0.66	- 0.22	4.32	5.06	0.74
Biodiesel Mandate	B7	B5	B5, B7			B5	B5, B7	

Note : (1) Reference Price of EPPO (2) Reference Price of DIT (3) Market ME Price - Mixed Feedstock according to EPPO's B100 formula

Quarter 2/2017 Methyl Ester Market P2F (difference between Methyl Ester selling price and feed cost) increased to 4.95 Baht/kg from 4.29 Baht/kg from quarter 2/2016, increased by 0.66 Baht/kg YoY, as a result of higher Methanol price (which is one of the factors in EPPO formula). Yet, Methanol prices in quarter 2/2017 remained lower than Methanol prices in quarter 1/2017, which resulted to lower P2F in quarter 2/2017. The company also used different proportion feeds from quarter 1/2017. Hence, quarter 2/2017 market P2F dropped by 0.22 Baht/kg from 5.17 Baht/kg in quarter 1/2017.

6M/2017 Average Market P2F increased by 0.74 to 5.06 Baht/kg from 4.32 Baht/kg in 6M/2016 as mentioned as above.





# **Market Overview of Fatty Alcohols**

Table 4: Prices of products and major feedstock

Average Price	Quarter 2/2016	Quarter 1/2017	Quarter 2/2017	YoY	QoQ	6M/2016	6M/2017	YoY
Fatty Alcohols Short Chain (USD per ton) <sup>(1)</sup>	3,403	3,211	3,318	- 86	107	3,795	3,264	- 531
Fatty Alcohols Mid Cut (USD per ton) <sup>(1)</sup>	1,755	2,507	1,802	47	- 705	1,521	2,154	633
Fatty Alcohols Long Chain (USD per ton) <sup>(1)</sup>	1,256	1,441	1,336	80	- 105	1,223	1,389	166
Fatty Alcohols Mixed Chains $(USD \text{ per ton})^{(1)}$	1,737	2,243	1,783	46	- 460	1,613	2,013	400
Crude Palm Kernel Oil (CPKO) (USD per ton) <sup>(3)</sup>	1,265	1,516	999	- 266	- 517	1,146	1,258	112
Market P2F of Fatty Alcohols	219	424	584	365	160	238	504	266

Note : (1) Reference Price of ICIS (2) Average price of Fatty Alcohols with production proportion: Short Chain 8% Mid Cut 62% and Long Chain 30% (3) Reference Price of Malaysian Palm Oil Board (MPOB)

Quarter 2/2017 Market P2F (Product to Feed) of Fatty Alcohols increased to 584 USD per ton from 424 USD per ton in quarter 1/2017 and increased from 219 USD per ton in quarter 2/2016. Fatty Alcohol selling prices in quarter 2/2017 decrease in the lower rate of price of feedstock decrease, mainly attributable to demand for Natural Fatty Alcohol increased from soft selling prices and having competitive price over Synthetic Fatty Alcohol price levels. Moreover, supply for Natural Fatty Alcohol was tight in some regions, as some Fatty Alcohol producers shutdown from volatility of crude palm kernel oil in quarter 2/2017.

6M/2017 Market P2F (Product to Feed) of Fatty Alcohols averaged 504 USD per ton increased from 238 USD per ton in 6M/2016 from the price of Fatty Alcohols that decreased in the slower rate of price of feedstock as mentioned as above.





#### Performance Analysis by Business Unit

## **Performance Analysis for Methyl Ester Business Unit**

#### % YoY 6M/2016 6M/2017 % YoY % QoQ Sales Revenue (Millon Baht) 3,283 2,642 2,903 -12% 10% 6,406 5,545 -13% Plant Utilization Rate (%)<sup>(1)</sup> 97% 86% 106% 9% 20% 99% 96% -3% Sales Volume (Tons) (2) 79,872 69,205 85,879 8% 24% 168,217 155,084 -8% Sales Volume (Million Litres) 92 194 179 80 99 8% 24% -8% EBITDA (Million Baht) -74% 555 245 131 65 -51% 196 -65% EBITDA Margin (%) 7.5% 5.0% 2.2% -5.2% -2.7% 8.7% 3.5% -5.1% Stock Gain/(Loss) & NRV 10 -32 -119 -1299% 269% 16 -152 -1045% 235 539 348 -35% Adjusted EBITDA (Million Baht)<sup>(3)</sup> 164 184 -22% 13% Adjusted EBITDA Margin (%) 7.2% 6.2% 6.3% -0.8% 0.1% 8.4% 6.3% -2.1%

## Table 5 : Performance of Methyl Ester Business Unit

Note : (1) Nameplate Capacity 300,000 Tons per year (2) Coversion ratio: 0.865 Tons = c.1,000 Litres

(3) Adjusted EBITDA refers to EBITDA excluding impact of Stock Gain/(Loss) and NRV

#### Performance Analysis for Methyl Ester Business Unit for quarter 2/2017 vs quarter 2/2016

Methyl Ester Business Unit had sales revenue in quarter 2/2017 of Baht 2,903 million, decreased by 12% or Baht 380 million from quarter 2/2016 mainly attributable to the decrease in Methyl Ester selling price, while sales volume increased 6,007 tons or up 8% from 79,872 tons in quarter 2/2016 to 85,879 tons in quarter 2/2017 as the company was able to increase sales to some customers in spite of the decline in market demand from the lower biodiesel mandate being B5 and B7 in this quarter compared to the mandate of B7 for the whole quarter 2/2016.

Moreover, the company received lower discount on Feedstock sourcing in quarter 2/2017 than in quarter 2/2016, therefore the company's quarter 2/2017 Adjusted EBITDA decreased by 22% to Baht 184 million from quarter 2/2016 at Baht 235 million.

In quarter 2/2017, the company posted stock loss of Baht 100 million and NRV of Baht 19 million, due to the volatility of crude palm oil price had continued from quarter 1/2017 as well as crude oil prices declined, compared to stock Gain of Baht 10 million in quarter 2/2016.

## Performance Analysis for Methyl Ester Business Unit for quarter 2/2017 vs quarter 1/2017

Sales Revenue of Methyl Ester Business in quarter 2/2017 increased by 10% or Baht 261 million from quarter 1/2017 mainly attributable to the increase in sales volume of 16,674 tons following the increased biodiesel mandate from B5 in quarter 1/2017 to be B5 and B7 in quarter 2/2017 although the selling price of Methyl Ester decreased.

Adjusted EBITDA in quarter 2/2017 increased from Baht 164 million to Baht 184 million in quarter 1/2016, increased by 13%.

The comparison between stock gain/loss in Methyl Ester business in quarter 2/2017 and in quarter 1/2017 was shown in Table 5.





## Performance Analysis for Methyl Ester Business Unit for 6M/2017 vs quarter 6M/2016

Sales Revenue of Methyl Ester Business in 6M/2017 decreased by 13% or dropped by Baht 861 million from 6M/2016 at Baht 6,406 million mainly attributable to the decrease in Methyl Ester selling price as well as the decrease in sales volume of 13,133 tons from the decrease in biodiesel mandate which was B7 during the whole period of 6M/2016 while it was B5 in quarter 1/2017 and was adjusted to be B5 and B7 in quarter 2/2017

In 6M/2017, the company's Adjusted EBITDA of Methyl Ester business was Baht 348 million, decreased from Baht 539 million, or decreased by 35%.

The comparison between stock gain/loss in Methyl Ester business in 6M/2017 and in quarter 6M/2016 was shown in Table 5.

## **Performance Analysis for Fatty Alcohols Business Unit**

	Quarter 2Q/2016	Quarter 1Q/2017	Quarter 2Q/2017	% YoY	% QoQ	6M/2016	6M/2017	% YoY
Sales Revenue (Millon Baht)	1,561	1,604	1,923	23%	20%	2,772	3,528	27%
Plant Utilization Rate (%)	109%	89%	112%	3%	23%	103%	101%	-2%
Sales Volume (Tons)	25,725	19,890	27,643	7%	39%	51,046	47,533	-7%
EBITDA (Million Baht)	191	180	163	-15%	-10%	289	343	19%
EBITDA Margin (%)	12.2%	11.2%	8.5%	-3.8%	-2.8%	10.4%	9.7%	-0.7%
Stock Gain/(Loss) & NRV	92	- 1	- 313	-438%	26577%	170	- 314	-284%
Adjusted EBITDA (Million Baht) <sup>(1)</sup>	99	182	476	382%	162%	118	657	457%
Adjusted EBITDA Margin (%)	6.3%	11.3%	24.7%	18.4%	13.4%	4.3%	18.6%	14.4%

Table 6 : Performance of Fatty Alcohols Business Unit

Note : (1) Adjusted EBITDA refers to EBITDA excluding impact of Stock Gain/(Loss) and NRV

#### Performance Analysis for Fatty Alcohols Business Unit for guarter 2/2017 vs guarter 2/2016

Fatty Alcohols business had sales revenue in quarter 2/2017 of Baht 1,923 million, increased 23% or Baht 362 million from quarter 2/2016 mainly attributable to the increase in price of Fatty Alcohols which was at the higher level than the same quarter last year. Also sales volume increased due to the higher demand for Natural Fatty Alcohols from its lower price (from the hike in price in beginning of 2017), which followed the down trend of crude palm kernel oil (CPKO) price. In addition, Fatty Alcohols supply decreased as producers in some region had reduced their operating rates as well as the price of crude oil being feedstock for Synthetic Fatty Alcohols was rebounding compared to quarter 2 last year.

As a result, the company posted Adjusted EBITDA of Fatty Alcohols Business in quarter 2/2017 of Baht 476million, increased by 382% or increase by Baht 377 million from Baht 99 million in quarter 2/2016.

As price of CPKO continually decreased, in quarter 2/2017 the company realized Stock Loss for Fatty Alcohols business of Baht 313 million, while the company realized Stock Gain of Baht 93 million in quarter 2/2016.





## Performance Analysis for Fatty Alcohols Business Unit for guarter 2/2017 vs guarter 1/2017

Sales Revenue of Fatty Alcohols Business in quarter 2/2017 increased 20% from Baht 1,604 million in quarter 1/2017 to Baht 1,923 million mainly attributable to increase in sales volume as a result of higher demand and higher utilization rate of Fatty Alcohols plant from the previous quarter and some customers had their plant shutdown.

In quarter 2/2017, the company reported Adjusted EBITDA of Fatty Alcohol business was higher than quarter 1/2017 at Adjusted EBITDA by 162% or increased by Baht 294 million.

As a result, the company reported EBITDA for Fatty Alcohols Business in quarter 2/2017 of Baht 163 million, decreased 10% or Baht 18 million from quarter 1/2017.

## Performance Analysis for Fatty Alcohols Business Unit for 6M/2017 vs 6M/2016

Sales Revenue of Fatty Alcohols Business in 6M/2017 increased 27% or Baht 755 million from 6M/2016 mainly attributable to increase in selling price of Fatty Alcohols compared to the same period of last year. However, 6M/2017 Fatty Alcohols sales volume decreased from 6M/2016, as in 6M/2017, the Fatty Alcohol production unit had a longer shutdown period than 6M/2016 and there were some customers had their plants shutdown.

As CPKO price continually declined during the whole period of 6M/2017, the company realized Stock Loss of Baht 314 million while in 6M/2016 the company realized Stock Gain of Baht 171 million.

The comparison between stock gain/loss in Fatty Alcohol business in quarter 2/2017 and in quarter 1/2017 was shown in Table 6.





# **Operating Performance**

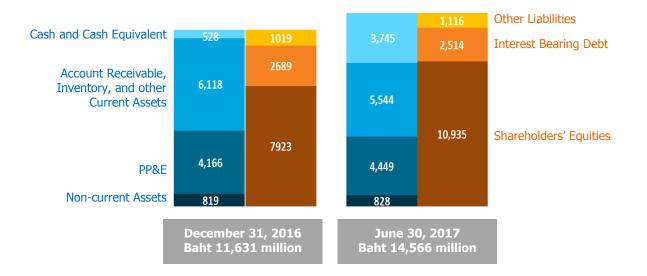
Unit (Million Baht)	Quarter 2/	2016	Quarter 1/	2017	Quarter 2/	2017	Yo	Y	Qo	Q	6M/201	.6	6M/201	.7	YoY
	MB	%	MB	%	MB	%	MB	%	MB	%	MB	%	MB	%	MB
Sales Revenue	4,844	100	4,246	100	4,826	100	(18)	(0)	580	14	9,179	100	9,073	100	(106)
Feedstock	(3,955)	(82)	(3,346)	(79)	(3,540)	(73)	416	(11)	(194)	6	(7,438)	(81)	(6,886)	(76)	553
NRV	11	0	-	-	(19)	(0)	(30)	(277)	(19)	n.a.	-	-	(19)	(0)	(19)
Product to Feed Margin	899	19	900	21	1,267	26	368	41	367	41	1,741	19	2,168	24	427
Other Variable Costs	(392)	(8)	(355)	(8)	(416)	(9)	(24)	6	(60)	17	(754)	(8)	(771)	(9)	(17)
Fixed Costs	(128)	(3)	(139)	(3)	(137)	(3)	(9)	7	2	(2)	(258)	(3)	(276)	(3)	(18)
Stock Gain/(Loss)	102	2	(33)	(1)	(413)	(9)	(515)	(503)	(379)	1,133	198	2	(446)	(5)	(644)
SG&A	(60)	(1)	(70)	(2)	(85)	(2)	(26)	43	(15)	22	(109)	(1)	(155)	(2)	(46)
Other Income	13	0	10	0	11	0	(2)	(14)	1	15	26	0	21	0	(5)
EBITDA	436	9	312	7	228	5	(208)	(48)	(84)	(27)	843	9	540	6	(303)
Depreciation and Amortization	(137)	(3)	(138)	(3)	(141)	(3)	(4)	3	(3)	2	(266)	(3)	(278)	(3)	(12)
EBIT	299	6	174	4	87	2	(212)	(71)	(87)	(50)	577	6	261	3	(315)
Finance Costs	(15)	(0)	(22)	(1)	(15)	(0)	(0)	2	7	(32)	(22)	(0)	(37)	(0)	(16)
FX Gain/(Loss) (1)	8	0	(24)	(1)	(26)	(1)	(34)	(453)	(2)	10	6	0	(51)	(1)	(57)
Shares of profit/(loss) from investment	29	1	29	1	16	0	(13)	(45)	(13)	(45)	53	1	46	1	(8)
Income Tax Expenses	1	0	(12)	(0)	9	0	8	1,456	21	(172)	1	0	(3)	(0)	(4)
Net Profit	322	7	145	3	71	1	(251)	(78)	(74)	(51)	615	7	216	2	(400)
Adjusted EBITDA (2)	323	7	345	8	660	14	337	105	314	91	646	7	1,005	11	360

Note : (1) Including Gain/(Loss) from FX and Derivatives (2) Adjusted EBITDA refers to EBITDA excluding impact of Stock Gain/(Loss) and NRV





#### **Statement of Financial Position**



## Assets

As of June 30, 2017, the company had total assets of Baht 14,566 million, increased from December 31, 2016 of Baht 2,935 million or 25% from details as follows:

- Cash and cash equivalent (including current investment of Baht 2,000 million) increased by Baht 3,217 million or 609% from cash from operations of Baht 935 million, cash from IPO of Baht 3,056 million, dividend income from TEX of Baht 36 million, and interest income of Baht 5 million, while cash was paid for assets and project investment of Baht 304 million, dividend payment, financial costs, repayment for loan and financial lease.
- Account receivable decreased Baht 107 million or 7% from the decrease in account receivable from the decrease in sales of Fatty Alcohols.
- Inventory decreased Baht 532 or 13% as a result of the company's inventory management to reduce its level as well as the decreasing of average prices of inventory from December 2016.
- Other current assets increased Baht 82 million or 35% from the increase in advance payment of Baht 97 million which was mainly comprised of advance payment to feedstock suppliers.
- Net plant and equipment increased Baht 283 million or 7% from the acquisition and construction of assets during the period of about Baht 528 million which mainly comprised assets from work in process of Methyl Ester Plant 2 construction. However, depreciation in the period increased Baht 245 million.

## Liabilities

As of June 30, 2017, the company had total liabilities of Baht 3,630 million, decreased from December 31, 2016 Baht 78 million or 2% mainly including the decrease in trade account payable of Baht 219 million as a result of the higher account payable for feedstock purchased during the end of 2016 in mitigating risk of flood in the Southern region of Thailand, the decrease in income tax payable of Baht 20 million, while there were





payables to contractors mainly for Methyl Ester Plant 2 construction which increased Baht 230 million, others payables for services increased Baht 55 million, and there was repayment for short-term loan of Baht 60 million and long-term loan of Baht 116 million.

## **Shareholders' Equities**

As of June 30, 2017, the company had total shareholders' equities of Baht 10,935 million, increased from December 31, 2016 Baht 3,012 million or 38% as a result of capital raising from IPO of Baht 3,056 million and the net profit for the 6-month period ended June 30, 2017 of Baht 216 million. However, the company had made dividend payment of Baht 259 million for the purpose of capital restructuring.

#### **Statement of Cash Flows**

#### **Cash Flows from Operating Activities**





As of June 31, 2017, the company had cash from operating activities of Baht 935 million from net profit of Baht 216 million adding back non-cash items of Baht 335 million mainly comprising depreciation and amortization of Baht 278 Baht, financial costs of Baht 46 million, unrealized loss from FX and derivative of Baht 40 million, NRV of Baht 19 million, provision for employees' benefits Baht 3 million with reversed income tax expense of Baht 3 million, less share of profit from investment in joint venture of Baht 46 million, and interest income of Baht 8 million. In addition, there were changes in assets and liabilities from operation which caused the increase in cash of Baht 409 million and payment for income tax expenses of Baht 25 million.

#### **Cash Flows from Investing Activities**

As of June 30, 2017, the company had cash spent in investing activities of Baht 2,292 million including current investment of Baht 2,000 million, the payment of acquisition in PP&E and intangible assets of Baht 303 million, and payment for additional investment in TETSO of Baht 30 million, while had interest received of Baht 5 million, and dividend received from TEX of Baht 36 million.

## **Cash Flows from Financing Activities**

As of June 30, 2017, the company had cash received from financing activities of Baht 2,575 million comprising cash from capital raising (IPO) of Baht 3,056 million, while there were payments for dividend to the company shareholders' of Baht 259 million for the purpose of capital restructuring, repayment to financial institutions for long-term loan of Baht 115 million, short-term loan of Baht 60 million, financial costs of Baht 45 million, and repayment for financial lease of Baht 2 million.

#### Key Financial Ratios





Financial Ratios	Quarter 2/2016	Quarter 1/2017	Quarter 2/2017
Current Ratio (Times)	9.40	4.21	6.96
EBITDA to sales revenue (%)	9.01	7.35	4.72
Net Profit to sales revenue (%)	6.65	3.41	1.46
Return on total assets (%)	11.09	7.34	4.44
Return on equity (%)	12.85	10.13	5.76
Debt to equity (Times)	0.25	0.52	0.33
Interest bearing debt to equity (Times)	0.19	0.34	0.23
Interest bearing debt to EBITDA (Times)	1.03	1.92	2.17

# Note :

Current Ratio (Times)	=	Current assets divided by current liabilities
EBITDA to sales revenue (%)	=	EBITDA divided by sales revenue
Net Profit to sales revenue (%)	=	Net profit divided by sales revenue
Return on total assets (%)	=	Net profit divided by average total assets
Return on equity (%)	=	Net profit divided by average equities
		attributable to owners of the company
Debt to equity (Times)	=	Total debt divided by shareholders' equities
Interest bearing debt to equity (Times)	=	Interest bearing debt divided by shareholders' equities
Interest bearing debt to EBITDA (Times)	=	Interest bearing debt divided by EBITDA