

Executive Summary

Crude Oil Prices

Crude oil price is the key driver of PTTEP's financial performance, in which during the early of the third quarter of 2016 it has continued its downward movement from the late of previous quarter due to the continued pressures from high crude production level from OPEC and the increasing number of rig counts in the United States of America (US). Furthermore, the wildfire in Canada during previous quarter has relieved, which brought back the production from oil sands. On the demand side, there was a considerable concern of the oil demand following the result of the Brexit referendum in the United Kingdom (UK). These factors caused Dubai oil price to drop to lower than 40 USD/BBL during the late of July. However, crude prices have recovered during the second half of the third quarter given the positive support from the lower US crude inventory and the preliminary agreement of OPEC members to cut the production in order to stabilize the global crude market, which together have boosted the Dubai crude price to close at 45 USD/BBL at the end of September. Dubai crude price in the third quarter of 2016 averaged 43.17 USD/BBL, which is close to the price of previous quarter at 43.18 USD/BBL.

Thailand energy demand and exchange rate

In the first eight months of 2016, Thailand energy demand stood at 2.11 million barrels of oil equivalent per day (BOED), an increase of 1.1% from the same period of the previous year (Source: The Ministry of Energy), mainly due to rising petroleum consumption. The increase in energy consumption is a reflection of lower crude prices and the recovering Thai economy which tends to expand at the higher rate than previously expected. Thai economy expansion was stimulated by strong public sector investments, higher private consumption from the economic stimulus, and growing tourism. The Bank of Thailand has raised the country's 2016 economic growth forecast to 3.2% from 3.1%, while the increase in private consumption compensated the shrinking exports as a result of the Brexit vote implication to trading partners.

As for the Thai Baht to US Dollar exchange rate, which impacts the financial performance of PTTEP in the form of tax expense as a result of the difference between PTTEP's tax filing currency (Thai Baht) and functional currency (US Dollar), the rate appreciated to 34.70 Baht / US Dollar at the end of the third quarter of 2016, compared to 35.18 Baht / US Dollar at the end of the second quarter of 2016. This was primarily driven by the unchanged interest rate in the US as the Federal Open Market Committee (FOMC) awaited to assess the employment market and the US president election outcome before deciding on the interest rate hike later this year.

Summary of the financial results for the third quarter of 2016

The financial performance of PTTEP is still being compromised by low average selling price levels, as a result of the low oil price levels since mid-2014. Due to the continued efforts to maintain production level according to plan and cost optimization which exceeded the target, the Company maintained earnings before interest, tax, depreciation and amortization (EBITDA) margin of 73% for the nine-month period of 2016 and cash flow from operations remained positive at 1,727 MMUSD during the period.

For the third quarter of 2016, sales revenue amounted 1,047 MMUSD, a slight decrease from the previous quarter mainly due to lower sales volume from higher planned maintenance shutdown activities. Sales volume for the third quarter of 2016 stood at 311,386 BOED. This represents a decrease from the previous quarter (at 320,657 BOED), which remains largely on track with the business plan to maintain 2016 sales volume at a similar level to that of 2015. For selling price, the average selling price was at 36.32 USD/BOE, slightly lowered around 1% as compared to the previous quarter, with the decrease in both liquid and natural gas products.

Unit cost in the third quarter of 2016 increased to 31.11 USD/BOE from 30.30 USD/BOE in the second quarter of 2016, primarily reflecting the increase in depreciation expense and higher operating and maintenance activities that occurred during the period as planned. Unit cost for the nine-month period of 2016 was 29.98 USD/BOE representing a reduction of 23% from the 2015 level (of 38.88 USD/BOE) as a result of cost reduction and efficiency improvement activities under the SAVE to be SAFE program since late 2014 in order to strive against the oil price downturn.

The company recorded recurring net profit of 75 MMUSD during the third quarter of 2016. The Company also recorded a non-recurring income of 81 MMUSD, mainly from gain and tax saving related to strengthen Thai Baht currency against US dollar currency and gain on oil price hedging. As a result, PTTEP reported a net profit of 156 MMUSD for the third quarter of 2016.

As of the third quarter of 2016, the financial position of the Company remains very strong with total assets amounting to 19,062 MMUSD, which includes cash and short-term investments of 3,722 MMUSD, whilst interest-bearing debt amounted to 2,855 MMUSD.

Executive Summary (continued)

Business outlook in 2016

Crude price is expected to rise in the fourth quarter of 2016 as a result of the upside factors including the initial discussion between OPEC and non-OPEC on the potential crude production cut to stabilize the global crude market which is expected to be concluded with the way forward at the next meeting between OPEC and non-OPEC in the late November 2016 in Vienna. Furthermore, global oil demand tends to grow since the global economy gradually expands. According to the US Energy Information Administration (EIA), global oil demand in 2016 is expected to grow by 1.3 million barrels per day from the 2015 level. The crude prices, however, need to be closely monitored as there are outstanding negative pressures on oil prices from the attempt to increase production from Nigeria and Libya and the possibility of US supply coming back as a result of recovering oil prices and increasing rig counts in the US.

PTTEP believes that the above-mentioned factors will cause the Dubai oil prices during the fourth quarter of 2016 to fluctuate in the range of 45-55 USD/BBL. This, in turn, will impact the average selling price of the Company, which is referenced to the global oil prices. However, in case the discussion between OPEC and non-OPEC fails to reach conclusion on production cut, crude prices might end up with the steeper decline than expected. Also, concern that the unrest situation in Syria if escalates would impact the oil prices.

The selling price of natural gas, which is the Company's primary product, is partly dependent on the movement of oil prices in the past 6-12 months. Gas prices are expected to decline in the fourth quarter of 2016 to reflect the low oil price levels during the aforementioned period. To protect against the impact of lower gas prices, the Company continues to carry out cost management programs to maintain EBITDA margin in the range of 65-70% whilst maintain its sales volume target in 2016 at approximately 322,000 BOED, similar to that of 2015.

The Thai Baht currency is expected to weaken as the US Federal Open Market Committee (FOMC) is expected to increase interest rate in late of 2016. However, the upcoming US president election will be another factor that might impact the money market. Therefore, the money market might be volatile and needs to be monitored. The financial performance of PTTEP will be affected in the form of tax expense as a result of the difference between PTTEP's tax filing currency and functional currency, although the cash flow is not expected to be materially impacted. As for the expected increase in interest rates, the Company expects minimal impact on the cost of debt as approximately more than 80% of the debt structure are fixed interest rates.

Table of key financial results

(Unit: Million US Dollar)	Q2 2016	Q3 2016	Q3 2015 (Restated)	% Inc. (Dec.) QoQ	% Inc. (Dec.) YoY	9 Months 2016	9 Months 2015 (Restated)	% Inc. (Dec.) YTD
Total Revenue*	1,102	1,109	1,457	1	(24)	3,281	4,291	(24)
Sales Revenue*	1,061	1,047	1,307	(1)	(20)	3,152	4,084	(23)
EBITDA**	778	770	919	(1)	(16)	2,337	3,025	(23)
Profit (loss) for the period	75	156	(1,284)	>100	>100	388	(986)	>100
Basic earnings (loss) per share from continuing operations (Unit: USD)	0.01	0.04	(0.31)	>100	>100	0.09	(0.24)	>100
Profit from normal operation	154	75	264	(51)	(72)	345	705	(51)
Profit (loss) from non-recurring items	(79)	81	(1,548)	>100	<(100)	43	(1,691)	>100

* Revenue from continuing operations

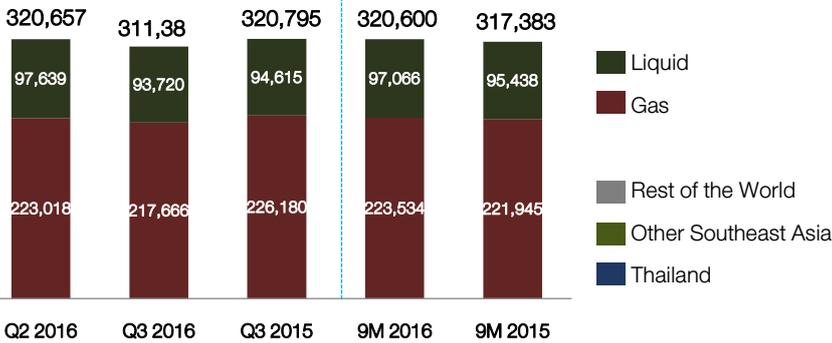
** Includes discontinued operations until end of August 2016

Financial Performance

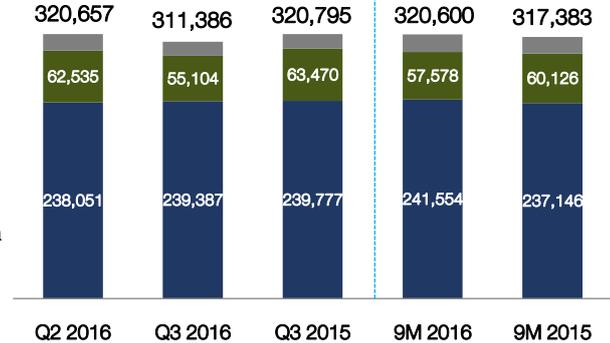
Average Sales Volume *

Unit: Barrels of Oil Equivalent per Day

By Product Type



By Geographical Region



Average selling price and Dubai crude oil price	Q2 2016	Q3 2016	Q3 2015 (Restated)	% Inc.(Dec.) QoQ	% Inc.(Dec.) YoY	9 Months 2016	9 Months 2015 (Restated)	% Inc.(Dec.) YTD
(Unit: US Dollar)								
Average selling price* (/BOE)	36.62	36.32	44.83	(1)	(19)	36.00	47.47	(24)
Average Dubai crude oil price (/BBL)	43.18	43.17	49.74	(0)	(13)	38.92	54.31	(28)

* Includes sales volume and selling prices of Oman 44 Project until end of August 2016

Third quarter of 2016 compared with Second quarter of 2016

In the third quarter of 2016, PTTEP and its subsidiaries (collectively, "the Group") had an average sales volume of 311,386 BOED, a decrease from the previous quarter at 320,657 BOED primarily from the Arthit Project. The average selling price for the third quarter of 2016 decreased to 36.32 USD/BOE (the second quarter of 2016: 36.62 USD/BOE).

Third quarter of 2016 compared with Third quarter of 2015

When comparing the average sales volume for the third quarter of 2016 of 311,386 BOED with the third quarter of 2015 of 320,795 BOED, the average sales volume decreased primarily from the Zawtika Project. The average selling price also decreased to 36.32 USD/BOE. (the third quarter of 2015: 44.83 USD/BOE)

For the nine-month period ended September 2016 compared with 2015

For the nine-month period ended September 2016, the average sales volume increased to 320,600 BOED when compared with the same period of 2015. (For the nine-month period ended September 2015: 317,383 BOED). The increase was primarily from the B8/32 and 9A Project. However, the average selling price decreased to 36 USD/BOE. (for the nine-month period ended September 2015 : 47.47 USD/BOE)

Financial Performance (continued)

Overall Operating Results

Third quarter of 2016 compared with second quarter of 2016

For the third quarter of 2016, PTTEP and its subsidiaries had a net profit of 156 MMUSD, an increase of 81 MMUSD or more than 100% when compared with the net profit for the second quarter of 2016 of 75 MMUSD. The increase was primarily due to a recognition of gain on oil price hedging derivative contracts of 23 MMUSD in the third quarter of 2016, while recognized loss on oil price hedging derivative contracts of 96 MMUSD in the second quarter of 2016. However, depreciation, depletion and amortization expense increased by 16 MMUSD, and sales revenue decreased by 14 MMUSD consistent with the decrease in average selling price and average sales volume.

For the third quarter of 2016, the Group reported gain from non-recurring items in the amount of 81 MMUSD, an increase of 160 MMUSD compared with the loss from non-recurring items for the second quarter of 2016 of 79 MMUSD. The increase was primarily due to a recognition of gain on oil price hedging derivative contracts of 23 MMUSD in the third quarter of 2016, while during the second quarter of 2016, the Group recognized loss on oil price hedging derivative contracts of 96 MMUSD.

Third quarter of 2016 compared with Third quarter of 2015

When compared with the third quarter of 2015 which reported net loss of 1,284 MMUSD, an increase of 1,440 MMUSD or more than 100% was primarily due to a recognition of impairment loss on assets of 1,385 MMUSD in the third quarter of 2015, while there was no recognition of impairment loss on assets in the third quarter of 2016.

For the third quarter of 2016, the Group reported gain from non-recurring items in an amount of 81 MMUSD, an increase of 1,629 MMUSD, as compared with the loss from non-recurring items for the third quarter of 2015 of 1,548 MMUSD. The increase was primarily due to a recognition of impairment loss on assets of 1,385 MMUSD in the third quarter of 2015, while there was no recognition of impairment loss on assets in the third quarter of 2016.

For the nine-month period ended September 2016 compared with 2015

For the nine-month period ended September 2016, PTTEP and its subsidiaries had a net profit of 388 MMUSD, an increase of 1,374 MMUSD or more than 100% when compared with the nine-month period ended September 2015 which reported a net loss of 986 MMUSD. The increase was primarily due to a recognition of impairment loss on assets of 1,385 MMUSD during the nine-month period ended September 2015, while there was no recognition of impairment loss on assets during the nine-month period ended September 2016.

For the nine-month period ended September 2016, the Group reported gain from non-recurring items of 43 MMUSD, an increase of 1,734 MMUSD when compared with the nine-month period ended September 2015 which reported net loss from non-recurring items of 1,691 MMUSD, primarily due to a recognition of impairment loss on assets of 1,385 MMUSD during the nine-month period ended September 2015, while there was no any recognition of impairment loss on assets during the nine-month period ended September 2016. In addition, an increased in tax saving of 465 MMUSD effected by the foreign exchange fluctuation resulted from the appreciation of Thai Baht against the US Dollar.

Financial Performance (continued)

Operating Results by Segments

Net Profit (loss)	Q2	Q3	Q3	%	%	9 Months	9 Months	%
(Unit: Million US Dollar)	2016	2016	2015	Inc. (Dec.)	Inc. (Dec.)	2016	2015	Inc. (Dec.)
			(Restated)	QoQ	YoY		(Restated)	YTD
Exploration and production	143	138	(1,298)	(3)	>100	408	(1,057)	>100
Thailand	163	152	4	(7)	>100	505	305	66
Overseas	(20)	(14)	(1,302)	30	99	(97)	(1,362)	93
- <i>Other Southeast Asia</i>	10	37	(184)	>100	>100	34	(121)	>100
- <i>Australia</i>	(16)	(27)	(472)	(69)	94	(91)	(581)	84
- <i>America</i>	(7)	(2)	(629)	71	100	(8)	(638)	99
- <i>Africa</i>	(7)	(22)	(17)	<(100)	(29)	(32)	(22)	(45)
Pipeline transportation	56	50	94	(11)	(47)	158	286	(45)
Head office and others	(125)	(32)	(49)	74	35	(181)	(183)	1
Discontinued Operations	1	0.27	(31)	(73)	>100	3	(32)	>100
Total	75	156	(1,284)	>100	>100	388	(986)	>100

Exploration and production segment

- **Thailand**

For the third quarter of 2016, the Thailand reported net profit of 152 MMUSD, a decrease of 11 MMUSD or 7% when compared with the net profit for the second quarter of 2016 of 163 MMUSD. The decrease was primarily due to an increase in depreciation, depletion and amortization expenses mainly from the MTJDA Project, even though sales revenue increased as a result of an increase in average sales volume of the Bongkot Project.

When compared with the net profit for the third quarter of 2015 of 4 MMUSD, the Thailand had an increase in net profit of 148 MMUSD or more than 100%. The increase was primarily due to a recognition an impairment loss of assets in the third quarter of 2015 for the B8/32 and 9A Project, while there was no recognition of impairment loss on assets during the third quarter of 2016. In addition, depreciation, depletion and amortization expense also decreased mainly from the B8/32 and 9A Project. However, sales revenue decreased in line with average selling price and average sales volume.

For the nine-month period ended September 2016, the Thailand reported net profit of 505 MMUSD, an increase of 200 MMUSD or 66% when compared with net profit for the nine-month period ended September 2015 of 305 MMUSD. The increase was primarily due to an increase in the petroleum reserves of the Contract 4 Project which resulted in a decrease in depreciation, depletion and amortization expenses. In addition, during the nine-month period ended September 2015, the Thailand recognized an impairment loss on assets, while there was no recognition of impairment loss on assets during the nine-month period ended September 2016 as well as a decrease in operating expenses as a result of efficient cost management under SAVE to be SAFE campaign. However, sales revenue decreased primarily from the B8/32 and 9A Project as a result of a decrease in average selling price, even though the average sales volume increased.

- **Overseas**

For the third quarter of 2016, the Overseas reported net loss of 14 MMUSD, a decrease of 6 MMUSD or 30% when compared with the net loss for the second quarter of 2016 of 20 MMUSD. The decrease was primarily due to an increase in the operating results of the Other Southeast Asia, while the Africa had a decrease in the operating results.

- The Other Southeast Asia reported net profit of 37 MMUSD, an increase in operating results of 27 MMUSD or more than 100% when compared with a net profit for the second quarter of 2016 of 10 MMUSD. The increase was primarily due to a decrease in income tax expenses for the Zawtika Project as well as a decrease in exploration expenses due to a decrease in cost of 3D seismic.
- The Africa reported net loss of 22 MMUSD, an increase in net loss of 15 MMUSD or more than 100% when compared with the net loss for the second quarter of 2016 of 7 MMUSD. The increase was primarily due to a recognition of provision for withdrawal of the Kenya L11A, L11B, and L12 Project.

Financial Performance (continued)

• Overseas (continued)

When compared with the net loss for the third quarter of 2015 of 1,302 MMUSD, the Overseas reported a decrease in net loss of 1,288 MMUSD or 99%. The decrease was primarily due to an increase in operating results of the America, Australia and Other Southeast Asia.

- In the third quarter of 2016, the America reported net loss of 2 MMUSD, a decrease in net loss of 627 MMUSD or more than 100% when compared with the net loss of the third quarter of 2015 of 629 MMUSD. The decrease was primarily due to a recognition of an impairment loss on assets in the third quarter of 2015 for the Mariana Oil Sand Project, while there was no recognition of an impairment loss on assets in the third quarter of 2016.
- The Australia reported net loss of 27 MMUSD, a decrease in net loss of 445 MMUSD or 94% when compared with the net loss for the third quarter of 2015 of 472 MMUSD. The decrease was primarily due to a recognition of an impairment loss on assets in the third quarter of 2015 for the PTTEP Australasia Project, while there was no recognition of an impairment loss on assets in the third quarter of 2016.
- The Other Southeast Asia reported net profit of 37 MMUSD, an increase in operating results of 221 MMUSD or more than 100% when compared with the net loss for the third quarter of 2015 of 184 MMUSD. The increase in net operating results primarily due to a recognition of an impairment loss on assets in the third quarter of 2015 for the Natuna Sea A Project, while there was no recognition of an impairment loss on assets in the third quarter of 2016.

For the nine-month period ended September 2016, the Overseas reported net loss of 97 MMUSD, a decrease in net loss of 1,265 MMUSD or 93% when compared with the net loss for the nine-month period ended September 2015 of 1,362 MMUSD. The decrease was primarily due to an increase in operating results of the America, and Australia.

- The America reported net loss of 8 MMUSD, a decrease in net loss of 630 MMUSD or 99% when compared with the net loss for the nine-month period ended September 2015 of 638 MMUSD. The increase was primarily due to a recognition of impairment loss on assets in 2015 for Mariana Oil Sand Project, while there was no recognition of impairment loss on assets in 2016.
- The Australia reported net loss of US Dollar 91 million, a decrease in net loss of 490 MMUSD or 84% when compared with the net loss for the nine-month period ended September 2015 of 581 MMUSD. The increase was primarily due to a recognition of an impairment loss on assets in 2015 for the PTTEP Australasia Project, while there was no recognition of an impairment loss on assets in 2016.

The operating results of the Middle East were presented as a discontinued operation.

Pipeline transportation segment

For the nine-month period ended September 2016, the pipeline transportation segment reported net profit of 158 MMUSD, a decrease of 128 MMUSD or 45% when compared with a net profit for the nine-month period ended September 2015 of 286 MMUSD. The decrease was primarily due to a decrease in revenue from pipeline transportation projects in Republic of the Union of Myanmar which was in line with a decrease in gas selling price.

Head office and others segment

For the third quarter of 2016, the head office and others segment reported net loss of 32 MMUSD, a decrease in net loss of 93 MMUSD or 74% when compared with net loss for the second quarter of 2016 of 125 MMUSD. The decrease was primarily due to a recognition of gain on oil price hedging derivative contracts in the third quarter of 2016, while the segment recognized loss on oil price hedging derivative contracts in the second quarter of 2016.

Discontinued operations

For the third quarter of 2016, the Middle East under the exploration and production segment has been represented under a discontinued operation because PTTEP Oman Company Limited (PTTEP OM), a subsidiary of the company and holds 100% of participating interest of the Oman 44 Project, is in the process of divestment and it represented as a significant operation under the Middle East.

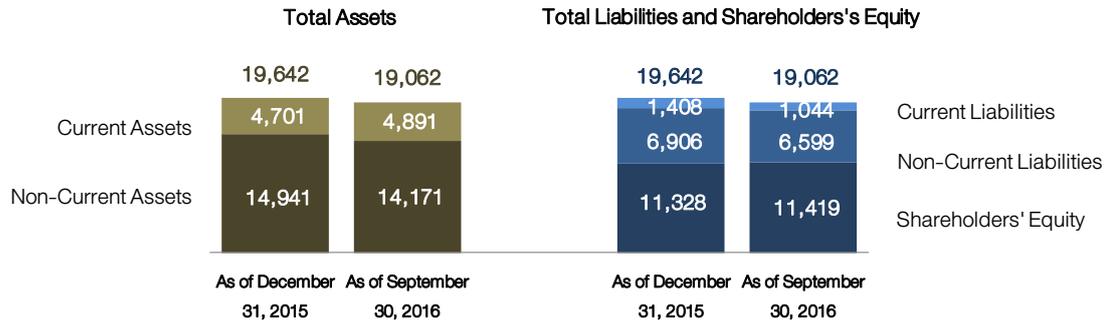
The discontinued operations reported net profit of 0.27 MMUSD, an increase in net profit of 31 MMUSD or more than 100% when compared with net loss for the third quarter of 2015 of 31 MMUSD. The decrease was primarily due to a recognition of impairment loss on assets in the third quarter of 2015 for the Oman 44 Project, while there was no recognition of impairment loss on assets in the third quarter of 2016.

For the nine-month period ended September 2016, the discontinued operation reported net profit of 3 MMUSD, an increase of operating results of 35 MMUSD or more than 100% when compared with net loss for the nine-month period ended September 2015 of 32 MMUSD. The increase of operating results was primarily due to a recognition of an impairment loss on assets in 2015 for the Oman 44 Project, while there was no recognition of an impairment loss on assets in 2016.

Financial Performance (continued)

Financial Position

Unit: MMUSD



Assets

As at September 30, 2016, PTTEP and its subsidiaries had total assets in the amount of 19,062 MMUSD (equivalent to 661,454 MMTHB), a decrease of 580 MMUSD when compared with the total assets as of December 31, 2015 of 19,642 MMUSD (equivalent to 708,864 MMTHB), primarily due to;

- (1) Current assets, which were primarily comprised of cash and cash equivalents, account receivable – parent company and materials and supplies, increased by 190 MMUSD, mainly from increases in cash and cash equivalent and short-term investment of 462 MMUSD, offset with decreases in account receivables – parent company, other accounts receivable and other current assets of 116 MMUSD, 44 MMUSD and 41 MMUSD, respectively.
- (2) Non-current assets, which were primarily comprised of exploration and production assets in joint venture projects that are recognized as part of the property, plant and equipment – net, intangible assets – net and goodwill – net, decreased by 770 MMUSD mainly due to a recognition of depreciation, depletion and amortization expenses even though it had additional investment in exploration and production assets.

Liabilities

As at September 30, 2016, PTTEP and its subsidiaries had total liabilities of 7,643 MMUSD (equivalent to 265,224 MMTHB) which include interest bearing debt of 2,855 MMUSD, a decrease of 671 MMUSD when compared with total liabilities as at December 31, 2015 of 8,314 MMUSD (equivalent to 300,053 MMTHB), primarily due to;

- (1) Current liabilities, which were primarily comprised of accrued expenses and income tax payable, decreased by 364 MMUSD mainly due to the decreases in income tax payable for the year 2015 and accrued expenses, while the financial derivative liabilities were increased.
- (2) Non-current liabilities, which were primarily comprised of debentures, loans from financial institution, provision for decommissioning costs, and deferred tax liabilities, decreased by 307 MMUSD mainly due to a decrease in deferred tax liabilities and the repurchase of debentures of 182 MMUSD and 177 MMUSD, respectively.

Capital Structure

As at September 30, 2016, the capital structure comprised of shareholders' equity in the amount of 11,419 MMUSD and total liabilities of 7,643 MMUSD, including the interest bearing debts of 2,855 MMUSD with a weighted average cost of debt of 4.37% and the average maturity of 8.40 years. All of these interest bearing debts were in the US Dollar currency. The proportion of the fixed interest rates to the floating interest rates is 80:20.

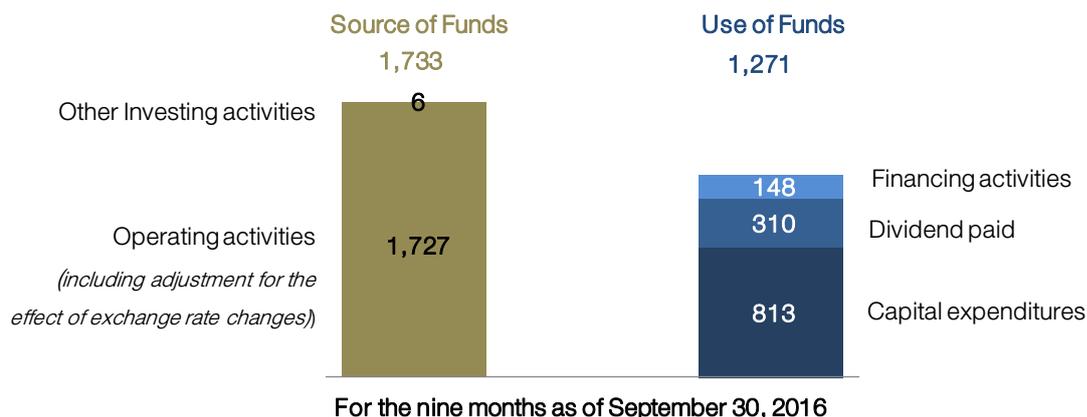
On June 22, 2016, PTTEP had repurchased some portion of the 500 MMUSD five-year unsecured and unsubordinated debentures with a fixed interest rate of 3.707% which was issued and sold in September 2013, in the amount of 177 MMUSD. As a result, the principal of these debentures were decreased from 500 MMUSD to 323 MMUSD.

Premium from the repurchase of this debenture of 7 MMUSD was recognized as part of administrative expenses in the statement of income for the nine-month period ended September 30, 2016.

Financial Performance (continued)

Cash Flows

Unit: Million USD



As at September 30, 2016, PTTEP and its subsidiaries had cash and cash equivalents, including short-term investment in the form of bank fixed deposit with a maturity of more than three months but less than twelve months of 3,722 MMUSD, an increase of 462 MMUSD when compared to cash and cash equivalents as at December 31, 2015 of 3,260 MMUSD.

Sources of funds in the amount of 1,733 MMUSD primarily came from **Net cash received from operating activities** as a result of net positive cash flows from sales revenue, which offset with cash payments for expenditures and income tax expenses and **Net cash received from other investment activities**, primarily from the dividend received from related parties and cash received from interest from loans to related parties.

Uses of funds in the amount of 1,271 MMUSD were primarily for **Net cash used in additional investment activities** for exploration and production assets and intangible assets, primarily in the Zawtika, Arthit and S1 Projects, **Net cash used in financing activities** which mainly for the repurchase of debentures and payment of interests, and **Dividend payment** for the result of operation for the second half of 2015 and the first half of 2016, while there was cash received from financial derivative contracts.

Key Financial Ratios*

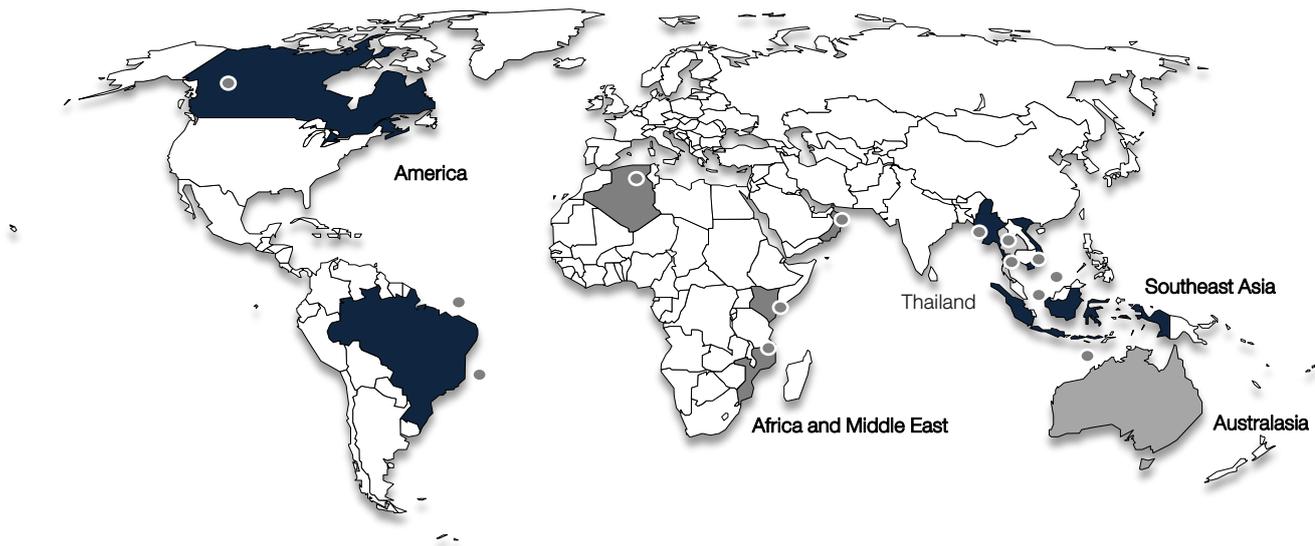
	Q2 2016 (Restated)	Q3 2016	Q3 2015 (Restated)	9 Months 2016	9 Months 2015 (Restated)
Profitability Ratio (%)					
EBITDA to revenue from sales	71.68	72.13	68.76	72.51	72.38
Return on equity	(7.42)	4.59	(13.82)	4.59	(13.82)
Net profit margin	(17.81)	11.16	(26.75)	11.16	(26.75)
Leverage Ratio (Times)					
Debt to equity	0.25	0.25	0.29	0.25	0.29
Debt to EBITDA	0.86	0.91	0.78	0.91	0.78

* Includes discontinued operations until end of August 2016

Remark:

EBITDA to revenue from sales	=	Profit before deduction of interest, tax and depreciation to revenue from sales including revenue from pipeline transportation
Return on equity	=	Net profit to weighted average shareholders' equity for the past 12 months
Net profit margin	=	Net profit to total revenue for the past 12 months
Debt to equity	=	Interest Bearing Debt to total shareholders' equity
Debt to EBITDA	=	Interest Bearing Debt to profit for the past 12 months before deduction of interest, tax and depreciation

Operational Highlights



As of the third quarter of 2016, PTTEP's domestic and international operations altogether sum to 39 projects in 12 countries. The following are key project highlights.

Projects in Thailand

PTTEP has 16 projects in Thailand, and the majority of projects are in the *producing phase*, located both in the Gulf of Thailand and onshore; including the Bongkot Project, the Arthit Project, and the S1 Project and the Contract 4 Project. During the third quarter of 2016, operations were carried out continuously to maintain the production plateau. Sales volume from the projects in Thailand amounted to 239,387 BOED during the period, which accounted for 77% of PTTEP's total sales volume.

Projects in Southeast Asia

PTTEP has 14 projects in this region which are located in the Republic of the Union of Myanmar (Myanmar), the Socialist Republic of Vietnam (Vietnam), the Federation of Malaysia (Malaysia) and the Republic of Indonesia (Indonesia). Sales volume from the projects in the Southeast Asia region amounted to 55,104 BOED in the third quarter of 2016, which accounted for 18% of PTTEP's total sales volume.

Averaged sales volume and highlights of projects in the *producing phase* within this region can be summarized as follow. Sales volume in this quarter of Producing projects in Myanmar slightly declined due to maintenance shutdown activities in the **Yetagun Project**, natural gas and condensate project and the **Zawtika Project**, natural gas project. Total sales volume of natural gas and condensate from producing projects in Myanmar averaged 1,282 MMSCFD (approximately 173,907 BOED) and 3,993 BPD, respectively. In addition, the Zawtika Project has started the production operations from the fourth producing platform in Phase 1B and plans to increase production capacity from the seventh producing platform in the fourth quarter of 2016, of which target to maintain the production plateau of the project. The Vietnam 16-1 Project, located offshore in the southeast of Vietnam, crude oil sales volume averaged 23,290 BPD and natural gas sales volume averaged approximately at 10 MMSCFD (approximately 2,383 BOED).

For projects in the *exploration phase*, important highlights include the **Myanmar M3 Project**, located offshore in the Gulf of Moattama, Myanmar, is currently in consideration of appropriated development plan and assessing the prospects for commerciality and the resource potential in the remaining area. The **Myanmar M11 Project**, located offshore, and the **Myanmar MD-7 Project**, located in the deepwater area in the Gulf of Moattama, Myanmar, are in the process of assessing the fields' resource potentials. For the Myanmar MD-7 Project is also in the process of seeking a joint partner to manage the risk of the project. The **Myanmar MOGE-3 Project**, located onshore in the Central Myanmar Basin, is in the preparation process for 2D and 3D seismic survey which is scheduled to begin in the fourth quarter of 2016. The **Sarawak SK410B Project**, located offshore Sarawak, Malaysia, which the Company signed the Production Sharing Contract (PSC) on 21 July 2016, is in the preparation process for 3D seismic activities starting in the second quarter of 2017.

Operational Highlights (Continue)

Projects in the American Continent

PTTEP has three projects in this region located in Canada and the Federal Republic of Brazil (Brazil).

All three projects are under *Exploration Phase*. Firstly, the **Mariana Oil Sands Project**, located in Alberta, Canada, submitted the development proposal for Thornbury Phase 1 to the government of Alberta in May 2015. The project is re-assessing the investment strategy going forward to reduce costs and mitigate development risks in response to the low oil price environment.

PTTEP has two projects in Brazil. The **Barreirinhas AP1 Project** is located in the Barreirinhas Basin, offshore to the northeast of Brazil. The project completed 3D seismic activities and is in the process of assessing the petroleum potential. The **BM-ES-23 Project**, located in the offshore of Espirito Santo basin, east of Brazil, is currently under petroleum potential study for further activities.

Projects in Australasia

PTTEP has one project in this region which is located in the Commonwealth of Australia (Australia) and comprises 12 permits.

Field in the *producing phase* includes the **Montara Field**, which has average sales volume in the third quarter of 2016 at 12,732 BPD that is in accordance with the production plan.

The **Cash Maple Field**, which is in *exploration phase*, received the approval from the Australian's government to extend "Retention Lease Period" for another 5 year (2017-2021). The project is also in the discussion with operators of nearby fields to create joint-development plan.

Projects in Africa and the Middle East

PTTEP has 5 projects in this region, located in the Sultanate of Oman (Oman), the People's Democratic Republic of Algeria (Algeria), the Republic of Mozambique (Mozambique) and the Republic of Kenya (Kenya).

The **Algeria 433a and 416b Project**, which is in *producing phase* and located onshore in the eastern part of Algeria, successfully marked its first sales of crude oil in late 2015. Production for the third quarter of 2016 averaged 15,445 BPD. The **Oman 44 Project**, located onshore of Muscat, in the western part of Oman, is in the divestment process of PTTEP Oman Company Limited (PTTEP OM), which is a subsidiary of PTTEP and hold 100% stake in the Oman 44 Project. Whilst, the Company continues to explore for new investment opportunities in Oman. In this respect, PTTEP has signed Memorandum of Understanding (MOU) with Oman Oil Company Exploration and Production LLC (OOCEP), a subsidiary of Oman Oil Company, the national oil company of Oman, seeking co-investment opportunities in areas of mutual interest.

The **Algeria Hassi Bir Rekaiz Project**, which is in the *exploration phase* located onshore in the eastern part of Algeria, successfully finished drilling campaign with satisfactory flow rates of crude oil and natural gas. Therefore, the project is in the preparation of the project's development plan to submit to the Algerian government within early 2017. The **Mozambique Rovuma Offshore Area 1 Project**, which is also in the exploration phase, is a large gas project located offshore Mozambique. The project is currently in the process of negotiation for project finance, including working closely with financial institutions to provide additional information.

Portfolio Management

Portfolio Management

PTTEP continues to undertake portfolio management activities to achieve an optimal balance between project value-added and risk management, as well as to ensure that the Company's long term strategic objectives can be achieved. PTTEP consistently studies and analyses pertinent investment factors to keep abreast of the constant changes in the social, economic, and political landscape, and to incorporate these variables into investment considerations and decisions. The Company also reviews its list of target countries for expanding its investments (Focused Countries) by grouping the countries according to petroleum potential and suitability with the Company's strategic directions and goals. The analysis covers factors such as geography, petroleum fiscal policy, operational and political risks, as well as PTTEP's competitive advantages.

During the third quarter of 2016, key portfolio rationalization activities include the consideration of relinquishment of Kenya L11, L11B and L12 fields, the portfolio management in Oman through divestment of PTTEP OM which holds 100% interest in mature field of the Oman 44 Project. However, PTTEP continues to explore for new investment opportunities in Oman as PTTEP has signed Memorandum of Understanding (MOU) with a subsidiary of the national oil company of Oman. Another portfolio rationalization activity for PTTEP during the quarter is to seek for a joint partner to manage the risk of the Myanmar MD-7 Project. Nonetheless, it should be noted that the aforementioned portfolio rationalization activities will be effective once received the approval from the government of each country. Lastly, the Company has recently acquired the exploration block in Malaysia, Sarawak SK410B Project which is situated in a high petroleum potential area.

Moreover, PTTEP has plans to selectively develop projects with commercially discovered petroleum potential in place, as well as to actively seek opportunities to acquire additional projects with a particular focus on producing assets or those which are in the final stage of development and close to production, mainly in the South East Asia.

Cost Management

Given the continuity in oil price volatility, the cost reduction plan and the improvement of operational efficiency remain our priorities. PTTEP has adopted the RESET strategy to reduce cost, streamline the organization structure, instill a cost-conscious culture and maintain competitiveness in the industry under **the SAVE to be SAFE program** since 2014. The Company actively pursues a number of cost reduction initiatives, such as the reduction in number of drilling days and cost, optimization of wellhead platform design, contract renegotiations on current and future equipment rental and services, and logistical optimization through reducing number of supply boats as well as optimizing inventory management. In this respect, PTTEP successfully lowered the unit cost for nine-month period of 2016 to 29.98 USD/BOE, a decrease of 23% compared to that of 2015.

In this quarter, PTTEP introduces the **SPEND SMART to Business Sustainability** campaign with the theme "Think Smart, Work Smart for Better Efficiency" to strengthen its effort on further cost optimization initiatives to become a low cost operator with long-term competitive advantages and sustainable growth.



- **Think Smart:** Alter the frame of thoughts by focusing on cost efficiency and productivities gain (Cost Benefit Analysis) under limited budget and applying to all activities
- **Work Smart:** Remain efficiency in current working processes, while searching for new methodology to meet work objectives at the lower cost
- **For Better Efficiency:** Productivity, efficiency and long-term competitiveness

Sustainable Development

In the third quarter of 2016, PTTEP has been selected as a member of 2016 Dow Jones Sustainability Index (DJSI) in the World Oil and Gas Upstream & Integrated Industry for the third consecutive year with the highest score among peers in the same industry. This achievement demonstrates our success and reflects our commitment to the vision to become a leading Asian E&P company driven by competitive performance, advanced technology and green practices. In order to continuously enhance PTTEP's sustainable development practices, the Company has outlined a sustainable development plan, both short-term and long-term, around the three areas: business, social and environment. Key activities during the third quarter of 2016 are as follows.

Business

PTTEP provides support in research and development of technologies and innovations, as well as in the development of knowledge and technological framework to enhance the organization's competitiveness and sustainable development. Key activities during the third quarter of 2016 are as follows.

- Drive the technology development followed PTTEP's long-term technology development plan through these projects 1) Research and develop electromagnetic technology to monitor water and hydrocarbon flow in the reservoirs and wells in order to increase the efficiency of water-flood process which leads to increasing petroleum production, 2) Research and develop E&P techniques to increase production efficiency through chemical enhance oil recovery (EOR) technique, and 3) Develop new process to remove waste from drilling operations and to reduce cost of waste disposal in order to preserve the environment.
- Develop the unmanned aerial vehicles (drones) used for equipment inspection of industrial maintenance work in remote area

Social

PTTEP dedicates to carry out its business operations with responsibility to society with emphasis in four development areas: fundamental needs, education, environment, culture and sports. The Company organized many activities with local communities to ensure that their essential needs are met. Results of the activities were reviewed, evaluated and incorporated into improvement plan for the long-term benefits to the stakeholders in areas in which PTTEP operates as well as to the society as a whole. Key activities during the third quarter of 2016 include:

- The Crab Hatchery Learning Center Project at Hua Khao Community in Songkhla province – The project constructed the exhibition room nearby crab-breeding farm and renovated the auditorium room in order to enhance knowledge transfer capability for community. As of the third quarter of 2016, over 170 million crabs were released to their natural habitat.
- The Biogas Project - The project conducts "Biogas as an Alternative Energy Source and Waste Sorting Training" to Siphuhorm community and produced 31 biogas wells. Furthermore, the project works with 24 families living in Lankrabue District, Kamphaengphet to explore the local area and develop the biogas implementation plan.
- The PTTEP Love Sea, Love Beach Project – The project is in collaboration with Kasetsart University's Faculty of Engineering to develop the beach cleaning robot prototype. This prototype should be completed in the first quarter of 2017.
- The PTTEP Teenergy Project - The project aims to bring selected 100 youths from all regions of Thailand to participate natural conservation activities, which has been implemented for the three consecutive years. For this year, the activity will take place at Khao Yai National Park during 20-22 October 2016.

Safety, Security, Health and Environment

PTTEP has an environmental management system which encompasses a project's entire life cycle, and is a subset of PTTEP's Safety, Security, Health and Environment Management System (SSHE MS). During the third quarter of 2016, PTTEP had a Lost Time Injury Frequency (LTIF) score of 0.09 and a Total Recordable Incident Rates (TRIR) score of 0.93. The Company's performance on both safety indicators is better than the average of the members in the International Association of Oil and Gas Producers (IOGP).

Moreover, PTTEP aims to become a Low Carbon Footprint organization, and has set a goal to reduce its greenhouse gas (GHG) emissions by not less than 20% in the year 2020 versus its 2012 base year figure. As of September 2016, PTTEP reduced its greenhouse gas (GHG) emissions by 18.7% below its 2012 levels.

Company Strategy Under Current Oil Price Environment

PTTEP has revised its 2016 strategic plan in order to enhance its competitive advantage and sustainable growth under the current oil price environment using the concept of “RESET REFOCUS RENEW”.

RESET the cost structure to maintain competitiveness in the industry

- Build and instill a cost-conscious DNA in every employee
- Optimize work processes for efficient cost management to become competitive with the leading companies in the industry
- Prioritize investments in projects with competitive cost structure under the low oil price environment

REFOCUS investment plan towards areas of high expertise

- Increase investments in Thailand and Southeast Asia, especially in Myanmar, the areas which PTTEP has extensive experience in and has low cost structure and low risks
- Synergize with PTT in LNG business to meet the country’s growing energy demand in the future
- Consider investment opportunities in new areas with low cost structure, such as the US shale plays and the Middle East oil fields

RENEW long-term strategy for sustainable growth

- Focus on research and development to lower costs and improve efficiencies in the E&P business
- Expand investment horizons related to the E&P business to diversify sources of revenues and return on investments
- Explore and evaluate new business opportunities with growth prospects based on the existing experiences and capabilities of human resources in the Company

PTTEP also focuses on ensuring the effectiveness of financial management through maintaining a robust capital structure, an optimal level of debt-to-equity ratio for the nature of business, and the liquidity necessary to cushion the uncertainty around oil prices and the global economy as well as prepare for new investment opportunities. The Company also stimulates various oil price and exchange rate scenarios to assess risk factors and prepare mitigation plans.