

Annual Report 2017  
(Financial Report)  
PTT Public Company Limited



# SUSTAINABLE GROWTH FOR ALL



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# Report of Board of Directors' Responsibilities for the Financial Reporting

To Shareholders,

The Board of Directors is responsible for the consolidated financial statements of PTT Public Company Limited and its subsidiaries and the separate financial statements of PTT Public Company Limited. The aforementioned financial statements are prepared in accordance with Thai Financial Reporting Standards. The financial statements are prepared under appropriated accounting policies and applied consistently by using careful judgment and the best estimation. Important information is adequately and transparently disclosed in the notes to financial statements for the company's shareholders and investors.

The Board of Directors provides good corporate governance and maintains the risk management system and internal controls to ensure that accounting records are accurate, reliable, free from material misstatement, timely and adequate to protect the company's assets as well as to prevent fraud and significant irregular operations.

The Board of Directors has appointed an Audit Committee comprising independent directors to be responsible for reviewing the reliability and correctness of financial reports as well as evaluating the effectiveness of internal control system and internal audit. The audit committee's comments on these issues are presented in the audit committee report included in this annual report.

The Board of Directors considers that the internal control system and the internal audit of the company provide credibility and reliability to the consolidated financial statements of PTT Public Company Limited and its subsidiaries and the separate financial statements of PTT Public Company Limited for the year ended December 31, 2017. The Board of Directors also believes that the financial position, financial results and cash flows, audited by the independent auditors (The Office of Auditor General of Thailand), are fairly presented in all material respects with Thai Financial Reporting Standards. The auditors' opinion is presented in the auditors' report as part of this annual report.



Mr. Piyasvasti Amranand  
Chairman of the Board



Mr. Tevin Vongvanich  
President & Chief Executive Officer

# Auditor's Report

To: The Shareholders of PTT Public Company Limited

## Opinion

The Office of the Auditor General of Thailand has audited the accompanying consolidated financial statements of PTT Public Company Limited and its subsidiaries (the Group) and separate financial statements of PTT Public Company Limited (the Company), which comprise the consolidated and separate statements of financial position, as at December 31, 2017, the consolidated and separate statements of income, the consolidated and separate statements of comprehensive income, the consolidated and separate statements of changes in equity and the consolidated and separate statements of cash flows for the year then ended, note to the consolidated and separate financial statements, and a summary of significant accounting policies.

In the Office of the Auditor General of Thailand's opinion, the consolidated and separate financial statements referred to above present fairly, in all material respects, the consolidated financial position of PTT Public Company Limited and its subsidiaries and separate financial position of PTT Public Company Limited, respectively, as at December 31, 2017, and its consolidated and separate financial performance and its cash flows for the year then ended in accordance with Thai Financial Reporting Standards (TFRSs).

## Basis for Opinion

The Office of the Auditor General of Thailand conducted the audit in accordance with Thai Standards on Auditing (TSAs). The Office of the Auditor General of Thailand's responsibilities under those standards are further described in the Auditor's responsibilities for the audit of the consolidated and separate financial statements section of the Office of the Auditor General of Thailand's report. The Office of the Auditor General of Thailand is independent of the Group and the Company in accordance with The State Audit Standards issued by the State Audit Commission and the Federation of Accounting Professions' Code of Ethics for Professional Accountants that are relevant to the Office of the Auditor General of Thailand's audit of the consolidated and separate financial statements, and has fulfilled other ethical responsibilities in accordance with these requirements. The Office of the Auditor General of Thailand believes that the audit evidence obtained is sufficient and appropriate to provide a basis for the Office of the Auditor General of Thailand's opinion.

## Emphasis of Matter

The Office of the Auditor General of Thailand draws attention to Note 46.1 to the financial statements, which describes the event that Ombudsman of Thailand submitted a complaint to the Administrative Court (the Court) against the Company as the black case No. 510/2559, requesting the Court as follows: (1) To revoke the Cabinet Resolutions on December 18, 2007 and August 10, 2010. (2) To order the Minister of Finance, the Minister of Energy and the Company to conduct a separation and transfer of net assets according to the plaintiff's allegation as of September 30, 2001 amounting to Baht 68,569.69 million, including other compensations and benefits. (3) To revoke the separation of public assets and the preferential rights to establish the gas pipeline system according to the plaintiff's allegation. On May 26, 2016, the Administrative Court ordered the Company to submit a defense. The Company had the public prosecutor prepared the statement and additional statement for submission to the Administrative Court. Currently, the case is under the consideration of the Administrative Court.

In conclusion, the Office of the Auditor General of Thailand's opinion is not qualified in respect of these matters.

## Key Audit Matters

Key audit matters are those matters that, in the Office of the Auditor General of Thailand's professional judgment, were of most significance in the audit of the consolidated and separate financial statements of the current period. These matters were addressed in the context of the Office of the Auditor General of Thailand's audit of the consolidated and separate financial statements as a whole, and in forming the Office of the Auditor General of Thailand's opinion thereon, and the Office of the Auditor General of Thailand does not provide a separate opinion on these matters.

The Office of the Auditor General of Thailand identifies the followings as key audit matters:

### 1. Estimation of petroleum reserves

Estimation of petroleum proved reserves significantly affects the consolidated financial statements for test of impairment, including calculation of depreciation, depletion, and amortization expenses of petroleum exploration and production assets. Estimated proved reserves may differ from the actual reserves to be recoverable in the future because the estimation is based on available information at the time of the estimation. At the beginning of each project, the estimation may be subject to a high discrepancy, but the discrepancy will decrease when the project approaches the end of its production life. This may impact the management's investment decisions to sustain the Group's business. The management relies on the Group's internal teams of experts in estimating the proved reserves using the estimation methods consistent with those generally employed by the petroleum exploration and production industry. The experts have to exercise their judgment as well as experience in determining the appropriate estimation methods based on the available information at the time of the estimation. Therefore, the amount of proved reserves may vary with individual judgment and experience. In addition, changes in the estimated proved reserves will impact the recognition of depreciation, depletion, and amortization expenses in the financial statements. As a result, the Office of the Auditor General of Thailand considers this as a key audit matter.

The Group disclosed estimation of petroleum proved reserves information in Note 3.2.14 Accounting Policies - Property, Plant and Equipment, Note 3.2.29 Use of Estimates and Significant Assumptions - Estimates of Petroleum Reserves, and Note 17 Property, Plant and Equipment.

The Office of the Auditor General of Thailand performed the following key audit procedures:

1. Obtain an understanding of the proved reserve estimation processes, assess the adequacy of the designed key internal controls, and validate the key internal controls over the processes, especially the controls over the reliability of the data used in the preparation of reports related to the Group's proved reserves, and the controls for applying proved reserves data in the calculation of depreciation, depletion, and amortization expenses, as well as the consideration of impairment of assets.
2. Assess the qualifications of the experts who are responsible for estimating proved reserves and preparing the Group's proved reserves data.
3. Use the audit results of reserves estimation from the energy regulatory agency in Thailand, which has its own processes and experts for verifying the estimation of domestic petroleum reserves for projects of which the operators have submitted the required reports. The Office of the Auditor General of Thailand compared the Group's proved reserves for the year 2016 with the proved reserves verified by the regulatory agency and reconciled with the estimated proved reserves presented in internal reports related to the proved reserves during the year to determine the estimated proved reserves of domestic projects of which the Group was the operator at the end of 2017.
4. Test whether the Group recognized significant changes in the estimated proved reserves in the appropriate accounting period and in accordance with the Group's accounting policy, and those changes were applied to the calculation of depreciation, depletion, and amortization expenses appropriately.

## 2. Provision for decommissioning costs

Provision for decommissioning costs is the significant item which included in long-term provision for decommissioning costs in the consolidated financial statements. Decommissioning activities occur at the end of projects. The decommissioning methods vary with the locations of petroleum exploration and production, which are classified into onshore and offshore production areas, where the main infrastructure, including Central Processing Platforms, Well Head Platform, Development Well, Pipeline, and other producing properties, is installed. Also, the regulations in each country have varying requirements for decommissioning activities, which can be either total or partial removal. In addition, only a small number of decommissioning activities in the past or subject to certain natures have taken place, resulting in limited decommissioning cost information that can be used as a reference in the Group's estimation of future expenses. Due to these factors, the calculation of the provision for decommissioning costs has to rely significantly on the exercise of judgment in determining assumptions around decommissioning costs, inflation rates, discount rates, and timing of the decommissioning based on the estimated field life of a project. These assumptions are subject to change over time. The management relies on the Group's teams of experts, comprising those from Engineering and Development Group, Production Asset Group, Operations Support Group, and Finance and Accounting Group in estimating the provision for decommissioning costs. As a result, the Office of the Auditor General of Thailand considers this as a key audit matter.

The Group disclosed information about provision for decommissioning costs in Note 3.2.22 Significant Accounting Policies - Provision for Decommissioning Costs, Note 3.2.29 Use of Estimates and Significant Assumptions - Provisions, and Note 28 Long-term Provision for Decommissioning Costs.

The Office of the Auditor General of Thailand performed the following key audit procedures:

1. Obtain an understanding of the decommissioning cost estimation processes, assess the adequacy of the designed internal controls and validate the internal controls related to the estimation preparation, review and adjustment of the provision for decommissioning costs, as well as related approval.
2. Assess the qualifications of the Group's experts who are responsible for estimating the provision for decommissioning costs.
3. Evaluate the reasonableness of the assumptions used in the calculation of provision for decommissioning costs by
  - 3.1 Evaluating the reasonableness of the decommissioning costs through inquiry of the experts about the assumptions used, relying on the Office of the Auditor General of Thailand's business knowledge and decommissioning information of other comparable projects;
  - 3.2 Evaluating the consistency of the expected timing of decommissioning with investment plans or any other related information; and
  - 3.3 Evaluating the reasonableness of inflation rates and discount rates through inquiry of the experts and comparison with the information from external sources.
4. Validate the accuracy and consistency of the decommissioning costs used in the calculation of the provision for decommissioning costs with the information obtained from the Group's engineers, both for projects of which the Group is operator and for projects of which the Group is non-operator.
5. Validate significant changes in the estimated decommissioning costs incurred during the year and changes that impact the statements of income against supporting evidence.
6. Test the calculation of the provision for decommissioning costs.
7. For projects which the Group had submitted the initial decommissioning plan and the decommissioning cost estimation report, which were required to be audited and verified by the Group's external experts, to the energy regulatory agency in Thailand, the Office of the Auditor General of Thailand assessed the reliability of the external experts by ensuring that their qualifications, work experience and independence were in compliance with the requirements imposed by the regulatory agency for the appointment of third parties in auditing and verifying the accuracy of decommissioning cost estimates.

8. Compare the actual decommissioning cost incurred with the estimation made by the Group to assess the appropriateness of the estimation process. In case that there is significant difference, the Office of the Auditor General of Thailand assesses the reasonableness of the clarification from the Group about the cause of difference, and also consider whether the Group used the experience from the actual decommissioning cost incurred within the current year to be the information for reviewing the estimation preparation process appropriately.

### 3. Impairment of Assets

Impairment of Assets under Mariana Oil Sands project is the significant item in the consolidated financial statements. According to the global economic uncertainty which affects the commodity price, and the US Dollars depreciation trend against Canadian Dollars, the Group had revised the development plan, including extending the Final Investment Decision of the Mariana Oil Sands project by considering the project's commercial cost-benefit analysis. The Group determined that this event might be an indicator that the project's assets may be impaired. The Group determine the recoverable amount of the assets under Mariana Oil Sands project using the fair value less cost of disposal because the fair value less cost of disposal of exploration and evaluation assets of the project during the exploration phase will better reflect the recoverable amount of the assets and will be higher than the value in use. The fair value less cost of disposal is calculated from the estimation of discounted future cash flows. The significant assumptions included are the oil price forecast, discount rate of Oil Sands industry, production volume, and projected capitalization expenses and operating expenses. However, certain assumptions require the management to exercise significant judgement. This resulted in the risk which the fair value less cost of disposal estimated by the Group may be different from those using the overall market participant's assumptions. As a result, the Office of the Auditor General of Thailand considers this as a key audit matter.

The Group disclosed information about impairment of assets in Note 3.2.18 Significant Accounting Policies - Impairment of Assets, Note 3.2.29 Use of Estimates and Significant Assumptions - Impairment of Assets, and Note 21 Impairment of Assets.

The Office of the Auditor General of Thailand performed the following key audit procedures:

1. Assess the impairment indicator identification processes and obtain an understanding of the impairment testing processes and recoverable amount estimation processes.
2. Determine the appropriateness of the procedures used in the estimation of recoverable amount.
3. Communicate with the auditors of the companies within the Group to obtain sufficient and appropriate audit evidence by reviewing the audit report of the impairment of assets performed by the auditors of the companies within the Group. The key audit procedures are as follows:
  - 3.1 Independent assessment for the fair value less cost of disposal with the self-developed model by using the best estimates of the future cash flows from the probable reserves in accordance with the external expert's report, which reflect the market perspective, and the comparable market indication, and perform sensitivity analysis to obtain the acceptable range of fair value less cost of disposal, and compare with the fair value less cost of disposal estimated by the companies within the Group whether they fall within the range.
  - 3.2 Assessment for the reasonableness of the assumptions which the external expert used in preparing the contingent resource and probable reserves report, which is the information used in the model.
  - 3.3 Evaluation for the knowledge, capability, and integrity of the external expert which involved with the preparation of the report.

#### 4. Sale of investments

Sale of investments are the significant item in the separate financial statements. In 2017, the Company completed the shareholder restructuring of the Group, by transferring all shares, which the Company held, in the group of companies engaged in petrochemical business and relevant service businesses of which business operation are connected, including lending loan contracts and the rights to operate in projects and any other relevant assets as agreed to a subsidiary, which is positioned as the petrochemical flagship company. To determine the transaction price, the Company engaged an independent financial advisor to perform a fair value assessment of the transaction by determining the fair value of the shares and the assets of each company by using the fair value valuation method appropriate for each company, as well as estimates, critical assumptions, and significant management's judgement. As a result, the Office of the Auditor General of Thailand considers this as a key audit matter.

The Company disclosed information about the sale of investments in Note 12, the shareholder restructuring of the Group.

The Office of the Auditor General of Thailand performed the followings;

1. Understand the shareholder restructuring and sale of investments, estimates, and assumptions used to measure the fair value, and evaluated the adequacy and appropriateness of the designed internal controls relevant to the sale of investments.
2. Assess the knowledge, ability, and independence of the independent financial advisor engaged by the Company to measure the fair value of shares and the assets of the transferred Group of companies.
3. Review the fair value valuation method and assessed the reasonable of the estimates and assumptions used to calculate the fair values, including the reasonable of discount rates by comparing them against the information from external sources.
4. Inquire with management as to the nature and objectives of the sale of investments.
5. Consider the adequacy of disclosures relating to the sale of investments.

#### Other Information

Management is responsible for the other information. The other information comprises the information included in the annual report, but does not include the consolidated and separate financial statements and auditor's report thereon. The annual report will be made available to the Office of the Auditor General of Thailand after the date of this auditor's report.

The Office of the Auditor General of Thailand's opinion on the consolidated and separate financial statements does not cover the other information and the Office of the Auditor General of Thailand will not express any form of assurance conclusion thereon.

In connection with the audit of the consolidated and separate financial statements, the Office of the Auditor General of Thailand's responsibility is to read the other information identified above when it becomes available and, in doing so, consider whether the other information is materially inconsistent with the consolidated and separate financial statements or the Office of the Auditor General of Thailand's knowledge obtained in the audit, or otherwise appears to be materially misstated.

When the Office of the Auditor General of Thailand reads the annual report, if the Office of the Auditor General of Thailand concludes that there is a material misstatement therein, the Office of the Auditor General of Thailand is required to communicate the matter to those charged with governance.

## Responsibilities of Management and Those Charged with Governance for the Consolidated and Separate Financial Statements

Management is responsible for the preparation and fair presentation of the consolidated and separate financial statements in accordance with TFRSs, and for such internal control as management determines is necessary to enable the preparation of consolidated and separate financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated and separate financial statements, the management is responsible for assessing the Group's and the Company's ability to continue as a going concern, appropriate disclosing, and using the going concern basis of accounting unless management either intends to liquidate the Group and the Company or to cease operations, or has no realistic alternative but to do so.

Those charged with governance are responsible for overseeing the Group's and the Company's financial reporting process.

## Auditor's Responsibilities for the Audit of the Consolidated and Separate Financial Statements

The Office of the Auditor General of Thailand's objectives are to obtain reasonable assurance about whether the consolidated and separate financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes the Office of the Auditor General of Thailand's opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with TSAs will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated and separate financial statements.

As part of an audit in accordance with TSAs, the Office of the Auditor General of Thailand exercises professional judgment and maintain professional skepticism throughout the audit, including:

- Identifies and assesses the risks of material misstatement of the consolidated and separate financial statements, whether due to fraud or error, designs and performs audit procedures responsive to those risks, and obtains audit evidence that is sufficient and appropriate to provide a basis for the Office of the Auditor General of Thailand's opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtains an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Group's and the Company's internal control.
- Evaluates the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the management.

- Concludes on the appropriateness of the management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's and the Company's ability to continue as a going concern. If the Office of the Auditor General of Thailand concludes that a material uncertainty exists, the Office of the Auditor General of Thailand is required to draw attention in the Office of the Auditor General of Thailand auditor's report to the related disclosures in the consolidated and separate financial statements or, if such disclosures are inadequate, to modify the Office of the Auditor General of Thailand's opinion. The Office of the Auditor General of Thailand's conclusions are based on the audit evidence obtained up to the date of the Office of the Auditor General of Thailand auditor's report. However, future events or conditions may cause the Group and the Company to cease to continue as a going concern.
- Evaluates the overall presentation, structure and content of the consolidated and separate financial statements, including the disclosures, and whether the consolidated and separate financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
- Obtains sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements. The Office of the Auditor General of Thailand is responsible for the direction, supervision and performance of the group audit. The Office of the Auditor General of Thailand remains solely responsible for the Office of the Auditor General of Thailand's audit opinion.

The Office of the Auditor General of Thailand communicates with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that the Office of the Auditor General of Thailand identifies during the Office of the Auditor General of Thailand's audit.

The Office of the Auditor General of Thailand also provides those charged with governance with a statement that the Office of the Auditor General of Thailand has complied with the State Audit Standards and relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on the Office of the Auditor General of Thailand's independence, and where applicable, related safeguards.

From the matters communicated with those charged with governance, the Office of the Auditor General of Thailand determines those matters that were of most significance in the audit of the consolidated and separate financial statements of the current period and are therefore the key audit matters. The Office of the Auditor General of Thailand describes these matters in the Office of the Auditor General of Thailand auditor's report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, the Office of the Auditor General of Thailand determines that a matter should not be communicated in the Office of the Auditor General of Thailand's report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

# Statement of Financial Position

PTT Public Company Limited and Its Subsidiaries  
As at December 31, 2017

Unit: Baht

	Notes	Consolidated financial statements		Separate financial statements	
		December 31, 2017	December 31, 2016	December 31, 2017	December 31, 2016
<b>Assets</b>					
<b>Current assets</b>					
Cash and cash equivalents	4	166,189,023,655	215,566,411,132	38,691,660,939	62,648,286,060
Current investments	5	229,651,255,278	176,813,625,899	68,056,258,825	59,192,546,702
Trade accounts receivable	6	174,916,243,685	143,191,055,315	144,265,155,266	124,562,469,670
Other accounts receivable	7	50,602,704,855	49,171,420,625	16,923,203,980	11,229,820,841
Short-term lending loans	8.1	1,231,329,558	530,365,629	4,648,737,018	8,160,734,985
Inventories	10	121,871,798,713	116,883,543,400	27,103,531,169	22,987,980,292
Materials and supplies	11	28,942,454,106	31,026,266,857	5,749,466,246	5,661,775,885
Current derivative assets		1,997,546,512	2,278,953,598	-	618,972,244
Other current assets		6,768,006,749	6,122,031,345	3,956,768,710	3,581,409,533
<b>Total current assets</b>		<b>782,170,363,111</b>	<b>741,583,673,800</b>	<b>309,394,782,153</b>	<b>298,643,996,212</b>
<b>Non-current assets</b>					
Available-for-sale investments	13.2	17,602,408,397	23,839,541,021	4,533,102,500	18,116,254,567
Investments in subsidiaries	14.6	-	-	218,929,325,063	210,360,505,443
Investments in joint ventures	14.4, 14.6	37,937,145,910	36,843,812,673	5,927,614,973	22,884,267,327
Investments in associates	14.5, 14.6	21,979,621,626	19,429,576,628	3,173,227,030	3,173,227,030
Other long-term investments	15.2	27,668,655,084	2,205,879,075	15,164,124,801	7,390,216
Long-term lending loans	8.2	19,078,604,450	15,017,824,346	22,754,737,237	27,582,205,637
Investment properties	16	6,233,426,284	6,227,549,199	3,851,133,751	3,839,563,972
Property, plant and equipment	17	1,076,905,903,235	1,106,702,662,362	287,729,934,813	285,001,575,032
Goodwill	18	46,688,256,108	50,778,166,385	-	-
Intangible assets	19	32,107,682,512	33,500,330,828	14,403,623,166	14,348,065,711
Exploration and evaluation assets	20	108,759,721,484	137,449,972,694	-	-
Deferred tax assets	22.2	15,101,219,955	10,581,203,858	-	-
Non-current derivative assets		3,734,359,338	246,849,916	754,506,988	99,668,317
Other non-current assets	23	36,346,789,502	47,924,040,570	6,695,815,983	10,678,922,685
<b>Total non-current assets</b>		<b>1,450,143,793,885</b>	<b>1,490,747,409,555</b>	<b>583,917,146,305</b>	<b>596,091,645,937</b>
<b>Total assets</b>		<b>2,232,314,156,996</b>	<b>2,232,331,083,355</b>	<b>893,311,928,458</b>	<b>894,735,642,149</b>

The accompanying notes are an integral part of these financial statements.

# Statement of Financial Position

PTT Public Company Limited and Its Subsidiaries

As at December 31, 2017

Unit: Baht

	Notes	Consolidated financial statements		Separate financial statements	
		December 31, 2017	December 31, 2016	December 31, 2017	December 31, 2016
<b>Liabilities and Equity</b>					
<b>Current liabilities</b>					
Bank overdrafts and short-term loans					
from financial institutions	24	18,126,630,943	30,526,999,660	-	-
Trade accounts payable		160,301,286,194	150,238,138,892	139,418,539,503	133,387,903,741
Other accounts payable		71,526,778,845	57,792,824,277	23,624,425,464	23,478,969,389
Current portion of long-term loans	26	66,433,929,171	64,055,692,422	29,439,944,692	24,139,813,716
Short-term loans-related parties	9.5	-	-	2,803,042,683	2,117,071,996
Income tax payable		24,094,727,080	21,193,488,573	3,592,947,307	4,823,679,215
Current derivative liabilities		4,954,839,016	7,823,994,445	86,699,923	743,498,596
Other current liabilities	25	8,958,513,286	7,961,074,728	4,565,821,904	3,390,127,991
<b>Total current liabilities</b>		<b>354,396,704,535</b>	<b>339,592,212,997</b>	<b>203,531,421,476</b>	<b>192,081,064,644</b>
<b>Non-current liabilities</b>					
Long-term loans	26	444,919,659,683	519,266,904,102	150,115,471,277	210,903,682,857
Deferred tax liabilities	22.2	35,795,720,701	44,020,389,148	473,743,077	212,389,427
Provisions for employee benefit	27	23,313,066,000	21,072,327,428	8,877,981,146	8,140,102,985
Long-term provision for decommissioning costs	28	74,865,436,241	72,751,557,264	-	-
Deposits on LPG cylinders		10,519,247,338	9,898,534,048	10,519,247,338	9,898,534,048
Non-current derivative liabilities		2,104,348,790	4,856,896,977	45,185,175	1,171,425,711
Other non-current liabilities	29	37,844,233,080	49,275,252,034	21,868,611,384	22,918,224,507
<b>Total non-current liabilities</b>		<b>629,361,711,833</b>	<b>721,141,861,001</b>	<b>191,900,239,397</b>	<b>253,244,359,535</b>
<b>Total liabilities</b>		<b>983,758,416,368</b>	<b>1,060,734,073,998</b>	<b>395,431,660,873</b>	<b>445,325,424,179</b>

# Statement of Financial Position

PTT Public Company Limited and Its Subsidiaries

As at December 31, 2017

Unit: Baht

	Notes	Consolidated financial statements		Separate financial statements	
		December 31, 2017	December 31, 2016	December 31, 2017	December 31, 2016
<b>Liabilities and Equity (Continued)</b>					
<b>Equity</b>					
Share capital					
Authorized share capital					
2,857,245,725 ordinary shares					
of Baht 10 each	30.1	28,572,457,250	28,572,457,250	28,572,457,250	28,572,457,250
Issued and paid-up share capital					
2,856,299,625 ordinary shares					
of Baht 10 each	30.2	28,562,996,250	28,562,996,250	28,562,996,250	28,562,996,250
Premium on ordinary shares	30.2	29,211,131,966	29,211,131,966	29,211,131,966	29,211,131,966
Deficit from the change in the ownership					
interests in subsidiaries		(24,311,625,093)	(24,327,311,399)	-	-
Retained earnings					
Appropriated					
Legal reserved	31.1	2,857,245,725	2,857,245,725	2,857,245,725	2,857,245,725
Reserve for self-insurance fund	31.2	1,199,991,563	1,174,389,774	1,199,991,563	1,174,389,774
Unappropriated		775,959,276,682	694,362,564,563	433,069,636,210	380,086,648,201
Other components of equity		5,192,734,029	31,106,632,311	2,979,265,871	7,517,806,054
Total equity attributable to owners of the parent		818,671,751,122	762,947,649,190	97,880,267,585	449,410,217,970
Non-controlling interests		429,883,989,506	408,649,360,167	-	-
<b>Total equity</b>		<b>1,248,555,740,628</b>	<b>1,171,597,009,357</b>	<b>497,880,267,585</b>	<b>449,410,217,970</b>
<b>Total liabilities and equity</b>		<b>2,232,314,156,996</b>	<b>2,232,331,083,355</b>	<b>893,311,928,458</b>	<b>894,735,642,149</b>

Tevin Vongvanich  
President & Chief Executive Officer

Nitima Thepvanangkul  
Chief Financial Officer

# Statement of Income

PTT Public Company Limited and Its Subsidiaries  
For the Year Ended December 31, 2017

Unit: Baht

		Consolidated financial statements		Separate financial statements		
		2017	2016	2017	2016	
Notes						
	Sales and service income	33	1,995,722,067,627	1,718,846,039,961	1,559,380,432,712	1,439,393,492,138
	Cost of sales and services	35	1,688,461,455,356	1,464,614,449,950	1,454,795,096,944	1,347,178,876,606
	<b>Gross profit</b>		<b>307,260,612,271</b>	<b>254,231,590,011</b>	<b>104,585,335,768</b>	<b>92,214,615,532</b>
	Other income	34	28,268,513,870	9,682,645,328	54,999,955,892	40,762,874,116
	Gain on foreign exchange rates		13,650,641,022	4,472,680,400	7,456,055,779	3,003,134,917
	<b>Profit before expenses</b>		<b>349,179,767,163</b>	<b>268,386,915,739</b>	<b>167,041,347,439</b>	<b>135,980,624,565</b>
	Selling and distribution expenses	35	24,624,948,200	21,652,964,933	20,123,443,690	18,349,199,349
	Administrative expenses	35	75,974,028,735	53,123,378,680	23,066,838,237	26,844,154,620
	Petroleum royalties and remuneration	36	13,877,333,274	13,570,434,139	-	-
	<b>Operating profit</b>		<b>234,703,456,954</b>	<b>180,040,137,987</b>	<b>123,851,065,512</b>	<b>90,787,270,596</b>
	Share of profit from investments in joint ventures	14.7.1	5,461,842,429	2,980,567,211	-	-
	Share of profit from investments in associates	14.7.2	1,848,573,880	1,162,641,231	-	-
	<b>Profit before finance costs and income taxes</b>		<b>242,013,873,263</b>	<b>184,183,346,429</b>	<b>123,851,065,512</b>	<b>90,787,270,596</b>
	Finance costs	37	29,085,932,422	28,887,254,079	9,683,710,591	10,906,455,692
	<b>Profit before income taxes</b>		<b>212,927,940,841</b>	<b>155,296,092,350</b>	<b>114,167,354,921</b>	<b>79,880,814,904</b>
	Income taxes	22.1	28,306,575,417	26,593,074,497	9,693,556,947	9,072,769,378
	Profit for the years from continuing operations		184,621,365,424	128,703,017,853	104,473,797,974	70,808,045,526
	Profit (loss) for the years from discontinued operations, net of tax		(11,349,343)	872,073,877	-	-
	<b>Profit for the years</b>		<b>184,610,016,081</b>	<b>129,575,091,730</b>	<b>104,473,797,974</b>	<b>70,808,045,526</b>
	<b>Profit attributable to</b>					
	Owners of the parent					
	Continuing operations		135,187,012,229	94,039,732,600	104,473,797,974	70,808,045,526
	Discontinued operations, net of tax		(7,409,577)	569,345,640	-	-
			<b>135,179,602,652</b>	<b>94,609,078,240</b>	<b>104,473,797,974</b>	<b>70,808,045,526</b>
	Non-controlling interests					
	Continuing operations		49,434,353,195	34,663,285,253	-	-
	Discontinued operations, net of tax		(3,939,766)	302,728,237	-	-
			<b>49,430,413,429</b>	<b>34,966,013,490</b>	<b>-</b>	<b>-</b>
	Basic earnings per share					
	Continuing operations	32	46.74	32.48	36.58	24.79
	Discontinued operations	32	-	0.20	-	-
			<b>46.74</b>	<b>32.68</b>	<b>36.58</b>	<b>24.79</b>

The accompanying notes are an integral part of these financial statements.

# Statement of Comprehensive Income

PTT Public Company Limited and Its Subsidiaries  
For the Year Ended December 31, 2017

Unit: Baht

	Consolidated financial statements		Separate financial statements	
	2017	2016	2017	2016
Profit for the years from continuing operations	184,621,365,424	128,703,017,853	104,473,797,974	70,808,045,526
Other comprehensive income (loss)				
Items that may be reclassified to profit or loss				
in subsequent periods				
Currency translation differences	(34,470,386,455)	(4,209,674,876)	-	-
Gain (loss) on measurements of available-for-sale investments	(5,031,955,629)	5,055,509,044	(5,673,175,229)	5,007,467,333
Income taxes related to available-for-sale investments	1,135,357,457	(1,001,670,252)	1,134,635,046	(1,001,493,467)
Gain (loss) on cash flow hedges	(367,552,252)	406,705,383	-	-
Income taxes related to cash flow hedges	(88,022,406)	1,807,287,647	-	-
Share of other comprehensive income of joint ventures and associates	287,735,036	104,918,204	-	-
Items that will not be reclassified to profit or loss in subsequent periods				
Losses on remeasurements of defined benefits plans	(1,020,616,075)	(1,136,390,447)	(65,267,097)	(863,033,354)
Income taxes related to remeasurements of defined benefits plans	177,673,980	230,897,889	13,053,419	172,606,671
Share of other comprehensive loss from joint ventures and associates	(54,629,410)	(73,491,182)	-	-
Other comprehensive income (loss), net of taxes	(39,432,395,754)	1,184,091,410	(4,590,753,861)	3,315,547,183
Comprehensive income for the years from continuing operations	145,188,969,670	129,887,109,263	99,883,044,113	74,123,592,709
Comprehensive income (loss) for the years from discontinued operations, net of tax	(11,349,343)	725,586,572	-	-
<b>Total comprehensive income for the years</b>	<b>145,177,620,327</b>	<b>130,612,695,835</b>	<b>99,883,044,113</b>	<b>74,123,592,709</b>
<b>Total comprehensive income attributable to</b>				
Owners of the parent				
Continuing operations	108,734,635,094	95,891,533,440	99,883,044,113	74,123,592,709
Discontinued operations, net of tax	(7,409,577)	473,709,352	-	-
	<b>108,727,225,517</b>	<b>96,365,242,792</b>	<b>99,883,044,113</b>	<b>74,123,592,709</b>
Non-controlling interests				
Continuing operations	36,454,334,576	33,995,575,823	-	-
Discontinued operations, net of tax	(3,939,766)	251,877,220	-	-
	<b>36,450,394,810</b>	<b>34,247,453,043</b>	<b>-</b>	<b>-</b>

The accompanying notes are an integral part of these financial statements.

# Statement of Changes in Equity

PTT Public Company Limited and Its Subsidiaries  
For the Year Ended December 31, 2017

Unit: Baht

## Consolidated Financial Statements

Notes	Equity attributable to owners of the parent													Non-controlling interests	Total equity
	Issued and paid-up share capital	Premium on ordinary shares	Surplus (Deficit) from the change in the ownership interests in subsidiaries	Retained earnings			Other components of equity				Total other components of equity	Total equity attributable to owners of the parent			
				Legal reserve	Reserve for self-insurance fund	Unappropriated	Other comprehensive income (loss)								
							Available-for-sale investments	Currency translation differences	Cash flow hedges	Share of other comprehensive income (loss) of joint ventures and associates					
	28,562,996,250	29,211,131,966	(23,574,448,395)	2,857,245,725	1,145,105,235	630,383,740,012	3,249,949,353	26,913,229,902	(1,208,540,494)	(393,384,329)	28,561,254,432	697,147,025,225	390,540,348,571	1,087,687,373,796	
<b>Balance as at January 1, 2016</b>															
<b>Changes in equity for the year</b>															
Reserve for self-insurance fund	31.2	-	-	-	29,284,539	(29,284,539)	-	-	-	-	-	-	-	-	
Interests for subordinated capital debentures		-	-	-	-	(1,522,821,631)	-	-	-	-	-	(1,522,821,631)	(809,703,414)	(2,332,525,045)	
Income taxes related to subordinated capital debentures		-	-	-	-	271,121,768	-	-	-	-	-	271,121,768	144,158,854	415,280,622	
Dividends paid	42	-	-	-	-	(28,560,055,960)	-	-	-	-	-	(28,560,055,960)	-	(28,560,055,960)	
Dividends paid of subsidiaries		-	-	-	-	-	-	-	-	-	-	-	(16,029,854,696)	(16,029,854,696)	
Business acquisition of subsidiary		-	-	-	-	-	-	-	-	-	-	-	(162,700)	(162,700)	
Change in the ownership interests subsidiaries		-	(752,863,004)	-	-	-	-	-	-	-	-	(752,863,004)	455,344,095	(297,518,909)	
Increase in share capital of subsidiary		-	-	-	-	-	-	-	-	-	-	-	101,776,414	101,776,414	
Profit for the year		-	-	-	-	94,609,078,240	-	-	-	-	-	94,609,078,240	34,966,013,490	129,575,091,730	
Other comprehensive income (loss) for the year		-	-	-	-	(789,213,327)	4,060,830,819	(3,203,505,086)	1,450,846,175	237,205,971	2,545,377,879	1,756,164,552	(718,560,447)	1,037,604,105	
<b>Balance as at December 31, 2016</b>		28,562,996,250	29,211,131,966	(24,327,311,399)	2,857,245,725	1,174,389,774	694,362,564,563	7,310,780,172	23,709,724,816	242,305,681	(156,178,358)	31,106,632,311	762,947,649,190	408,649,360,167	
<b>Balance as at January 1, 2017</b>		28,562,996,250	29,211,131,966	(24,327,311,399)	2,857,245,725	1,174,389,774	694,362,564,563	7,310,780,172	23,709,724,816	242,305,681	(156,178,358)	31,106,632,311	762,947,649,190	408,649,360,167	
<b>Changes in equity for the year</b>															
Reserve for self-insurance fund	31.2	-	-	-	25,601,789	(25,601,789)	-	-	-	-	-	-	-	-	
Interests for subordinated capital debentures		-	-	-	-	(1,160,277,512)	-	-	-	-	-	(1,160,277,512)	(616,934,146)	(1,777,211,658)	
Redemption of subordinated capital debentures	41	-	-	-	-	(512,004,570)	-	-	-	-	-	(512,004,570)	(27,798,972,512)	(28,310,977,082)	
Issuance of subordinated capital debentures	41	-	-	-	-	-	-	-	-	-	-	-	28,572,583,481	28,572,583,481	
Income taxes related to subordinated capital debentures		-	-	-	-	1,850,284	-	-	-	-	-	1,850,284	983,819	2,834,103	
Dividends paid	42	-	-	-	-	(51,412,994,498)	-	-	-	-	-	(51,412,994,498)	-	(51,412,994,498)	
Dividends paid of subsidiaries		-	-	-	-	-	-	-	-	-	-	-	(22,740,362,317)	(22,740,362,317)	
Change in the ownership interests in subsidiary		-	15,686,306	-	-	-	-	-	-	-	-	15,686,306	4,311,202,294	4,326,888,600	
Increase in share capital of subsidiary		-	-	-	-	-	-	-	-	-	-	-	3,055,733,910	3,055,733,910	
Profit for the year		-	-	-	-	135,179,602,652	-	-	-	-	-	135,179,602,652	49,430,413,429	184,610,016,081	
Other comprehensive income (loss) for the year		-	-	-	-	(473,862,448)	(4,051,543,415)	(21,738,036,778)	(168,281,187)	43,963,098	(25,913,898,282)	(26,387,760,730)	(12,980,018,619)	(39,367,779,349)	
<b>Balance as at December 31, 2017</b>		28,562,996,250	29,211,131,966	(24,311,625,093)	2,857,245,725	1,199,991,563	775,959,276,682	3,259,236,757	1,971,688,038	74,024,494	(112,215,260)	5,192,734,029	818,671,751,122	429,883,989,506	

The accompanying notes are an integral part of these financial statements.

# Statement of Changes in Equity

PTT Public Company Limited and Its Subsidiaries

For the Year Ended December 31, 2017

Unit: Baht

## Separate Financial Statements

Notes	Issued and paid-up share capital	Premium on ordinary shares	Retained earnings			Other components of equity	Total equity
			Legal reserve	Reserve for self-insurance fund	Unappropriated	Other comprehensive income (loss)	
						Available-for-sale investments	
<b>Balance as at January 1, 2016</b>	<b>28,562,996,250</b>	<b>29,211,131,966</b>	<b>2,857,245,725</b>	<b>1,145,105,235</b>	<b>338,558,369,857</b>	<b>3,511,832,188</b>	<b>403,846,681,221</b>
<b>Changes in equity for the year</b>							
Reserve for self-insurance fund	31.2	-	-	29,284,539	(29,284,539)	-	-
Dividend paid	42	-	-	-	(28,560,055,960)	-	<b>(28,560,055,960)</b>
Profit for the year		-	-	-	70,808,045,526	-	<b>70,808,045,526</b>
Other comprehensive income (loss) for the year		-	-	-	(690,426,683)	4,005,973,866	<b>3,315,547,183</b>
<b>Balance as at December 31, 2016</b>	<b>28,562,996,250</b>	<b>29,211,131,966</b>	<b>2,857,245,725</b>	<b>1,174,389,774</b>	<b>380,086,648,201</b>	<b>7,517,806,054</b>	<b>449,410,217,970</b>
<b>Balance as at January 1, 2017</b>	<b>28,562,996,250</b>	<b>29,211,131,966</b>	<b>2,857,245,725</b>	<b>1,174,389,774</b>	<b>380,086,648,201</b>	<b>7,517,806,054</b>	<b>449,410,217,970</b>
<b>Changes in equity for the year</b>							
Reserve for self-insurance fund	31.2	-	-	25,601,789	(25,601,789)	-	-
Dividend paid	42	-	-	-	(51,412,994,498)	-	<b>(51,412,994,498)</b>
Profit for the year		-	-	-	104,473,797,974	-	<b>104,473,797,974</b>
Other comprehensive loss for the year		-	-	-	(52,213,678)	(4,538,540,183)	<b>(4,590,753,861)</b>
<b>Balance as at December 31, 2017</b>	<b>28,562,996,250</b>	<b>29,211,131,966</b>	<b>2,857,245,725</b>	<b>1,199,991,563</b>	<b>433,069,636,210</b>	<b>2,979,265,871</b>	<b>497,880,267,585</b>

The accompanying notes are an integral part of these financial statements.

# Statement of Cash Flows

PTT Public Company Limited and Its Subsidiaries  
For the Year Ended December 31, 2017

Unit: Baht

	Consolidated financial statements		Separate financial statements	
	2017	2016	2017	2016
<b>Cash flows from operating activities</b>				
Profit attributable to owners of the parent	135,179,602,652	94,609,078,240	104,473,797,974	70,808,045,526
Adjustment of profit to net cash provided by (used in) operating activities				
Depreciation and amortization expenses	116,289,183,802	128,733,799,545	19,507,028,650	18,674,804,701
(Gain) loss on disposal of assets	60,210,289	(33,538,901)	(84,005,246)	14,196,605
Gain on disposal of investments	(2,673,805,653)	(1,887,214,404)	(1,950,951,314)	-
(Reversal of) loss on impairment of assets	25,409,644,604	2,587,860,987	65,705,908	(44,610,013)
(Reversal of) loss on impairment of investments	(562,000,000)	4,615,142,246	33,715,652,779	838,062,044
Share of profit from investments in joint ventures	(5,461,842,429)	(2,980,567,211)	-	-
Share of profit from investments in associates	(1,848,573,880)	(1,162,641,231)	-	-
Profit attributable to non-controlling interests	49,430,413,429	34,966,013,490	-	-
Provision for employee benefit	2,375,517,480	2,121,893,119	963,112,541	772,524,145
Unrealized (gain) loss on exchange rates	(6,421,920,357)	588,651,939	18,749,596	669,025,390
Unrealized (gain) loss on derivatives	(3,536,548,267)	4,573,363,592	(1,818,905,638)	(181,345,533)
(Reversal of) doubtful accounts	(149,729,204)	276,281,098	(34,459,121,339)	5,153,796,614
Amortization of exploration costs	858,038,433	1,023,210,620	-	-
(Reversal of) allowance for loss on decline in value of inventories	(394,454,518)	(3,132,533,767)	21,182,704	(545,488,112)
Allowance for obsolete materials and supplies	489,576,605	51,611,651	426,162	7,557,229
Dividends income	(5,008,551,267)	(797,964,720)	(34,730,340,521)	(24,937,105,096)
Income taxes	28,306,575,417	26,593,074,497	9,693,556,947	9,072,769,378
Interest income	(8,630,246,371)	(5,625,346,196)	(4,072,990,349)	(4,521,724,748)
Finance costs	29,085,932,422	28,887,254,079	9,683,710,591	10,906,455,692
Others	495,493,801	183,661,456	296,244,436	75,590,275
Profit from operating activities before changes in operating assets and liabilities	353,292,516,988	314,191,090,129	101,322,853,881	86,762,554,097

# Statement of Cash Flows

PTT Public Company Limited and Its Subsidiaries  
For the Year Ended December 31, 2017

Unit: Baht

	Consolidated financial statements		Separate financial statements	
	2017	2016	2017	2016
(Increase) decrease in operating assets				
Trade accounts receivable	(31,208,993,246)	(1,634,008,318)	(19,485,670,907)	684,892,295
Other accounts receivable	(63,792,200)	10,733,769,228	(3,712,173,083)	5,357,415,728
Inventories	(5,059,561,391)	(30,842,111,464)	(4,144,835,963)	(5,276,259,246)
Materials and supplies	1,596,600,015	212,059,703	(128,999,649)	(377,090,199)
Other current assets	(645,975,404)	(710,888,167)	(1,408,657,790)	606,272,071
Other non-current assets	9,774,474,125	(19,088,345,139)	2,276,476,836	2,428,003,383
Increase (decrease) in operating liabilities				
Trade accounts payable	10,340,436,623	11,077,080,579	6,265,180,357	9,308,816,872
Other accounts payable	13,313,464,270	(88,715,153)	3,342,499,053	3,459,602,197
Other current liabilities	1,236,666,252	2,006,187,895	1,208,547,472	(476,162,167)
Deposits on LPG cylinders	620,713,290	587,454,050	620,713,290	587,454,050
Other non-current liabilities	(13,138,672,313)	14,600,287,812	(538,478,794)	(614,873,836)
	(13,234,639,979)	(13,147,228,974)	(15,705,399,178)	15,688,071,148
Cash received from operating activities	340,057,877,009	301,043,861,155	85,617,454,703	102,450,625,245
Income tax paid	(33,957,533,365)	(30,608,627,146)	(9,518,222,914)	(5,388,119,380)
Net cash provided by operating activities	306,100,343,644	270,435,234,009	76,099,231,789	97,062,505,865

# Statement of Cash Flows

PTT Public Company Limited and Its Subsidiaries  
For the Year Ended December 31, 2017

Unit: Baht

	Consolidated financial statements		Separate financial statements	
	2017	2016	2017	2016
<b>Cash flows from investing activities</b>				
Payment of property, plant and equipment and investment properties	(110,592,672,742)	(105,625,743,322)	(24,530,299,968)	(23,332,183,687)
Payment of intangible assets	(2,467,624,937)	(2,896,181,830)	(270,320,163)	(113,746,520)
Payment of exploration and evaluation assets	(1,783,750,778)	(6,779,727)	-	-
Payment of long-term rental contracts on land and building	(1,205,179,165)	(879,396,276)	(367,053,246)	(483,789,112)
Payment for available for sale investments	(7,460,167,117)	(7,241,567,484)	(208,994,773)	-
Payment of investments in subsidiaries	-	-	(42,970,876,600)	(1,874,815,115)
Payment of investments in joint ventures	(26,120,000)	(238,279,000)	-	-
Payment of investments in associates	(1,720,396,715)	(1,099,191,075)	-	-
Payment of short-term lending loans	(96,421,701)	(53,054,545)	-	(83,491,726)
Payment of long-term lending loans	(9,222,035,230)	(4,926,055,615)	(9,391,228,875)	(6,840,217,600)
Payment of other long-term investments	(25,389,774,440)	(236,747,219)	(15,490,544,584)	-
Proceeds from disposals of property, plant and equipment intangible assets and investment properties	234,613,975	196,427,129	1,906,793,546	109,926,686
Proceeds from disposals of available for sale investments	11,302,907,361	-	11,152,331,670	-
Proceeds from disposals of investments in subsidiaries	-	307,185,973	1,187,720,000	-
Proceeds from a return on its investments in joint ventures	13,338,760	1,371,266,397	15,372,927,810	1,325,000,000
Proceeds from disposals of investments in associates	50,625,000	-	-	-
Proceeds from long-term lending loans	3,158,627,337	-	41,706,801,739	6,477,185,637
Proceeds from cancellation of leasehold in gas stations	-	12,839,082	-	12,839,082
Proceeds from finance lease instalments	-	6,000,000	-	-
Increase in current investments	(52,837,629,381)	(68,185,067,033)	(8,890,075,323)	(24,558,020,939)
Interest received	7,502,500,762	4,492,257,194	7,907,796,264	2,575,840,069
Dividends received	10,014,084,956	6,087,696,704	34,349,838,896	24,937,105,096
Net cash provided by (used in) investing activities	(180,525,074,055)	(178,914,390,647)	11,464,816,393	(21,848,368,129)

# Statement of Cash Flows

PTT Public Company Limited and Its Subsidiaries  
For the Year Ended December 31, 2017

Unit: Baht

	Consolidated financial statements		Separate financial statements	
	2017	2016	2017	2016
Notes				
<b>Cash flows from financing activities</b>				
Proceeds from issuance of ordinary shares of subsidiaries	3,055,733,910	101,776,414	-	-
Proceeds from treasury shares of subsidiary	3,788,793,634	32,562,500	-	-
Proceeds from short-term loans	6,745,004,885	-	1,157,500,451	252,798,028
Proceeds from long-term loans	43,920,200,318	26,651,894,839	-	-
Proceeds from financial derivative contracts	-	5,491,166,489	-	-
Proceeds from change in ownership in subsidiaries	1,469,533,150	-	-	-
Proceed from issuance of subordinated capital debentures	28,984,700,697	-	-	-
Repayment of short-term loans	(6,745,004,885)	-	-	-
Repayment of long-term loans	(94,935,791,610)	(74,153,077,256)	(48,286,610,305)	(36,499,015,396)
Repayment of finance lease instalments	(833,248,584)	(841,573,563)	(544,203,718)	(546,392,992)
Increase (decrease) in bank overdrafts and short-term loans from financial institutions	(12,400,368,717)	4,051,850,033	-	-
Finance costs paid	(30,892,735,018)	(32,618,015,201)	(12,463,569,976)	(14,432,361,167)
Dividend paid	(73,833,852,043)	(44,589,910,656)	(51,412,994,498)	(28,560,055,960)
Payment for change in ownership in subsidiaries	(1,168,629,054)	-	-	-
Payment for purchasing of treasury shares in subsidiary	-	(330,081,400)	-	-
Payment for redemption of subordinated capital debentures	(29,652,226,277)	-	-	-
Net cash used in financing activities	(162,497,889,594)	(116,203,407,801)	(111,549,878,046)	(79,785,027,487)
Effects of exchange rates on cash and cash equivalents	(750,262,208)	(447,884,676)	29,204,743	(305,399,748)
Currency translation differences	(11,704,505,264)	718,913,453	-	-
Net decrease in cash and cash equivalents	(49,377,387,477)	(24,411,535,662)	(23,956,625,121)	(4,876,289,499)
Cash and cash equivalents at beginning of periods	215,566,411,132	239,977,946,794	62,648,286,060	67,524,575,559
<b>Cash and cash equivalents at end of periods</b>	<b>166,189,023,655</b>	<b>215,566,411,132</b>	<b>38,691,660,939</b>	<b>62,648,286,060</b>
<b>Non cash items</b>				
Accounts payable from purchases of property, plant and equipment and investment property	40,793,369,071	45,054,531,455	9,722,454,080	10,367,714,355
Accounts payable from purchases of intangible assets	281,470,899	919,870,825	177,893,662	140,858,200
Accounts payable from purchases of securities	49,839,374	304,017,736	-	-

The accompanying notes are an integral part of these financial statements.

# Notes to Financial Statements

PTT Public Company Limited and Its Subsidiaries  
For the Year Ended December 31, 2017

## 1. General Information

PTT Public Company Limited (the Company) is incorporated as a public limited company in Thailand, and is listed on The Stock Exchange of Thailand. The address of its incorporated and registered office is as follows:

The Head Office of the Company is located at 555 Vibhavadi Rangsit Road, Chatuchak, Bangkok, Thailand.

The Company's principal activity is the operation of its petroleum business. The Company has invested in subsidiaries, joint arrangements and associates (the Group), which are engaged in upstream petroleum and natural gas, downstream petroleum, and other related businesses as described in Note 38 Operating Segments.

## 2. Basis of Financial Statements Preparation

The consolidated and the separate financial statements have been prepared in accordance with Thai Financial Reporting Standards under the Accounting Act, B.E. 2543. These are Thai Financial Reporting Standards under the Accounting Profession Act, B.E. 2547, including guidelines promulgated by the Federation of Accounting Professions (FAP), and the financial reporting requirements of the Securities and Exchange Commission under the Securities and Exchange Act, B.E. 2535.

The Company has presented the financial statements in compliance with the notification of the Department of Business Development "Definition of the abbreviated components required in the financial statements (No. 2), B.E. 2559", dated October 11, 2016, under the third paragraph of section 11 of the Accounting Act, B.E. 2543.

The consolidated and the separate financial statements have been prepared based on the assumption that users of the financial statements have an understanding of Thai generally accepted accounting principles and practices, which may differ from generally accepted accounting principles adopted in other countries.

The consolidated and the separate financial statements have been prepared under the historical cost convention with the exception of certain amounts, which are accounted for using the fair value method as disclosed in Note 3.2 Significant Accounting Policies.

The significant transactions arising between the Company and subsidiaries have been eliminated from the consolidated financial statements.

## 2. Basis of Financial Statements Preparation (Continued)

The consolidated and the separate financial statements are prepared and presented in Thai Baht and are rounded in the notes to financial statements to the nearest million unless otherwise stated.

This English translation of the financial statements has been prepared from the statutory financial statements that were issued in Thai language. In the event of a conflict or a difference in interpretation between the two languages, the Thai language statutory financial statements shall prevail.

## 3. Accounting Policies

### 3.1 Thai Accounting Standards, Thai Financial Reporting Standards, Thai Standing Interpretations and Thai Financial Reporting Interpretations, effective for accounting periods on or after the current periods and will become effective in the future are as follows:

#### Effective for accounting periods on or after January 1, 2017

- Thai Accounting Standard No. 1 (revised 2016) Presentation of Financial Statements
- Thai Accounting Standard No. 2 (revised 2016) Inventories
- Thai Accounting Standard No. 7 (revised 2016) Statement of Cash Flows
- Thai Accounting Standard No. 8 (revised 2016) Accounting Policies, Changes in Accounting Estimates and Errors
- Thai Accounting Standard No. 10 (revised 2016) Events after the Reporting Period
- Thai Accounting Standard No. 11 (revised 2016) Construction Contracts
- Thai Accounting Standard No. 12 (revised 2016) Income Taxes
- Thai Accounting Standard No. 16 (revised 2016) Property, Plant and Equipment
- Thai Accounting Standard No. 17 (revised 2016) Leases
- Thai Accounting Standard No. 18 (revised 2016) Revenue
- Thai Accounting Standard No. 19 (revised 2016) Employee Benefits
- Thai Accounting Standard No. 20 (revised 2016) Accounting for Government Grants and Disclosure of Government Assistance
- Thai Accounting Standard No. 21 (revised 2016) The Effects of Changes in Foreign Exchange Rates
- Thai Accounting Standard No. 23 (revised 2016) Borrowing Costs
- Thai Accounting Standard No. 24 (revised 2016) Related Party Disclosures
- Thai Accounting Standard No. 26 (revised 2016) Accounting and Reporting by Retirement Benefit Plans
- Thai Accounting Standard No. 27 (revised 2016) Separate Financial Statements
- Thai Accounting Standard No. 28 (revised 2016) Investments in Associates and Joint Ventures

### 3.1 Thai Accounting Standards, Thai Financial Reporting Standards, Thai Standing Interpretations and Thai Financial Reporting Interpretations, effective for accounting periods on or after the current periods and will become effective in the future are as follows: (Continued)

#### Effective for accounting periods on or after January 1, 2017 (Continued)

- Thai Accounting Standard No. 29 (revised 2016) Financial Reporting in Hyperinflationary Economies
- Thai Accounting Standard No. 33 (revised 2016) Earnings per Share
- Thai Accounting Standard No. 34 (revised 2016) Interim Financial Reporting
- Thai Accounting Standard No. 36 (revised 2016) Impairment of Assets
- Thai Accounting Standard No. 37 (revised 2016) Provisions, Contingent Liabilities and Contingent Assets
- Thai Accounting Standard No. 38 (revised 2016) Intangible Assets
- Thai Accounting Standard No. 40 (revised 2016) Investment Property
- Thai Accounting Standard No. 41 (revised 2016) Agriculture
- Thai Accounting Standard No. 104 (revised 2016) Accounting for Troubled Debt Restructuring
- Thai Accounting Standard No. 105 (revised 2016) Accounting for Investments in Debt and Equity Securities
- Thai Accounting Standard No. 107 (revised 2016) Financial Instruments Disclosure and Presentation
- Thai Financial Reporting Standard No. 2 (revised 2016) Share-based Payment
- Thai Financial Reporting Standard No. 3 (revised 2016) Business Combinations
- Thai Financial Reporting Standard No. 4 (revised 2016) Insurance Contracts
- Thai Financial Reporting Standard No. 5 (revised 2016) Non-current Assets Held for Sale and Discontinued Operations
- Thai Financial Reporting Standard No. 6 (revised 2016) Exploration for and Evaluation of Mineral Resources
- Thai Financial Reporting Standard No. 8 (revised 2016) Operating Segments
- Thai Financial Reporting Standard No. 10 (revised 2016) Consolidated Financial Statements
- Thai Financial Reporting Standard No. 11 (revised 2016) Joint Arrangements
- Thai Financial Reporting Standard No. 12 (revised 2016) Disclosure of Interests in Other Entities
- Thai Financial Reporting Standard No. 13 (revised 2016) Fair Value Measurement

### 3.1 Thai Accounting Standards, Thai Financial Reporting Standards, Thai Standing Interpretations and Thai Financial Reporting Interpretations, effective for accounting periods on or after the current periods and will become effective in the future are as follows: (Continued)

#### Effective for accounting periods on or after January 1, 2017 (Continued)

- Thai Standing Interpretation No. 10 (revised 2016) Government Assistance - No Specific Relation to Operating Activities
- Thai Standing Interpretation No. 15 (revised 2016) Operating Leases - Incentives
- Thai Standing Interpretation No. 25 (revised 2016) Income Taxes - Changes in the Tax Status of an Entity or its Shareholders
- Thai Standing Interpretation No. 27 (revised 2016) Evaluating the Substance of Transactions Involving the Legal Form of a Lease
- Thai Standing Interpretation No. 29 (revised 2016) Service Concession Arrangements: Disclosures
- Thai Standing Interpretation No. 31 (revised 2016) Revenue - Barter Transactions Involving Advertising Services
- Thai Standing Interpretation No. 32 (revised 2016) Intangible Assets - Web Site Costs
- Thai Financial Reporting Interpretation No. 1 (revised 2016) Changes in Existing Decommissioning, Restoration and Similar Liabilities
- Thai Financial Reporting Interpretation No. 4 (revised 2016) Determining Whether an Arrangement Contains a Lease
- Thai Financial Reporting Interpretation No. 5 (revised 2016) Rights to Interests arising from Decommissioning, Restoration and Environmental Rehabilitation Funds
- Thai Financial Reporting Interpretation No. 7 (revised 2016) Applying the Restatement Approach under TAS 29 (revised 2016) Financial Reporting in Hyperinflationary Economies
- Thai Financial Reporting Interpretation No. 10 (revised 2016) Interim Financial Reporting and Impairment
- Thai Financial Reporting Interpretation No. 12 (revised 2016) Service Concession Arrangements
- Thai Financial Reporting Interpretation No. 13 (revised 2016) Customer Loyalty Programmes
- Thai Financial Reporting Interpretation No. 14 (revised 2016) TAS 19 (revised 2016) - The Limit on a Defined Benefit Asset, Minimum Funding Requirements and their Interaction

### 3.1 Thai Accounting Standards, Thai Financial Reporting Standards, Thai Standing Interpretations and Thai Financial Reporting Interpretations, effective for accounting periods on or after the current periods and will become effective in the future are as follows: (Continued)

#### Effective for accounting periods on or after January 1, 2017 (Continued)

- Thai Financial Reporting Interpretation No. 15 (revised 2016) Agreements for the Construction of Real Estate
- Thai Financial Reporting Interpretation No. 17 (revised 2016) Distributions of Non-cash Assets to Owners
- Thai Financial Reporting Interpretation No. 18 (revised 2016) Transfers of Assets from Customers
- Thai Financial Reporting Interpretation No. 20 (revised 2016) Stripping Costs in the Production Phase of a Surface Mine
- Thai Financial Reporting Interpretation No. 21 (revised 2016) Levies

#### Effective for accounting periods on or after January 1, 2018

- Thai Accounting Standard No. 1 (revised 2017) Presentation of Financial Statements
- Thai Accounting Standard No. 2 (revised 2017) Inventories
- Thai Accounting Standard No. 7 (revised 2017) Statement of Cash Flows
- Thai Accounting Standard No. 8 (revised 2017) Accounting Policies, Changes in Accounting Estimates and Errors
- Thai Accounting Standard No. 10 (revised 2017) Events after the Reporting Period
- Thai Accounting Standard No. 11 (revised 2017) Construction Contracts
- Thai Accounting Standard No. 12 (revised 2017) Income Taxes
- Thai Accounting Standard No. 16 (revised 2017) Property, Plant and Equipment
- Thai Accounting Standard No. 17 (revised 2017) Leases
- Thai Accounting Standard No. 18 (revised 2017) Revenue
- Thai Accounting Standard No. 19 (revised 2017) Employee Benefits
- Thai Accounting Standard No. 20 (revised 2017) Accounting for Government Grants and Disclosure of Government Assistance
- Thai Accounting Standard No. 21 (revised 2017) The Effects of Changes in Foreign Exchange Rates

### 3.1 Thai Accounting Standards, Thai Financial Reporting Standards, Thai Standing Interpretations and Thai Financial Reporting Interpretations, effective for accounting periods on or after the current periods and will become effective in the future are as follows: (Continued)

#### Effective for accounting periods on or after January 1, 2018 (Continued)

- Thai Accounting Standard No. 23 (revised 2017) Borrowing Costs
- Thai Accounting Standard No. 24 (revised 2017) Related Party Disclosures
- Thai Accounting Standard No. 26 (revised 2017) Accounting and Reporting by Retirement Benefit Plans
- Thai Accounting Standard No. 27 (revised 2017) Separate Financial Statements
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- Thai Financial Reporting Standard No. 3 (revised 2017) Business Combinations
- Thai Financial Reporting Standard No. 4 (revised 2017) Insurance contracts
- Thai Financial Reporting Standard No. 5 (revised 2017) Non-currents Assets Held for Sale and Discontinued Operations
- Thai Financial Reporting Standard No. 6 (revised 2017) Exploration for and Evaluation of Mineral Resources
- Thai Financial Reporting Standard No. 8 (revised 2017) Operating Segments
- Thai Financial Reporting Standard No. 10 (revised 2017) Consolidated Financial Statements
- Thai Financial Reporting Standard No. 11 (revised 2017) Joint Arrangements
- Thai Financial Reporting Standard No. 12 (revised 2017) Disclosure of Interests in Other Entities
- Thai Financial Reporting Standard No. 13 (revised 2017) Fair Value Measurement

### 3.1 Thai Accounting Standards, Thai Financial Reporting Standards, Thai Standing Interpretations and Thai Financial Reporting Interpretations, effective for accounting periods on or after the current periods and will become effective in the future are as follows: (Continued)

#### Effective for accounting periods on or after January 1, 2018 (Continued)

- |  |  |
|--|--|
| • Thai Standard Interpretations No. 10 (revised 2017)            | Government Assistance - No Specific Relation to Operating Activities   |
| • Thai Standard Interpretations No. 15 (revised 2017)            | Operating Leases - Incentives  |
| • Thai Standard Interpretations No. 25 (revised 2017)            | Income Taxes - Changes in the Tax Status of an Entity or its Shareholders  |
| • Thai Standard Interpretations No. 27 (revised 2017)            | Evaluating the Substance of Transactions Involving the Legal Form of a Lease   |
| • Thai Standard Interpretations No. 29 (revised 2017)            | Disclosure - Service Concession Arrangements   |
| • Thai Standard Interpretations No. 31 (revised 2017)            | Revenue - Barter Transactions Involving Advertising Services   |
| • Thai Standard Interpretations No. 32 (revised 2017)            | Intangible Assets - Website Costs  |
| • Thai Financial Reporting Interpretations No. 1 (revised 2017)  | Changes in Existing Decommissioning, Restoration and Similar Liabilities   |
| • Thai Financial Reporting Interpretations No. 4 (revised 2017)  | Determining whether an Arrangement contains a Lease  |
| • Thai Financial Reporting Interpretations No. 5 (revised 2017)  | Rights to Interests arising from Decommissioning, Restoration and Environmental Rehabilitation Funds                               |
| • Thai Financial Reporting Interpretations No. 7 (revised 2017)  | Applying the Restatement Approach under TAS 29 (revised 2017) Financial Reporting in Hyperinflationary Economies                   |
| • Thai Financial Reporting Interpretations No. 10 (revised 2017) | Interim Financial Reporting and Impairment   |
| • Thai Financial Reporting Interpretations No. 12 (revised 2017) | Service Concession Arrangements  |
| • Thai Financial Reporting Interpretations No. 13 (revised 2017) | Customer Loyalty Programmes  |
| • Thai Financial Reporting Interpretations No. 14 (revised 2017) | TAS 19 (revised 2017) Employee Benefits - The Limit on a Defined Benefit Asset, Minimum Funding Requirements and their Interaction |

### 3.1 Thai Accounting Standards, Thai Financial Reporting Standards, Thai Standing Interpretations and Thai Financial Reporting Interpretations, effective for accounting periods on or after the current periods and will become effective in the future are as follows: (Continued)

#### Effective for accounting periods on or after January 1, 2018 (Continued)

- Thai Financial Reporting Interpretations No. 15 (revised 2017) Agreements for the Construction of Real Estate
- Thai Financial Reporting Interpretations No. 17 (revised 2017) Distributions of Non-cash Assets to Owners
- Thai Financial Reporting Interpretations No. 18 (revised 2017) Transfers of Assets from Customers
- Thai Financial Reporting Interpretations No. 20 (revised 2017) Stripping Costs in the Production Phase of a Surface Mine
- Thai Financial Reporting Interpretations No. 21 (revised 2017) Levies

Federation of Accounting Professions (FAP) has issued a number of revised Thai Accounting Standards, Thai Financial Reporting Standards, Thai Standing Interpretations and Thai Financial Reporting Interpretations, which are effective for accounting periods beginning on or after January 1, 2017 and January 1, 2018. The management of the Group has assessed the effects of the standards and interpretations and believes that their adoption will not have any significant impact on the consolidated and the separate financial statements.

## 3.2 Significant Accounting Policies

### 3.2.1 Cash and Cash Equivalents

Cash and cash equivalents comprise cash on hand, deposits held at call with banks and other short-term highly liquid investments which have original maturities within three months. Bank overdrafts and short-term loans from financial institutions are included in current liabilities in the statements of financial position.

### 3.2.2 Trade Accounts and Other Accounts Receivable

Trade accounts and other accounts receivable are carried at net realizable value. Doubtful accounts receivables are estimated based on uncollectible amounts estimating from outstanding receivables at the statement of financial position date based on collection experience of their current financial status, also with percentage of debt aging. Doubtful account is recorded as administrative expenses in profit or loss.

### 3.2.3 Inventories

Inventories are stated at the lower of cost and net realizable value. The cost is calculated by using the weighted average cost method. The cost of inventory comprises total purchasing costs, payments related to purchasing, discounts, quantity discounts, as well as contributions to or compensation from taxes several funds. Net realizable value is calculated from estimated selling price in the ordinary course of business, less the costs of completion and related selling expenses. When net realizable value of inventories is lower than cost of acquisition, it is presented under cost of goods sold in the statement of income. An allowance for obsolescence of inventories will be recognized when inventories are obsoleted or defected.

### 3.2.4 Materials and Supplies

Materials and supplies are stated at cost calculated by using the weighted average cost method, less allowance for obsolescence of material and supplies when there are obsolete, defective or unserviceable items.

### 3.2.5 Non-current Assets and Liabilities Held-for-sale

Disposed assets or asset groups, including non-current assets and liabilities held-for-sale, are classified as asset held-for-sale if their carrying amounts will be recovered through a sale transaction rather than through continuing use. This condition is met only when the sale is highly probable and the asset is available for immediate sale in its present condition, subject only to terms that are usual and customary for sales of such assets. Management must commit to the sale of the assets and they must be actively marketed at a price that is reasonable compared to their current fair value, with the expectation that sale should be recorded as completed within one year from the date of classification. These disposed assets or asset groups are measured at the lower of carrying amount and fair value less costs to sell.

The Group ceases to depreciate and amortize property, plant and equipment and intangible assets from the date the assets meet the criteria for classification as assets held-for-sale. The Group continues to recognize liabilities, including interests and other expenses attributable to liabilities classified as held-for-sale.

### 3.2.6 Investments in Subsidiaries

Subsidiaries are those companies which directly or indirectly controlled by the parent company. Control exists when the parent company has the power over the subsidiaries so as to obtain variable returns from the involvement with the subsidiaries and has the ability to affect those returns through the power over the subsidiaries. In case of the parent company has voting rights less than half of total voting rights in subsidiaries, the parent company will reconsider the related facts and circumstances in order to determine whether the parent company has the power to control over such subsidiaries or not.

The financial statements of subsidiaries are included in the consolidated financial statements from the date that the control commences until the date that the control ceases.

The parent company allocates profit or loss and each component of other comprehensive income or loss to the equity attributable to owners of the parent and the non-controlling interests even if this results in a deficit non-controlling interest balance.

The purchase method of accounting is used to account for business combinations, except the business combination under common control. The cost of a business combination is measured as the sum of fair value of any consideration transferred, the recognized amount of any non-controlling interest in the acquiree, and the fair value of the existing equity interest as of the purchasing date (if the business combination is achieved in stages).

- For each business combination, the Group measures the recognized amount of any non-controlling interest in the acquiree at either the fair value or the non-controlling interest's proportionate share of the net of identifiable assets of the acquiree.
- In the case of a business combination achieved in stages, the Group measures the acquisition-date fair value of the acquirer's previously-held equity interest in the acquiree and recognized gains or losses in statement of income.
- Costs related to the acquisition, including professional fees, advisory fees and other consulting fees, are recognized as expenses in statement of income.

The Group measures the identifiable assets and liabilities acquired at fair value as of the acquisition date.

Any changes in the equity interest in subsidiaries of the Group while control is retained are recorded as surplus (deficit) from the changes in the ownership interests in subsidiaries in equity.

Upon the disposal of investments, the difference between the net disposal proceeds and the carrying amount of the investments is recorded in profit or loss.

Investments in subsidiaries have been presented in the separate financial statements under the cost method.

The list of investments in subsidiaries of the Group and proportion of ownership interests have been set out in Note 14.

### 3.2.7 Investments in Joint Ventures and Associates

Joint ventures are joint arrangement whereby the Group has joint control of the arrangement and has rights to the net assets of the arrangement. The joint control is the contractually agreed sharing of control of an arrangement, which exists only when decisions about the relevant activities require the unanimous consent of the parties sharing control.

Associates are those companies in which the Group has significant influence, but not control or joint control, over the financial and operating policies.

The Group uses the purchase method to record the acquisition of joint ventures and associates, except the business combination under common control. Acquisition costs which are higher than fair value of identifiable assets and liabilities of the Group's equity interest in joint ventures and associates are recorded as goodwill and included in the investment in joint ventures and associates.

The consolidated financial statements of the Group include the share of profit and loss from joint ventures and associates under equity method, from the date that significant influence commences until the date that significant influence ceases. Unrealized gains or losses on transactions between the Group and its joint ventures and associates are eliminated to the extent of the Group's interest in the joint ventures and associates unless the transactions provide evidence of impairment of the transferred assets.

The Group records share of profit or loss from joint ventures and associates in proportion to the Group's equity interest in those gains and losses. Any dividends received from joint ventures and associates are deducted from the book value of the investments.

When the Group's share of loss in joint ventures and associates equals or exceeds its interest in the joint ventures and associates, the Group does not recognize further losses, unless the Group has incurred collateral or constructive obligations or made payments on behalf of the joint ventures and associates.

Upon the disposal of investments, the difference between the net disposal proceeds and the carrying amount of the investments is recorded in profit or loss.

Investments in joint ventures and associates have been presented under the cost method in the separate financial statements and under the equity method in the consolidated financial statements.

The list of investments in joint ventures and associates of the Group and proportion of ownership interests have been set out in Note 14.

### 3.2.8 Joint Operations

Joint operations are joint arrangement whereby the Group has rights to assets and obligations relating to the joint arrangement. The Group has recognized assets, liabilities, revenues and expenses by the portion of joint operations in the separate and the consolidated financial statements from the date that joint control commences until the date that joint control ceases.

The list of joint operations of the Group and transactions relating to its involvements have been set out in Note 14.

### 3.2.9 Other Investments

Investments other than investments in subsidiaries, joint ventures, and associates are classified as available-for-sale investments and other long-term investments.

Investments in equity securities and mutual funds that are marketable securities are classified as available-for-sale investments and carried at fair value in the statements of financial position. Any changes in value are recognized as gain (loss) from fair value measurement of available-for-sale investments in other comprehensive income or loss and accumulated amounts are accumulated differences are presented in other components of equity under equity.

Investments in non-marketable equity securities, which are classified as other long-term investments, are carried at cost in the statement of financial position net of allowance for impairment. Impairment testing is performed when there is a factor indicating that the investment might be impaired. If the carrying amount of the investment is higher than its recoverable amount, impairment losses are recognized in profit or loss immediately.

Investment in held-to-maturity debt securities which an entity intends and has an ability to hold until the maturity date are classified as other long-term investments and carried at amortised cost in the statement of financial position. The Group will record loss on impairment in the statement of income immediately when it is highly probable that the Group cannot collect entire/some principals or interests as state in contracts.

Upon the disposal of investments, the difference between the net disposal proceeds and the carrying amount is recognized in profit or loss. When the available-for-sale investments are disposed, the Group will record the cumulative amount of fair value in other components of equity under equity as gain (loss) on disposal of investments. When disposing of some parts of the Group's particular investment in debt or equity securities, the carrying amount of the part disposed is calculated by using the weighted average carrying amount of the total holding of the investment.

### 3.2.10 Related Parties

Related parties of the Company are those enterprises or individuals that control or are controlled by the Company, or are under common control with the Company, including holding companies of subsidiaries and fellow Group subsidiaries, as well as those that have equity interests in the Company that result in significant influence or joint control over the Company. In addition, related parties include associates, joint ventures, the management and directors of the Company, and entities which the management or directors of the Company, directly or indirectly, control, jointly controlled, or have significant influence.

In considering each possible related party relationship, attention is directed more to the substance of the relationship than to the legal form.

### 3.2.11 Foreign Currency Translation

The consolidated financial statements and the separate financial statements have been presented in Thai Baht, which is the Company's functional currency. Transactions of each company included in the consolidated financial statements are recorded in their own functional currencies.

Foreign currency transactions are translated into functional currency at the exchange rates prevailing at the transaction date. Monetary assets and liabilities at the statements of financial position date denominated in foreign currencies are translated into functional currency at the exchange rate prevailing at that date. Gains and losses resulting from the settlement of such transactions and from the translation of monetary assets and liabilities denominated in foreign currencies are recognized in profit or loss.

Assets and liabilities of foreign operations, that presentation currencies are foreign currencies, are translated into Thai Baht using the closing rate at the statements of financial position date. Revenues and expenses are translated into Thai Baht using the average rate during the period. Differences arising from currency translation are included in other comprehensive income and accumulated differences are presented in other components of equity under equity.

Upon the disposal of self-sustaining foreign entities, accumulated currency translation differences under shareholders' equity are recognized as gains or losses on disposal.

### 3.2.12 Borrowing Costs

Borrowing costs comprise interest and other costs associated with the borrowings. Borrowing costs incurred on qualifying assets are capitalized as a cost of the qualifying property until all the activities necessary to prepare the property for its intended use are substantially completed. When funds are specifically borrowed for the construction or the production of asset, the amount of borrowing costs capitalized is determined from the actual borrowing costs during the year less any income on the temporary investment of those borrowings. When funds are borrowed for general purpose, the Group multiplies the capitalization rate by the capital expenditure in allocating borrowing costs to costs of assets.

All other borrowing costs are expensed in the period they incurred.

### 3.2.13 Investment Properties

Investment properties are initially recognized at cost, including expenses directly associated with the asset acquisition, less accumulated depreciation and allowance for impairment.

The Group has selected the cost model for accounting for its investment properties. This model is in accordance with that described in the accounting policy for property, plant and equipment.

Depreciation is recorded as expenses in profit or loss and is calculated using the straight-line method over the estimated useful lives of the assets, which range from 5 to 30 years. Land and construction in progress are not depreciated.

### 3.2.14 Property, Plant and Equipment

Property, plant and equipment are initially recognized at cost less accumulated depreciation and allowance for impairment. The costs comprise any costs directly attributable to bringing the asset to the location and condition necessary for it to be capable of operating. These include decommissioning costs, delivery and restoration costs, and any obligation associated with either its acquisition or a consequence of having used the items.

Repair and maintenance costs are recognized in profit or loss during the financial period in which they are incurred. The costs of significant asset improvements, major turnarounds and inspections are included in the carrying amount of the asset. In case of replacement, the Group writes off carrying value of replaced items.

The Group depreciates each significant component of property, plant and equipment separately.

The Group estimates the residual value of the property, plant and equipment based on current assessment of the amount that would currently obtain from disposal of the asset, after deducting the estimated costs of disposal, if the asset were already of the age and in the condition expected at the end of its useful life.

### 3.2.14 Property, Plant and Equipment (Continued)

The Group reviews the residual value, the useful lives and depreciation methods of assets at least once a year.

Depreciation is recorded as expenses in profit or loss and is calculated using the straight-line method or unit of production method over the estimated useful lives of the assets, which are as follows:

Buildings and building improvements	2 - 40 years
Machinery and equipment	2 - 40 years
Petroleum exploration and production properties	5 - 30 years or unit of production
Mining properties	Unit of production
Other assets	3 - 25 years

Land and construction in progress are not depreciated.

Gains or losses on disposal of property, plant and equipment are determined by comparing the proceeds from sales with the carrying amounts on the disposal dates, and are recorded in statement of income when incurred.

#### Petroleum Exploration and Production Properties

The petroleum exploration and production business accounts for its petroleum exploration and production properties in accordance with the successful efforts method for which the accounting policies are as follows:

##### *Cost of Properties*

The cost of properties comprises the total acquisition costs of petroleum rights or the acquisition costs of the portion of properties, decommissioning costs, as well as support equipment and facilities.

Exploratory drilling costs are capitalized as petroleum exploration and evaluation assets, and will be classified as petroleum exploration and production properties of the projects if their exploratory wells have identified proved reserves that have been found to be commercially producible. However, if the exploratory wells have not identified proved reserves or have identified proved reserves but have not been found to be commercially producible, such drilling costs will be expensed in the statement of income when incurred.

Exploratory costs, comprising geological and geophysical costs as well as area reservation fees during the exploration stage, are charged as expenses in the statement of income when incurred.

Development costs, whether relating to successful or unsuccessful development wells, are capitalized and classified as assets.

### 3.2.14 Property, Plant and Equipment (Continued)

#### Petroleum Exploration and Production Properties (Continued)

##### *Depreciation*

The capitalized acquisition costs of petroleum rights are depreciated using the unit of production method based on proved reserves. Depreciation of exploratory wells, development costs as well as decommissioning costs, except unsuccessful projects, are calculated using the unit of production method based on proved reserves or proved developed reserves. The Group recognizes changes in reserve estimates prospectively.

Depreciation of support equipment, facilities and pipelines are determined using the straight-line method over the useful lives of assets.

Proved reserves and proved developed reserves are calculated by the Group's own engineers and are based on the information received from the joint operators.

#### Carried Cost under Petroleum Sharing Contracts

The petroleum exploration and production business records the carried costs under Petroleum Sharing Contracts using the following accounting policies:

Under Petroleum Sharing Contracts in which the government has a participating interest, some contracts require the contracting parties, excluding the government, to fund the costs of all exploration operations until the first development area is determined. During the exploration period, the contracting parties will carry an agreed upon proportion of the government's exploration costs (Carried Costs). When the project commences production, such carried costs will be fully recouped or recovered without interest by the contracting parties from the production of petroleum under the agreed procedures. The Group classifies the carried costs based on petroleum activities under the successful efforts method. The majority of them are recognized in petroleum exploration and production properties, exploration and petroleum exploration and evaluation assets in the statement of financial position and exploration expenses in profit or loss.

### 3.2.14 Property, Plant and Equipment (Continued)

#### Mining Properties

The coal business accounts for its coal exploration and production properties, including coal mining property rights and deferred mining exploration and development expenditures, by the accounting policies as follows:

##### *Coal Mining Property Rights*

Coal mining property rights comprise the total acquisition costs of concession rights in coal mining including both coal mining exploration and development expenditures.

##### *Deferred Mining Exploration and Development Expenditures*

Development expenditures and costs of area development are capitalized as mining properties under exploration and evaluation assets and will be classified as mining properties under property, plant and equipment if they meet the criteria and it is highly probable that they can create future economic benefit. However, if it is proved that they cannot create future economic benefit, development expenditures and costs of area development will be fully expensed in the statement of income when incurred.

##### *Depreciation*

The capitalized acquisition costs of mining properties are depreciated using the unit of production method based on proved and probable reserves.

The volume of proportional production and the useful lives of coal mining concessions are estimated and reviewed by the Group.

### 3.2.15 Goodwill

The Group initially records goodwill at cost, which equals to the excess of the acquisition costs over the fair value of the net assets acquired, and carries out a test for impairment of goodwill at least once a year or when there are circumstances indicate that an investment might be impaired. Where the fair value of the net assets exceeds the cost of acquisition at the acquisition date, the excess is recognized as a gain in the statement of income.

To test for impairment, the Group allocates goodwill from business combinations to each cash-generating unit (or group of cash-generating units) that is expected to receive benefit from the synergies of the combination. The Group evaluates the recoverable amount of each cash-generating unit (or group of cash-generating units) and if it is lower than the carrying amount of the unit, the Group recognizes impairment losses in profit or loss. Impairment losses of goodwill will not be reversed.

### 3.2.16 Intangible assets

Intangible assets are initially recognized at cost less accumulated amortization and allowance for impairment. Amortization is recorded as expenses in profit or loss.

The Group records the initial costs of intangible assets from business combination at the acquisition-date fair value of the assets. Intangible assets from other sources are initially recognized at their costs.

Intangible assets include computer software licenses, asset rights such as gas transmission pipelines, and other intangible assets, such as other operating rights, patents, and customer contracts.

Intangible assets are amortized and recorded as expenses in profit or loss using the straight-line method over the useful lives of the assets which range from 3 to 40 years, except customer contracts which are amortized based on estimated sales volume.

The Group reviews the residual value, useful lives and amortization methods of intangible assets at least once a year.

### 3.2.17 Exploration and Evaluation Assets

#### Petroleum Exploration and Evaluation Assets

Petroleum exploration and evaluation expenditures are capitalized at cost as exploration and evaluation assets. If the projects have identified the proved reserves that have been found to be commercially producible, the capitalized exploration and evaluation expenditures under these projects will be transferred to petroleum exploration and production properties under property, plant and equipment, which are subsequently measured as stated in Note 3.2.14.

The capitalized exploration and evaluation expenditure is charged to statement of income in the period in which the projects have not identified proved reserves or have identified proved reserves, but have not been found to be commercially producible.

#### Mining Properties

Exploration and evaluation expenditures are capitalized as assets at cost, where:

- a) Such costs are expected to be recovered when the areas are successfully developed and mining operations commence, or from the sales of the areas of interest.
- b) Exploration activities in the areas of interest have not reached the stage which permits a reasonable assessment of the existence of commercial recoverable reserves, and exploration activities in the areas of interest are continuing.

### 3.2.17 Exploration and Evaluation Assets (Continued)

#### Mining Properties (Continued)

Exploration and evaluation expenditures which do not meet the above criteria will be fully expensed in profit or loss. If the areas are developed and mining operations commence, exploration and evaluation expenditures that capitalized as assets will reclassify to mining properties under property, plant and equipment, which are subsequently measured as stated in Note 3.2.14.

### 3.2.18 Impairment of Assets

The Group performs the following tests for impairment of assets:

- Goodwill is performed annually or whenever there is an indication that the asset may be impaired.
- Investment properties, property, plant and equipment, intangible assets or exploration and evaluation assets are performed whenever there is an indication that the assets may be impaired.

The Group recognizes an impairment loss when the recoverable amount of an asset is lower than its carrying amount, which is the higher of the asset's fair value less cost to sell and its value in use. The Group determines value in use by estimating the present value of future cash flows generated by the asset, discounted using a pre-tax discount rate which reflects current market assessments of the time value of money and the risk specific to the asset. In determining fair value less costs to sell, an appropriate valuation model is used. The calculation reflects the amount that the Group could obtain from the disposal of the asset after deducting the costs of disposal. Fair value means the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date.

The Group recognizes an impairment loss in profit or loss.

### 3.2.19 Leases

#### Finance Leases - Where the Group is the Lessee

Leases of property, plant and equipment, where the Group assumes substantially all the risks and rewards of ownership are classified as finance leases. The leased assets are capitalized at the lower of the estimated net present value of the underlying minimum lease payments or fair value of assets. Each minimum lease payment is allocated between liabilities and finance costs in order to achieve a constant interest rate on the remaining balance of the liabilities. The finance leases' liabilities less finance costs are presented as long-term loans. Finance costs are charged to profit or loss over the lease period. Depreciation is charged over the shorter of the useful life of the asset or the lease period.

#### Finance Leases - Where the Group is the Lessor

Leases of property, plant and equipment under which the Group transfers substantially all the risks and rewards of ownership to lessees are classified as finance leases. The Group realizes the leased assets under asset in the statement of financial position as loans at an amount equal to the net investment in the lease, and allocates finance income based on a pattern reflecting a constant periodic rate of return on the lessor's net investment outstanding in respect of the finance lease.

#### Operating Leases - Where the Group is the Lessee

Leases of assets where the lessor assumes a significant portion of the risks and rewards of ownership are classified as operating leases. Payments made under operating leases are charged to profit or loss using the straight-line method over the period of the lease.

The costs incurred upon termination of the operating lease agreements prior their maturity, such as penalty paid to the lessor, are recognized as expenses in the period in which the termination takes place.

#### Operating Leases - Where the Group is the Lessor

Leases of assets where the lessor assumes a significant portion of the risks and rewards of ownership are classified as operating leases. The assets held for operating leases are stated at cost and presented in the statement of financial position according to the nature of the assets. The group recognizes costs, including depreciation, relating to rental income as expenses and recognizes lease income over the lease term on a straight-line basis.

### 3.2.19 Leases (Continued)

#### Accounting for an Arrangement Contains a Lease

The Group determined whether an arrangement contains a lease based on the substance of the arrangement. The arrangement contains a lease which depends on the use of a specific asset and the arrangement conveying to the purchaser (lessee) the right to control the use of the underlying asset.

The Group separates payments for the lease and other elements on the basis of their relative fair values. If the Group concludes that it is a finance lease but it is impracticable to separate the payments reliably, the Group will recognize an asset and a liability at an amount equal to the fair value of the underlying asset. Subsequently, the liability is reduced as payments are made and an imputed finance charge on the liability recognized using the Group's incremental borrowing rate of interest.

### 3.2.20 Income Taxes

#### Current Tax

The Group is taxed on its non-promoted businesses pursuant to the Revenue Code of Thailand, the Petroleum Income Tax Act, B.E. 2514 and Amendment, B.E. 2532 and other laws and regulations related to corporate income tax of other countries in which the Group has invested.

Current tax is the expected tax payable on the taxable profit for the year, using tax rates enacted at the statements of financial position date in the taxable period, and any adjustment to tax payable in respect of previous years.

#### Deferred Tax

Deferred tax is recognized in the statements of financial position using the liability method for temporary differences between tax base of assets and liabilities and the carrying amounts in the financial statements. The principal temporary differences in consolidated financial statements arise from property, plant and equipment, provisions for employee benefit, provision for decommissioning costs, and cumulative loss carried forward.

Deferred tax is measured using the tax rates enacted at the statements of financial position date.

Deferred tax assets are recognized to the extent that it is highly probable that the future taxable profits of the Group will be available against which the temporary differences can be utilized. Deferred tax assets are reduced to the extent that it is no longer probable that the related tax benefits will be realized.

### 3.2.20 Income Taxes (Continued)

#### Deferred Tax (Continued)

The Group recognized deferred tax as income or an expense and included in profit or loss for the period, except to the extent that the tax arises from a transaction or event which is recognized outside profit or loss, either in other comprehensive income or directly in equity, or a business combination.

Deferred tax assets and liabilities can only be offset if the entity has the legal right to settle on a net basis and the deferred tax balances relate to the same taxation authority.

The Group offsets deferred tax assets and deferred tax liabilities for presentation in the statement of financial position.

### 3.2.21 Advance Payments for Gas Purchased under Take-or-Pay Agreements

The Company has entered into gas purchase agreements with natural gas producers, under which the Company is required to take delivery of natural gas at annual minimum quantities. During each contract year, if the Company cannot accept natural gas according to the minimum quantities under the agreements, it is required to pay for the volume of natural gas which it cannot actually take (Take-or-Pay). After the end of each contract year, the Company and the natural gas producers have to agree on and accept the volume of gas that should be taken into the calculation of Take-or-Pay for that contract year, which is subject to the basis and conditions in the agreements. Under the agreements, the Company can take certain volumes of prepaid gas (Make-up) in subsequent years after taking delivery of natural gas at the minimum quantities for that given contract year. The Company recognizes its obligations under the agreements as advance payments for gas purchased.

### 3.2.22 Provision for Decommissioning Costs

The Group records a provision for decommissioning costs whenever it is highly probable that an obligation will arise as a result of a past event and the amount of the obligation can be reliably estimated.

The Group recognizes a provision for decommissioning costs based on an estimate of the eventual costs relate to the removal of petroleum exploration and evaluation assets and plant and equipment. These costs are included as part of the cost of the assets and are amortized based on proved reserves using the unit of production method and the straight-line method over the estimated useful lives of the assets, respectively. The estimates of decommissioning costs are determined based on reviews and estimates by the Group's engineers and management's judgment.

### 3.2.23 Provisions for Employee Benefit

Provisions for employee benefit of the Group are measured and recognized as follows:

1. Short-term employee benefits are recognized in profit or loss as expenses when incurred.
2. Post-employment benefits - defined contribution plans  
The Company and its employees have jointly established a provident fund. The fund is monthly contributed by employees and by the Group. The fund's assets are held in a separate trust fund and the Group's contributions are recognized as expenses in profit or loss when incurred.
3. Post-employment benefits - defined benefit plans  
The provisions under the defined benefit plan is determined based on actuarial techniques, using the projected unit credit method, in order to determine present value of the provisions and be recognized as a liability in the statements of financial position. Current service cost, past service cost, net interest on the net defined benefit liability are recognized as expenses in profit or loss. Remeasurements of the net defined benefit liability or asset, including actuarial gains and losses are recognized in other comprehensive income and accumulated amounts are recognized as retained earnings in equity.
4. Other long-term employment benefits  
The provisions under the defined benefit plan is determined based on actuarial techniques, using the projected unit credit method, in order to determine present value of the provisions and be recognized as a liability in the statements of financial position. Current service cost, past service cost, net interest on the net defined benefit liability are recognized as expenses in profit or loss. Remeasurements of the net other long-term benefit liability or asset, including actuarial gains and losses are recognized in profit or loss immediately.
5. Termination benefits are recognized as a liability and an expense when, and only when, the Company is demonstrably committed to either:
  - Terminate the employment of an employee or a group of employees before the normal retirement date; or
  - Provide termination benefits as a result of an offer made in order to encourage voluntary redundancy.

### 3.2.24 Revenue Recognition

The Group recognizes revenue from sales upon the delivery of products or when the significant risks and rewards of ownership are transferred to the customers. Revenue from services is recognized over the period in which the services are rendered, taking into account the stage of completion. These revenues are net of trade discounts.

Other revenue is recognized on the following basis:

Interest income - Time proportion basis using the effective yields of interest bearing assets

Royalty income - Accrual basis in accordance with the substance of the relevant agreements

Dividend income - When the right to receive the dividend is established.

#### Loyalty programmes

The Group has a customer loyalty programme whereby customers are awarded credits (Points) entitling them to the right to purchase products from the Group at a discount or qualify for a free gift. The fair value of the consideration received or receivable in respect of the initial sale is allocated between the Points and the other components of the sale. The amount allocated to the Points is estimated by reference to the fair value of the right to purchase products at a discount or fair value of the free gift. The fair value is estimated based on the amount of the discount adjusted to take into account the expected forfeiture rate. Such amount is deferred and recognised as revenue only when the Points are redeemed and the Group has fulfilled its obligations to supply the products. The amount of revenue recognised in those circumstances is based on the number of Points that have been redeemed in exchange for discounted products, relative to the total number of Points that is expected to be redeemed. In addition, deferred revenue is also released to profit or loss when it is no longer considered probable that the Points will be redeemed.

Revenue from sources other than those mentioned above is recognized using the accrual basis.

### 3.2.25 Government Grants

Government grants, including non-monetary grants, are recognized where there is reasonable assurance that the recipient will comply with all attached conditions and that the grant will be received. The Group recognizes the grants as income on a systematic basis over the periods for which the costs that the government grants are compensating. The Group recognizes the grants as a part of income in profit or loss.

### 3.2.26 Earnings per Share

Basic earnings per share is calculated by adjusting the profit attributable to owners of the parent with interests and other items related to subordinated capital debentures net of taxes related to such debentures and dividing the adjusted profit by the weighted average number of ordinary shares held by third parties during the year.

### 3.2.27 Financial Instruments

Financial assets in the statements of financial position include cash and cash equivalents, current investments, trade accounts receivable, other accounts receivable, available-for-sale investments, other long-term investments, lending loans, and derivative assets. Financial liabilities in the statements of financial position include bank overdrafts and short-term loans from financial institutions, trade accounts payable, other accounts payable, loans, and derivative liabilities. The particular recognition methods adopted are disclosed in the individual policy statements associated with each item.

The Group uses financial instruments to reduce its risk exposure associated with fluctuations in foreign currency exchange rates, interest rates as well as oil and product market prices. These instruments primarily comprise:

#### Forward Foreign Exchange Contracts

Forward foreign exchange contracts protect the Group from fluctuations in exchange rates by establishing the rates at which foreign currency assets will be realized or foreign currency liabilities will be settled. Forward foreign exchange contracts are recognized in the financial statements at inception. The premium or discount on the establishment of each agreement is amortized over the contract period.

#### Cross-currency and Interest Rate Swap Contracts

Cross-currency and interest rate swap contracts protect the Group from fluctuations in exchange rates and interest rates. Foreign currency financial assets and liabilities as at the statements of financial position date are protected by cross-currency contracts. The Group recognizes the total amount of interest received from/paid to the counterparties, according to derivatives under cross-currency and interest rate swap contracts in finance costs using the accrual basis and recognizes derivative assets/liabilities of cross-currency and interest rate swap contracts at fair value at the end of reporting period, in the statements of financial position. The Group recognizes movements in the fair value of derivatives in profit or loss.

### 3.2.27 Financial Instruments (Continued)

#### Oil and Products Hedging Contract

The hedging contracts of oil and product prices aim to reduce the risk exposure associated with fluctuations in the global oil and product market prices in accordance with its purchase and sale agreements by determining its future prices. Gains or losses arising from these contracts are recorded in profit or loss at the maturity date of the contracts.

The risk management policy is described in Note 39.

#### Hedge Accounting

The Group considers hedge accounting criteria as follows:

For fair value hedges, a change in fair value of the hedging instruments and a change in fair value of the hedged items attributable to the risk being hedged are both recognized in profit or loss.

For cash flow hedges, a change in fair value of the effective portion of the hedging instrument is recognized in other comprehensive income, while a change in fair value of the ineffective portion of the hedging instruments is recognized in profit or loss.

### 3.2.28 Fair Value Measurement

The Group has measured fair value and disclosed the information relating to fair value measurement in accordance with Thai Financial Reporting Standard No. 13 (revised 2016) "Fair Value Measurement". The guidance under this standard will be applied when the Group requires to measure any assets and liabilities at fair value under relevant standards including of disclosures related with such fair value measurement.

The Group uses the market approach to measure their assets and liabilities that are required to be measured at fair value by relevant financial reporting standards, except that the cost approach or income approach is used when there is no active market or a quoted market price is not available.

### 3.2.28 Fair Value Measurement (Continued)

#### Fair Value Hierarchy

In applying the above-mentioned valuation techniques, the Group endeavors to use relevant observable inputs as much as possible by determining a fair value hierarchy that categorizes inputs into three levels as follows:

- Level 1 Use of quoted market prices in an observable active market for such assets or liabilities
- Level 2 Use of other observable inputs for such assets or liabilities, whether directly or indirectly
- Level 3 Used of unobservable inputs for such assets or liabilities such as the Group's estimates of future cash flows

### 3.2.29 Use of Estimates and Significant Assumptions

The preparation of financial statements in conformity with Thai Financial Reporting Standards requires management to make estimates and assumptions that affect the reported amounts of assets, liabilities, income and expenses.

Estimates and underlying assumptions used in the preparation of financial statements are reviewed on an ongoing basis. Revisions to accounting estimates are recognized in the period in which the estimates are revised and in any future periods affected.

Information about significant assumptions and the sources of contingent estimates that might impact on the carrying amounts of assets and liabilities presented in the financial statements are as follows:

#### Provisions

The Group recognizes a provision in the statements of financial position if, as a result of a past event, the Group has a present obligation that can be estimated reliably and it is probable that an outflow of economic benefits will be required to settle the obligation.

The Group records provisions for decommissioning costs when it is highly probable that a commitment will arise as a result of past circumstances and the amount can be estimated reliably. The Group recognizes the provisions for decommissioning costs based on estimated amount of decommissioning of completed construction that is ready for its intended use. These costs are included as part of assets and are amortized using the units of production method based on estimated proved reserves and the straight-line method over the estimated useful lives of the assets. The provision for decommissioning costs is determined based on reviews and estimates by the Group's engineers together with the management's judgment.

Provisions depend on various current circumstances such as laws and regulations, technologies and market prices. Therefore, the actual result is likely to be different from estimates and assumptions.

### 3.2.29 Use of Estimates and Significant Assumptions (Continued)

#### Income Tax

The Group is responsible for the payment of tax in various countries. When income tax payable is estimated, the Group uses significant judgment due to the numerous transactions and calculations arising from its operations.

The Group recognizes income tax payable based on estimated incremental tax payments. The difference between the actual tax paid and the estimate will affect income tax and deferred tax in the period the difference occurs.

A deferred tax asset will be recognized when it is highly probable that the Group will have sufficient net income against which to utilize the temporary difference. Assumptions related to future taxable income are uncertain and may change affecting the recognition of deferred tax assets.

#### Estimates of Petroleum Reserves

Petroleum reserves are of fundamental importance when assessing investments in various exploration projects and petroleum production businesses, including impairment testing. Changes in proved reserves will affect the present value of net cash flows and depreciation expenses which are calculated using the unit of production method.

The proved reserves are the volume of commercial petroleum production as of a certain date with a high probability of achievement under current economic conditions and production methods, as well as government's rules and regulations. The proved reserves will be checked and assessed annually by the Group's geologists and reservoir engineers.

#### Exploration Costs

The petroleum exploration and production businesses capitalize drilling costs as assets. When they are over 12 months old, they are amortized as expenses in profit or loss except where there is (1) a discovery of proved reserves, or (2) a discovery of commercially adequate reserves whilst having future exploration and assessment plans. The decision to amortize drilling petroleum costs recorded as assets over 12 months should be made using the assumptions under current circumstances. In case those assumptions change in subsequent accounting periods, the petroleum drilling costs that are capitalized as assets will be written off as expenses in that accounting period.

### 3.2.29 Use of Estimates and Significant Assumptions (Continued)

#### Impairment of Assets

The Group considers recording an allowance for impairment of assets when an event or a circumstance indicates that the carrying amount of an asset is higher than its recoverable amount, which is the higher of the anticipated discounted cash flows from the continuing use of the asset or the fair value of the asset less any costs of disposal. As a result, the carrying amount of an asset is written down immediately to its recoverable amount. The decrease is recorded in profit or loss. Thus, the loss on impairment of assets excluding goodwill recognized in the prior period will be reversed if the estimates for indicated recoverable amount changes.

The Group's estimate of the expected amount of future petroleum production in petroleum exploration and production businesses is a key factor in impairment tests. The Group believes that these are the most reasonable indicators for estimating future cash flows. The future petroleum production comprises proved reserves and unproved reserves.

The estimation of discounted future cash flows depends on various factors such as the expected amount of future production, future selling prices, demand and supply in the market, risks and gross margins. The discounted rates used in the calculation of present value of future cash flows depend on the cost of capital of the asset unit.

### 3.2.30 Capital Risk Management

The capital management objective of the Group is to create returns for shareholders and other stakeholders whilst maintaining a reasonable capital structure to decrease the cost of capital.

### 3.2.31 Operating Segment

The operating segment information is reported by business segments and based on the internal management reports that are received and regularly reviewed by the Chief Operating Decision Maker (CODM) for allocating resources to the segments and assessing its performance.

### 3.3 Reclassification

#### Reclassifications in accordance with Department of Business Development Announcement

On October 11, 2016 the Department of Business Development issued its notification “Definition of the abbreviated components required in the financial statements (No. 2), B.E. 2559”. The notification is effective for accounting periods beginning on or after January 1, 2017. The Group has reclassified the items related to the exploration and evaluation assets, deficit from the change in the ownership interests in subsidiaries in the statement of financial position as at December 31, 2016, items related to selling and distribution expenses in the comparative statement of income for the year ended December 31, 2016 to comply with the aforementioned notification. These reclassifications had no effect to the Group’s net profit as previous reported.

The Group has reclassified the comparative financial information. The impact on the consolidated financial information is as follows:

Unit: Million Baht

#### Consolidated financial statements

	Previously reported	Reclassified increase (decrease)	Restated
<b>Statement of financial position</b>			
Current assets	741,490.62	93.05	741,583.67
Non-current assets	1,490,840.46	(93.05)	1,490,747.41

#### Divestment of PTTEP Oman Company Limited and Discontinued Operations

During the year 2016, PTTEP Offshore Investment Company Limited (PTTEPO) sold an investment in PTTEP Oman Company Limited (PTTEP OM), which is a subsidiary of the Group. The Group recognized profit from the divestment of US Dollar 20 million (Baht 704 million) as part of profit (loss) for the year from discontinued operations in the consolidated financial statements for the year ended December 31, 2016.

During 2017, PTTEPO had calculated net sale value in accordance with Final Completion Adjustment specified in the SPA, resulted in a decrease in net sale value of US Dollar 0.35 million (Baht 11.35 million). The Group has recognized the adjustment as profit (loss) for the period from discontinued operations in the consolidated financial statements for the year end December 31, 2017.

### 3.3 Reclassification (Continued)

#### Divestment of PTTEP Oman Company Limited and Discontinued Operations (Continued)

As a result, the relevant part of the petroleum exploration and production business is classified as a discontinued segment. The Group presented the operating results of the discontinued segment separately from normal operating profits, and present it as profit (loss) from discontinued operations, net of tax in the consolidated statement of income, and other comprehensive income (loss) from discontinued operations, net of taxes in the consolidated statement of comprehensive income. The Group has reclassified the transactions of this segment in 2016 for the purpose of comparison with the current period financial information.

The operating results of the discontinued operations in the consolidated financial statements for the year ended December 31, 2017 and 2016 are as follows:

	Unit: Million Baht	
	2017	2016
<b>The consolidated statements of income</b>		
Revenues	-	1,136.50
Expenses	-	(923.22)
Profit before income taxes from discontinued operations	-	213.28
Income taxes	-	(44.83)
Net profit from discontinued operations	-	168.45
Gain (loss) from divestment of investment	(11.35)	703.62
Total net profit (loss) from discontinued operations	(11.35)	872.07

	Unit: Baht	
	2017	2016
Basic earnings per share from discontinued operations	-	0.20

	Unit: Million Baht	
	2017	2016
<b>The consolidated statements of comprehensive income</b>		
Item that will be reclassified subsequently to profit or loss		
Currency translation differences	-	(146.49)

## 4. Cash and Cash Equivalents

Cash and cash equivalents as at December 31, 2017 and 2016 are as follows:

Unit: Million Baht

	Consolidated financial statements		Separate financial statements	
	2017	2016	2017	2016
Cash on hand	1,260.21	202.76	169.52	47.59
Call deposits held at banks	93,005.38	106,286.14	30,846.73	37,489.76
Fixed deposits	44,885.89	79,397.13	1,509.76	17,064.79
Treasury bills	14,566.49	16,583.42	-	-
Promissory notes	354.01	4,691.57	-	-
Bank of Thailand bonds	-	8,046.15	-	8,046.15
Restricted bank cash within 3 months	286.42	359.24	-	-
Other investments	11,830.62	-	6,165.65	-
Total	166,189.02	215,566.41	38,691.66	62,648.29

Call deposits held at banks, fixed deposits, treasury bills, promissory notes, Bank of Thailand bonds, restricted bank cash within 3 months and other investments, as at December 31, 2017 bear the interest at rates ranging from 0.00% - 12.09% per annum (December 31, 2016: interest rates range from 0.00% - 13.05% per annum).

## 5. Current Investments

Current investments as at December 31, 2017 and 2016 are as follows:

Unit: Million Baht

	Consolidated financial statements		Separate financial statements	
	2017	2016	2017	2016
Fixed deposits	175,001.14	150,351.08	41,262.33	36,938.69
Promissory notes	6.00	1,044.44	-	-
Bonds	3,507.19	3,486.66	2,859.96	3,047.45
Other investments	51,136.93	21,931.45	23,933.97	19,206.41
Total	229,651.26	176,813.63	68,056.26	59,192.55

Current investments as at December 31, 2017 bear the interest at rates ranging from 0.90% to 2.79% per annum (December 31, 2016: interest rates range from 0.80% to 5.87% per annum).

## 6. Trade Accounts Receivable

Trade accounts receivable as at December 31, 2017 and 2016 are as follows:

Unit: Million Baht

	Consolidated financial statements		Separate financial statements	
	2017	2016	2017	2016
Trade accounts receivable - others	170,901.53	140,502.28	82,123.38	71,335.20
<u>Less</u> Allowance for doubtful accounts	(3,188.82)	(3,409.99)	(2,040.57)	(2,076.63)
Trade accounts receivable - others - net	167,712.71	137,092.29	80,082.81	69,258.57
Trade accounts receivable - related parties - net (Note 9.1)	7,203.53	6,098.77	64,182.35	55,303.90
Total	174,916.24	143,191.06	144,265.16	124,562.47

Aging analysis is as follows:

Unit: Million Baht

	Consolidated financial statements		Separate financial statements	
	2017	2016	2017	2016
Within credit terms	169,972.04	138,347.50	139,396.74	122,382.46
Overdue				
- Within 3 months	4,700.53	3,618.05	4,761.12	1,297.60
- Over 3 - 6 months	133.98	442.28	110.76	299.41
- Over 6 - 12 months	74.80	746.85	-	627.93
- Over 12 months	3,300.02	3,702.97	2,113.42	2,288.30
	178,181.37	146,857.65	146,382.04	126,895.70
<u>Less</u> Allowance for doubtful accounts	(3,265.13)	(3,666.59)	(2,116.88)	(2,333.23)
Total	174,916.24	143,191.06	144,265.16	124,562.47

Trade accounts receivable - others as at December 31, 2017 include receivables from government agencies and state enterprises in the consolidated financial statements amounting to Baht 15,471.99 million (December 31, 2016: Baht 11,589.18 million), and in the separate financial statements amounting to Baht 13,560.72 million (December 31, 2016: Baht 10,927.55 million).

## 7. Other Accounts Receivable

Other accounts receivable as at December 31, 2017 and 2016 are as follows:

Unit: Million Baht

	Consolidated financial statements		Separate financial statements	
	2017	2016	2017	2016
Other accounts receivable	13,919.21	12,480.98	2,751.44	2,095.11
<u>Less</u> Allowance for doubtful accounts	(412.11)	(319.09)	(255.28)	(252.47)
Other accounts receivable	13,507.10	12,161.89	2,496.16	1,842.64
Advance payments	16,168.09	21,811.33	281.60	415.44
Refund receivable from the Oil Stabilization Fund	13,578.39	6,081.06	11,797.59	5,916.93
Current tax assets	5,483.09	6,814.26	-	1,094.63
Other accounts receivable - others - net	48,736.67	46,868.54	14,575.35	9,269.64
Other accounts receivable - related parties - net (Note 9.2)	1,412.97	1,786.77	1,974.49	1,587.97
Advance payments - related parties (Note 9.2)	453.06	516.11	373.36	372.21
Total	50,602.70	49,171.42	16,923.20	11,229.82

The refund receivable from the Oil Stabilization Fund mostly comprises compensation for locally manufactured oil and liquefied petroleum gas (LPG), or imported LPG for local uses, as well as compensation for Natural Gas for Vehicles (NGV) prices. The compensation rates are determined by the Committee of Energy Policy Administration.

## 8. Lending Loans

### 8.1 Short-term lending loans as at December 31, 2017 and 2016 are as follows:

Unit: Million Baht

	Consolidated financial statements		Separate financial statements	
	2017	2016	2017	2016
Current portion of financial lease receivable - others	605.19	436.71	-	-
Current portion of financial lease receivable - related parties (Note 9.2)	3.80	3.66	-	-
Short-term lending loans - others	622.34	-	-	-
Short-term lending loans - related parties	469.64	503.09	5,077.58	8,160.73
<u>Less</u> Allowance for doubtful accounts	(469.64)	(413.09)	(428.84)	-
Short-term lending loans - related parties - net (Note 9.2)	-	90.00	4,648.74	8,160.73
Total	1,231.33	530.37	4,648.74	8,160.73

### 8.2 Long-term lending loans as at December 31, 2017 and 2016 are as follows:

Unit: Million Baht

	Consolidated financial statements		Separate financial statements	
	2017	2016	2017	2016
Long-term financial lease receivable - others	5,354.19	5,959.37	-	-
Long-term financial lease receivable - related parties (Note 9.3)	56.66	60.47	-	-
Long-term lending loans - others	4,385.44	734.69	-	-
Long-term lending loans - related parties	9,282.31	8,263.29	44,875.26	80,994.63
<u>Less</u> Allowance for doubtful accounts	-	-	(22,120.52)	(53,412.42)
Long-term lending loans - related parties - net (Note 9.3)	9,282.31	8,263.29	22,754.74	27,582.21
Total	19,078.60	15,017.82	22,754.74	27,582.21

## 9. Related Party Transactions

Significant transactions carried out with related parties are as follows:

### 9.1 Trade accounts receivable - related parties as at December 31, 2017 and 2016

Unit: Million Baht

	Consolidated financial statements		Separate financial statements	
	2017	2016	2017	2016
Subsidiaries	-	-	59,744.47	51,470.79
Joint ventures	3,077.27	2,927.52	1,505.27	1,390.73
Associates	1,764.15	1,149.42	574.17	420.56
Other related parties	2,438.42	2,278.43	2,434.75	2,278.42
	7,279.84	6,355.37	64,258.66	55,560.50
<u>Less Allowance for doubtful accounts</u>	(76.31)	(256.60)	(76.31)	(256.60)
Total (Note 6)	7,203.53	6,098.77	64,182.35	55,303.90

Aging analysis is as follows:

Unit: Million Baht

	Consolidated financial statements		Separate financial statements	
	2017	2016	2017	2016
Within credit terms	7,119.37	6,064.67	62,809.97	55,134.14
Overdue				
- Within 3 months	45.86	15.72	1,344.48	154.27
- Over 3 - 6 months	-	1.95	-	-
- Over 6 - 12 months	10.39	0.93	-	-
- Over 12 months	104.22	272.10	104.21	272.09
	7,279.84	6,355.37	64,258.66	55,560.50
<u>Less Allowance for doubtful accounts</u>	(76.31)	(256.60)	(76.31)	(256.60)
Total (Note 6)	7,203.53	6,098.77	64,182.35	55,303.90

## 9.2 Other accounts receivable, advance payments, current portion of financial lease receivable, and short-term lending loans - related parties as at December 31, 2017 and 2016

Unit: Million Baht

	Consolidated financial statements		Separate financial statements	
	2017	2016	2017	2016
<b><u>Other accounts receivable</u></b>				
Subsidiaries	-	-	1,765.63	5,136.41
Joint ventures	604.99	177.05	403.97	26.26
Associates	263.92	212.86	2.74	6.37
Other related parties	596.47	1,505.30	0.69	-
	1,465.38	1,895.21	2,173.03	5,169.04
<u>Less</u> Allowance for doubtful accounts	(52.41)	(108.44)	(198.54)	(3,581.07)
Total (Note 7)	1,412.97	1,786.77	1,974.49	1,587.97
<b><u>Advance payments</u></b>				
Subsidiaries	-	-	62.24	62.46
Joint ventures	5.32	11.49	-	-
Other related parties	447.74	504.62	311.12	309.75
Total (Note 7)	453.06	516.11	373.36	372.21
<b><u>Current portion of financial lease receivable</u></b>				
Joint ventures (Note 8.1)	3.80	3.66	-	-

## 9.2 Other accounts receivable, advance payments, current portion of financial lease receivable, and short-term lending loans - related parties as at December 31, 2017 and 2016 (Continued)

Unit: Million Baht

	Consolidated financial statements		Separate financial statements	
	2017	2016	2017	2016
<b>Short-term loans</b>				
Subsidiaries	-	-	5,077.58	8,160.73
Joint ventures	469.64	503.09	-	-
	469.64	503.09	5,077.58	8,160.73
<u>Less</u> Allowance for doubtful accounts	(469.64)	(413.09)	(428.84)	-
Total (Note 8.1)	-	90.00	4,648.74	8,160.73

Movements in short-term loans - related parties are as follows:

Unit: Million Baht

	Consolidated financial statements		Separate financial statements	
	2017	2016	2017	2016
Balance as at January 1	90.00	438.88	941.84	861.84
- Payment for loans granted	96.42	65.69	327.28	318.87
- Receipt from loans granted	-	-	(798.81)	(235.37)
- Loss on exchange rate	-	-	(41.47)	(3.50)
- Reclassification	(90.00)	-	-	-
- Currency translation differences	-	(7.72)	-	-
- Allowance for doubtful accounts	(96.42)	(406.85)	(428.84)	-
Balance as at December 31	-	90.00	-	941.84
<u>Add</u> Current portion (Note 9.3)	-	-	4,648.74	7,218.89
Balance as at December 31 - net	-	90.00	4,648.74	8,160.73

Short-term loans - related parties as at December 31, 2016 in the consolidated financial statements bear the interest at rates ranging from 0.25% - 4.20% per annum, and in the separate financial statements as at December 31, 2017 bear the interest at rates ranging from 2.53% - 3.40% per annum (December 31, 2016: interest rates range from 2.53% - 3.27% per annum).

### 9.3 Long-term financial lease receivable and long-term lending loans - related parties as at December 31, 2017 and 2016

Unit: Million Baht

	Consolidated financial statements		Separate financial statements	
	2017	2016	2017	2016
<b>Long-term financial lease receivable</b>				
Joint ventures (Note 8.2)	56.66	60.47	-	-
<b>Long-term loans</b>				
Subsidiaries	-	-	44,875.26	75,240.86
Joint ventures	6,766.64	5,753.77	-	5,753.77
Associates	2,515.67	2,509.52	-	-
Total	9,282.31	8,263.29	44,875.26	80,994.63
Less Allowance for doubtful accounts*	-	-	(22,120.52)	(53,412.42)
Total (Note 8.2)	9,282.31	8,263.29	22,754.74	27,582.21

\* The Company recorded allowance for doubtful accounts as at December 31, 2017 amounting to Baht 22,120.52 million (December 31, 2016: Baht 53,412.42 million) for a long-term lending loan to a subsidiary. The subsidiary used this loan to invest in its foreign subsidiary and associate; both of which encountered operational problems. The Company therefore recognized allowance for doubtful accounts based on assessment of the recoverable amount of such lending loan.

Details of financial lease receivable - related parties as at December 31, 2017 and 2016 are as follows:

Unit: Million Baht

	Consolidated financial statements		Separate financial statements	
	2017	2016	2017	2016
Financial lease receivable				
- Within 1 year	6.00	6.00	-	-
- Over 1 year but not over 5 years	24.00	24.00	-	-
- Over 5 years	46.00	52.00	-	-
Future finance income	(15.53)	(17.87)	-	-
Total	60.47	64.13	-	-

### 9.3 Long-term financial lease receivable and long-term lending loans - related parties as at December 31, 2017 and 2016 (Continued)

Movements in long-term lending loans - related parties are as follows:

Unit: Million Baht

	Consolidated financial statements		Separate financial statements	
	2017	2016	2017	2016
Balance as at January 1	8,263.29	3,343.97	34,801.10	38,649.97
- Payment for loans granted	2,890.40	4,926.65	9,391.23	6,840.23
- Receipt from loans granted	(1,127.93)	-	(41,419.18)	(6,477.19)
- Loss on exchange rate	(738.98)	(7.25)	(6,661.58)	(541.74)
- Currency translation differences	246.24	(0.08)	-	-
- Reversal (recognition) of allowance for doubtful accounts	(250.71)	-	31,291.91	(3,670.17)
Balance as at December 31	9,282.31	8,263.29	27,403.48	34,801.10
Less Current portion (Note 9.2)	-	-	(4,648.74)	(7,218.89)
Balance as at December 31 - net	9,282.31	8,263.29	22,754.74	27,582.21

Long-term loans - related parties as at December 31, 2017 in the consolidated financial statements bear the interest at rates ranging from 3.66% - 6.56% per annum (December 31, 2016: interest at rates ranging from 1.00% - 6.56% per annum), and in the separate financial statements bear the interest at rates ranging from 2.63% - 4.68% per annum (December 31, 2016: interest at rates ranging from 2.55% - 4.50% per annum).

### 9.4 Trade accounts payable - related parties as at December 31, 2017 and 2016

Unit: Million Baht

	Consolidated financial statements		Separate financial statements	
	2017	2016	2017	2016
Subsidiaries	-	-	51,583.58	41,175.35
Joint ventures	863.80	957.78	269.00	292.06
Associates	317.81	500.03	254.07	446.57
Other related parties	2.59	1.90	-	-
Total	1,184.20	1,459.71	52,106.65	41,913.98

## 9.5 Other accounts payable, current portion of financial lease liability, and short-term loans - related parties as at December 31, 2017 and 2016

Unit: Million Baht

	Consolidated financial statements		Separate financial statements	
	2017	2016	2017	2016
<b><u>Other accounts payable</u></b>				
Subsidiaries	-	-	3,440.80	4,495.18
Joint ventures	22.84	17.85	4.03	3.32
Associates	12.16	21.43	3.74	3.71
Other related parties	135.21	69.39	105.96	44.78
Total	170.21	108.67	3,554.53	4,546.99
<b><u>Current portion of financial lease liability</u></b>				
Joint venture	398.68	437.63	398.68	437.63
<b><u>Short-term loans*</u></b>				
Subsidiaries	-	-	2,803.04	2,117.07

\* The Company has liquidity management policies within the Group include the use of the cash pooling method. Inter-company loans were used for short-term financial management of cash surpluses or deficits of each affiliate. Interests on these were calculated by using market interest rates.

## 9.6 Long-term finance lease liability - related parties as at December 31, 2017 and 2016

Unit: Million Baht

	Consolidated financial statements		Separate financial statements	
	2017	2016	2017	2016
Joint venture	4,274.28	5,155.97	4,274.28	5,155.97

Details of financial lease liability - related parties as at December 31, 2017 and 2016 are as follows:

Unit: Million Baht

	Consolidated financial statements		Separate financial statements	
	2017	2016	2017	2016
Financial lease liability				
- Within 1 year	456.77	500.65	456.77	500.65
- Over 1 year but not over 5 years	1,828.35	2,003.98	1,828.35	2,003.98
- Over 5 years	2,743.15	3,507.31	2,743.15	3,507.31
Future finance charges	(355.31)	(418.34)	(355.31)	(418.34)
Total	4,672.96	5,593.60	4,672.96	5,593.60

## 9.7 Revenue and expense transactions carried out with related parties

For the years ended December 31, 2017 and 2016

Unit: Million Baht

	Consolidated financial statements		Separate financial statements	
	2017	2016	2017	2016
<b>Revenues</b>				
<b><u>Sales and service income</u></b>				
Subsidiaries	-	-	567,842.77	495,171.23
Joint ventures	25,711.82	24,589.04	13,426.17	12,997.86
Associates	14,129.30	9,029.29	2,561.39	1,821.41
Other related parties	14,477.24	14,695.83	14,467.74	14,688.11
<b><u>Interest income</u></b>				
Subsidiaries	-	-	2,063.58	2,647.99
Joint ventures	255.13	175.29	66.32	151.36
Associates	160.74	70.22	-	-
<b><u>Dividend income</u></b>				
Subsidiaries	-	-	28,263.50	20,136.51
Joint ventures	-	-	1,033.30	3,346.33
Associates	-	-	699.28	1,095.44
Other related parties	380.00	544.11	110.00	110.00
<b><u>Other income</u></b>				
Subsidiaries	-	-	4,047.92	4,608.96
Joint ventures	159.62	165.08	88.47	98.96
Associates	32.53	38.24	19.61	23.52
Other related parties	295.25	1,213.74	22.05	44.42

## 9.7 Revenue and expense transactions carried out with related parties (Continued)

For the years ended December 31, 2017 and 2016

Unit: Million Baht

	Consolidated financial statements		Separate financial statements	
	2017	2016	2017	2016
<b>Expenses</b>				
<b><u>Cost of goods purchased and services</u></b>				
Subsidiaries	-	-	516,960.35	455,367.00
Joint ventures	9,237.90	9,675.98	1,619.31	1,693.59
Associates	3,522.99	4,295.40	2,677.67	3,781.34
Other related parties	1,450.74	2,078.62	271.31	404.81
<b><u>Interest expenses</u></b>				
Subsidiaries	-	-	62.48	31.33
Joint ventures	63.02	67.90	63.02	67.90
<b><u>Other expenses</u></b>				
Subsidiaries	-	-	3,223.41	9,551.25
Joint ventures	190.80	947.00	58.50	3.07
Associates	111.36	74.77	4.90	4.95
Other related parties	359.34	355.77	227.23	169.81

The aforementioned related party transactions exclude transactions carried out with government agencies and state enterprises.

Stipulation prices between the Company and its related parties are based on normal prices for the same types of business transactions carried out with non-related parties. Goods purchased from subsidiaries are charged at the normal prices determined by the subsidiaries with reference to global market prices.

## 9.8 Details of commitments to subsidiaries, joint ventures, associates and other related parties are stated in Note 45.1.

## 9.9 Crude oil and refined product purchase and sale transactions carried out with related parties without physical delivery, with the objective of maintaining crude oil and refined product reserves and inventory management, were reversed in the financial statements.

Detail of these transactions for the years ended December 31, 2017 and 2016 are as follows:

Unit: Million Baht

	Consolidated financial statements		Separate financial statements	
	2017	2016	2017	2016
<b>Sales</b>				
Subsidiaries	-	-	7,981.66	1,824.11
<b>Purchases</b>				
Subsidiaries	-	-	8,167.99	1,898.75

## 9.10 Executive remunerations

Detail of executive remunerations for the years ended December 31, 2017 and 2016 are as follows:

Unit: Million Baht

	Consolidated financial statements		Separate financial statements	
	2017	2016	2017	2016
<b>Directors remuneration</b>				
Meeting remuneration and bonuses	349.12	318.02	72.98	43.24
<b>Managements remuneration</b>				
Salaries, bonuses, and other employee benefits	983.26	914.90	75.12	68.64
Post-employment benefits	22.98	9.68	2.79	1.01
Total (Note 35)	1,355.36	1,242.60	150.89	112.89

Managements are those persons who have authority and responsibility for planning, directing and controlling the activities of an entity, directly or indirectly.

## 10. Inventories

Inventories as at December 31, 2017 and 2016 are as follows:

Unit: Million Baht

	Consolidated financial statements		Separate financial statements	
	2017	2016	2017	2016
Oil products	87,473.14	84,479.18	24,128.66	21,096.12
Gas products	2,560.71	1,513.34	2,557.43	1,510.07
Petrochemicals products	28,610.81	28,395.53	-	-
Others	3,629.45	3,289.89	746.72	689.88
	122,274.11	117,677.94	27,432.81	23,296.07
<u>Less</u> Allowance for decline in value of inventories and obsolescence	(402.31)	(794.40)	(329.28)	(308.09)
Total	121,871.80	116,883.54	27,103.53	22,987.98

The Fuel Oil Trading Act B.E. 2543 was amended by The Fuel Oil Trading Act (No. 2) B.E. 2550 in accordance with Notification of the Department of Energy Business "Determination of Types, Rates, Criteria, Methods, and Conditions for Calculation of Oil Reserves B.E. 2558". This Act prescribes that oil traders under section 7 must reserve crude oil and petroleum products at rates ranging from 1% - 20% of the total production output or imported volume. Inventories - legal reserves as at December 31, 2017 in the consolidated financial statements amounting to Baht 17,558.00 million (December 31, 2016: Baht 22,900.03 million), and in the separate financial statements amounting to Baht 6,682.59 million (December 31, 2016: Baht 5,808.71 million). These amounts were net of allowance for net realizable value.

In 2017, the Group wrote down inventories to their net realizable values and recognized the additional allowance for obsolescence of inventories as an expense of Baht (392.09) million in the consolidated financial statements (2016: Baht (3,116.24) million) and Baht 21.19 million in the separate financial statements (2016: Baht (545.49) million).

## 11. Materials and Supplies

Materials and supplies as at December 31, 2017 and 2016 are as follows:

Unit: Million Baht

	Consolidated financial statements		Separate financial statements	
	2017	2016	2017	2016
Spare parts, equipment and others	30,298.05	31,894.65	5,770.45	5,682.33
<u>Less</u> Allowance for obsolescence	(1,355.60)	(868.38)	(20.98)	(20.55)
Total	28,942.45	31,026.27	5,749.47	5,661.78

## 12. The Shareholder Restructuring of the Group

On December 16, 2016, at the Board of Directors Meeting No. 12/2016 of the Company, the Board passed a resolution to approve the transfer of all shares, which the Company held, in the petrochemical businesses in propane and bioplastic business chains, including service businesses which are related to each other, comprising HMC Polymers Co., Ltd. (HMC), PTT Asahi Chemicals Co., Ltd. (PTTAC), PTT MCC Biochem Co., Ltd. (PTTMCC), PTT Polymer Marketing Co., Ltd. (PTTPM), PTT Polymer Logistics Co., Ltd. (PTTPL), and PTT Maintenance & Engineering Co., Ltd. (PTTME), together with lending loan contracts to PTTAC, to PTT Global Chemical Public Co., Ltd. (PTTGC). In addition, the Board passed a resolution to approve the transfer by PTT Global Management Co., Ltd. (PTTGM) (formerly PTT PMMA Co., Ltd. (PTTPMMA)), in which the Company held 100% of shares, of rights to operate all of the PMMA Projects and any other relevant assets (collectively, the "Target Entities' Assets") to PTTGC as agreed.

On June 30, 2017, the Company reclassified the Target Entities' Assets as non-current assets held-for-sale in separate financial statements and measured them at the lower of the carrying amount and fair value less cost to sell.

On July 3, 2017, the Company had transferred the Target Entities' Assets including lending loans of PTTAC amounting to Baht 25,049.35 million. Also PTTGM had transferred the rights to operate all of the PMMA Projects amounting to Baht 11.77 million to PTTGC. The transfer of Target Entities' Assets to PTTGC will be conducted in accordance with the shareholder restructuring of the Group by means of positioning PTTGC as the petrochemical flagship company of the Group. In the purpose of this event will enhance efficiency in the supply chain management and increase the competitiveness. Consequently, the Company had net loss by Baht 140.01 million on separate financial statements. However, the Company received dividends over the investment period from the Target Entities amounting to Baht 13,644.61 million. There is no impact on the consolidated financial statements since this transfer of the Target Entities' Assets is treated as the business combination under common control.

Nevertheless, the valuation of the Target Entities' Assets had been evaluated by financial advisors who were expert in valuation business approaches following relevant international standards in order to provide the most reasonable prices.

## 13. Available-for-sale Investments

### 13.1 Details of available-for-sale investments

Company	Country of Incorporation	Business	Ownership interest (%)	
			2017	2016
<b><u>Available-for-sale Investments of the Company</u></b>				
<b><u>Investments in Equity Securities</u></b>				
Dhipaya Insurance Public Co., Ltd. (TIP)	Thailand	Insurance	13.33	13.33
Bangkok Aviation Fuel Services Public Co., Ltd. (BAFS)	Thailand	Aircraft refuelling services	7.06	7.06
Star Petroleum Refining Public Co., Ltd. (SPRC)	Thailand	Refining	-	5.41
<b><u>Investments in Mutual Funds</u></b>				
Core Flexible Fund (CORE)	Thailand	Mutual fund	-	32.57
CIMB - PRINCIPAL Energy and Petrochemical Index Fund (CIMB - PRINCIPAL EPIF)	Thailand	Mutual fund		
Vayupak fund 1 (VAYU1)	Thailand	Mutual fund		
Corporate Venture Capital Fund (CVC)*	United States of America	Mutual fund		
<b><u>Available-for-sale Investments of Subsidiaries</u></b>				
<b><u>Investments in Equity Securities</u></b>				
<b>PTTEP Group</b>				
Wentworth Resources Limited (WRL)	Canada	Oil and natural gas exploration	1.18	1.18

\* Comprised Energy Impact Fund Limited Partnership, G2VP I, Limited Liability Company, Congruent Ventures I, Limited Partnership and Clean Energy Venture Fund I

### 13.1 Details of available-for-sale investments (Continued)

Company	Country of Incorporation	Business	Ownership interest (%)	
			2017	2016
<b>Available-for-sale Investments of Subsidiaries (Continued)</b>				
<b>Investments in Equity Securities (Continued)</b>				
<b>IRPC Group</b>				
Bangkok Union Insurance Public Co., Ltd. (BUI)	Thailand	Insurance	0.35	0.35
TPI Polene Public Co., Ltd. (TPIPL)	Thailand	Property, construction and petrochemicals	0.14	-
<b>PTTER Group</b>				
Xanadu Mines Ltd. (XML)*	Mongolia	Mineral exploration	-	4.82
<b>PTTGM Group</b>				
Xanadu Mines Ltd. (XML)*	Mongolia	Mineral exploration	4.19	-
<b>Investment in Debt Securities</b>				
<b>PTTGC Group</b>				
Debt Securities Available for Sale (in Private Fund) (DSAFS)	Thailand	Private Fund		
<b>TOP Group</b>				
Debt Securities Available for Sale (in Private Fund) (DSAFS)	Thailand	Private Fund		

\* On June 1, 2017, PTTER sold all shares in XML to PTTGM.

## 13.1 Details of available-for-sale investments (Continued)

Company	Country of Incorporation	Business	Ownership interest (%)	
			2017	2016
<b>Available-for-sale Investments of Subsidiaries (Continued)</b>				
<b>Investments in Mutual Funds</b>				
<b>PTTLNG</b>				
Vayupak Fund 1 (VAYU1)	Thailand	Mutual fund		
<b>PTTNGD Group</b>				
Vayupak Fund 1 (VAYU1)	Thailand	Mutual fund		
<b>EnCo</b>				
Vayupak Fund 1 (VAYU1)	Thailand	Mutual fund		
<b>PTTOR Group</b>				
Vayupak Fund 1 (VAYU1)	Thailand	Mutual fund		
<b>PTT TANK</b>				
Vayupak Fund 1 (VAYU1)	Thailand	Mutual fund		
<b>PTTT Group</b>				
Vayupak Fund 1 (VAYU1)	Thailand	Mutual fund		
<b>PTTGC Group</b>				
CIMB - PRINCIPAL Energy and Petrochemical Index Fund (CIMB - PRINCIPAL EPIF)	Thailand	Mutual fund		
<b>TOP Group</b>				
Core Flexible Fund (CORE)	Thailand	Mutual fund	-	16.29
CIMB - PRINCIPAL Energy and Petrochemical Index Fund (CIMB - PRINCIPAL EPIF)	Thailand	Mutual fund		
<b>PTTER Group</b>				
Vayupak Fund 1 (VAYU1)	Thailand	Mutual fund		
<b>PTTRTC</b>				
Vayupak Fund 1 (VAYU1)	Thailand	Mutual fund		

13.2 Details of available-for-sale investments as at December 31, 2017 and 2016 are as follows:

Unit: Million Baht

Company	Ownership interest (%)		Consolidated financial statements		Separate financial statements		Dividend incomes	
	2017	2016	2017	2016	2017	2016	2017	2016
<b>Available-for-sale investments in Equity Securities</b>								
1. TIP	13.33	13.33	312.00	312.00	312.00	312.00	110.00	110.00
2. BAFS	7.06	7.06	24.00	24.00	24.00	24.00	54.90	60.75
3. SPRC	-	5.41	-	1,876.50	-	1,623.17	259.59	188.02
4. WRL	1.18	1.18	37.39	37.43	-	-	-	-
5. BUI	0.35	0.35	2.35	2.35	-	-	-	0.07
6. TPIPL	0.14	-	64.86	-	-	-	-	-
7. XML	4.19	4.82	239.83	262.94	-	-	-	-
Total			680.43	2,515.22	336.00	1,959.17		
<b>Available-for-sale investments in Debt Securities</b>								
8. DSAFS			11,988.88	5,430.65	-	-	-	-
Total			11,988.88	5,430.65	-	-		
<b>Available-for-sale investments in Mutual Funds</b>								
9. CORE	-	48.86	-	674.74	-	449.83	-	-
10. CIMB - PRINCIPAL EPIF			854.03	6,300.00	254.03	6,300.00	4,309.71	-
11. VAYU1			15.10	15.24	10.00	10.00	0.09	0.09
12. CVC			208.99	-	208.99	-	-	-
Total			1,078.12	6,989.98	473.02	6,759.83		
Total available-for-sale investments before changes in value of investments			13,747.43	14,935.85	809.02	8,719.00		
Allowance for changes in value			3,893.60	8,946.03	3,724.08	9,397.25		
Less Allowance for impairment			(38.62)	(42.34)	-	-		
Total			17,602.41	23,839.54	4,533.10	18,116.25	4,734.29	358.93

### 13.3 Movements in available-for-sale investments are as follows:

Unit: Million Baht

	Consolidated financial statements		Separate financial statements	
	2017	2016	2017	2016
As at January 1	23,839.54	13,352.99	18,116.25	13,108.79
- Additional investments	7,448.50	5,430.65	208.99	-
- Disposals of investments	(8,265.40)	-	(8,118.97)	-
- Unrealized gain (loss) on available-for-sale investments	(5,403.21)	5,055.51	(5,673.17)	5,007.46
- Currency translation differences	(17.02)	0.39	-	-
As at December 31	17,602.41	23,839.54	4,533.10	18,116.25

### 13.4 Significant events during the period ended December 31, 2017

#### SPRC

On November 16, 2017, the Company disposed all shares that the Company held in SPRC amounting to 234.56 million shares or equivalent to 5.41% of all issued and paid-up shares, for a total of Baht 3,706.09 million. The Company recognized gains on disposal of the investment in the consolidated financial statements and the separate financial statements amounting to Baht 1,801.65 million and Baht 2,054.98 million, respectively.

## 14. Investments in Subsidiaries, Joint Ventures and Associates

### 14.1 Details of subsidiaries, joint ventures and associates of the Company

Company	Country of Incorporation	Business	Ownership interest (%)	
			2017	2016
<b>Subsidiaries</b>				
PTT Exploration and Production Public Co., Ltd. (PTTEP)	Thailand	Petroleum exploration and production	65.29	65.29
PTT LNG Co., Ltd. (PTTLNG)	Thailand	Natural gas	100.00	100.00
PTT Natural Gas Distribution Co., Ltd. (PTTNGD)	Thailand	Natural gas	58.00	58.00
PTT Global LNG Co., Ltd. (PTTGL) (The Group holds 100% shareholding)	Thailand	Investing in LNG business	50.00	-
Energy Complex Co., Ltd. (EnCo) (The Group holds 100% shareholding)	Thailand	Real estate development for rent	50.00	50.00
PTT Energy Solutions Co., Ltd. (PTTES) (The Group holds 100% shareholding)	Thailand	Technical and operational services	40.00	40.00
PTT Maintenance & Engineering Co., Ltd. (PTTME)* (The Group holds 100% shareholding)	Thailand	Factory maintenance and engineering services	-	40.00
Global Power Synergy Public Co., Ltd. (GPSC) (The Group holds 75% shareholding)	Thailand	Generation and supply of electricity, steam and water for industries	22.58	22.58
PTT (Cambodia) Limited (PTTCL)	Cambodia	Oil marketing	100.00	100.00

\* On July 3, 2017, the Company sold all shares in PTTME, PTTPL and PTTM to PTTGC.

## 14.1 Details of subsidiaries, joint ventures and associates of the Company (Continued)

Company	Country of Incorporation	Business	Ownership interest (%)	
			2017	2016
<b>Subsidiaries (Continued)</b>				
PTT Oil Myanmar Co., Ltd. (PTTOM)	Myanmar	Business services	100.00	100.00
PTT Oil and Retail Business Co., Ltd. (PTTOR)	Thailand	Management services and oil marketing	100.00	100.00
PTT Tank Terminal Co., Ltd. (PTT TANK)	Thailand	Terminal and warehouse	100.00	100.00
Thai Lube Blending Co., Ltd. (TLBC) (The Group holds 100% shareholding)	Thailand	Blending and bottling of lube oil	48.95	48.95
PTT International Trading Pte. Ltd. (PTTT)	Singapore	International oil trading	100.00	100.00
PTT International Trading London Limited (PTTT LDN)	England	International oil trading	100.00	100.00
PTT Polymer Logistics Co., Ltd. (PTTPL)* (The Group holds 100% shareholding)	Thailand	Logistics services	-	50.00
PTT Polymer Marketing Co., Ltd. (PTTPM)* (The Group holds 100% shareholding)	Thailand	Petrochemicals marketing	-	50.00
PTT Global Chemical Public Co., Ltd. (PTTGC)	Thailand	Petrochemicals and refining	48.89	49.42

\* On July 3, 2017, the Company sold all shares in PTTME, PTTPL and PTTPM to PTTGC.

## 14.1 Details of subsidiaries, joint ventures and associates of the Company (Continued)

Company	Country of Incorporation	Business	Ownership interest (%)	
			2017	2016
<b>Subsidiaries (Continued)</b>				
Thai Oil Public Co., Ltd. (TOP)	Thailand	Oil refining	49.10	49.10
IRPC Public Co., Ltd. (IRPC)	Thailand	Petrochemicals and refining	38.51	38.51
Thai Oil Power Co., Ltd. (TP) (The Group holds 100% shareholding)	Thailand	Generation and supply of electricity and steam	26.00	26.00
PTT Energy Resources Co., Ltd. (PTTER)	Thailand	International investment	100.00	100.00
PTT Global Management Co., Ltd. (PTTGM) (Former: PTT PMMA Co., Ltd. (PTTPMMA))	Thailand	Domestic and international investment	100.00	100.00
PTT Green Energy Pte. Ltd. (PTTGE)	Singapore	Investing in palm oil business	100.00	100.00
PTT Regional Treasury Center Pte. Ltd. (PTTRTC)	Singapore	Treasury services	100.00	100.00
Business Services Alliance Co., Ltd. (BSA)	Thailand	Management services	100.00	100.00
PTT Digital Solutions Co., Ltd. (PTT DIGITAL) (Former: PTT ICT Solutions Co., Ltd. (PTTICT)) (The Group holds 100% shareholding)	Thailand	Information technology and communication services	20.00	20.00

## 14.1 Details of subsidiaries, joint ventures and associates of the Company (Continued)

Company	Country of Incorporation	Business	Ownership interest (%)	
			2017	2016
<b>Joint Ventures</b>				
Trans Thai-Malaysia (Thailand) Co., Ltd. (TTM(T))	Thailand	Natural gas	50.00	50.00
Trans Thai-Malaysia (Malaysia) Sdn. Bhd. (TTM(M))	Malaysia	Natural gas	50.00	50.00
District Cooling System and Power Plant Co., Ltd. (DCAP)	Thailand	Generation and supply of electricity and chilled water	35.00	35.00
PTT MCC Biochem Co., Ltd. (PTTMCC)* (The Group holds 50% shareholding)	Thailand	Petrochemicals	-	50.00
PTT Asahi Chemicals Co., Ltd. (PTTAC)* (The Group holds 50% shareholding)	Thailand	Petrochemicals	-	50.00
HMC Polymers Co., Ltd. (HMC)* (The Group holds 41.44% shareholding)	Thailand	Petrochemicals	-	41.44
<b>Associates</b>				
Thai Petroleum Pipeline Co., Ltd. (THAPPLINE) (The Group holds 49.59% shareholding)	Thailand	Oil transmission pipelines	40.40	40.40
KELOIL-PTT LPG Sdn. Bhd. (KPL)**	Malaysia	Bottling and sale of LPG	-	40.00
Petro Asia (Thailand) Co., Ltd. (PAT)	Thailand	Oil marketing	35.00	35.00

\* On July 3, 2017, the Company sold all shares in PTTMCC, PTTAC and HMC to PTTGC.

\*\* On December 10, 2017, the Company sold all shares in KPL.

## 14.2 Details of subsidiaries and joint operations of the subsidiaries

Company	Country of Incorporation	Business	Ownership interest (%)	
			2017	2016
<b>Subsidiaries of PTTEP Group:</b>				
PTTEP International Limited (PTTEPI)	Thailand	Petroleum	100.00	100.00
PTTEP Offshore Investment Company Limited (PTTEPO)	Cayman Islands	Petroleum	100.00	100.00
PTTEP Southwest Vietnam Company Limited (PTTEP SV)	Cayman Islands	Petroleum	100.00	100.00
PTTEP Kim Long Vietnam Company Limited (PTTEP KV)	Cayman Islands	Petroleum	100.00	100.00
PTTEP Hoang - Long Company Limited (PTTEP HL)	Cayman Islands	Petroleum	100.00	100.00
PTTEP Hoan - Vu Company Limited (PTTEP HV)	Cayman Islands	Petroleum	100.00	100.00
PTTEP Algeria Company Limited (PTTEP AG)	Cayman Islands	Petroleum	100.00	100.00
PTTEP Services Limited (PTTEP Services)	Thailand	Human resource support	100.00	100.00
PTTEP Siam Limited (PTTEPS)	Thailand	Petroleum	100.00	100.00
PTTEP Holding Company Limited (PTTEPH)	Cayman Islands	Petroleum	100.00	100.00
PTTEP Indonesia Company Limited (PTTEP ID)	Cayman Islands	Petroleum	100.00	100.00
PTTEP Africa Investment Limited (PTTEP AI)	Cayman Islands	Petroleum	100.00	100.00

## 14.2 Details of subsidiaries and joint operations of the subsidiaries (Continued)

Company	Country of Incorporation	Business	Ownership interest (%)	
			2017	2016
<b>Subsidiaries of PTTEP Group (Continued):</b>				
PTTEP Rommana Company Limited (PTTEPR)	Cayman Islands	Petroleum	100.00	100.00
PTTEP Australia Pty Limited (PTTEP AU)	Australia	Petroleum	100.00	100.00
PTTEP South Asia Limited (PTTEP SA)	Cayman Islands	Petroleum	100.00	100.00
PTTEP Semai II Limited (PTTEP SM)	Cayman Islands	Petroleum	100.00	100.00
PTTEP Australia Perth Pty Limited (PTTEP AP)	Australia	Petroleum	100.00	100.00
PTTEP International Holding Co., Ltd. (PTTEP IH)	Cayman Islands	Petroleum	100.00	100.00
PTTEP Southwest Vietnam Pipeline Co., Ltd. (PTTEP SVPC)	Cayman Islands	Gas transmission pipelines	100.00	100.00
PTTEP FLNG Holding Company Limited (PTTEP FH)*	Hong Kong	Petroleum	100.00	100.00
PTTEP Netherland Holding Limited (PTTEP NL)	Cayman Islands	Petroleum	100.00	100.00
JV Marine Limited (JV Marine)	Cayman Islands	Petroleum	100.00	100.00
PTTEP South Mandar Limited (PTTEP SMD)	Cayman Islands	Petroleum	100.00	100.00
PTTEP South Sageri Limited (PTTEP SS)	Cayman Islands	Petroleum	100.00	100.00

\* On August 24, 2017, PTTEP approved for the registration for the dissolution of PTTEP FH.

## 14.2 Details of subsidiaries and joint operations of the subsidiaries (Continued)

Company	Country of Incorporation	Business	Ownership interest (%)	
			2017	2016
<b>Subsidiaries of PTTEP Group (Continued):</b>				
PTTEP Sadang Limited (PTTEP SD)	Cayman Islands	Petroleum	100.00	100.00
PTTEP Malunda Limited (PTTEP ML)	Cayman Islands	Petroleum	100.00	100.00
PTTEP Netherlands Coöperatie U.A. (PTTEP NC)	Netherlands	Petroleum	100.00	100.00
PTTEP Canada Limited (PTTEP CA)	Canada	Petroleum	100.00	100.00
PTTEP Canada International Finance Limited (PTTEP CIF)	Canada	Funding services for the Group's business	100.00	100.00
PTTEP MEA Limited (PTTEP MEA)*	Cayman Islands	Petroleum	-	100.00
PTTEP HK Holding Limited (PTTEP HK)	Hong Kong	Petroleum	100.00	100.00
PTTEP Netherlands Holding Coöperatie U.A. (PTTEP NH)	Netherlands	Petroleum	100.00	100.00
PTTEP Brazil Investment B.V. (PTTEP BI)	Netherlands	Petroleum	100.00	100.00
PTTEP Brazil Investments in Oil and Gas Exploration and Production Limitada (PTTEP BL)	Brazil	Petroleum	100.00	100.00
PTTEP Australia Offshore Pty Ltd (PTTEP AO)	Australia	Petroleum	100.00	100.00
PTTEP Australia Browse Basin Pty Ltd (PTTEP AB)	Australia	Petroleum	100.00	100.00

\* On December 29, 2017, PTTEP MEA had received the approval of dissolution of the company from registrar.

## 14.2 Details of subsidiaries and joint operations of the subsidiaries (Continued)

Company	Country of Incorporation	Business	Ownership interest (%)	
			2017	2016
<b>Subsidiaries of PTTEP Group (Continued):</b>				
PTTEP Australia International Finance Pty Ltd (PTTEP AIF)*	Australia	Funding services for the Group's business	-	100.00
PTTEP Australasia Pty Ltd (PTTEP AA)*	Australia	Petroleum	-	100.00
PTTEP Australia Timor Sea Pty Ltd (PTTEP AT)	Australia	Petroleum	100.00	100.00
PTTEP Australasia (Finance) Pty Ltd (PTTEP AAF)*	Australia	Petroleum	-	100.00
PTTEP Australasia (Petroleum) Pty Ltd (PTTEP AAP)*	Australia	Petroleum	-	100.00
Tullian Pty Ltd (PTTEP AAT)*	Australia	Petroleum	-	100.00
PTTEP Australasia (Operations) Pty Ltd (PTTEP AAO)	Australia	Petroleum	100.00	100.00
PTTEP Australasia (Ashmore Cartier) Pty Ltd (PTTEP AAA)	Australia	Petroleum	100.00	100.00
PTTEP Australasia (Staff) Pty Ltd (PTTEP AAS)	Australia	Petroleum	100.00	100.00
Cove Energy Limited (Cove)	England	Petroleum	100.00	100.00
Cove Energy Mozambique Rovuma Onshore Limited (CEMROL)**	Cyprus	Petroleum	100.00	100.00
Cove Energy East Africa Limited (CEEAL)	Cyprus	Petroleum	100.00	100.00
PTTEP Mozambique Area 1 Limited (PTTEP MZA1)	Cyprus	Petroleum	100.00	100.00

\* On March 19, 2017, PTTEP AIF, PTTEP AA, PTTEP AAF, PTTEP AAP, PTTEP AAT had received the approval of dissolution of the company from registrar.

\*\* On May 22, 2017, PTTEP approved for the registration for the dissolution of CEMROL and CEKL.

## 14.2 Details of subsidiaries and joint operations of the subsidiaries (Continued)

Company	Country of Incorporation	Business	Ownership interest (%)	
			2017	2016
<b>Subsidiaries of PTTEP Group (Continued):</b>				
Cove Energy Kenya Limited (CEKL)*	Kenya	Petroleum	100.00	100.00
Sinphuhorm Holdings Limited (SHL)	Cayman Islands	Petroleum	100.00	100.00
PTTEP SP Limited (PTTEP SP)	England	Petroleum	100.00	100.00
PTTEP G7 Limited (PTTEP G7)	Thailand	Petroleum	100.00	100.00
PTTEP HK Offshore Limited (PTTEP HKO)	Hong Kong	Petroleum	100.00	100.00
PTTEP Treasury Center Company Limited (PTTEP TC)	Thailand	Treasury center for the Group's business	100.00	100.00
PTTEP Business Center Company Limited (PTTEP BC)	Thailand	Petroleum	100.00	100.00
PTTEP Mexico E&P Limited, S. de R.L. de C.V. (PTTEP MEP)	Mexico	Petroleum	100.00	-
<b>Subsidiary of PTTNGD Group:</b>				
Amata Natural Gas Distribution Co., Ltd. (AMATA NGD)	Thailand	Natural gas	80.00	80.00
<b>Subsidiary of PTTGL Group:</b>				
PTTGL Investment Limited (PTTGLI)	Hong Kong	Investing in LNG business	100.00	-

\* On May 22, 2017, PTTEP approved for the registration for the dissolution of CEMROL and CEKL.

## 14.2 Details of subsidiaries and joint operations of the subsidiaries (Continued)

Company	Country of Incorporation	Business	Ownership interest (%)	
			2017	2016
<b>Subsidiaries of GPSC Group:</b>				
Combined Heat and Power Producing Co., Ltd. (CHPP)	Thailand	Generation and supply of electricity and chilled water/ construction and installation of electricity generating system	100.00	100.00
Natee Synergy Co., Ltd. (NSC)	Thailand	Investing in other companies	100.00	100.00
IRPC Clean power Co., Ltd. (IRPCCP) (The Group holds 100% shareholding)	Thailand	Generation and supply of electricity steam and water for industries	51.00	51.00
Ichinoseki Solar Power 1 GK (ICHINOSEKI)	Japan	Generation and supply of electricity	99.00	99.00
GPSC International Holdings Limited (GPSCIH)	Hong Kong	Investing in other companies	100.00	100.00
<b>Subsidiary of PTCL Group:</b>				
PTT (Lao) Co., Ltd. (PTT Lao)	Laos	Oil marketing	100.00	100.00
<b>Subsidiaries of PTOR Group:</b>				
PTT Retail Management Co., Ltd. (PTTRM)	Thailand	Petrol station and convenience store management	100.00	100.00
PTT Retail Service Co., Ltd. (PTTRS)	Thailand	Human resource management	100.00	100.00
Thai Lube Blending Co., Ltd. (TLBC) (The Group holds 100% shareholding)	Thailand	Blending and bottling of lube oil	51.05	51.05
PTT Philippines Trading Corporation (PTTTC)	Philippines	Oil marketing	100.00	100.00
PTT Philippines Corporation (PTTPC)	Philippines	Oil marketing	100.00	100.00

## 14.2 Details of subsidiaries and joint operations of the subsidiaries (Continued)

Company	Country of Incorporation	Business	Ownership interest (%)	
			2017	2016
<b>Subsidiary of PTTT Group:</b>				
PTT International Trading DMCC (PTTT DMCC)	United Arab Emirates	International oil trading	100.00	100.00
<b>Subsidiary of PTTM Group:</b>				
Polymer Marketing DMCC Company Limited (PM DMCC)*	United Arab Emirates	Petrochemicals marketing	-	100.00
<b>Subsidiaries of PTTGC Group:</b>				
PTT Phenol Co., Ltd. (PPCL)	Thailand	Manufacturing and distributing petrochemicals products	100.00	100.00
PTT Maintenance and Engineering Co., Ltd. (PTTME)*	Thailand	Factory maintenance and engineering services	100.00	60.00
Thai Tank Terminal Limited (TTT)	Thailand	Service for the storage and handling of liquid chemicals, oil and gas	51.00	51.00
NPC Safety and Environmental Service Co., Ltd. (NPCSE)	Thailand	Safety and environmental services	100.00	100.00
PTT Chemical International (Asia Pacific ROH) Ltd. (AP ROH)**	Thailand	Services rendering to the Group	100.00	100.00
Thai Styrenics Co., Ltd. (TSCL)	Thailand	Manufacturing and distributing petrochemicals products	100.00	100.00

\* On July 3, 2017, the Company sold all shares in PTTM and PTTME to PTTGC.

\*\* Under liquidation process

## 14.2 Details of subsidiaries and joint operations of the subsidiaries (Continued)

Company	Country of Incorporation	Business	Ownership interest (%)	
			2017	2016
<b>Subsidiaries of PTTGC Group (Continued):</b>				
PTTGC International (Netherlands) B.V. (GCINTERNL)	Netherlands	Investing and operating in international business	100.00	100.00
TOC Glycol Co., Ltd. (TOCGC)	Thailand	Manufacturing and distributing petrochemicals products	100.00	100.00
Global Green Chemicals Plc. (GGC)	Thailand	Manufacturing and distributing biochemical products	72.29	100.00
Solution Creation Co., Ltd. (SOLUTIONCRE)	Thailand	Manufacturing and distributing petrochemical products and health and nutrition products	100.00	100.00
Bio Spectrum Co., Ltd. (BIOSPEC)*	Thailand	Manufacturing and distributing biochemical products	100.00	100.00
Auria BioChemicals Co., Ltd. (AURIA)	Thailand	Research and development of bio-based chemicals	100.00	100.00
PTT Chemical International Pte. Ltd. (CHINTER)	Singapore	Investing and operating in international business	100.00	100.00

\* Under liquidation process

## 14.2 Details of subsidiaries and joint operations of the subsidiaries (Continued)

Company	Country of Incorporation	Business	Ownership interest (%)	
			2017	2016
<b>Subsidiaries of PTTGC Group (Continued):</b>				
GC Oxirane Co., Ltd. (GCO)	Thailand	Manufacturing and distributing petrochemicals products	100.00	-
GC Polyols Co., Ltd. (GCP)	Thailand	Manufacturing and distributing petrochemicals products	82.10	-
GC Treasury Co., Ltd. (GCTC)	Thailand	Treasury center for the Group's business	100.00	-
PTT Polymer Logistics Co., Ltd. (PTTPL)*	Thailand	Logistics services	100.00	50.00
PTT Polymer Marketing Co., Ltd. (PTTPM)*	Thailand	Petrochemicals marketing	100.00	50.00
PTTGC International (USA) Inc. (GCINTERUSA)	United States of America	Investing and operating in international business	100.00	100.00
Bangkok Polyethylene Plc. (BPE)**	Thailand	Manufacturing and distributing petrochemical products	-	100.00
Thai Fatty Alcohols Co., Ltd. (TFA)	Thailand	Manufacturing and distributing biochemical products	100.00	100.00
Myriant Corporation (MYRIANT)	United States of America	Research and development of bio-based chemicals	100.00	100.00

\* On July 3, 2017, the Company sold all shares in PTTPL and PTTPM to PTTGC.

\*\* Under liquidation process

## 14.2 Details of subsidiaries and joint operations of the subsidiaries (Continued)

Company	Country of Incorporation	Business	Ownership interest (%)	
			2017	2016
<b>Subsidiaries of PTTGC Group (Continued):</b>				
PTTGC America Corporation (AMERICACORP)	United States of America	Investing and operating in international business	100.00	100.00
PTTGC America LLC (AMERICALLC)	United States of America	Operating in petrochemical business	100.00	100.00
NPC S&E Security Guard Co., Ltd. (NPCSG)	Thailand	Safety services	100.00	100.00
Vencorex (Thailand) Co., Ltd. (VENCOREXTH)	Thailand	Manufacturing and distributing chemical specialties	100.00	100.00
Vencorex France S.A.S. (VCF)	France	Manufacturing and distributing chemical specialties	100.00	100.00
Vencorex Holding (VCR)	France	Manufacturing and distributing chemical specialties	90.82	85.00
PL Global Transport Co., Ltd. (PLGT)	Thailand	Transportation of polyethylene	100.00	-
Polymer Marketing DMCC Company Limited (PM DMCC)*	United Arab Emirates	Petrochemicals marketing	100.00	-

\* On July 3, 2017, the Company sold all shares in PTPL and PTPM to PTTGC.

## 14.2 Details of subsidiaries and joint operations of the subsidiaries (Continued)

Company	Country of Incorporation	Business	Ownership interest (%)	
			2017	2016
<b>Subsidiaries of TOP Group:</b>				
Thaioil Power Co., Ltd. (TP) (The Group holds 100% shareholding)	Thailand	Generation and supply of electricity and steam	73.99	73.99
Thai Paraxylene Co., Ltd. (TPX)	Thailand	Paraxylene manufacturing and distribution	99.99	99.99
Thai Lube Base Public Company Limited (TLB)	Thailand	Lube base oil refining and distribution	99.99	99.99
Thaioil Marine Co., Ltd. (TM)	Thailand	Providing marine transportation services for petroleum and liquid chemical products	99.99	99.99
Thaioil Ethanol Co., Ltd. (TET)	Thailand	Investing in ethanol business and alternative energy products	99.99	99.99
Thaioil Energy Services Co., Ltd. (TES)	Thailand	Providing human resource management	99.99	99.99
Thaioil Solvent Co., Ltd. (TOS)	Thailand	Investing in solvent and chemical businesses	99.99	99.99
TOP SPP Co., Ltd. (TOPSPP)	Thailand	Generation and supply of electricity and steam	99.99	99.99

## 14.2 Details of subsidiaries and joint operations of the subsidiaries (Continued)

Company	Country of Incorporation	Business	Ownership interest (%)	
			2017	2016
<b>Subsidiaries of TOP Group (Continued):</b>				
Thaioil Treasury Center Co., Ltd. (TTC)	Thailand	Treasury center for the Group's business	99.99	-
Sapthip Co., Ltd. (SAPTHIP)	Thailand	Ethanol products manufacturing and distribution	50.00	50.00
TOP Solvent Co., Ltd. (TS)	Thailand	Distribution of solvent and chemical products	99.99	99.99
Sak Chaisidhi Co., Ltd. (SAKC)	Thailand	Solvent and chemical products manufacturing and distribution	80.52	80.52
TOP Solvent (Vietnam) LLC. (TSV)	Vietnam	Distribution of solvent and chemical products	100.00	100.00
Thaioil Marine International Pte. Ltd. (TOMI)	Singapore	Investing in marine transportation for crude oil and petroleum product business	100.00	100.00
TOP Maritime Service Co., Ltd. (TMS)	Thailand	Providing marine transportation services for crew and utilities in Gulf of Thailand	55.00	55.00
LABIX Co., Ltd. (LABIX)	Thailand	Linear Alkyl Benzene manufacturing and distribution	75.00	75.00

## 14.2 Details of subsidiaries and joint operations of the subsidiaries (Continued)

Company	Country of Incorporation	Business	Ownership interest (%)	
			2017	2016
<b>Subsidiaries of IRPC Group:</b>				
Thai ABS Co., Ltd. (TABS)*	Thailand	Manufacturing and distributing of plastic resin	99.99	99.99
IRPC A&L Company Limited (IRPCAL)	Thailand	Manufacturing and distributing petrochemicals product	59.98	59.98
IRPC Oil Company Limited (OIRPC)	Thailand	Distributing of oil products and gas	99.99	99.99
Rak Phasak Company Limited (RAKPHASAK)	Thailand	Oil vessel rental service	99.99	99.99
IRPC Polyol Company Limited (IRPCP)	Thailand	Manufacturing and distributing of chemical products for polyurethanes	74.99	99.99
IRPC Technology Company Limited (TECHIRPC)	Thailand	Vocational school	99.99	99.99
R. Solution Co., Ltd. (IRPCS)**	Thailand	Service for security	99.50	99.50
TPI Internet Portal Co., Ltd. (TPIINTERNETPORTAL)***	Thailand	Distributing of oil products	99.99	99.99

\* On August 1, 2016, TABS transferred its entire business to IRPC and TABS also registered its dissolution with Ministry of Commerce on the same day.

\*\* Under bankruptcy process.

\*\*\* Under liquidation process.

## 14.2 Details of subsidiaries and joint operations of the subsidiaries (Continued)

Company	Country of Incorporation	Business	Ownership interest (%)	
			2017	2016
<b>Subsidiaries of PTTER Group:</b>				
PTT Mining Limited (PTTML)*	Hong Kong	Investing in other companies	-	100.00
Straits (Brunei) Pte. Ltd. (Straits (Brunei))*	Singapore	Investing in other companies	-	100.00
Sakari Resources Ltd. (SAR)*	Singapore	Investing in coal mine business	-	95.49
Yoxford Holdings (YOXFORD)*	Mauritius	Investing in other companies	-	100.00
Madagascar Consolidated Mining SA (MCM)*	Madagascar	Coal mines	-	80.00
Tiger Energy Trading Pte. Ltd. (TET)*	Singapore	Coal mine marketing	-	100.00
Sakari Energy Pte. Ltd. (SAEnergy)*	Singapore	Investing in other companies	-	100.00
Reyka Wahana Digdjaya Pte. Ltd. (RWD)*	Singapore	Investing in other companies	-	100.00
Sakari Energy Trading Pte. Ltd. (SET)*	Singapore	Investing in other companies	-	100.00
Sakari Marine & Infrastructure Pte. Ltd (SMI)*	Singapore	Marine engineering	-	100.00
PT Straits Consultancy Services (SCS)*	Indonesia	Management services	-	100.00
PT Bahari Perdana Persada (BPPD)*	Indonesia	Investing in other companies	-	100.00
PT Bahari Putra Perdana (BPPN)*	Indonesia	Investing in other companies	-	100.00
PT Reyka Wahana Digdjaya (RWD)*	Indonesia	Investing in other companies	-	100.00

\* On June 1, 2017, PTTER sold all shares in PTTML, Straits (Brunei), SAR, YOXFORD, MCM, TET, SAEnergy, RWD, SET, SMI, SCS, BPPD, BPPN and RWD to PTTGM.

## 14.2 Details of subsidiaries and joint operations of the subsidiaries (Continued)

Company	Country of Incorporation	Business	Ownership interest (%)	
			2017	2016
<b>Subsidiaries of PTTER Group (Continued):</b>				
PT Bahari Cakrawala Sebuk (BCS)*	Indonesia	Coal mines	-	100.00
PT Bumi Borneo Metalindo (BBM)*	Indonesia	Investing in other companies	-	100.00
PT Citra Pertiwi Nusantara (CPN)*	Indonesia	Coal transport equipment and delivery service	-	100.00
PT Bumiborneo Pertiwi Nusantara (BPN)*	Indonesia	Investing in other companies	-	100.00
PT Karbon Mahakam (KM)*	Indonesia	Coal mines	-	100.00
PT Metalindo Bumi Raya (MBR)*	Indonesia	Coal mines	-	100.00
PT Borneo Citrapertiwi Nusantara (BCN)*	Indonesia	Investing in other companies	-	100.00
PT Separi Energy (SE)*	Indonesia	Investing in other companies	-	100.00
PT Jembayan Muarabara (JMB)*	Indonesia	Coal mines	-	100.00
PT Kemilau Rindang Abadi (KRA)*	Indonesia	Coal mines	-	100.00
PT Arzara Baraindo Energitama (ABE)*	Indonesia	Coal mines	-	100.00
PT Cakrawala Abadi Jaya (CAJ)*	Indonesia	Investing in other companies	-	100.00
PT Sakti Utama Luas (SUL)*	Indonesia	Investing in other companies	-	100.00
Tri Tunggal Lestari Bersama (TTLB)*	Indonesia	Infrastructure business	-	100.00
PT Makassar Prima Coal (MPC)*	Indonesia	Coal mines	-	70.00

\* On June 1, 2017, PTTER sold all shares in BCS, BBM, CPN, BPN, KM, MBR, BCN, SE, JMB, KRA, ABE, CAJ, SUL, TTLB and MPC to PTTGM.

## 14.2 Details of subsidiaries and joint operations of the subsidiaries (Continued)

Company	Country of Incorporation	Business	Ownership interest (%)	
			2017	2016
<b>Subsidiaries of PTTER Group (Continued):</b>				
PTT International Holding Limited (PTTIH)*	Hong Kong	Investing in other companies	-	100.00
PTT International Investment Limited (PTTII)*	Hong Kong	Investing in other companies	-	100.00
PTT International (Singapore) Company Pte. Limited (PTT Inter (Sing))*	Singapore	Investing in other companies	-	100.00
<b>Subsidiaries of PTTGM Group:</b>				
PTT Mining Limited (PTTML)*	Hong Kong	Investing in other companies	100.00	-
Straits (Brunei) Pte. Ltd. (Straits (Brunei))*	Singapore	Investing in other companies	100.00	-
Sakari Resources Ltd. (SAR)*	Singapore	Investing in coal mine business	95.49	-
Yoxford Holdings (YOXFORD)*	Mauritius	Investing in other companies	100.00	-
Madagascar Consolidated Mining SA (MCM)*	Madagascar	Coal mines	80.00	-
Tiger Energy Trading Pte. Ltd. (TET)*	Singapore	Coal mine marketing	100.00	-
Sakari Energy Pte. Ltd. (SAEnergy)*	Singapore	Investing in other companies	100.00	-
Reyka Wahana Digdjaya Pte. Ltd. (RWD)*	Singapore	Investing in other companies	100.00	-
Sakari Energy Trading Pte. Ltd. (SET)*	Singapore	Investing in other companies	100.00	-

\* On June 1, 2017, PTTER sold all shares in PTTIH, PTTII, PTT Inter (Sing), PTTML, Straits (Brunei), SAR, YOXFORD, MCM, TET, SAEnergy, RWD and SET to PTTGM.

## 14.2 Details of subsidiaries and joint operations of the subsidiaries (Continued)

Company	Country of Incorporation	Business	Ownership interest (%)	
			2017	2016
<b>Subsidiaries of PTTGM Group (Continued):</b>				
Sakari Marine & Infrastructure Pte. Ltd. (SMI)*	Singapore	Marine engineering	100.00	-
PT Straits Consultancy Services (SCS)*	Indonesia	Management services	100.00	-
PT Bahari Perdana Persada (BPPD)*	Indonesia	Investing in other companies	100.00	-
PT Bahari Putra Perdana (BPPN)*	Indonesia	Investing in other companies	100.00	-
PT Reyka Wahana Digdjaya (RWD)*	Indonesia	Investing in other companies	100.00	-
PT Bahari Cakrawala Sebuk (BCS)*	Indonesia	Coal mines	100.00	-
PT Bumi Borneo Metalindo (BBM)*	Indonesia	Investing in other companies	100.00	-
PT Citra Pertiwi Nusantara (CPN)*	Indonesia	Coal transport equipment and delivery service	100.00	-
PT Bumiborneo Pertiwi Nusantara (BPN)*	Indonesia	Investing in other companies	100.00	-
PT Karbon Mahakam (KM)*	Indonesia	Coal mines	100.00	-
PT Metalindo Bumi Raya (MBR)*	Indonesia	Coal mines	100.00	-
PT Borneo Citrapertiwi Nusantara (BCN)*	Indonesia	Investing in other companies	100.00	-
PT Separi Energy (SE)*	Indonesia	Investing in other companies	100.00	-
PT Jembayan Muarabara (JMB)*	Indonesia	Coal mines	100.00	-

\* On June 1, 2017, PTTER sold all shares in SMI, SCS, BPPD, BPPN, RWD, BCS, BBM, CPN, BPN, KM, MBR, BCN, SE and JMB to PTTGM.

## 14.2 Details of subsidiaries and joint operations of the subsidiaries (Continued)

Company	Country of Incorporation	Business	Ownership interest (%)	
			2017	2016
<b>Subsidiaries of PTTGM Group (Continued):</b>				
PT Kemilau Rindang Abadi (KRA)*	Indonesia	Coal mines	100.00	-
PT Arzara Baraindo Energitama (ABE)*	Indonesia	Coal mines	100.00	-
PT Cakrawala Abadi Jaya (CAJ)*	Indonesia	Investing in other companies	100.00	-
PT Sakti Utama Luas (SUL)*	Indonesia	Investing in other companies	100.00	-
Tri Tunggal Lestari Bersama (TTLB)*	Indonesia	Infrastructure business	100.00	-
PT Makassar Prima Coal (MPC)*	Indonesia	Coal mines	70.00	-
PTT International Holding Limited (PTTIH)*	Hong Kong	Investing in other companies	100.00	-
PTT International Investment Limited (PTTII)*	Hong Kong	Investing in other companies	100.00	-
PTT International (Singapore) Company Pte. Limited (PTT Inter (Sing))*	Singapore	Investing in other companies	100.00	-
<b>Subsidiaries of PTTGE Group:</b>				
Sabran Brothers Pte. Ltd. (Sabran)	Singapore	Investing in other companies	100.00	100.00
Kalimantan Thailand Palm Pte. Ltd. (KTP)	Singapore	Investing in other companies	100.00	100.00
PTT Green Energy (Hong Kong) Limited (PTTGE HK)	Hong Kong	Financing	100.00	100.00
PTT Green Energy (Thailand) Co., Ltd. (PTTGE TH)	Thailand	Management services for PTTGE Group	100.00	100.00

\* On June 1, 2017, PTTER sold all shares in KRA, ABE, CAJ, SUL, TTLB, MPC, PTTIH, PTTII and PTT Inter (Sing) to PTTGM.

## 14.2 Details of subsidiaries and joint operations of the subsidiaries (Continued)

Company	Country of Incorporation	Business	Ownership interest (%)	
			2017	2016
<b>Subsidiary of BSA Group:</b>				
Sport Services Alliance Co., Ltd. (SSA)	Thailand	Football club management	100.00	100.00
Business Professional Solutions Co., Ltd. (BPS)	Thailand	Business management	100.00	-
<b>Subsidiary held by PTTEP and PTTER:</b>				
PTT FLNG Limited (PTT FLNG)*	Hong Kong	Petroleum	-	100.00
<b>Joint operations of PTTEP Group:</b>				
Carigali - PTTEPI Operating Company Sdn. Bhd. (CPOC)	Malaysia	Petroleum	50.00	50.00
Moattama Gas Transportation Company (MGTC)	Bermuda	Gas pipelines transportation	25.50	25.50
Taninthayi Pipeline Company LLC (TPC)	Cayman Islands	Gas pipelines transportation	19.32	19.32
Orange Energy Limited (Orange)	Thailand	Petroleum	53.95	53.95
B 8/32 Partners Limited (B8/32 Partners)	Thailand	Petroleum	25.00	25.00
Andaman Transportation Limited (ATL)	Cayman Islands	Gas pipeline transportation	80.00	80.00
Leismer Aerodrome Limited (LAL)	Canada	Air transportation services	32.00	32.00
Groupement Bir Seba (GBRS)	Algeria	Petroleum	35.00	35.00
Natuna 2 B.V. (Natuna 2)	Netherlands	Petroleum	50.00	50.00
Mozambique LNG1 Company Pte. Ltd. (MZ LNG1)	Singapore	Petroleum	8.50	-

\* Completely registered its dissolution on June 16, 2017.

## 14.3 Details of joint ventures and associates of subsidiaries

Company	Country of Incorporation	Business	Ownership interest (%)	
			2017	2016
<b>Joint Ventures</b>				
<b>PTTEP Group</b>				
Erawan 2 FSO Bahamas Limited (Erawan 2)	Bahamas	FSO rental service	13.11	13.11
<b>GPSC Group</b>				
Thai Solar Renewable Co., Ltd. (TSR)	Thailand	Investing in other companies	40.00	40.00
Nam Lik1 Power Co., Ltd. (NL1PC)	Laos	Production and distribution of electricity	40.00	40.00
Nava Nakorn Electricity Generating Co., Ltd. (NNEG)	Thailand	Production and distribution of electricity	30.00	30.00
<b>PTTOR Group</b>				
OGP Energy Solutions Company Limited (OGPS)*	Thailand	Supply of ready-to-use energy	-	40.00
<b>PTTGC Group</b>				
Thai Ethoxylate Co., Ltd. (TEX)	Thailand	Manufacturing and distributing petrochemicals products	50.00	50.00
Emery Oleochemical (M) Sdn. Bhd. (EOM)	Malaysia	Manufacturing and distributing biochemicals products	50.00	50.00
Emery Specialty Chemical Sdn. Bhd. (ESC)	Malaysia	Manufacturing and distributing chemical specialties	50.00	50.00

\* On June 26, 2017, PTTOR sold all shares in OGPS to PTTGM.

### 14.3 Details of joint ventures and associates of subsidiaries (Continued)

Company	Country of Incorporation	Business	Ownership interest (%)	
			2017	2016
<b>Joint Ventures (Continued)</b>				
<b>PTTGC Group (Continued)</b>				
NatureWorks LLC (NTR)	United States of America	Manufacturing and distributing bioplastic products	50.00	50.00
PTT MCC Biochem Co., Ltd. (PTTMCC)*	Thailand	Petrochemicals	50.00	-
PTT Asahi Chemicals Co., Ltd. (PTTAC)*	Thailand	Petrochemicals	50.00	-
HMC Polymers Co., Ltd. (HMC)*	Thailand	Petrochemicals	41.44	-
<b>TOP Group</b>				
TOP-NTL Pte. Ltd. (TOP-NTL)	Singapore	Fund management services	50.00	50.00
TOP-NTL Shipping Trust (TOP-NTL(BT))	Singapore	Investing in other companies	50.00	50.00
TOP-NYK MarineOne Pte. Ltd. (TOP-NYK)	Singapore	Marine transportation services	50.00	50.00
TOP Nautical Star Co., Ltd. (TOP-NS)	Thailand	Storage and marine transportation services	35.00	35.00
<b>IRPC Group</b>				
IRPC-PCC Co., Ltd. (IRPC-PCC)**	Thailand	Supply of petrochemicals	49.99	49.99
<b>PTTER Group</b>				
FEE (Bru) Pte. Ltd. (FEEBRU)***	Singapore	Coal mines	-	35.00

\* On July 3, 2017, the Company sold all shares in PTTMCC, PTTAC and HMC to PTTGC.

\*\* Under liquidation process.

\*\*\* On June 1, 2017, PTTER sold all shares in FEEBRU to PTTGM.

## 14.3 Details of joint ventures and associates of subsidiaries (Continued)

Company	Country of Incorporation	Business	Ownership interest (%)	
			2017	2016
<b>Joint Ventures (Continued)</b>				
<b>PTTGM Group</b>				
OGP Energy Solutions Company Limited (OGPS)*	Thailand	Supply of ready-to-use energy	40.00	-
FEE (Bru) Pte. Ltd. (FEEBRU)**	Singapore	Coal mines	35.00	-
<b>PTTGE Group</b>				
Chancellor Oil Pte. Ltd. (Chancellor)	Singapore	Investing in other companies	77.56	77.56
<b>Associates</b>				
<b>PTTEP Group</b>				
PTTEP AP Group's associates***	Australia	Airbase services	50.00	50.00
<b>GPSC Group</b>				
Bangpa-in Cogeneration Co., Ltd. (BIC)	Thailand	Generation and supply of electricity and steam	25.00	25.00
Xayaburi Power Co., Ltd. (XPCL)	Laos	Hydroelectric power plant	25.00	25.00
<b>PTTOR Group</b>				
FST Aviation Services Limited (FST)	Hong Kong	Aircraft refuelling services	25.00	25.00

\* On June 26, 2017, PTTOR sold all shares in OGPS to PTTGM.

\*\* On June 1, 2017, PTTOR sold all shares in FEEBRU to PTTGM.

\*\*\* Associates of PTTEP AP Group consist of Mungalalu Truscott Airbase Pty Ltd. and Troughton Island Pty Ltd.

### 14.3 Details of joint ventures and associates of subsidiaries (Continued)

Company	Country of Incorporation	Business	Ownership interest (%)	
			2017	2016
<b>Associates (Continued)</b>				
<b>PTTGC Group</b>				
PT Indo Thai Trading (ITT)	Indonesia	Petrochemicals	49.00	49.00
Vinythai Plc. (VNT)	Thailand	Petrochemicals	24.98	24.98
Eastern Fluid Transport Co., Ltd. (EFT)	Thailand	Infrastructure	22.65	22.65
Thai Eastern Topseeds Oil Co., Ltd. (TETSO)	Thailand	Petrochemicals	30.00	30.00
S.P. Petpack Inter Group Co., Ltd. (SPPETPACK)	Thailand	Petrochemicals	25.00	-
<b>TOP Group</b>				
T.I.M Ship Management Co., Ltd. (TIM)	Thailand	Marine transportation services	33.33	33.33
Maesod Clean Energy Co., Ltd. (MCE)*	Thailand	Manufacturing and distributing of Ethanol	-	30.00
Ubon Bio Ethanol Co., Ltd. (UBE)	Thailand	Manufacturing and distributing of Ethanol	21.28	21.28
<b>IRPC Group</b>				
UBE Chemicals (Asia) Public Co., Ltd. (UCHA)	Thailand	Manufacturing and distributing of Petrochemicals	25.00	25.00
<b>PTTER Group</b>				
East Mediterranean Gas Company S.A.E. (EMG)	Egypt	Natural gas transmission pipelines	25.00	25.00

\* On February 16, 2017, TET, subsidiary of TOP, disposed its all shares in MCE.

## 14.4 Investments in joint ventures in the consolidated financial statements as at December 31, 2017 and 2016

Unit: Million Baht

Company	Ownership interest (%)		2017		2016		Dividend income	
	2017	2016	Cost method	Equity method	Cost method	Equity method	2017	2016
1. TTM(T)	50.00	50.00	4,341.80	4,360.08	4,341.80	4,724.49	521.02	473.85
2. TTM(M)	50.00	50.00	1,001.31	1,299.72	1,001.31	1,294.15	76.58	164.32
3. DCAP	35.00	35.00	584.50	882.15	584.50	804.56	21.35	15.40
4. PTTMCC	50.00	50.00	930.12	459.98	930.12	551.43	-	-
5. PTTAC	50.00	50.00	6,909.41	6,555.07	6,909.41	4,310.62	-	-
6. HMC	41.44	41.44	9,117.12	12,849.21	9,117.12	12,315.37	2,194.99	2,692.76
7. Erawan 2	13.11	13.11	544.13	611.83	610.66	717.37	121.38	93.92
8. TSR	40.00	40.00	1,697.00	1,711.83	1,697.00	1,713.58	301.00	291.67
9. NL1PC	40.00	40.00	344.77	324.03	318.65	291.89	-	-
10. NNEG	30.00	30.00	480.90	588.63	480.90	466.58	-	-
11. TEX	50.00	50.00	210.00	708.82	210.00	688.24	71.40	70.88
12. EOM	50.00	50.00	4,965.77	4,526.47	4,965.77	5,101.78	-	-
13. ESC	50.00	50.00	407.04	-	407.04	81.61	-	-
14. NTR	50.00	50.00	4,793.33	2,486.60	4,793.33	3,236.20	1,018.00	-
15. TOP-NTL	50.00	50.00	0.25	11.32	0.25	10.08	-	-
16. TOP-NTL(BT)	50.00	50.00	24.05	43.00	24.05	27.86	-	-
17. TOP-NYK	50.00	50.00	273.88	420.36	273.88	440.83	34.00	26.48
18. TOP-NS	35.00	35.00	52.50	65.47	52.50	21.82	-	-
19. IRPC-PCC	49.99	49.99	5.00	5.68	5.00	11.02	5.50	-
20. OGPS	40.00	40.00	38.49	26.90	40.00	34.33	-	-
21. FEEBRU	35.00	35.00	214.84	135.18	235.55	148.21	-	-
22. Chancellor	77.56	77.56	2,971.00	1,297.74	3,257.34	1,422.81	-	-
			39,907.21	39,370.07	40,256.18	38,414.83		
Less Allowance for impairment			(3,185.83)	(1,432.92)	(3,492.89)	(1,571.02)		
Total			36,721.38	37,937.15	36,763.29	36,843.81	4,365.22	3,829.28

## 14.5 Investments in associates in the consolidated financial statements as at December 31, 2017 and 2016

Unit: Million Baht

Company	Ownership interest (%)		2017		2016		Dividend income	
	2017	2016	Cost method	Equity method	Cost method	Equity method	2017	2016
1. THAPPLINE	49.59	49.59	3,952.72	5,012.28	3,952.72	4,986.78	849.59	1,342.78
2. KPL	-	40.00	-	-	21.49	-	-	-
3. PAT	35.00	35.00	131.25	-	131.25	-	-	-
4. PTTEP AP Group's associates	50.00	50.00	48.94	229.97	53.66	249.98	-	4.00
5. BIC	25.00	25.00	923.75	812.20	673.44	492.02	20.29	40.58
6. XPCL	25.00	25.00	5,794.47	5,249.30	4,404.43	3,801.87	-	-
7. FST	25.00	25.00	0.76	1.39	0.85	1.56	-	-
8. ITT	49.00	49.00	125.28	200.67	125.28	148.22	-	-
9. VNT	24.98	24.98	3,297.39	4,632.40	3,297.39	4,210.33	133.22	118.42
10. EFT	22.65	22.65	2.27	19.53	2.27	15.64	7.25	7.25
11. TETSO	30.00	30.00	46.69	45.45	16.65	16.20	-	-
12. SPPETPACK	25.00	-	50.00	44.99	-	-	-	-
13. TIM	33.33	33.33	1.00	-	1.00	-	-	-
14. MCE	-	30.00	-	-	202.50	3.10	-	-
15. UBE	21.28	21.28	769.55	804.26	769.55	801.90	63.83	-
16. UCHA	25.00	25.00	5,299.82	4,927.18	5,299.82	4,701.98	-	-
17. EMG	25.00	25.00	15,977.09	12,858.69	17,516.97	14,098.01	-	-
			36,420.98	34,838.31	36,469.27	33,527.59		
Less Allowance for impairment			(16,108.34)	(12,858.69)	(17,669.71)	(14,098.01)		
Total			20,312.64	21,979.62	18,799.56	19,429.58	1,074.18	1,513.03

## 14.6 Investments in subsidiaries, joint ventures and associates in the separate financial statements as at December 31, 2017 and 2016

Unit: Million Baht

Company	Ownership interest (%)		Cost method		Dividend income	
	2017	2016	2017	2016	2017	2016
<b>Subsidiaries</b>						
1. PTTEP	65.29	65.29	71,390.42	71,390.42	10,367.45	7,127.62
2. PTTLNG	100.00	100.00	15,599.01	10,958.44	1,823.18	1,730.06
3. PTTNGD	58.00	58.00	418.14	418.14	870.00	-
4. PTTGL	50.00	-	5,210.72	-	-	-
5. EnCo	50.00	50.00	900.00	900.00	41.77	72.32
6. PTTES	40.00	40.00	62.50	62.50	-	-
7. PTTME	-	40.00	-	66.40	-	-
8. GPSC	22.58	22.58	4,949.93	4,949.93	389.01	355.18
9. PTTCL	100.00	100.00	103.49	103.49	-	-
10. PTTOM	100.00	100.00	16.15	16.15	-	-
11. PTTOR	100.00	100.00	8,621.67	8,621.67	-	-
12. PTT TANK	100.00	100.00	2,500.37	2,500.37	133.00	90.00
13. TLBC	48.95	48.95	140.00	140.00	3.50	8.68
14. PTTT	100.00	100.00	2.50	2.50	41.90	-
15. PTTT LDN	100.00	100.00	347.75	18.16	-	-
16. PTTPL	-	50.00	-	600.00	-	-
17. PTTPM	-	50.00	-	20.00	125.00	250.00
18. PTTGC	48.89	49.42	48,121.52	48,121.52	7,825.33	5,180.15
19. TOP	49.10	49.10	11,380.83	11,380.83	4,507.41	3,305.44
20. IRPC	38.51	38.51	28,467.24	28,467.24	1,810.03	1,731.33
21. TP	26.00	26.00	2,304.76	2,304.76	270.32	255.71
22. PTTTER	100.00	100.00	33,702.67	33,702.67	-	-
23. PTTGM	100.00	100.00	33,007.14	217.14	-	-
24. PTTGE	100.00	100.00	11,750.64	11,750.64	-	-

## 14.6 Investments in subsidiaries, joint ventures and associates in the separate financial statements as at December 31, 2017 and 2016 (Continued)

Unit: Million Baht

Company	Ownership interest (%)		Cost method		Dividend income	
	2017	2016	2017	2016	2017	2016
<b>Subsidiaries</b>						
<b>(Continued)</b>						
25. PTTRTC	100.00	100.00	31.40	31.40	-	-
26. BSA	100.00	100.00	0.50	0.50	40.00	17.02
27. PTT DIGITAL	20.00	20.00	30.00	30.00	15.60	13.00
Investments in subsidiaries			279,059.35	236,774.87		
<u>Less</u> Allowance for impairment			(60,130.02)	(26,414.37)		
Total			218,929.33	210,360.50	28,263.50	20,136.51
<b>Joint Ventures</b>						
28. TTM(T)	50.00	50.00	4,341.80	4,341.80	521.02	473.85
29. TTM(M)	50.00	50.00	1,001.31	1,001.31	76.58	164.32
30. DCAP	35.00	35.00	584.50	584.50	21.35	15.40
31. PTTMCC	-	50.00	-	930.13	-	-
32. PTTAC	-	50.00	-	6,909.41	-	-
33. HMC	-	41.44	-	9,117.12	414.35	2,692.76
Total			5,927.61	22,884.27	1,033.30	3,346.33
<b>Associates</b>						
34. THAPPLINE	40.40	40.40	3,173.23	3,173.23	699.28	1,095.44
35. KPL	-	40.00	-	21.49	-	-
36. PAT	35.00	35.00	131.25	131.25	-	-
Investments in subsidiaries			3,304.48	3,325.97		
<u>Less</u> Allowance for impairment			(131.25)	(152.74)		
Total			3,173.23	3,173.23	699.28	1,095.44
Total			228,030.17	236,418.00	29,996.08	24,578.28

## 14.7 Movements in investments in the consolidated and the separate financial statements

### 14.7.1 Movements in investments in joint ventures under the equity method in the consolidated financial statements are as follows:

Unit: Million Baht

	2017	2016
As at January 1	36,843.81	39,090.09
- Share of profit from investments in joint ventures	5,461.84	2,980.57
- Dividend income	(4,365.22)	(3,829.28)
- Additional investments	26.12	238.28
- Share capital reduction	(13.34)	(1,371.27)
- Share of other comprehensive income of joint ventures	115.23	361.07
- Currency translation differences	(131.29)	(5.14)
- Loss on impairment	-	(620.51)
As at December 31	37,937.15	36,843.81

### 14.7.2 Movements in investments in associates under the equity method in the consolidated financial statements are as follows:

Unit: Million Baht

	2017	2016
As at January 1	19,429.58	22,929.98
- Share of profit from investments in associates	1,848.57	1,162.64
- Dividend income	(1,074.18)	(1,513.03)
- Additional investments	1,720.40	1,099.19
- Disposal of investments	(12.00)	-
- Share capital reduction	-	(0.01)
- Share of other comprehensive income (loss) of associates	89.47	(161.85)
- Currency translation differences	(22.22)	(92.70)
- Loss on impairment	-	(3,994.64)
As at December 31	21,979.62	19,429.58

14.7.3 Movements in investments in subsidiaries, joint ventures and associates under the cost method in the separate financial statements are as follows:

Unit: Million Baht

	2017	2016
As at January 1	236,418.00	237,593.74
- Additional investments	42,970.88	1,874.81
- Disposal of investments	(17,643.06)	(887.49)
- Share capital reduction	-	(1,325.00)
- Loss on impairment (Note 21)	(33,715.65)	(838.06)
As at December 31	228,030.17	236,418.00

## 14.8 Summary financial information of the joint ventures of the Company, after accounting policy adjustment are as follows:

Statements of financial position as at December 31, 2017 and 2016

Unit: Million Baht

	2017						2016					
	TTM(T)	TTM(M)	DCAP	PTTAC	HMC	PTTMCC	TTM(T)	TTM(M)	DCAP	PTTAC	HMC	PTTMCC
Current assets	5,278.15	2,526.93	1,284.51	-	-	-	4,782.47	2,460.28	1,085.59	5,349.63	8,470.65	310.15
Non-current assets	15,091.41	5,335.01	2,309.95	-	-	-	17,874.66	5,976.71	2,641.13	23,574.36	26,997.10	3,318.36
Current liabilities	(2,250.66)	(1,189.42)	(626.44)	-	-	-	(1,573.98)	(771.59)	(605.68)	(3,624.13)	(3,869.78)	(301.50)
Non-current liabilities	(9,398.74)	(4,073.09)	(447.58)	-	-	-	(11,634.16)	(5,077.12)	(822.31)	(16,678.61)	(9,211.43)	(2,224.16)
Net assets	8,720.16	2,599.43	2,520.44	-	-	-	9,448.99	2,588.28	2,298.73	8,621.25	22,386.54	1,102.85

Statements of income for the years ended December 31, 2017 and 2016

Unit: Million Baht

	2017						2016					
	TTM(T)	TTM(M)	DCAP	PTTAC	HMC	PTTMCC	TTM(T)	TTM(M)	DCAP	PTTAC	HMC	PTTMCC
Revenues*	3,200.76	163.94	2,584.42	-	-	-	3,307.40	951.79	2,625.67	11,906.63	31,689.16	20.56
Expenses	(2,029.16)	(157.86)	(2,241.95)	-	-	-	(2,233.01)	(270.68)	(2,244.40)	(11,892.26)	(25,546.81)	(138.26)
Profit (loss) before taxes	1,171.60	6.08	342.47	-	-	-	1,074.39	681.11	381.27	14.37	6,142.35	(117.70)
Income taxes	26.94	(11.87)	(61.83)	-	-	-	(102.73)	(139.20)	(76.98)	2.48	(861.10)	-
Net profit (loss)	1,198.54	(5.79)	280.64	-	-	-	971.66	541.91	304.29	16.85	5,281.25	(117.70)

\* Including gain (loss) on foreign exchange rate

## 14.9 Summary financial information of the associates of the Company, after accounting policy adjustment are as follows:

Statements of financial position as at December 31, 2017 and 2016

Unit: Million Baht

	2017	2016
	THAPPLINE	THAPPLINE
Current assets	4,980.30	4,910.55
Non-current assets	6,248.42	6,293.28
Current liabilities	(579.07)	(610.50)
Non-current liabilities	(113.41)	(108.89)
Net assets	10,536.24	10,484.44

Financial information of PAT, associate of the Company, was disclosed in Note 14.11.

Statements of income for the year ended December 31, 2017 and 2016

Unit: Million Baht

	2017	2016
	THAPPLINE	THAPPLINE
Revenues*	3,504.35	3,517.90
Expenses	(1,269.93)	(1,229.87)
Profit before taxes	2,234.42	2,288.03
Income taxes	(452.52)	(459.79)
Net profit	1,781.90	1,828.24

Financial information of PAT, associate of the Company, was disclosed in Note 14.11.

\* Including gain (loss) on foreign exchange rate.

## 14.10 Significant events during the period ended December 31, 2017

### PTTLNG

On February 24, 2017, at the Board of Directors Meeting of PTT LNG Co., Ltd. (PTTLNG) No. 2/2017, the Board passed a resolution to approve the call up of additional share capital of Baht 1,864.56 million. The Company made the additional payment on March 31, 2017.

On April 24, 2017, at the Annual General Meeting of PTTLNG, the shareholders passed a resolution to increase 428 million authorized share capital, Baht 10 per share, amounting to Baht 4,280 million. PTTLNG called up share payments amounting to Baht 1,479.60 million, Baht 909.92 million and Baht 386.49 million. The Company made these payment on July 12, 2017, August 21, 2017 and December 28, 2017, respectively.

### PTTGM/ PTTER

On December 16, 2016, at the Board of Directors Meeting No. 12/2016 of the Company, the Board passed a resolution to approve a restructuring of the shareholding and financing of PTT Energy Resources Co., Ltd. (PTTER). Accordingly, PTT Global Management Co., Ltd. (PTTGM) purchased all shares of companies held by PTTER, except for East Mediterranean Gas Company S.A.E. (EMG). PTTGM called up share payments amounting to Baht 40 million, Baht 22,750 million and Baht 10,000 million. The Company made these payment on June 26, 2017, June 28, 2017 and September 13, 2017, respectively. PTTER also made loan and accrued interest repayments to the Company totaling USD 950.75 million or equivalent to Baht 31,773.44 million.

Following this restructuring of the shareholding and financing, the Company estimated the recoverable amount of the investments in PTTGM and PTTER using the discounted future cash flow method. As a result of the restructuring, as at December 31, 2017, the Company recorded loss on impairment of the investments in PTTGM amounting to Baht 14,062.46 million and PTTER amounting to Baht 19,442.23 million totaling Baht 33,504.69 million, and reversed allowance for doubtful accounts of PTTER amounting to Baht 34,692.27 million in the separate financial statements.

## 14.10 Significant events during the period ended December 31, 2017 (Continued)

### PTTGL

On May 19, 2017, at the Board of Directors Meeting No. 5/2017 of the Company, the Board passed a resolution to establish PTT Global LNG Co., Ltd. (PTTGL) as a joint venture company with PTTEP Business Center Company Limited (PTTEP BC) to carry out business related to Liquefied Natural Gas (LNG). PTTGL is held by PTT and PTTEP BC with each having equal shareholding of 50%.

PTTGL has a registered capital of Baht 8 million, consisting of 8,000 ordinary shares at Baht 1,000 per share. The Company made payment for the shares amounting to Baht 4 million on June 22, 2017. On August 15, 2017, PTTGL called up share payment amounting to Baht 5,206.72 million. The Company made the payment on August 23, 2017.

### PTTT LDN

On July 21, 2017, at the Board of Directors Meeting No. 7/2017 of the Company, the Board passed a resolution to increase the authorized share capital of PTT International Trading London Limited (PTTT LDN). On August 31, 2017, PTTT LDN called up share payment of 10 million additional shares at USD 1 per share amounting to USD 10 million or equivalent to Baht 329.59 million. The Company made the share payment on September 15, 2017.

## 14.11 Additional information in respect of associates

The Company has not recognized its share of profit (loss) from some associates for the year ended December 31, 2017 amounting to Baht 11.60 million (2016: Baht (28.67) million) because, as at December 31, 2017, the Company had an unrealized allowance for its share of loss from these associates amounting to Baht 16.37 million (December 31, 2016: Baht 102.97 million).

#### 14.12 Investments in subsidiaries, joint ventures and associates where voting rights and ownership interests differ are as follows:

Unit: Percentage

Company	Voting rights	Ownership
Associate THAPPLINE	49.22	49.21

#### 14.13 Material non-controlling interests

Financial information of subsidiaries that have material non-controlling interests are as follow:

Company	Country of Incorporation	Non-controlling interests Shareholding (%)	
		2017	2016
PTT Exploration and Production Public Co., Ltd. (PTTEP)	Thailand	34.71	34.71
Thai Oil Public Co., Ltd. (TOP)	Thailand	50.90	50.07
IRPC Public Co., Ltd. (IRPC)	Thailand	61.49	61.49
PTT Global Chemical Public Co., Ltd. (PTTGC)	Thailand	51.11	50.58
Global Power Synergy Public Co., Ltd. (GPSC)	Thailand	25.00	25.00

## 14.13 Material non-controlling interests (Continued)

Financial information of subsidiaries that have material non-controlling interests, after accounting policy adjustment, before eliminations:

Summary of financial position as at December 31, 2017 and 2016

Unit: Million Baht

	2017					2016				
	PTTEP	TOP	IRPC	PTTGC	GPSC	PTTEP	TOP	IRPC	PTTGC	GPSC
Current assets	188,400.09	126,211.39	47,904.09	140,737.59	9,917.98	185,972.83	115,730.64	39,970.19	127,513.47	11,665.02
Non-current assets	439,721.21	102,095.86	139,100.85	294,226.34	49,964.37	490,916.70	101,995.80	132,529.68	265,652.73	46,248.10
Current liabilities	(52,330.50)	(33,379.41)	(49,747.69)	(60,312.88)	(4,087.58)	(39,442.94)	(34,294.87)	(52,839.53)	(53,267.60)	(4,197.31)
Non-current liabilities	(199,416.07)	(67,766.12)	(49,344.61)	(94,386.95)	(15,506.92)	(229,462.67)	(71,829.57)	(39,666.03)	(91,229.84)	(15,076.86)
Net assets	376,374.73	127,161.72	87,912.64	280,264.10	40,287.85	407,983.92	111,602.00	79,994.31	248,668.76	38,638.95
Owners of the parent	220,759.68	60,016.47	33,804.00	134,383.81	28,845.59	242,078.98	53,366.84	30,774.60	121,578.77	27,775.64
Non-controlling interests	155,615.05	67,145.25	54,108.64	145,880.29	11,442.26	165,904.94	58,235.16	49,219.71	127,089.99	10,863.31

## 14.13 Material non-controlling interests (Continued)

Financial information of subsidiaries that have material non-controlling interests, after accounting policy adjustment, before eliminations: (Continued)

Summary of comprehensive income or loss for the years ended December 31, 2017 and 2016

Unit: Million Baht

	2017					2016				
	PTTEP	TOP	IRPC	PTTGC	GPSC	PTTEP	TOP	IRPC	PTTGC	GPSC
Revenue	152,581.15	342,932.86	215,899.17	448,789.57	21,286.62	150,689.32	277,244.03	181,553.68	352,433.97	21,784.83
Expenses	(126,014.73)	(312,078.03)	(201,085.09)	(402,699.27)	(17,689.69)	(127,744.87)	(253,355.23)	(172,530.25)	(323,528.82)	(18,772.62)
Profit before taxes	26,566.42	30,854.83	14,814.08	46,090.30	3,596.93	22,944.45	23,888.80	9,023.43	28,905.15	3,012.21
Income taxes	(5,986.95)	(5,529.49)	(2,181.34)	(3,863.24)	(256.76)	(10,084.73)	(2,295.46)	(282.42)	(3,025.09)	(140.23)
Net profit	20,579.47	25,325.34	12,632.74	42,227.06	3,340.17	12,859.72	21,593.34	8,741.01	25,880.06	2,871.98
Other comprehensive loss	(34,796.06)	(310.29)	(67.23)	(1,041.90)	(25.77)	(853.02)	(9.41)	(115.58)	(405.34)	(96.73)
Total comprehensive income (loss)	(14,216.59)	25,015.05	12,565.51	41,185.16	3,314.40	12,006.70	21,583.93	8,625.43	25,474.72	2,775.25
Owners of the parent	(9,281.50)	12,041.86	4,837.31	18,633.84	2,362.24	7,838.74	10,600.20	3,309.95	12,474.81	1,951.89
Non-controlling interests	(4,935.09)	12,973.19	7,728.20	22,551.32	952.16	4,167.96	10,983.73	5,315.48	12,999.91	823.36
Total dividend paid to NCI	5,512.39	4,607.79	2,912.16	8,550.66	430.76	3,788.96	3,376.83	2,777.74	5,693.02	393.30

## 14.13 Material non-controlling interests (Continued)

Financial information of subsidiaries that have material non-controlling interests, after accounting policy adjustment, before eliminations: (Continued)

Summary of cash flows for the years ended December 31, 2017 and 2016

Unit: Million Baht

	2017					2016				
	PTTEP	TOP	IRPC	PTTGC	GPSC	PTTEP	TOP	IRPC	PTTGC	GPSC
Cash flows from operating activities	89,704.08	33,985.38	20,385.01	58,395.96	3,152.97	80,480.38	23,181.63	7,227.46	44,490.25	4,130.09
Cash flows from investing activities	(85,783.66)	(30,073.51)	(11,240.33)	(36,821.84)	(2,362.97)	(95,999.99)	(18,348.15)	(10,689.87)	(111.18)	(1,049.28)
Cash flows from financing activities	(22,539.55)	(18,794.24)	(9,042.03)	(10,674.82)	(2,305.36)	(19,211.30)	(9,397.30)	1,928.77	(24,584.06)	(382.97)
Others	(5,037.92)	(614.97)	-	1,386.71	(14.34)	(292.39)	(76.22)	-	-	-
Net increase (decrease) in cash and cash equivalents	(23,657.05)	(15,497.34)	102.65	12,286.01	(1,529.70)	(35,023.30)	(4,640.04)	(1,533.64)	19,795.01	2,697.84

## 15. Other Long-term Investments

### 15.1 Details of other long-term investments are as follows:

Company	Country of Incorporation	Business	Ownership interest (%)	
			2017	2016
<b><u>Other Long-term Investments of the Company</u></b>				
<b><u>Long-term Investments in Equity Securities</u></b>				
Petro Asia (Sanshui) Co., Ltd. (PA (Sanshui))	China	Oil marketing	25.00	25.00
Petro Asia (Maoming) Co., Ltd. (PA (Maoming))	China	Oil marketing	20.00	20.00
Sarn Palung Social Enterprise Co., Ltd. (PTTSE) (The Group holds 100% shareholding)	Thailand	Social enterprise	20.00	-
Intoplane Services Co., Ltd. (IPS)	Thailand	Aircraft refuelling services	16.67	16.67
Colour Vision International Co., Ltd. (Corpus)	Thailand	Finished yarn production	0.48	0.48
Fuel Pipeline Transportation Co., Ltd. (FPT)*	Thailand	Oil transmission pipelines	-	-
<b><u>Long-term Investments in Debt Securities</u></b>				
Berli Jucker Public Co., Ltd. (BJC)	Thailand	Consumer products manufacturing and service		
Bangkok Dusit Medical Services Public Co., Ltd. (BDMS)	Thailand	Health care services		
Bangkok Mass Transit System Public Co., Ltd. (BTS)	Thailand	Transportation & logistics		
Indorama Ventures Public Co., Ltd. (IVL)	Thailand	Petrochemicals & chemicals		

\* As at December 31, 2017 and 2016 the Company holds 0.0000090% of ownership interest.

## 15.1 Details of other long-term investments are as follows: (Continued)

Company	Country of Incorporation	Business	Ownership interest (%)	
			2017	2016
<b>Other Long-term Investments of the Company</b>				
<b>(Continued)</b>				
<b>Long-term Investments in Debt Securities</b>				
<b>(Continued)</b>				
The Commercial Bank (P.S.Q.C.) (CBQ)	Qatar	Banking		
Bank of Ayudhya Public Co., Ltd. (BAY)	Thailand	Banking		
Emirates NBD (ENBD)	United Arab Emirates	Banking		
<b>Other Long-term Investments of Subsidiaries</b>				
<b>Long-term Investments in Equity Securities</b>				
<b>PTTEP Group</b>				
Sarn Palung Social Enterprise Co., Ltd. (PTTSE)	Thailand	Social enterprise	15.00	-
<b>PTTGL Group</b>				
Petronas LNG 9 Sdn. Bhd. (PL9SB)	Malaysia	LNG liquefaction	10.00	-
<b>GPSC Group</b>				
24M Technologies, Inc. (24M)	United States of America	Research and development of battery	18.00	19.00
Ratchaburi Power Co., Ltd. (RPCL)	Thailand	Electricity generation	15.00	15.00
Sarn Palung Social Enterprise Co., Ltd. (PTTSE)	Thailand	Social enterprise	10.00	-
<b>PTTOR Group</b>				
Sarn Palung Social Enterprise Co., Ltd. (PTTSE)	Thailand	Social enterprise	10.00	-
<b>PTTT Group</b>				
KIC Oil Terminal Sdn. Bhd. (KOT)	Malaysia	Logistics services	10.00	10.00
Kadriah Integrated Facilities Sdn. Bhd. (KIF)	Malaysia	Logistics services	10.00	10.00
Kadriah I Ltd. (K I)	Malaysia	Logistics services	10.00	10.00

## 15.1 Details of other long-term investments are as follows: (Continued)

Company	Country of Incorporation	Business	Ownership interest (%)	
			2017	2016
<b>Other Long-term Investments of Subsidiaries</b>				
<b>(Continued)</b>				
<b>Long-term Investments in Equity Securities</b>				
<b>(Continued)</b>				
<b>PTTT Group (Continued)</b>				
Kadriah II Ltd. (K II)	Malaysia	Logistics services	10.00	10.00
<b>PTTGC Group</b>				
Alliance Petrochemical Investment (Singapore) Pte. Ltd. (API)	Singapore	Investment in other companies	15.34	15.34
Exeltium SAS (EXS)	France	Electricity business	4.00	4.00
Sarn Palung Social Enterprise Co., Ltd. (PTTSE)	Thailand	Social enterprise	15.00	-
<b>TOP Group</b>				
Sarn Palung Social Enterprise Co., Ltd. (PTTSE)	Thailand	Social enterprise	15.00	-
<b>IRPC Group</b>				
TPI EOEG Co., Ltd. (TPIE)	Thailand	Finance service	36.31	36.31
TPI Holding Co., Ltd. (TPIH)	Thailand	Investment in other companies	35.01	35.01
Pornchai Enterprises Co., Ltd. (PEC)	Thailand	Real estate for rent	23.65	23.65
Thai Special Steel Industries Public Co., Ltd. (TSSI)	Thailand	Steel wire manufacturing	16.24	16.24
Rayong Acetylene Co., Ltd. (RAC)	Thailand	Industrial gas manufacturing	13.04	13.04
DIA Polyacrylate Co., Ltd. (DIA)	Thailand	Plastic resin manufacturing	3.65	3.65
Sarn Palung Social Enterprise Co., Ltd. (PTTSE)	Thailand	Social enterprise	15.00	-

## 15.2 Details of other long-term investments as at December 31, 2017 and 2016 are as follows:

Unit: Million Baht

Company	Ownership interest (%)		Cost/ Cost amortized				Dividends income	
			Consolidated financial statements		Separate financial statements			
	2017	2016	2017	2016	2017	2016	2017	2016
<b>Long-term investments in Equity Securities</b>								
1. PA (Sanshui)	25.00	25.00	6.06	6.06	6.06	6.06	-	-
2. PA (Maoming)	20.00	20.00	14.83	14.83	14.83	14.83	-	-
3. PTTSE	100.00	-	2.49	-	0.50	-	-	-
4. IPS	16.67	16.67	0.02	0.02	0.02	0.02	-	-
5. Corpus	0.48	0.48	0.60	0.60	0.60	0.60	-	-
6. FPT*	-	-	0.02	0.02	0.02	0.02	-	-
7. PL9SB	10.00	-	9,740.55	-	-	-	-	-
8. 24M	18.00	19.00	715.62	715.62	-	-	-	-
9. RPCL	15.00	15.00	888.75	888.75	-	-	270.00	420.00
10. KOT	10.00	10.00	114.83	125.90	-	-	-	-
11. KIF	10.00	10.00	47.59	52.17	-	-	-	-
12. K I	10.00	10.00	239.19	262.24	-	-	-	-
13. K II	10.00	10.00	63.93	70.10	-	-	-	-
14. API	15.34	15.34	290.24	290.24	-	-	-	14.11
15. EXS	4.00	4.00	282.88	282.88	-	-	-	-
16. TPIE	36.31	36.31	828.94	828.94	-	-	-	-
17. TPIH	35.01	35.01	1,415.90	1,415.90	-	-	-	-
18. PEC	23.65	23.65	1,118.95	1,118.95	-	-	-	-
19. TSSI	16.24	16.24	673.35	673.35	-	-	-	-
20. RAC	13.04	13.04	15.00	15.00	-	-	-	-
21. DIA	3.65	3.65	8.50	8.50	-	-	1.91	2.55
22. Other	-	-	2.00	0.50	-	-	-	-
Long-term investments in Equity Securities			16,470.24	6,770.57	22.03	21.53		
Less Allowance for impairment			(3,957.81)	(4,564.69)	(14.14)	(14.14)		
Total			12,512.43	2,205.88	7.89	7.39	271.91	436.66

\* As at December 31, 2017 and 2016, the Company holds 0.0000090% of ownership interest, totaling 66 shares, amounting to Baht 22,220.00.

## 15.2 Details of other long-term investments as at December 31, 2017 and 2016 are as follows: (Continued)

Unit: Million Baht

Company	Ownership interest (%)		Cost/ Cost amortized				Dividends income	
			Consolidated financial statements		Separate financial statements			
	2017	2016	2017	2016	2017	2016	2017	2016
<b>Long-term investments in Debt Securities</b>								
23. BJC			2,500.00	-	2,500.00	-	-	-
24. BDMS			420.70	-	420.70	-	-	-
25. BTS			451.10	-	451.10	-	-	-
26. IVL			500.00	-	500.00	-	-	-
27. CBQ			6,502.92	-	6,502.92	-	-	-
28. BAY			2,505.49	-	2,505.49	-	-	-
29. ENBD			2,276.02	-	2,276.02	-	-	-
Total			15,156.23	-	15,156.23	-	-	-
Total			27,668.66	2,205.88	15,164.12	7.39	271.91	436.66

### 15.3 Movements in other long-term investments are as follows:

Unit: Million Baht

	Consolidated financial statements		Separate financial statements	
	2017	2016	2017	2016
Long-term investments in Equity Securities				
As at January 1	2,205.88	1,969.13	7.39	7.39
- Additional investments	9,883.54	236.75	0.50	-
- Reversal of loss on impairment (Note 21)	562.00	-	-	-
- Currency translation differences	(138.99)	-	-	-
Long-term investments in Equity Securities as at December 31	12,512.43	2,205.88	7.89	7.39
Long-term investments in Debt Securities as at December 31	15,156.23	-	15,156.23	-
Total other long-term investments as at December 31	27,668.66	2,205.88	15,164.12	7.39

### 15.4 Significant events during the period ended December 31, 2017

#### PTTSE

On June 16, 2017, at the Board of Directors Meeting No. 6/2017 of the Company, the Board passed a resolution to approve the establishment of Sarn Palung Social Enterprise Co., Ltd. (PTTSE), which is the joint venture of PTT Public Co., Ltd., PTT Exploration and Production Public Co., Ltd., PTT Global Chemical Public Co., Ltd., IRPC Public Co., Ltd., Thai Oil Public Co., Ltd., Global Power Synergy Public Co., Ltd. and PTT Oil and Retail Business Co., Ltd. to support execution of social enterprise.

PTTSE has an initial registered share capital of Baht 10 million and the Company made these share payment amounting to Baht 0.50 million on September 5, 2017.

## 16. Investment Properties

Details of investment properties are as follows:

Unit: Million Baht

### Consolidated financial statements

	Land	Buildings and building improvements	Construction in progress	Total
<b>As at January 1, 2016</b>				
Cost	5,204.67	2,308.50	-	7,513.17
<u>Less</u> Accumulated depreciation	-	(871.20)	-	(871.20)
Allowance for impairment	(354.35)	-	-	(354.35)
Net book value	4,850.32	1,437.30	-	6,287.62
<b>For the year ended December 31, 2016</b>				
Beginning net book value	4,850.32	1,437.30	-	6,287.62
- Additions	7.85	26.64	-	34.49
- Reclassifications	-	12.43	-	12.43
- Disposals - net	(0.50)	(1.72)	-	(2.22)
- Depreciation for the year	-	(104.77)	-	(104.77)
Ending net book value	4,857.67	1,369.88	-	6,227.55
<b>As at December 31, 2016</b>				
Cost	5,212.02	2,343.68	-	7,555.70
<u>Less</u> Accumulated depreciation	-	(973.80)	-	(973.80)
Allowance for impairment	(354.35)	-	-	(354.35)
Net book value	4,857.67	1,369.88	-	6,227.55

## 16. Investment Properties (Continued)

Unit: Million Baht

### Consolidated financial statements

	Land	Buildings and building improvements	Construction in progress	Total
<b>For the year ended December 31, 2017</b>				
Beginning net book value	4,857.67	1,369.88	-	6,227.55
- Additions	1.29	13.24	6.16	20.69
- Reclassifications	4.82	27.02	(1.39)	30.45
- Disposals - net	(15.80)	(1.98)	-	(17.78)
- Depreciation for the year	-	(114.88)	-	(114.88)
- Reversal of loss on impairment (Note 21)	87.40	-	-	87.40
Ending net book value	4,935.38	1,293.28	4.77	6,233.43
<b>As at December 31, 2017</b>				
Cost	5,202.33	2,374.80	4.77	7,581.90
<u>Less</u> Accumulated depreciation	-	(1,081.52)	-	(1,081.52)
Allowance for impairment	(266.95)	-	-	(266.95)
Net book value	4,935.38	1,293.28	4.77	6,233.43

## 16. Investment Properties (Continued)

Unit: Million Baht

## Separate financial statements

	Land	Buildings and building improvements	Construction in progress	Total
<b>As at January 1, 2016</b>				
Cost	3,574.41	467.63	-	4,042.04
<u>Less</u> Accumulated depreciation	-	(199.51)	-	(199.51)
Net book value	3,574.41	268.12	-	3,842.53
<b>For the year ended December 31, 2016</b>				
Beginning net book value	3,574.41	268.12	-	3,842.53
- Additions	-	3.23	-	3.23
- Reclassifications	-	12.43	-	12.43
- Disposals - net	-	(1.46)	-	(1.46)
- Depreciation for the year	-	(17.17)	-	(17.17)
Ending net book value	3,574.41	265.15	-	3,839.56
<b>As at December 31, 2016</b>				
Cost	3,574.41	480.29	-	4,054.70
<u>Less</u> Accumulated depreciation	-	(215.14)	-	(215.14)
Net book value	3,574.41	265.15	-	3,839.56

## 16. Investment Properties (Continued)

Unit: Million Baht

Separate financial statements

	Land	Buildings and building improvements	Construction in progress	Total
<b>For the year ended December 31, 2017</b>				
Beginning net book value	3,574.41	265.15	-	3,839.56
- Additions	-	4.11	6.16	10.27
- Reclassifications	(3.35)	27.03	(1.39)	22.29
- Disposals - net	-	(1.98)	-	(1.98)
- Depreciation for the year	-	(19.01)	-	(19.01)
Ending net book value	3,571.06	275.30	4.77	3,851.13
<b>As at December 31, 2017</b>				
Cost	3,571.06	503.64	4.77	4,079.47
<u>Less</u> Accumulated depreciation	-	(228.34)	-	(228.34)
Net book value	3,571.06	275.30	4.77	3,851.13

## 17. Property, Plant and Equipment

Detail of property, plant and equipment are as follows:

Unit: Million Baht

### Consolidated financial statements

	Land	Buildings and building improvements	Machinery and equipment	Exploration and production properties	Mining Properties	Other assets	Construction in progress	Total
<b>As at January 1, 2016</b>								
Cost	31,069.00	238,685.22	810,411.63	896,762.59	62,153.94	21,551.73	163,846.46	2,224,480.57
<u>Less</u> Accumulated depreciation	-	(129,632.44)	(342,744.96)	(519,651.56)	(28,395.30)	(12,491.54)	-	(1,032,915.80)
Allowance for impairment	(214.38)	(203.00)	(2,426.68)	(43,711.35)	(14,606.29)	(12.29)	(2,535.45)	(63,709.44)
Net book value	30,854.62	108,849.78	465,239.99	333,399.68	19,152.35	9,047.90	161,311.01	1,127,855.33

## 17. Property, Plant and Equipment (Continued)

Unit: Million Baht

### Consolidated financial statements

	Land	Buildings and building improvements	Machinery and equipment	Exploration and production properties	Mining Properties	Other assets	Construction in progress	Total
<b>For the year ended December 31, 2016</b>								
Beginning net book value	30,854.62	108,849.78	465,239.99	333,399.68	19,152.35	9,047.90	161,311.01	1,127,855.33
- Additions	2,058.92	763.75	4,017.41	39,757.66	574.98	1,084.59	61,340.46	109,597.77
- Borrowing costs	-	-	-	-	-	-	2,807.53	2,807.53
- Reclassifications	2,689.22	37,549.35	83,080.47	2,115.52	38.18	1,088.91	(122,730.80)	3,830.85
- Disposals - net	(12.07)	(155.06)	(751.30)	(7,693.53)	(22.53)	(173.02)	(43.46)	(8,850.97)
- Depreciation for the year	-	(10,968.21)	(37,561.30)	(71,071.46)	(1,523.72)	(2,169.00)	-	(123,293.69)
- Loss on impairment	-	(0.71)	(0.55)	(1,636.35)	(126.56)	-	(42.89)	(1,807.06)
- Reversal of loss on impairment	4.70	5.80	33.56	-	-	-	109.07	153.13
- Currency translation differences	(14.25)	(71.63)	(239.25)	(2,979.53)	(153.10)	(2.61)	(129.86)	(3,590.23)
Ending net book value	35,581.14	135,973.07	513,819.03	291,891.99	17,939.60	8,876.77	102,621.06	1,106,702.66
<b>As at December 31, 2016</b>								
Cost	35,790.82	276,184.68	890,494.80	915,475.02	62,309.54	23,030.01	104,973.41	2,308,258.28
Less Accumulated depreciation	-	(140,015.22)	(375,016.81)	(579,593.92)	(29,739.50)	(14,153.24)	-	(1,138,518.69)
Allowance for impairment	(209.68)	(196.39)	(1,658.96)	(43,989.11)	(14,630.44)	-	(2,352.35)	(63,036.93)
Net book value	35,581.14	135,973.07	513,819.03	291,891.99	17,939.60	8,876.77	102,621.06	1,106,702.66

## 17. Property, Plant and Equipment (Continued)

Unit: Million Baht

### Consolidated financial statements

	Land	Buildings and building improvements	Machinery and equipment	Exploration and production properties	Mining Properties	Other assets	Construction in progress	Total
<b>For the year ended December 31, 2017</b>								
Beginning net book value	35,581.14	135,973.07	513,819.03	291,891.99	17,939.60	8,876.77	102,621.06	1,106,702.66
- Additions	4,183.63	3,109.69	13,977.09	48,607.48	988.64	983.82	46,142.24	117,992.59
- Borrowing costs	-	-	-	-	-	-	1,907.56	1,907.56
- Reclassifications	(40.64)	10,808.22	69,985.93	748.98	7.55	712.10	(82,934.42)	(712.28)
- Disposals - net	(1,512.38)	(130.94)	(585.82)	(2,857.05)	(615.21)	(61.88)	(284.52)	(6,047.80)
- Depreciation for the year	-	(11,400.46)	(40,701.22)	(54,131.68)	(1,521.34)	(2,191.35)	-	(109,946.05)
- Loss on impairment (Note 21)	-	(409.35)	(1,212.94)	-	(2,807.31)	(546.36)	(313.31)	(5,289.27)
- Reversal of loss on impairment (Note 21)	110.03	42.91	46.99	-	-	-	-	199.93
- Currency translation differences	(52.25)	(304.72)	(144.52)	(25,350.13)	(1,431.33)	(19.25)	(599.24)	(27,901.44)
Ending net book value	38,269.53	137,688.42	555,184.54	258,909.59	12,560.60	7,753.85	66,539.37	1,076,905.90
<b>As at December 31, 2017</b>								
Cost	38,369.18	288,813.65	966,165.37	879,673.52	53,209.26	23,852.24	68,250.88	2,318,334.10
<u>Less</u> Accumulated depreciation	-	(150,417.72)	(407,753.27)	(580,556.01)	(26,775.94)	(15,552.03)	-	(1,181,054.97)
Allowance for impairment	(99.65)	(707.51)	(3,227.56)	(40,207.92)	(13,872.72)	(546.36)	(1,711.51)	(60,373.23)
Net book value	38,269.53	137,688.42	555,184.54	258,909.59	12,560.60	7,753.85	66,539.37	1,076,905.90

As at December 31, 2017, the Group had pledged assets amounting to Baht 33,169.75 million (December 31, 2016: Baht 45,363.19 million.)

## 17. Property, Plant and Equipment (Continued)

Unit: Million Baht

### Separate financial statements

	Land	Buildings and building improvements	Machinery and equipment	Other assets	Construction in progress	Total
<b>As at January 1, 2016</b>						
Cost	8,595.14	39,071.27	329,012.29	13,277.50	46,271.34	436,227.54
<u>Less</u> Accumulated depreciation	-	(16,010.44)	(134,261.77)	(8,744.57)	-	(159,016.78)
Allowance for impairment	(22.07)	(4.70)	(681.67)	-	-	(708.44)
Net book value	8,573.07	23,056.13	194,068.85	4,532.93	46,271.34	276,502.32
<b>For the year ended December 31, 2016</b>						
Beginning net book value	8,573.07	23,056.13	194,068.85	4,532.93	46,271.34	276,502.32
- Additions	187.58	289.51	2,451.70	560.40	18,894.81	22,384.00
- Borrowing costs	-	-	-	-	1,055.04	1,055.04
- Reclassifications	2,690.29	2,426.32	21,704.51	817.23	(25,210.55)	2,427.80
- Disposals - net	-	(26.40)	(149.73)	(46.98)	-	(223.11)
- Depreciation for the year	-	(1,684.41)	(14,058.43)	(1,419.70)	-	(17,162.54)
- Loss on impairment	-	(0.16)	-	-	-	(0.16)
- Reversal of loss on impairment	4.70	4.70	8.83	-	-	18.23
Ending net book value	11,455.64	24,065.69	204,025.73	4,443.88	41,010.64	285,001.58
<b>As at December 31, 2016</b>						
Cost	11,473.01	41,570.53	348,960.01	14,496.95	41,010.64	457,511.14
<u>Less</u> Accumulated depreciation	-	(17,504.68)	(144,926.69)	(10,053.07)	-	(172,484.44)
Allowance for impairment	(17.37)	(0.16)	(7.59)	-	-	(25.12)
Net book value	11,455.64	24,065.69	204,025.73	4,443.88	41,010.64	285,001.58

## 17. Property, Plant and Equipment (Continued)

Unit: Million Baht

### Separate financial statements

	Land	Buildings and building improvements	Machinery and equipment	Other assets	Construction in progress	Total
<b>For the year ended December 31, 2017</b>						
Beginning net book value	11,455.64	24,065.69	204,025.73	4,443.88	41,010.64	285,001.58
- Additions	933.85	512.10	1,266.91	482.85	19,454.27	22,649.98
- Borrowing costs	-	-	-	-	843.85	843.85
- Reclassifications	369.24	5,298.92	34,058.18	334.21	(41,071.59)	(1,011.04)
- Disposals - net	(1,745.72)	(51.98)	(23.49)	(45.74)	-	(1,866.93)
- Depreciation for the year	-	(1,848.00)	(14,546.11)	(1,429.20)	-	(17,823.31)
- Loss on impairment (Note 21)	-	(53.00)	(36.32)	-	-	(89.32)
- Reversal of loss on impairment (Note 21)	17.37	0.16	7.59	-	-	25.12
Ending net book value	11,030.38	27,923.89	224,752.49	3,786.00	20,237.17	287,729.93
<b>As at December 31, 2017</b>						
Cost	11,030.38	47,075.51	383,419.77	15,128.11	20,237.17	476,890.94
Less Accumulated depreciation	-	(19,098.62)	(158,630.96)	(11,342.11)	-	(189,071.69)
Allowance for impairment	-	(53.00)	(36.32)	-	-	(89.32)
Net book value	11,030.38	27,923.89	224,752.49	3,786.00	20,237.17	287,729.93

Borrowing costs were capitalized as a part of costs of property, plant and equipment. For the year of 2017, the Group used capitalization rates ranging from 1.10% - 5.25% (2016: 1.50% - 5.75%).

## 17. Property, Plant and Equipment (Continued)

As at December 31, 2017 and 2016, details of other assets include vehicles and natural gas pipeline acquired under finance leases which were recorded as machinery and equipment are as follows:

Unit: Million Baht

	Consolidated financial statements		Separate financial statements	
	2017	2016	2017	2016
Cost	10,782.04	10,780.35	10,038.70	10,007.25
Less Accumulated depreciation	(4,655.80)	(4,109.59)	(4,273.61)	(3,719.78)
Net book value	6,126.24	6,670.76	5,765.09	6,287.47

## 18. Goodwill

Movements of goodwill are as follows:

Unit: Million Baht

	Consolidated financial statements	
	2017	2016
Net book value as at January 1	50,778.17	51,408.13
- Business acquisition	-	(15.98)
- Loss on impairment of assets (Note 21)	(795.61)	(336.17)
- Currency translation differences	(3,294.30)	(277.81)
Net book value as at December 31	46,688.26	50,778.17

## 19. Intangible Assets

Details of intangible assets are as follows:

Unit: Million Baht

### Consolidated financial statements

	Computer software	Right of use	Other Intangible assets	Total
<b>As at January 1, 2016</b>				
Cost	16,943.76	30,567.99	9,273.83	56,785.58
<u>Less</u> Accumulated amortization	(7,645.38)	(11,456.61)	(4,048.09)	(23,150.08)
Allowance for impairment	(11.82)	(122.02)	-	(133.84)
Net book value	9,286.56	18,989.36	5,225.74	33,501.66
<b>For the year ended December 31, 2016</b>				
Beginning net book value	9,286.56	18,989.36	5,225.74	33,501.66
- Business acquisition	118.87	-	-	118.87
- Additions	886.30	1,231.36	579.85	2,697.51
- Reclassifications	575.56	692.05	(430.86)	836.75
- Disposals - net	(17.69)	(32.63)	(22.22)	(72.54)
- Amortization for the year	(1,729.62)	(1,110.11)	(389.58)	(3,229.31)
- Loss on impairment	-	(319.36)	-	(319.36)
- Reversal of loss on impairment	-	32.63	-	32.63
- Currency translation differences	(6.83)	(41.01)	(18.04)	(65.88)
Ending net book value	9,113.15	19,442.29	4,944.89	33,500.33
<b>As at December 31, 2016</b>				
Cost	18,423.81	32,387.97	9,345.33	60,157.11
<u>Less</u> Accumulated amortization	(9,310.66)	(12,535.85)	(4,400.44)	(26,246.95)
Allowance for impairment	-	(409.83)	-	(409.83)
Net book value	9,113.15	19,442.29	4,944.89	33,500.33

## 19. Intangible Assets (Continued)

Unit: Million Baht

### Consolidated financial statements

	Computer software	Right of use	Other Intangible assets	Total
<b>For the year ended December 31, 2017</b>				
Beginning net book value	9,113.15	19,442.29	4,944.89	33,500.33
- Addition	889.65	270.51	731.62	1,891.78
- Reclassifications	1,293.48	71.97	(199.67)	1,165.78
- Disposals - net	(0.15)	(3.21)	(7.52)	(10.88)
- Amortization for the year	(1,853.24)	(1,088.12)	(430.46)	(3,371.82)
- Loss on impairment (Note 21)	-	(470.42)	(21.85)	(492.27)
- Currency translation differences	(307.51)	(18.27)	(249.46)	(575.24)
Ending net book value	9,135.38	18,204.75	4,767.55	32,107.68
<b>As at December 31, 2017</b>				
Cost	19,996.09	32,687.28	9,228.14	61,911.51
<u>Less</u> Accumulated amortization	(10,860.71)	(13,645.30)	(4,438.74)	(28,944.75)
Allowance for impairment	-	(837.23)	(21.85)	(859.08)
Net book value	9,135.38	18,204.75	4,767.55	32,107.68

## 19. Intangible Assets (Continued)

Unit: Million Baht

## Separate financial statements

	Computer software	Right of use	Other Intangible assets	Total
<b>As at January 1, 2016</b>				
Cost	4,665.38	19,732.16	52.50	24,450.04
<u>Less</u> Accumulated amortization	(2,522.91)	(7,280.35)	(2.66)	(9,805.92)
Net book value	2,142.47	12,451.81	49.84	14,644.12
<b>For the year ended December 31, 2016</b>				
Beginning net book value	2,142.47	12,451.81	49.84	14,644.12
- Additions	240.94	0.07	15.00	256.01
- Reclassifications	422.13	219.79	-	641.92
- Disposals - net	(0.49)	-	-	(0.49)
- Amortization for the year	(667.77)	(522.87)	(2.85)	(1,193.49)
Ending net book value	2,137.28	12,148.80	61.99	14,348.07
<b>As at December 31, 2016</b>				
Cost	5,324.86	19,952.02	67.50	25,344.38
<u>Less</u> Accumulated amortization	(3,187.58)	(7,803.22)	(5.51)	(10,996.31)
Net book value	2,137.28	12,148.80	61.99	14,348.07
<b>For the year ended December 31, 2017</b>				
Beginning net book value	2,137.28	12,148.80	61.99	14,348.07
- Additions	304.03	5.55	-	309.58
- Reclassifications	1,063.82	5.76	-	1,069.58
- Disposals - net	(0.16)	-	-	(0.16)
- Amortization for the year	(796.06)	(523.27)	(4.12)	(1,323.45)
Ending net book value	2,708.91	11,636.84	57.87	14,403.62
<b>As at December 31, 2017</b>				
Cost	6,691.53	19,963.08	67.50	26,722.11
<u>Less</u> Accumulated amortization	(3,982.62)	(8,326.24)	(9.63)	(12,318.49)
Net book value	2,708.91	11,636.84	57.87	14,403.62

## 20. Exploration and Evaluation Assets

Details of exploration and evaluation assets are as follows:

Unit: Million Baht

### Consolidated financial statements

	Petroleum exploration and evaluation assets	Mining properties	Total
<b>As at January 1, 2016</b>			
Cost	180,580.92	962.71	181,543.63
<u>Less</u> Allowance for impairment	(40,954.03)	(180.11)	(41,134.14)
Net book value	139,626.89	782.60	140,409.49
<b>For the year ended December 31, 2016</b>			
Beginning net book value	139,626.89	782.60	140,409.49
- Additions	696.37	6.78	703.15
- Reclassifications	(2,115.52)	(38.11)	(2,153.63)
- Disposals - net	(1,002.15)	-	(1,002.15)
- Loss on impairment	(50.85)	-	(50.85)
- Currency translation differences	(444.08)	(11.96)	(456.04)
Ending net book value	136,710.66	739.31	137,449.97
<b>As at December 31, 2016</b>			
Cost	178,484.00	918.13	179,402.13
<u>Less</u> Allowance for impairment	(41,773.34)	(178.82)	(41,952.16)
Net book value	136,710.66	739.31	137,449.97

## 20. Exploration and Evaluation Assets (Continued)

Unit: Million Baht

## Consolidated financial statements

	Petroleum exploration and evaluation assets	Mining properties	Total
<b>For the year ended December 31, 2017</b>			
Beginning net book value	136,710.66	739.31	137,449.97
- Additions	774.80	6.65	781.45
- Reclassifications	(749.00)	-	(749.00)
- Disposals - net	(46.31)	-	(46.31)
- Loss on impairment (Note 21)	(18,504.89)	-	(18,504.89)
- Currency translation differences	(10,110.27)	(61.23)	(10,171.50)
Ending net book value	108,074.99	684.73	108,759.72
<b>As at December 31, 2017</b>			
Cost	166,614.27	847.84	167,462.11
<u>Less</u> Allowance for impairment	(58,539.28)	(163.11)	(58,702.39)
Net book value	108,074.99	684.73	108,759.72

## 21. Impairment of Assets

The Group performs an impairment test on assets whenever events or circumstances suggest that the carrying amount of the assets may exceed its recoverable amount. For the intangible assets with an indefinite useful life or not yet available for use and goodwill from business combination, the Group shall perform impairment tests annually or when the indication exists. A loss on impairment is recognized when the recoverable amount of an asset is lower than its carrying amount. The recoverable amount is the higher of the asset's fair value less cost to sell and its value in use.

The loss on impairment of assets excluding the goodwill may be reversed if the estimates and assumptions applied in determining the recoverable amount change.

## 21. Impairment of Assets (Continued)

During the year 2017, the significant factors indicating that the assets of the Group may be impaired such as the risks from investing in non-operate or delay projects which not along with the plan, the change in business model of subsidiaries for the growth strategy, the business and financial restructuring of the Group, and significant changes in consumption patterns of assets and idle assets of the Group.

Determining recoverable amount, the Group applied significant estimations and assumptions relating to matters such as petroleum and coal reserves, oil and petrochemical prices, coal prices, foreign exchange rates, discount rates, capital expenditure, and operating expenditure.

During the year ended December 31, 2017, the Group recognized (reversal of) loss on impairment of assets in statements of income as follows:

	Unit: Million Baht	
	Consolidated financial statement	Separate financial statement
Investment in subsidiaries (Note 14.7.3)	-	33,715.65
Investment in other long-term investments (Note 15.3)	(562.00)	-
Investment property (Note 16)	(87.40)	-
Property, plant and equipment (Note 17)	5,089.34	64.20
Goodwill (Note 18)	795.61	-
Intangible assets (Note 19)	492.27	-
Exploration and evaluation assets (Note 20)	18,504.89	-
Other assets	614.93	1.51
Total	24,847.64	33,781.36

## 22. Income Taxes and Deferred Taxes

Applicable tax rates for the Group are as follows:

	Rates (%)
Petroleum income tax on petroleum business in Thailand pursuant to the Petroleum Income Tax Act, B.E. 2514 and B.E. 2532	50
Income tax under the Revenue Code of the Company and subsidiaries	20
Corporate income tax in foreign countries	5 - 50
Corporate income tax from the Petroleum business in the Thai-Malaysia co-development area under the Petroleum Income Tax Act (No. 5) B.E. 2541	0 - 20
Petroleum resource rent tax in Australia	40

### 22.1 Income taxes recognized in the statements of income for the years ended December 31, 2017 and 2016 are as follows:

Unit: Million Baht

	Consolidated financial statements		Separate financial statements	
	2017	2016	2017	2016
Current tax:				
Current tax	37,827.43	30,635.96	8,317.79	8,885.11
Adjustments in respect of current tax of previous year	(500.79)	1,146.50	(33.27)	898.99
	37,326.64	31,782.46	8,284.52	9,784.10
Deferred tax:				
Change in temporary differences	(3,495.81)	(3,442.61)	1,409.04	(711.33)
Tax effect of currency translation on tax base	(5,524.25)	(1,746.78)	-	-
	(9,020.06)	(5,189.39)	1,409.04	(711.33)
Total	28,306.58	26,593.07	9,693.56	9,072.77

## 22.2 Movements in deferred taxes are as follows:

Unit: Million Baht

### Consolidated financial statements

	Net balance as at January 1, 2017	Profit (Loss)	Other comprehensive income (loss)	Currency translation differences	Others	As at December 31, 2017		
						Net balance	Deferred tax assets	Deferred tax liabilities
Property, plant and equipment	(61,688.36)	(1,219.95)	-	4,938.73	-	(57,969.58)	7,530.41	(65,499.99)
Intangible assets	(137.23)	145.54	-	9.86	-	18.17	183.26	(165.09)
Investments	116.32	(60.57)	-	-	-	55.75	55.75	-
Available-for-sale investments	(1,879.21)	-	1,135.50	(0.12)	-	(743.83)	1.31	(745.14)
Trade and other accounts receivable	(2,176.04)	(971.71)	-	10.62	-	(3,137.13)	451.07	(3,588.20)
Inventories	150.01	27.35	-	0.05	-	177.41	183.10	(5.69)
Loans	224.60	(365.10)	-	-	-	(140.50)	-	(140.50)
Provision for employee benefit	5,566.50	492.69	177.69	(235.34)	-	6,001.54	6,002.23	(0.69)
Provision for decommissioning costs	19,587.23	2,160.44	-	(1,754.93)	-	19,992.74	19,992.74	-
Cumulative loss carried forward	3,434.21	3,929.02	33.31	(366.65)	-	7,029.89	7,029.89	-
Petroleum resource rent tax in Australia	2,484.13	-	-	(218.37)	-	2,265.76	2,265.76	-
Tax effect of currency translation on tax base	(3,528.80)	5,524.25	-	46.43	-	2,041.88	2,069.52	(27.64)
Others	4,407.45	(641.90)	(582.74)	505.24	25.35	3,713.40	4,505.71	(792.31)
Total before set-off of taxes	(33,439.19)	9,020.06	763.76	2,935.52	25.35	(20,694.50)	50,270.75	(70,965.25)
Set-off of taxes						-	(35,169.53)	35,169.53
Net deferred tax assets (liabilities)						(20,694.50)	15,101.22	(35,795.72)

## 22.2 Movements in deferred taxes are as follows: (Continued)

Unit: Million Baht

### Consolidated financial statements

	Net balance as at January 1, 2016	Profit (Loss)	Other comprehensive income (loss)	Business acquisition	Currency translation differences	As at December 31, 2016		
						Net balance	Deferred tax assets	Deferred tax liabilities
Property, plant and equipment	(54,229.89)	(7,423.02)	-	-	(35.45)	(61,688.36)	8,780.45	(70,468.81)
Intangible assets	(9,721.23)	9,621.30	-	(34.29)	(3.01)	(137.23)	230.76	(367.99)
Investments	61.46	54.86	-	-	-	116.32	116.32	-
Available-for-sale investments	(877.45)	-	(1,001.66)	-	(0.10)	(1,879.21)	0.08	(1,879.29)
Trade and other accounts receivable	(2,098.42)	(76.46)	-	-	(1.16)	(2,176.04)	416.33	(2,592.37)
Inventories	20.69	130.19	-	-	(0.87)	150.01	151.49	(1.48)
Loans	268.72	(44.12)	-	-	-	224.60	239.26	(14.66)
Provision for employee benefit	5,144.22	211.31	230.89	-	(19.92)	5,566.50	5,567.20	(0.70)
Provision for decommissioning costs	15,818.31	3,294.16	-	-	474.76	19,587.23	19,940.65	(353.42)
Cumulative loss carried forward	5,754.54	(2,643.27)	407.88	-	(84.94)	3,434.21	3,434.21	-
Petroleum resource rent tax in Australia	2,502.02	-	-	-	(17.89)	2,484.13	2,484.13	-
Tax effect of currency translation on tax base	(5,345.55)	1,747.39	-	-	69.36	(3,528.80)	253.28	(3,782.08)
Others	2,356.96	317.05	1,806.09	-	(72.65)	4,407.45	5,714.66	(1,307.21)
Total before set-off of taxes	(40,345.62)	5,189.39	1,443.20	(34.29)	308.13	(33,439.19)	47,328.82	(80,768.01)
Set-off of taxes						-	(36,747.62)	36,747.62
Net deferred tax assets (liabilities)						(33,439.19)	10,581.20	(44,020.39)

## 22.2 Movements in deferred taxes are as follows: (Continued)

Unit: Million Baht

### Separate financial statements

	Net balance as at January 1, 2017	Profit (Loss)	Other comprehensive income	As at December 31, 2017		
				Net balance	Deferred tax assets	Deferred tax liabilities
Property, plant and equipment	(560.33)	26.74	-	(533.59)	-	(533.59)
Intangible assets	136.51	(3.92)	-	132.59	132.59	-
Investments	115.35	(60.46)	-	54.89	54.89	-
Available-for-sale investments	(1,879.45)	-	1,134.64	(744.81)	-	(744.81)
Trade and other accounts receivable	(772.41)	(1,141.67)	-	(1,914.08)	443.89	(2,357.97)
Inventories	61.74	(0.03)	-	61.71	61.71	-
Loans	239.25	(363.77)	-	(124.52)	-	(124.52)
Provision for employee benefit	1,627.74	134.81	13.05	1,775.60	1,775.60	-
Others	819.21	(0.74)	-	818.47	1,031.79	(213.32)
Total before set-off of taxes	(212.39)	(1,409.04)	1,147.69	(473.74)	3,500.47	(3,974.21)
Set-off of taxes				-	(3,500.47)	3,500.47
Net deferred tax assets (liabilities)				(473.74)	-	(473.74)

## 22.2 Movements in deferred taxes are as follows: (Continued)

Unit: Million Baht

### Separate financial statements

	Net balance as at January 1, 2016	Profit (Loss)	Other comprehensive income (loss)	As at December 31, 2016		
				Net balance	Deferred tax assets	Deferred tax liabilities
Property, plant and equipment	(346.59)	(213.74)	-	(560.33)	-	(560.33)
Intangible assets	141.71	(5.20)	-	136.51	136.51	-
Investments	60.48	54.87	-	115.35	115.35	-
Available-for-sale investments	(877.96)	-	(1,001.49)	(1,879.45)	-	(1,879.45)
Trade and other accounts receivable	(682.04)	(90.37)	-	(772.41)	410.98	(1,183.39)
Inventories	60.26	1.48	-	61.74	61.74	-
Loans	275.53	(36.28)	-	239.25	239.25	-
Provision for employee benefit	1,352.12	103.02	172.60	1,627.74	1,627.74	-
Others	(78.34)	897.55	-	819.21	1,147.14	(327.93)
Total before set-off of taxes	(94.83)	711.33	(828.89)	(212.39)	3,738.71	(3,951.10)
Set-off of taxes				-	(3,738.71)	3,738.71
Net deferred tax assets (liabilities)				(212.39)	-	(212.39)

## 23. Other Non-current Assets

Details of other non-current assets as at December 31, 2017 and 2016 are as follows:

Unit: Million Baht

	Consolidated financial statements		Separate financial statements	
	2017	2016*	2017	2016*
Long-term other accounts receivable	2,007.67	5,087.19	1,217.04	2,772.04
Advance payments and deferred charge	23,112.41	29,943.86	4,690.90	5,993.48
Advance payments for gas purchases	559.86	1,529.68	620.62	1,777.46
Decommissioning fund	4,292.84	4,151.82	-	-
Others	6,374.01	7,211.49	167.26	135.94
Total	36,346.79	47,924.04	6,695.82	10,678.92

The Company made advance payments for some gas that cannot take-up as the minimum volumes committed in the Gas Sales Agreements (Take-or-Pay). The Company has the right to take those volumes of prepaid gas (Make-up Right) in subsequent years, with no maturity period.

As at December 31, 2017, advance payments for gas purchases comprised the balance of advance payments made for gas purchases, from the Yadana gas fields in Myanmar, for the untaken-up gas volumes in 2000.

\* The company has regrouped the financial information to be comparable with the current financial statement presentation.

## 24. Bank Overdrafts and Short-term Loans from Financial Institutions

As at December 31, 2017, the bank overdrafts and short-term loans from financial institutions bear interest at rates ranging from 1.61 % to 5.25% per annum (December 31, 2016: interest at rates range from 1.00% to 5.25% per annum).

## 25. Other Current Liabilities

Details of other current liabilities as at December 31, 2017 and 2016 are as follows:

Unit: Million Baht

	Consolidated financial statements		Separate financial statements	
	2017	2016	2017	2016
Undue output VAT	3,692.83	2,837.80	3,290.94	2,494.78
Provision for remuneration for the renewal of petroleum production	2,072.75	1,965.01	-	-
Others	3,192.93	3,158.26	1,274.88	895.35
Total	8,958.51	7,961.07	4,565.82	3,390.13

## 26. Long-term Loans

Details of long-term loans as at December 31, 2017 and 2016 are as follows:

Current portion of long-term loans

Unit: Million Baht

	Consolidated financial statements		Separate financial statements	
	2017	2016	2017	2016
Loans - Baht currency	13,742.71	17,970.11	14.51	4,143.52
Loans - foreign currencies	15,141.42	2,561.11	10,182.63	-
Debentures - Baht currency	26,049.47	22,820.12	18,549.47	8,136.00
Debentures - foreign currencies	10,562.90	19,775.03	-	11,208.06
Liabilities under finance leases	937.43	929.32	693.33	652.23
Total	66,433.93	64,055.69	29,439.94	24,139.81

## 26. Long-term Loans (Continued)

Long-term loans

Unit: Million Baht

	Consolidated financial statements		Separate financial statements	
	2017	2016	2017	2016
Loans - Baht currency	76,554.42	78,668.68	1,000.00	7,014.51
Loans - foreign currencies	36,598.69	51,583.34	6,753.49	18,321.48
Debentures - Baht currency	194,970.13	206,065.19	109,715.20	128,297.47
Debentures - foreign currencies	131,981.09	177,048.98	28,152.20	51,715.68
Liabilities under finance leases	4,815.33	5,900.71	4,494.58	5,554.54
Total	444,919.66	519,266.90	150,115.47	210,903.68

Long-term loans, including the current portion, outstanding as at December 31, 2017 and 2016 can be classified by types of interest rate as follows:

Unit: Million Baht

	Consolidated financial statements		Separate financial statements	
	2017	2016	2017	2016
Floating interest rate	129,584.07	137,231.35	10,182.63	21,260.77
Fixed interest rate	381,769.52	446,091.24	169,372.78	213,782.72
Total	511,353.59	583,322.59	179,555.41	235,043.49

## 26. Long-term Loans (Continued)

Interest rates charged on long-term loans as at December 31, 2017 and 2016 are as follows:

	Consolidated financial statements		Separate financial statements	
	2017	2016	2017	2016
Loans - Baht currency	0.50% - 7.83%	0.50% - 7.83%	0.50% - 7.83%	0.50% - 7.83%
Loans - Foreign currencies				
- US dollar	2.07% - 17.00%	1.85% - 17.00%	2.15%	2.54%
- EURO	2.50%	2.50% - 6.00%	-	-
- Japanese Yen	1.50% - 4.45%	1.50% - 4.45%	4.45%	4.45%
Debentures - Baht currency	2.21% - 6.80%	3.41% - 6.58%	3.50% - 6.80%	3.50% - 6.58%
Debentures - Foreign currencies				
- US dollar	3.63% - 6.51%	3.38% - 6.51%	4.50% - 5.88%	3.38% - 5.88%
- Japanese Yen	-	2.71%	-	2.71%
Liabilities under finance leases	3.60% - 12.00%	3.76% - 12.00%	3.76% - 4.65%	3.76% - 4.65%

## 26.1 Loans

Movements of loans in Baht currency and foreign currencies for year ended December 31, 2017 are as follows:

Unit: Million

### Consolidated financial statements

	Currency				Total in Baht equivalent
	Baht	USD	EURO	JPY	
As at January 1, 2017	96,638.79	1,149.51	126.32	26,160.94	150,783.24
- Additions	25,938.06	100.00	50.49	4,038.12	32,642.87
- Repayments	(32,122.78)	(141.27)	(10.48)	-	(37,413.55)
- Gain on exchange rates	-	-	-	-	(2,113.46)
- Currency translation differences	-	-	-	-	(1,862.25)
- Others	(156.94)	2.56	0.96	9.35	0.39
As at December 31, 2017	90,297.13	1,110.80	167.29	30,208.41	142,037.24
- Current portion	(13,742.71)	(444.67)	(10.69)	(419.99)	(28,884.13)
Long-term loans	76,554.42	666.13	156.60	29,788.42	113,153.11

Unit: Million

### Separate financial statements

	Currency			Total in Baht equivalent
	Baht	USD	JPY	
As at January 1, 2017	11,158.03	310.00	23,000.00	29,479.51
- Additions	-	100.00	-	3,552.86
- Repayments	(10,143.52)	(100.00)	-	(13,743.77)
- Gain on exchange rates	-	-	-	(1,337.97)
As at December 31, 2017	1,014.51	310.00	23,000.00	17,950.63
- Current portion	(14.51)	(310.00)	-	(10,197.14)
Long-term loans	1,000.00	-	23,000.00	7,753.49

## 26.1 Loans (Continued)

### Loans - Baht currency

As at December 31, 2017, details of long-term loan of the Company which is secured by the Ministry of Finance in Baht currency is as follows:

Currency	Principal (unit: million)	Interest rate percent (per annum)	Repayment terms
Baht	1,000	Fixed rate	Principle is repayable at the end of contract, in July 2020.

As at December 31, 2017, details of long-term loans from financial institutions of the subsidiaries in Baht currency are as follows:

Currency	Principal (unit: million)	Interest rate percent (per annum)	Repayment terms
Baht	5,000	Fixed rate	Principal is repayable every 3 months, totalling 39 instalments, commencing in March 2011.
Baht	10,000	6M FDR plus margin	Principal is repayable every 6 months, totalling 31 instalments, commencing in June 2018.
Baht	169	Fixed rate	Principal is repayable every 6 months, totalling 30 instalments, commencing in June 2017.
Baht	5,400	Highest rate on 6-month-fixed deposit plus margin	Principal is repayable every 6 months, totalling 10 instalments, commencing in June 2012.
Baht	4,600	6M THBFX plus margin	Principal is repayable every 6 months, totalling 10 instalments, commencing in June 2012.
Baht	3,700	3M THBFX plus margin	Principal is repayable every 6 months, totalling 10 instalments, commencing in July 2015.
Baht	10,000	Highest rate on 6-month-fixed deposit plus margin	Principal is repayable every 6 months, totalling 12 instalments, commencing in June 2016.
Baht	3,000	Highest rate on 6-month-fixed deposit plus margin	Principal is repayable every 6 months, totalling 10 instalments, commencing in September 2017.
Baht	4,000	Highest rate on 6-month-fixed deposit plus margin	Principal is repayable every 6 months, totalling 12 instalments, commencing in December 2018.
Baht	5,000	Highest rate on 6-month-fixed deposit plus margin	Principal is repayable every 6 months, totalling 10 instalments, commencing in June 2020.

## 26.1 Loans (Continued)

### Loans - Baht currency (Continued)

As at December 31, 2017, details of long-term loans from financial institutions of the subsidiaries in Baht currency are as follows: (Continued)

Currency	Principal (unit: million)	Interest rate percent (per annum)	Repayment terms
Baht	15,000	Highest rate on 6-month-fixed deposit plus margin	Principal is repayable every 6 months, totalling 10 instalments, commencing in November 2020.
Baht	2,500	6M THBFIX plus margin	Principal is repayable every 12 months, totalling 3 instalments, commencing in July 2016.
Baht	7,500	Highest rate on 6-month-fixed deposit plus margin	Principal is repayable every 6 months, totalling 15 instalments, commencing in August 2011.
Baht	7,000	Highest rate on 6-month-fixed deposit plus margin	Principal is repayable every 6 months, totalling 15 instalments, commencing in September 2013.
Baht	3,000	Highest rate on 6-month-fixed deposit plus margin	Principal is repayable every 6 months, totalling 14 instalments, commencing in March 2014.
Baht	3,000	6M THBFIX plus margin	Principle is repayable at the end of contract, in June 2020.
Baht	6,000	Highest rate on 6-month-fixed deposit plus margin	Principal is repayable every 6 months, totalling 10 instalments, commencing in March 2016.
Baht	5,000	6M THBFIX plus margin	Principle is repayable 2 times, in December 2020 and in June 2023.
Baht	6,320	Highest rate on 6-month-fixed deposit plus margin	Principal is repayable every 6 months, totalling 11 instalments, commencing in September 2013.
Baht	3,650	Highest rate on 6-month-fixed deposit plus margin	Principal is repayable every 6 months, totalling 17 instalments, commencing in September 2013.
Baht	7,000	Highest rate on 6-month-fixed deposit plus margin	Principal is repayable every 6 months, totalling 20 instalments, commencing in March 2017.
Baht	700	3M BIBOR plus margin	Principal is repayable every 3 months, totalling 16 instalments, commencing in September 2014.
Baht	1,000	Fixed rate	Principal is repayable every 3 months, totalling 16 instalments, commencing in September 2016.
Baht	700	3M BIBOR plus margin	Principal is repayable every 3 months, totalling 20 instalments, commencing in March 2016.
Baht	900	Highest rate on 6-month-fixed deposit plus margin	Principal is repayable every 6 months, totalling 14 instalments, commencing in April 2016.
Baht	900	Highest rate on 6-month-fixed deposit plus margin	Principal is repayable every 6 months, totalling 14 instalments, commencing in May 2016.
Baht	900	Highest rate on 6-month-fixed deposit plus margin	Principal is repayable every 6 months, totalling 12 instalments, commencing in May 2017.
Baht	500	Fixed rate	Principal is repayable every 3 months, totalling 33 instalments, commencing in June 2019.

## 26.1 Loans (Continued)

### Loans - Baht currency (Continued)

As at December 31, 2017, details of long-term loans from financial institutions of the subsidiaries in Baht currency are as follows: (Continued)

Currency	Principal (unit: million)	Interest rate percent (per annum)	Repayment terms
Baht	14,357	3M THBFIX plus margin	Principal is repayable every 6 months, totalling 24 instalments, commencing in February 2021.
Baht	6,004	3M THBFIX plus margin	Principal is repayable every 6 months, totalling 20 instalments, commencing in February 2021.
Baht	500	6M THBFIX plus margin	Principle is repayable at the end of contract in November 2020.
Baht	1,500	MLR minus discount	Principal is repayable every 6 months, totalling 12 instalments, commencing in September 2012.
Baht	300	MLR minus discount	Principal is repayable every 6 months, totalling 12 instalments, commencing in September 2012.
Baht	324	MLR minus discount	Principal is repayable every month, totalling 60 instalments, commencing in April 2012.
Baht	228	MLR minus discount	Principal is repayable every month, totalling 60 instalments, commencing in January 2013.
Baht	365	MLR minus discount	Principal is repayable every month, totalling 80 instalments, commencing in June 2014.
Baht	365	MLR minus discount	Principal is repayable every month, totalling 80 instalments, commencing in October 2014.
Baht	420	MLR minus discount	Principal is repayable every month, totalling 77 instalments, commencing in October 2016.
Baht	141	6M FDR plus margin	Principal is repayable every 6 months, totalling 8 instalments, commencing in June 2017.
Baht	3,875	THBFIX plus margin	Principal is repayable every 3 months, totalling 31 instalments, commencing in June 2016.
Baht	3,875	THBFIX plus margin	Principal is repayable every 3 months, totalling 31 instalments, commencing in June 2016
Baht	1,200	6M THBFIX plus margin	Principal is repayable every 6 months, totalling 12 instalments, commencing in June 2014.
Baht	1,800	6M FDR plus margin	Principal is repayable every 6 months, totalling 10 instalments, commencing in June 2015.

## 26.1 Loans (Continued)

### Loans – Foreign currency

As at December 31, 2017, details of long-term loans from financial institutions of the Company in foreign currency are as follows:

Currency	Principal (unit: million)	Interest rate percent (per annum)	Repayment terms
JPY	23,000	Fixed rate	Principal is repayable at the end of contract, in April 2036.
USD	210	3M LIBOR plus margin	Principal is repayable at the end of contract, in March 2018.
USD	100	3M LIBOR plus margin	Principal is repayable at the end of contract, in March 2018.

As at December 31, 2017, details of long-term loans from financial institutions of the subsidiaries in foreign currency are as follows:

Currency	Principal (unit: million)	Interest rate percent (per annum)	Repayment terms
JPY	8,503	JPY-LIBOR plus margin	Principal is repayable every 6 months, totalling 37 instalments, commencing in May 2018.
USD	75	LIBOR plus margin	Principal is repayable at the end of contract, in January 2018.
USD	100	LIBOR plus margin	Principal is repayable every 6 months, totalling 10 instalments, commencing in July 2015.
USD	500	LIBOR plus margin	Principal is repayable at the end of contract, in March 2021.
USD	75	LIBOR plus margin	Principal is repayable at the end of contract, in March 2021.
USD	100	6M LIBOR plus margin	Principal is repayable every 6 months, totalling 10 instalments, commencing in March 2016.
USD	600	1M LIBOR plus margin	Principal is repayable every month, totalling 327 instalments, commencing in February 2017.
EURO	190	3M EURIBOR plus margin	Principal is repayable every 12 months, totalling 6 instalments, commencing in 2017.

The Group has entered into derivative contracts on long-term loans to cover foreign currency exchange rates risks and interest rates risks as mentioned in Note 39.2 to Note 39.4.

## 26.2 Debentures

Movements of debentures in Baht currency and foreign currencies for the year ended December 31, 2017 are as follows:

Unit: Million

### Consolidated financial statements

	Currency			Total in Baht equivalent
	Baht	USD	JPY	
As at January 1, 2017	228,885.35	5,162.18	36,000.00	425,709.32
- Additions	15,000.00	-	-	15,000.00
- Repayments	(22,854.80)	(819.15)	(36,000.00)	(61,898.91)
- Gain on exchange rates	-	-	-	(8,187.67)
- Currency translation differences	-	-	-	(7,238.96)
- Others	(10.95)	3.98	-	179.81
As at December 31, 2017	221,019.60	4,347.01	-	363,563.59
- Current portion	(26,049.47)	(323.21)	-	(36,612.37)
Long-term debentures	194,970.13	4,023.80	-	326,951.22

Unit: Million

### Separate financial statements

	Currency			Total in Baht equivalent
	Baht	USD	JPY	
As at January 1, 2017	136,433.47	1,436.45	36,000.00	199,357.21
- Repayments	(8,168.80)	(581.15)	(36,000.00)	(38,950.03)
- Gain on exchange rates	-	-	-	(4,091.10)
- Others	-	1.77	-	100.79
As at December 31, 2017	128,264.67	857.07	-	156,416.87
- Current portion	(18,549.47)	-	-	(18,549.47)
Long-term debentures	109,715.20	857.07	-	137,867.40

## 26.2 Debentures (Continued)

### Debentures - Baht currency

As at December 31, 2017, the details of unsecured, subordinated debentures in Baht currency of the Company are as follows:

Currency	Principal (unit: million)	Par value (per share)	Period (years)	Interest rate percent (per annum)	Repayment terms
Baht	500	1,000	11	5.91	Interest is repayable every 6 months and mature in December 2018.
Baht	18,049	1,000	6 years 9 months 19 days	Year 1 - 4 : 4.00 Year 5 - 6 : 4.40 Year 7 : 5.50	Interest is repayable every 6 months and mature in November 2018.
Baht	1,000	1,000	15	5.90	Interest is repayable every 6 months and mature in May 2019.
Baht	15,000	1,000	6 years 11 months 24 days	Year 1 - 4 : 4.10 Year 5 - 6 : 5.10	Interest is repayable every 6 months and mature in May 2019.

## 26.2 Debentures (Continued)

### Debentures - Baht currency (Continued)

As at December 31, 2017, the details of unsecured, subordinated debentures in Baht currency of the Company are as follows: (Continued)

Currency	Principal (unit: million)	Par value (per share)	Period (years)	Interest rate percent (per annum)	Repayment terms
Baht	10,000	1,000	6 years 9 months 15 days	Year 1 - 4 : 4.10 Year 5 - 6 : 5.10	Interest is repayable every 6 months and mature in May 2019.
Baht	22,000	1,000	6 years 11 months 19 days	4.75	Interest is repayable every 6 months and mature in November 2020.
Baht	4,118	1,000	15	5.95	Interest is repayable every 6 months and mature in August 2020.
Baht	1,030	1,000	15	6.53	Interest is repayable every 6 months and mature in May 2021.
Baht	10,000	1,000	6 years 11 months	4.00	Interest is repayable every 6 months and mature in November 2021.
Baht	4,200	1,000	6 years 27 days	3.50	Interest is repayable every 6 months and mature in November 2021.
Baht	4,000	1,000	12	4.50	Interest is repayable every 6 months and mature in February 2022.
Baht	10,000	1,000	10	6.58	Interest is repayable at the maturity date and mature in September 2023.

## 26.2 Debentures (Continued)

### Debentures - Baht currency (Continued)

As at December 31, 2017, the details of unsecured, subordinated debentures with the debenture holders' early redemption right of the Company in Baht currency are as follows:

Currency	Principal (unit: million)	Par value (per share)	Period (years)	Interest rate percent (per annum)	Repayment terms
Baht	14,967	1,000	15	Year 1 - 5 : 5.00 Year 6 - 8 : 6.20 Year 9 - 15 : 6.80	Interest is repayable every 6 months and mature in March 2024. (The debenture holders can early redeem at the end of 8 <sup>th</sup> year.)
Baht	9,400	1,000	15	Year 1 - 5 : 4.25 Year 6 - 10 : 5.50 Year 9 - 15 : 5.75	Interest is repayable every 6 months and mature in July 2024. (The debenture holders can early redeem at the end of 10 <sup>th</sup> year.)
Baht	4,000	1,000	100	5.90	Interest is repayable every 6 months and mature in December 2110. (The debenture holders can early redeem at the end of 50 <sup>th</sup> and 75 <sup>th</sup> year and other cases specified in the regulations regarding the rights and obligations of the issuer and the debenture holders.)

## 26.2 Debentures (Continued)

### Debentures - Baht currency (Continued)

As at December 31, 2017, the details of unsecured, subordinated debentures in Baht currency of the subsidiaries are as follows:

Currency	Principal (unit: million)	Par value (per share)	Period (years)	Interest rate percent (per annum)	Repayment terms
Baht	3,500	1,000	4	2.21	Interest is repayable at the maturity date and mature in September 2021.
Baht	1,500	1,000	7	2.82	Interest is repayable at the maturity date and mature in September 2024.
Baht	5,000	1,000	6	4.76	Interest is repayable at the maturity date and mature in August 2018.
Baht	3,364	1,000	5	4.50	Interest is repayable at the maturity date and mature in May 2019.
Baht	6,890	1,000	7	4.96	Interest is repayable at the maturity date and mature in May 2021.
Baht	2,500	1,000	15	4.625	Interest is repayable every 6 months and mature in March 2018.
Baht	5,000	1,000	10	4.80	Interest is repayable every 3 months and mature in May 2019.
Baht	8,200	1,000	5	3.91	Interest is repayable every 6 months and mature in June 2019.
Baht	11,400	1,000	15	4.82	Interest is repayable every 6 months and mature in June 2029.
Baht	1,942	1,000	10	5.50	Interest is repayable every 6 months and mature in June 2019.
Baht	3,000	1,000	5	4.13	Interest is repayable every 6 months and mature in March 2019.
Baht	3,000	1,000	7	4.61	Interest is repayable every 6 months and mature in March 2021.

## 26.2 Debentures (Continued)

### Debentures - Baht currency (Continued)

As at December 31, 2017, the details of unsecured, subordinated debentures in Baht currency of the subsidiaries are as follows: (Continued)

Currency	Principal (unit: million)	Par value (per share)	Period (years)	Interest rate percent (per annum)	Repayment terms
Baht	7,000	1,000	10	4.84	Interest is repayable every 6 months and mature in March 2024.
Baht	10,000	1,000	7	4.50	Interest is repayable every 6 months and mature in August 2021.
Baht	3,000	1,000	12	4.80	Interest is repayable every 6 months and mature in April 2022.
Baht	7,500	1,000	15	5.05	Interest is repayable every 6 months and mature in March 2027.

As at December 31, 2017, the details of unsecured, subordinated debentures with the debenture holders' early redemption right of the subsidiaries in Baht currency are as follows:

Currency	Principal (unit: million)	Par value (per share)	Period (years)	Interest rate percent (per annum)	Repayment terms
Baht	10,000	1,000	4	3.05	Interest is repayable every 6 months and mature in August 2021.

## 26.2 Debentures (Continued)

### Debentures - Foreign currency

As at December 31, 2017, the details of unsecured, subordinated debentures in foreign currency of the Company are as follows:

Currency	Principal (unit: million)	Par value (per share)	Period (years)	Interest rate percent (per annum)	Repayment terms
USD	298	1,000	30	5.875	Interest is repayable every 6 months and mature in August 2035.
USD	571	1,000	30	4.50	Interest is repayable every 6 months and mature in October 2042.

As at December 31, 2017, the details of unsecured, subordinated debentures in foreign currency of the subsidiaries are as follows:

Currency	Principal (unit: million)	Par value (per share)	Period (years)	Interest rate percent (per annum)	Repayment terms
USD	323	1,000	5	3.707	Interest is payable every 6 months and mature in September 2018.
USD	700	1,000	10	5.692	Interest is payable every 6 months and mature in April 2021.
USD	490	1,000	30	6.35	Interest is payable every 6 months and mature in June 2042.
USD	1,000	1,000	10	4.25	Interest is payable every 6 months and mature in September 2022.
USD	500	1,000	10	3.625	Interest is payable every 6 months and mature in January 2023.
USD	500	1,000	20	4.875	Interest is payable every 6 months and mature in January 2023.

The Group has entered into derivative contracts on debentures to cover foreign currency exchange rates risks and interest rates risks as mentioned in Note 39.2 to Note 39.4.

## 26.3 Liabilities under finance leases

Details of liabilities under finance leases as at December 31, 2017 and 2016 are as follows:

Unit: Million Baht

	Consolidated financial statements		Separate financial statements	
	2017	2016	2017	2016
Liabilities under finance leases				
- Within 1 year	1,028.09	1,030.98	766.97	735.85
- Over 1 year but not over 5 years	2,396.64	2,780.07	2,058.62	2,417.06
- Over 5 years	2,743.15	3,507.32	2,743.15	3,507.31
Future finance charges	(415.12)	(488.34)	(380.83)	(453.45)
Present value of liabilities under finance leases	5,752.76	6,830.03	5,187.91	6,206.77
Present value of liabilities under finance leases				
- Current liabilities	937.43	929.32	693.33	652.23
- Non-current liabilities	4,815.33	5,900.71	4,494.58	5,554.54
Total	5,752.76	6,830.03	5,187.91	6,206.77

## 26.4 Maturities of long-term loans as at December 31, 2017 and 2016 are as follows:

Unit: Million Baht

	Consolidated financial statements					
	2017					
	Baht Currency Loans	Foreign Currency Loans	Baht Currency Debentures	Foreign Currency Debentures	Liabilities Under Finance Leases	Total
Within 1 year	13,742.71	15,141.42	26,049.47	10,562.90	937.43	66,433.93
Over 1 year but not over 5 years	51,316.90	27,351.64	129,215.78	55,570.48	2,187.41	265,642.21
Over 5 years	25,237.52	9,247.05	65,754.35	76,410.61	2,627.92	179,277.45
Total	90,297.13	51,740.11	221,019.60	142,543.99	5,752.76	511,353.59

## 26.4 Maturities of long-term loans as at December 31, 2017 and 2016 are as follows: (Continued)

Unit: Million Baht

### Consolidated financial statements

	2016					
	Baht Currency Loans	Foreign Currency Loans	Baht Currency Debentures	Foreign Currency Debentures	Liabilities Under Finance Leases	Total
Within 1 year	17,970.11	2,561.11	22,820.12	19,775.03	929.32	64,055.69
Over 1 year but not over 5 years	59,834.93	41,376.95	134,777.01	36,617.82	2,546.45	275,153.16
Over 5 years	18,833.75	10,206.39	71,288.18	140,431.16	3,354.26	244,113.74
Total	96,638.79	54,144.45	228,885.31	196,824.01	6,830.03	583,322.59

Unit: Million Baht

### Separate financial statements

	2017					
	Baht Currency Loans	Foreign Currency Loans	Baht Currency Debentures	Foreign Currency Debentures	Liabilities Under Finance Leases	Total
Within 1 year	14.51	10,182.63	18,549.47	-	693.33	29,439.94
Over 1 year but not over 5 years	1,000.00	-	71,348.00	-	1,866.66	74,214.66
Over 5 years	-	6,753.49	38,367.20	28,152.20	2,627.92	75,900.81
Total	1,014.51	16,936.12	128,264.67	28,152.20	5,187.91	179,555.41

## 26.4 Maturities of long-term loans as at December 31, 2017 and 2016 are as follows: (Continued)

Unit: Million Baht

### Separate financial statements

	2016					Total
	Baht Currency Loans	Foreign Currency Loans	Baht Currency Debentures	Foreign Currency Debentures	Liabilities Under Finance Leases	
Within 1 year	4,143.52	-	8,136.00	11,208.06	652.23	24,139.81
Over 1 year but not over 5 years	7,014.51	11,160.77	85,897.47	-	2,200.29	106,273.04
Over 5 years	-	7,160.71	42,400.00	51,715.68	3,354.25	104,630.64
Total	11,158.03	18,321.48	136,433.47	62,923.74	6,206.77	235,043.49

## 27. Provisions for Employee Benefit

Movements in the present value of provisions for employee benefit are as follows:

Unit: Million Baht

### Consolidated financial statements    Separate financial statements

	2017	2016	2017	2016
As at January 1	21,072.33	18,787.51	8,140.10	6,760.58
Service cost	1,676.40	1,519.84	681.99	534.21
Interest cost	596.11	547.23	274.96	225.65
Actuarial loss from provisions for post-employment benefit	1,023.08	1,136.39	65.27	863.03
Actuarial loss from provisions for other long-term employee benefit	103.01	54.82	6.16	12.67
Actual payment	(1,152.90)	(939.33)	(290.50)	(256.04)
Currency translation differences	(4.96)	(34.13)	-	-
As at December 31	23,313.07	21,072.33	8,877.98	8,140.10

## 27. Provisions for Employee Benefit (Continued)

Details of actuarial loss from provisions for post-employment benefit are as follows:

Unit: Million Baht

	Consolidated financial statements		Separate financial statements	
	2017	2016	2017	2016
Loss from experience adjustments	170.81	817.50	-	789.21
(Gain) loss from changes in financial assumptions	290.24	(4,703.06)	(33.43)	(4,792.10)
Loss from changes in demographic assumptions	562.03	5,021.95	98.70	4,865.92
Total	1,023.08	1,136.39	65.27	863.03

Expenses recognized in the statements of income and comprehensive income for the years ended December 31, 2017 and 2016 are as follows:

Unit: Million Baht

	Consolidated financial statements		Separate financial statements	
	2017	2016	2017	2016
Service cost	1,676.40	1,519.84	681.99	534.21
Interest cost	596.11	547.23	274.96	225.65
Actuarial loss	1,126.09	1,191.21	71.43	875.70
Total	3,398.60	3,258.28	1,028.38	1,635.56

## 27. Provisions for Employee Benefit (Continued)

Unit: Million Baht

	Consolidated financial statements		Separate financial statements	
	2017	2016	2017	2016
Cost of sales and services	656.33	721.05	144.80	121.15
Selling and distribution expenses	209.48	71.09	202.99	66.25
Administrative expenses	1,484.57	1,319.84	612.53	584.12
Management remuneration	25.14	9.91	2.79	1.01
Other comprehensive loss	1,023.08	1,136.39	65.27	863.03
Total	3,398.60	3,258.28	1,028.38	1,635.56

Principal actuarial assumptions used in determining the present value of provisions for post-employment benefit of the Group are as follows:

	Annual percentage (%)	
	2017	2016
Discount rate	1.40 - 6.24	1.00 - 7.90
Inflation rate	1.00 - 6.50	1.00 - 7.86
Employee turnover rate	0.00 - 15.00	0.00 - 15.00
Mortality rate	based on the published statistics of each country	based on the published statistics of each country

## 27. Provisions for Employee Benefit (Continued)

Sensitivity analysis of principal actuarial assumption used in determining the present value of provisions for post-employment benefit of the Group as at December 31, 2017 and 2016 are as follows:

Unit: Million Baht

	Increase (decrease) in present value of the provisions	
	2017	2016
Discount rate		
Increase 1%	(3,237.50)	(2,916.65)
Decrease 1%	4,448.39	4,051.18

Weighted average duration of the provisions for post-employment benefit of the Group for the year 2017 is 18.90 years (for the year 2016: 16.55 years).

## 28. Long-term Provision for Decommissioning Costs

Movements in the provision for decommissioning costs which will occur in the future are as follows:

Unit: Million Baht

	Consolidated financial statements	
	2017	2016
As at January 1	72,751.56	75,746.67
- Additional provision	11,621.49	4,527.35
- Use during the year	(824.35)	(528.09)
- Reversal of non-occurred provision	(1,982.25)	(6,418.12)
- Currency translation differences	(6,701.01)	(576.25)
As at December 31	74,865.44	72,751.56
- Current portion	-	-
- Long-term portion	74,865.44	72,751.56

## 29. Other Non-current Liabilities

Other non-current liabilities as at December 31, 2017 and 2016 are as follows:

Unit: Million Baht

	Consolidated financial statements		Separate financial statements	
	2017	2016*	2017	2016*
Long-term other accounts payable	4,155.12	4,700.34	4,045.35	4,585.13
Provision for remuneration for the renewal of petroleum production	6,373.27	9,099.33	-	-
Long-term liability: Make-up	10,495.80	10,089.42	10,495.80	10,089.42
Deferred revenue	14,002.78	21,901.45	6,342.08	7,266.25
Others	2,817.26	3,484.71	985.38	977.42
Total	37,844.23	49,275.25	21,868.61	22,918.22

Long-term liability (Make-up) arises from the amount of the difference between the natural gas price for the committed gas volumes that the Company paid in advance and the natural gas price as at the date of taking the gas that exceeds the interest paid for the advance payment for untaken-up gas volume (Take-or-Pay). The Company has to distribute the difference to the parties who paid for the Take-or-Pay interest for the Yadana and Yetagan gas fields.

\* The Company has regrouped the financial information to be comparable with the current financial statement presentation.

## 30. Share Capital

### 30.1 Share Capital - Authorized Shares

	Par Value (Baht per share)	The number of authorized shares (shares)	The value of authorized shares (Baht)
As at December 31, 2016	10	2,857,245,725	28,572,457,250
As at December 31, 2017	10	2,857,245,725	28,572,457,250

## 30.2 Share Capital - Issued and Paid-up Shares

	Number of issued and fully paid-up shares (shares)	Value of issued and fully paid-up shares (Baht)	Premium on Ordinary shares (Baht)	Total (Baht)
As at December 31, 2016	2,856,299,625	28,562,996,250	29,211,131,966	57,774,128,216
As at December 31, 2017	2,856,299,625	28,562,996,250	29,211,131,966	57,774,128,216

## 31. Reserves

### 31.1 Legal Reserve

Under the Public Limited Companies Act B.E. 2535, the Company is required to appropriate not less than 5% of its annual net profit as legal reserve until the reserve fund reaches 10% of the authorized share capital. The reserve is non-distributable. The Company's reserve has already reached the 10% of its authorized share capital, stipulated in the Act.

### 31.2 Reserve for Self-insurance Fund

Movements of reserves for self-insurance fund are as follows:

Unit: Million Baht

Consolidated financial statements    Separate financial statements

	2017	2016	2017	2016
Balance as at January 1	1,174.39	1,145.11	1,174.39	1,145.11
Appropriated during the years	25.60	29.28	25.60	29.28
Balance as at December 31	1,199.99	1,174.39	1,199.99	1,174.39

The self-insurance fund was set up to provide insurance coverage for the Company's business. The Company appropriates net profit from operations and the interest income of the self-insurance fund each year to the fund.

## 32. Basic Earnings per Share

Basic earnings per share for the years ended December 31, 2017 and 2016 are as follows:

Unit: Baht

	Consolidated financial statements		Separate financial statements	
	2017	2016	2017	2016
Profit attributable to owners of the parent				
from continuing operations	135,187,012,229	94,039,732,600	104,473,797,974	70,808,045,526
Adjustment of profit	(1,670,431,798)	(1,251,699,863)	-	-
Profit for calculation of earnings per share				
from continuing operations	133,516,580,431	92,788,032,737	104,473,797,974	70,808,045,526
Profit (loss) for calculation of earnings				
per share from continuing operations	(7,409,577)	569,345,640	-	-
Total profit	133,509,170,854	93,357,378,377	104,473,797,974	70,808,045,526
Number of weighted average of				
ordinary shares (shares)	2,856,299,625	2,856,299,625	2,856,299,625	2,856,299,625
Earnings per share from continuing operations				
(Baht/share)	46.74	32.48	36.58	24.79
Earnings per share from discontinued				
operations (Baht/share)	-	0.20	-	-
Earnings per share (Baht/share)	46.74	32.68	36.58	24.79

### 33. Sales and Service Income

Details of sales and service income for the years ended December 31, 2017 and 2016 are as follows:

Unit: Million Baht

	Consolidated financial statements		Separate financial statements	
	2017	2016	2017	2016
Oil products	1,176,823.54	955,098.93	1,063,863.70	937,419.90
Gas products	376,321.57	385,481.40	457,687.73	462,005.12
Petrochemicals products	384,770.99	318,839.37	28,899.40	32,955.13
Mining products	19,250.09	15,994.85	-	-
Non-oil businesses	13,639.54	11,773.68	8,564.63	6,825.20
Services	6,898.56	11,643.10	49.50	50.26
Others	18,017.78	20,014.71	315.47	137.88
Total	1,995,722.07	1,718,846.04	1,559,380.43	1,439,393.49

Sales and services income for the years ended December 31, 2017 and 2016 include sales to government agencies and state enterprises amounting to Baht 105,423.32 million and Baht 117,298.97 million in the consolidated financial statements, and Baht 90,145.20 million and Baht 106,279.70 million in the separate financial statements, respectively.

## 34. Other Income

Details of other income for the years ended December 31, 2017 and 2016 are as follows:

Unit: Million Baht

	Consolidated financial statements		Separate financial statements	
	2017	2016	2017	2016
Transportation income	4,994.49	5,033.33	7,391.26	7,749.19
Dividend income	5,008.55	797.96	34,730.34	24,937.11
Interest income	8,630.25	5,625.35	4,072.99	4,521.72
Compensation for loan interest on advance payments for gas purchases	(2.09)	(2.00)	(2.09)	(2.00)
Gain on disposal of investments	2,673.81	1,887.21	1,950.95	-
Gain (loss) on derivatives	692.73	(8,981.50)	2,438.12	181.35
Others	6,270.77	5,322.30	4,418.39	3,375.50
Total	28,268.51	9,682.65	54,999.96	40,762.87

Compensation for loan interests on advance payments for gas purchases (Take-or-Pay) represents the compensation, which the Company received from the Electricity Generating Authority of Thailand (EGAT) and the Independent Power Plants (IPP) in order to absorb the interests on loans that the Company obtains to make advance payments for gas purchases.

## 35. Expenses by Nature

Details of expenses by nature for the years ended December 31, 2017 and 2016 are as follows:

Unit: Million Baht

	Consolidated financial statements		Separate financial statements	
	2017	2016	2017	2016
Changes in finished goods and work in process	(3,554.65)	(3,957.87)	(4,076.89)	(5,809.65)
Goods purchased and raw materials used	1,503,068.32	1,265,007.76	1,430,602.45	1,323,745.55
Executive remunerations (Note 9.10)	1,355.36	1,242.60	150.89	112.89
Staff costs	49,151.50	43,766.96	10,683.41	9,651.28
Outsourcing	8,943.99	8,434.78	7,860.15	7,654.19
Transportation	16,953.80	17,955.37	6,485.87	6,708.15
Depreciation and amortization	116,289.18	128,733.80	19,507.03	18,674.80
Repairment	14,238.46	15,179.11	3,328.61	3,566.93
Utilities	12,607.66	12,439.22	11,045.99	11,703.90
Rental fees and property insurance premium	9,276.83	9,119.56	3,570.71	3,759.54
Petroleum exploration expenses	1,744.62	2,595.14	-	-
(Reversal of) doubtful accounts	(149.73)	276.28	(34,459.12)	5,153.80
Loss on impairment of assets	24,847.64	7,203.00	33,781.36	793.45
Others	34,287.45	31,395.09	9,504.92	6,657.40
<b>Total</b>	<b>1,789,060.43</b>	<b>1,539,390.80</b>	<b>1,497,985.38</b>	<b>1,392,372.23</b>

## 36. Petroleum Royalties and Remuneration

Details of petroleum royalties and remuneration for the years ended December 31, 2017 and 2016 are as follows:

Unit: Million Baht

	Consolidated financial statements	
	2017	2016
Petroleum royalties	13,877.33	13,266.05
Special remuneration benefits	-	304.38
Total	13,877.33	13,570.43

## 37. Finance Costs

Details of finance costs for the years ended December 31, 2017 and 2016 are as follows:

Unit: Million Baht

	Consolidated financial statements		Separate financial statements	
	2017	2016	2017	2016
Interest expenses:				
Loans from financial institutions	10,897.35	8,949.88	856.10	1,040.92
Debentures	13,625.10	15,082.98	8,006.47	9,155.62
Liabilities under finance leases	109.52	124.01	86.47	95.96
Others	3,076.56	3,442.51	1.60	1.27
Other finance costs	1,377.40	1,287.87	733.07	612.69
Total	29,085.93	28,887.25	9,683.71	10,906.46

## 38. Operating Segments

These operating segments are consistent with the internal management reports provided to the Chief Operating Decision Maker (CODM), who makes decisions related to the allocation of resources to the segments and assesses their performance.

For management purposes, the Group is organized into business units based on types of products and services. The major segments of the Group are as follows:

### Upstream Petroleum and Natural Gas Business Group

1. Petroleum exploration and production business:

The Group conducts petroleum exploration and production business both domestically and overseas. The Group is the operator and jointly invests with leading petroleum exploration and production companies. Most domestic projects are located in the Gulf of Thailand, while overseas projects are located in Asia Pacific, North America, Africa and the Middle East.

2. Natural gas business:

The Group conducts natural gas business including procurement, natural gas pipeline transmission, distribution, and natural gas separation. Products from the natural gas separation plants are used as feedstock for the petrochemical industry and as fuel in the household, transportation and industry sectors.

3. Coal business:

The Group conducts coal mining business, involving overseas exploration, production and distribution of coals.

### Downstream Petroleum Business Group

1. Oil business:

The Group conducts marketing of petroleum products and lube oil in both domestic and overseas markets under an efficient operating system of procurement, storage, and distribution of products as well as the retail business at service stations.

2. International trading business:

The Group conducts international trading business including the import and export of petroleum and petrochemical products as well as other related products. This includes the price risk management and international chartering.

3. Petrochemical and Refining business:

The Group conducts refining business including the production and distribution of petroleum and petrochemicals products in both domestic and overseas markets.

Other operations of the Group are included in other segments, none of which constitutes a separately reportable segment.

The Group reorganized operating segment: PTT TANK by transferring from Oil business segments to Petrochemicals and Refining business segment and PTTGM by transferring from Petrochemicals and Refining business segment to Coal business segment. In addition, The Group transferred Coal business segment to be under the Upstream Petroleum and Natural Gas Business Group, according to the business operation and internal management reporting. For comparability, the Group also reorganized the operating segments in 2016.

## 38. Operating Segments (Continued)

### Consolidated financial statements

For the year ended December 31, 2017

Unit: Million Baht

	Upstream petroleum and natural gas			Downstream petroleum			Others	Elimination	Total
	Petroleum exploration and production	Natural gas	Coal	Oil	International trading	Petrochemicals and Refining			
Sales - others	20,882.31	326,587.98	19,250.09	539,951.90	500,248.27	588,597.24	204.28	-	1,995,722.07
- related parties	126,842.35	139,050.22	325.05	7,343.88	435,367.41	362,130.15	4,750.27	(1,075,809.33)	-
Net sales	147,724.66	465,638.20	19,575.14	547,295.78	935,615.68	950,727.39	4,954.55	(1,075,809.33)	1,995,722.07
Gross profit (loss)*	125,450.52	100,450.00	7,998.46	34,723.87	3,079.59	144,131.22	(422.56)	(1,806.08)	413,605.02
EBITDA	105,468.39	89,401.59	6,113.97	19,597.99	527.24	124,058.77	(314.40)	541.66	345,395.21
Depreciation and amortization expenses	(55,769.82)	(18,887.94)	(1,890.34)	(4,143.70)	(33.31)	(34,519.22)	(1,044.85)	-	(116,289.18)
Segment operating profit (loss)	49,698.57	70,513.65	4,223.63	15,454.29	493.93	89,539.55	(1,359.25)	541.66	229,106.03
Share of profit from investments in joint ventures and associates	92.71	1,205.41	-	875.08	-	5,137.22	-	-	7,310.42
Reversal of (loss) on impairment of assets	(18,504.89)	(101.85)	(4,229.09)	5.28	-	(2,017.09)	-	-	(24,847.64)
Others	-	126.36	1.07	67.29	(0.23)	(281.09)	7,558.04	-	7,471.44
Unallocated revenue and expenses:									
Interest income									8,630.25
Gain on derivatives									692.73
Gain on foreign exchange rate									13,650.64
EBIT									242,013.87
Profit for the year									184,610.02

\* Gross profit (loss) excludes depreciation and amortization expenses in cost of sales.

## 38. Operating Segments (Continued)

### Consolidated financial statements

As at December 31, 2017

Unit: Million Baht

	Upstream petroleum and natural gas			Downstream petroleum			Others	Elimination	Total
	Petroleum exploration and production	Natural gas	Coal	Oil	International trading	Petrochemicals and Refining			
Segment assets	584,407.86	442,302.28	26,218.20	114,904.93	93,781.17	748,140.88	147,540.85	-	2,157,296.17
Inter-company assets	22,552.28	14,975.22	1,326.90	1,142.99	44,918.56	29,407.75	53,217.66	(167,541.36)	-
Investments in joint ventures and associates	841.80	15,254.85	-	5,013.67	-	38,806.45	-	-	59,916.77
Total segment assets	607,801.94	472,532.35	27,545.10	121,061.59	138,699.73	816,355.08	200,758.51	(167,541.36)	2,217,212.94
Non-allocated assets									15,101.22
Total assets									2,232,314.16
Segment liabilities	219,605.72	87,372.23	5,004.35	34,488.14	110,722.15	298,036.47	192,733.64	-	947,962.70
Inter-company liabilities	668.46	41,047.63	23,625.27	28,481.76	16,075.61	51,347.53	5,530.05	(166,776.31)	-
Total segment liabilities	220,274.18	128,419.86	28,629.62	62,969.90	126,797.76	349,384.00	198,263.69	(166,776.31)	947,962.70
Non-allocated liabilities									35,795.72
Total liabilities									983,758.42
Capital expenditure	49,911.49	24,094.42	1,941.52	9,685.63	193.90	34,977.64	865.00	-	121,669.60

## 38. Operating Segments (Continued)

### Consolidated financial statements

For the year ended December 31, 2016

Unit: Million Baht

	Upstream petroleum and natural gas			Downstream petroleum			Others	Elimination	Total
	Petroleum exploration and production	Natural gas	Coal	Oil	International trading	Petrochemicals and Refining			
Sales - others	21,358.25	328,078.96	15,994.85	478,544.83	379,143.87	495,540.31	184.97	-	1,718,846.04
- related parties	128,858.80	129,906.64	311.98	5,884.48	369,285.10	289,822.13	4,312.43	(928,381.56)	-
Net sales	150,217.05	457,985.60	16,306.83	484,429.31	748,428.97	785,362.44	4,497.40	(928,381.56)	1,718,846.04
Gross profit (loss)*	128,259.29	84,231.54	5,450.02	35,896.04	3,861.69	118,750.25	(412.44)	(1,872.98)	374,163.41
EBITDA	107,464.39	72,082.29	4,177.81	22,917.63	2,865.25	102,622.92	669.73	(273.98)	312,526.04
Depreciation and amortization expenses	(73,518.95)	(18,116.02)	(1,934.45)	(3,440.64)	(32.73)	(30,672.64)	(1,018.37)	-	(128,733.80)
Segment operating profit (loss)	33,945.44	53,966.27	2,243.36	19,476.99	2,832.52	71,950.28	(348.64)	(273.98)	183,792.24
Share of profit (loss) from investments in joint ventures and associates	73.71	1,203.99	(0.27)	896.87	-	1,969.21	(0.30)	-	4,143.21
Reversal of (loss) on impairment of assets	(1,688.29)	(4,086.04)	(310.65)	35.78	-	(655.53)	(498.27)	-	(7,203.00)
Others	872.10	418.19	1,171.37	16.42	6.27	59.61	(209.60)	-	2,334.36
Unallocated revenue and expenses:									
Interest income									5,625.35
Loss on derivatives									(8,981.50)
Gain on foreign exchange rate									4,472.68
EBIT									184,183.34
Profit for the year									129,575.09

\* Gross profit (loss) excludes depreciation and amortization expenses in cost of sales.

## 38. Operating Segments (Continued)

### Consolidated financial statements

As at December 31, 2016

Unit: Million Baht

	Upstream petroleum and natural gas			Downstream petroleum			Others	Elimination	Total
	Petroleum exploration and production	Natural gas	Coal	Oil	International trading	Petrochemicals and Refining			
Segment assets	653,353.23	411,369.32	32,336.26	96,666.99	96,337.48	714,989.76	160,423.45	-	2,165,476.49
Inter-company assets	14,085.07	12,230.93	434.91	1,293.28	38,582.19	24,366.16	89,648.96	(180,641.50)	-
Investments in joint ventures and associates	967.35	13,623.46	-	4,988.34	-	36,694.24	-	-	56,273.39
Total segment assets	668,405.65	437,223.71	32,771.17	102,948.61	134,919.67	776,050.16	250,072.41	(180,641.50)	2,221,749.88
Non-allocated assets									10,581.20
Total assets									2,232,331.08
Segment liabilities	229,580.96	88,524.87	4,596.39	31,301.25	117,536.15	295,155.49	250,018.57	-	1,016,713.68
Inter-company liabilities	677.52	35,040.08	62,395.62	24,273.66	8,757.47	44,595.54	3,912.94	(179,652.83)	-
Total segment liabilities	230,258.48	123,564.95	66,992.01	55,574.91	126,293.62	339,751.03	253,931.51	(179,652.83)	1,016,713.68
Non-allocated liabilities									44,020.39
Total liabilities									1,060,734.07
Capital expenditure	41,067.07	25,958.73	1,039.34	7,673.76	152.86	36,317.66	823.50	-	113,032.92

Pricing among business groups is based on normal market prices except for pricing among business groups within the Company, for which net market prices, after deducting management fees for petroleum terminals and operating fees, are applied.

## 39. Disclosure of Financial Instruments

The Group faces the principal financial risks associated with fluctuations in exchange rates, interest rates, and global oil market prices. The Group also has certain portions of sales, purchases and loans for operations nominated in foreign currencies which are paid in both fixed and floating interest rates. Accordingly, the management has entered into derivative contracts to cover these risks. The financial instruments used for hedging risks are forward foreign exchange contracts, interest rate swap contracts, cross-currency swap contracts, participating swap contracts etc. Risk exposure relating to global oil market prices is managed by forward oil contracts.

The department responsible for managing exposure to exchange rate risks and fluctuations in oil market prices has to report details of the costs and market prices of all financial instruments to management, including outstanding forward foreign exchange contracts and forward oil contracts. The reported information principally covers risk exposure from:

- foreign exchange rate risk
- currency risk
- currency and interest rate risk
- interest rate risk
- fluctuation in oil market price risk
- credit risk

## 39.1 Foreign Exchange Rate Risk

The Group has entered into forward foreign exchange contracts. The contract prices and exchange rates under the forward foreign exchange contracts as at December 31, 2017 and 2016 are as follows:

Unit: Million Baht

Consolidated financial statements

	2017	2016
Forward foreign exchange purchase contracts		
Baht 0.3088 - 0.3224 = 1 JPY	513.92	-
Baht 32.3700 - 36.1775 = 1 USD	70,122.18	-
Baht 34.6210 - 36.6700 = 1 USD	-	56,544.13
Baht 36.9500 - 40.3900 = 1 EUR	-	182.38
Baht 38.5400 - 40.3900 = 1 EUR	27.72	-
Baht 105.8000 - 106.8000 JPY = 1 USD	-	18.10
Forward foreign exchange sale contracts		
Baht 32.2340 - 38.3101 = 1 USD	51,918.08	-
Baht 34.6670 - 36.0880 = 1 USD	-	60,115.62
Baht 37.9516 - 37.9769 = 1 EUR	-	0.18
Baht 38.4370 - 38.6057 = 1 EUR	20.81	-

### 39.1 Foreign Exchange Rate Risk (Continued)

Unit: Million Baht

Separate financial statements

	2017	2016
Forward foreign exchange purchase contracts		
Baht 32.4747 - 33.1884 = 1 USD	21,116.03	-
Baht 34.9507 - 36.0642 = 1 USD	-	18,206.61
Forward foreign exchange sale contracts		
Baht 32.2340 - 38.3101 = 1 USD	41,036.11	-
Baht 34.6670 - 36.0200 = 1 USD	-	42,378.86

### 39.2 Currency Risk

The Group has entered into a cross-currency swap contracts of a long-term loan in the form of a participating swap contracts. The terms of such contract as at December 31, 2017 and 2016 are as follows:

Unit: Million Baht

Consolidated financial statements    Separate financial statements

	Consolidated financial statements		Separate financial statements	
	2017	2016	2017	2016
JPY 23,000 million/USD 196.94 million	6,753.49	7,160.71	6,753.49	7,160.71

This contract has a maturity later than five years.

### 39.3 Currency and Interest Rate Risk

The Group has entered into cross-currency swap contracts of other long-term investments, long-term loans and debentures. The terms of the outstanding cross-currency swap contracts as at December 31, 2017 and 2016 are as follows:

Unit: Million Baht

	Consolidated financial statements		Separate financial statements	
	2017	2016	2017	2016
Baht 2,636 million/USD 79.45 million	-	2,636.00	-	2,636.00
Baht 4,000 million/USD 120.55 million	4,000.00	4,000.00	4,000.00	4,000.00
Baht 3,000 million/USD 99.66 million	-	3,000.00	-	3,000.00
Baht 9,000 million/USD 285.42 million	9,000.00	9,000.00	9,000.00	9,000.00
Baht 2,500 million/USD 81.43 million	-	2,500.00	-	-
Baht 2,640 million/USD 85.59 million	-	3,081.50	-	-
Baht 5,000 million/USD 162.60 million	5,000.00	5,854.07	-	-
Baht 2,234.32 million/USD 64.10 million	-	2,234.32	-	-
Baht 2,113.43 million/USD 61.75 million	-	2,113.43	-	-
Baht 3,372.70 million/USD 100.00 million	3,372.70	-	-	-
Baht 6,777.40 million/USD 200.00 million	6,777.40	-	-	-
Baht 27,100 million/USD 844.85 million	27,100.00	27,100.00	-	-
USD 70 million/THB 2,331 million	2,276.02	-	2,276.02	-
USD 200 million/THB 6,880 million	6,502.92	-	6,502.92	-
JPY 36,000 million/USD 290.51 million	-	11,208.06	-	11,208.06
Total	64,029.04	72,727.38	21,778.94	29,844.06

The maturity periods of contracts are as follows:

Unit: Million Baht

	Consolidated financial statements		Separate financial statements	
	2017	2016	2017	2016
Due within 1 year	16,500.00	23,006.81	9,000.00	16,844.06
Over 1 year but not over 5 years	36,129.04	33,020.89	12,778.94	9,000.00
Over 5 years	11,400.00	16,699.68	-	4,000.00
Total	64,029.04	72,727.38	21,778.94	29,844.06

### 39.4 Interest Rate Risk

The Group has entered into interest rate swap contracts of long-term loans and debentures. The terms of the outstanding interest rate swap contracts as at December 31, 2017 and 2016 are as follows:

Unit: Million Baht

	Consolidated financial statements		Separate financial statements	
	2017	2016	2017	2016
Interest rate swap contracts to swap floating for fixed rate in USD currency	-	10.00	-	-
Interest rate swap contracts to swap fixed for floating rate in USD currency	16,592.98	35,795.55	16,266.17	35,795.55
Interest rate swap contracts to swap floating for fixed rate in Baht currency	2,500.00	10,020.00	-	4,000.00
Interest rate swap contracts to swap fixed for floating rate in Baht currency	8,000.00	4,000.00	8,000.00	4,000.00
Interest rate swap contracts to swap floating for fixed rate in JPY currency	7,372.62	7,900.22	-	-
Interest rate swap contracts to swap floating for fixed rate in EUR currency	500.00	-	-	-
Total	34,965.60	57,725.77	24,266.17	43,795.55

### 39.4 Interest Rate Risk (Continued)

The maturity periods of contracts are as follows:

Unit: Million Baht

	Consolidated financial statements		Separate financial statements	
	2017	2016	2017	2016
Due within 1 year	3,426.61	4,520.00	-	1,500.00
Over 1 year but not over 5 years	24,299.42	47,012.00	22,266.17	42,295.55
Over 5 years	7,239.57	6,193.77	2,000.00	-
Total	34,965.60	57,725.77	24,266.17	43,795.55

### 39.5 Fluctuations in Oil Market Price Risk

The Group has entered into oil price derivatives. As at December 31, 2017, the volume of oil under those contracts that mature during January to December 2017 is 16.41 million barrels in the consolidated financial statements and 0.91 million barrels in the separate financial statements (as at December 31, 2016: 19.26 million barrels in the consolidated financial statements and 3.12 million barrels in the separate financial statements).

### 39.6 Credit Risk

Credit risk arises when customers do not comply with the terms and conditions of credit agreements, causing financial losses to the Company. However, the Company has managed risk by adjusting its credit policies according to the current economic situation, focusing on developing financial instruments by cooperating with financial institutions to support credit facilities provided to customers in order to buy the Company's products, such as the Dealer Financing and Supply Chain Credit project, the trade credit insurance, and the Payment card and Fleet card, aims to reduce credit risks of the Company. The Company also reduces credit risk by determining procedures for risk prevention and mitigation, including credit rating for all trading partners of the Company.

## 40. Fair Value Measurement

The fair value of the current portions of financial assets and liabilities approximates the carrying value due to the relatively short-term maturity of these financial instruments.

The fair value of long-term lending loans and borrowings carrying interest at market rates approximates the carrying values.

As at December 31, 2017 and 2016, the Group had the assets and liabilities that were measured at fair value using different levels of inputs as follows:

As at December 31, 2017

Unit: Million Baht

### Consolidated financial statements

	Level 1	Level 2	Level 3	Total
<b>Financial assets measured at fair value</b>				
Available-for-sale investments				
Equity instruments	4,243.93	-	-	4,243.93
Mutual funds	1,113.97	-	170.86	1,284.83
Debt instruments	-	12,073.65	-	12,073.65
Derivatives				
Foreign currency forward contracts	-	2,445.39	-	2,445.39
Cross-currency swap contracts	-	1,749.74	-	1,749.74
Interest rate swap contracts	-	28.06	-	28.06
Commodity swap contracts	645.98	35.77	-	681.75
Other derivative contracts	-	826.97	-	826.97
<b>Financial liabilities measured at fair value</b>				
Derivatives				
Foreign currency forward contracts	0.64	3,043.35	-	3,043.99
Cross-currency swap contracts	-	801.56	-	801.56
Interest rate swap contracts	-	70.38	-	70.38
Commodity swap contracts	2,293.09	836.80	-	3,129.89
Other derivative contracts	-	13.37	-	13.37

## 40. Fair Value Measurement (Continued)

As at December 31, 2016

Unit: Million Baht

### Consolidated financial statements

	Level 1	Level 2	Level 3	Total
<b>Financial assets measured at fair value</b>				
Available-for-sale investments				
Equity instruments	6,709.86	-	-	6,709.86
Mutual funds	11,719.17	-	-	11,719.17
Debt instruments	-	5,410.51	-	5,410.51
Derivatives				
Foreign currency forward contracts	-	957.36	-	957.36
Cross-currency swap contracts	-	618.97	-	618.97
Interest rate swap contracts	-	200.16	-	200.16
Commodity swap contracts	254.61	116.14	-	370.75
Other derivative contracts	-	378.56	-	378.56
<b>Financial liabilities measured at fair value</b>				
Derivatives				
Foreign currency forward contracts	-	139.95	-	139.95
Cross-currency swap contracts	-	6,330.63	-	6,330.63
Interest rate swap contracts	-	312.77	-	312.77
Commodity swap contracts	1,742.39	4,109.89	-	5,852.28
Other derivative contracts	-	45.26	-	45.26

## 40. Fair Value Measurement (Continued)

As at December 31, 2017

Unit: Million Baht

Separate financial statements

	Level 1	Level 2	Level 3	Total
<b>Financial assets measured at fair value</b>				
Available-for-sale investments				
Equity instruments	3,983.75	-	-	3,983.75
Mutual funds	378.49	-	170.86	549.35
Derivatives				
Cross-currency swap contracts	-	751.08	-	751.08
Interest rate swap contracts	-	3.43	-	3.43
<b>Financial liabilities measured at fair value</b>				
Derivatives				
Cross-currency swap contracts	-	86.70	-	86.70
Interest rate swap contracts	-	45.19	-	45.19

As at December 31, 2016

Unit: Million Baht

Separate financial statements

	Level 1	Level 2	Level 3	Total
<b>Financial assets measured at fair value</b>				
Available-for-sale investments				
Equity instruments	6,549.82	-	-	6,549.82
Mutual funds	11,566.43	-	-	11,566.43
Derivatives				
Cross-currency swap contracts	-	618.97	-	618.97
Interest rate swap contracts	-	99.67	-	99.67
<b>Financial liabilities measured at fair value</b>				
Derivatives				
Cross-currency swap contracts	-	1,702.63	-	1,702.63
Interest rate swap contracts	-	212.29	-	212.29

## 40. Fair Value Measurement (Continued)

As at December 31, 2017 and 2016, the Group had the assets and liabilities that were disclosed at fair value using different levels of inputs as follows:

As at December 31, 2017

Unit: Million Baht

### Consolidated financial statements

	Level 1	Level 2	Level 3	Total
<b>Financial assets disclosed at fair value</b>				
Investments in long-term debt securities	-	15,195.46	-	15,195.46
Investment properties	-	12,591.15	9,829.62	22,420.77
Derivatives				
Foreign currency forward contracts	-	826.40	-	826.40
Foreign exchange option contracts	-	803.06	-	803.06
Commodity swap contracts	-	38.01	-	38.01
<b>Financial liabilities disclosed at fair value</b>				
Debentures - Baht currency	-	212,309.87	-	212,309.87
Debentures - foreign currencies	-	131,466.36	-	131,466.36
Derivatives				
Foreign currency forward contracts	-	428.58	-	428.58
Commodity swap contracts	-	43.25	-	43.25

## 40. Fair Value Measurement (Continued)

As at December 31, 2016

Unit: Million Baht

### Consolidated financial statements

	Level 1	Level 2	Level 3	Total
<b>Financial assets disclosed at fair value</b>				
Investment properties	-	12,859.24	10,126.40	22,985.64
Derivatives				
Foreign currency forward contracts	-	53.90	-	53.90
Foreign exchange option contracts	-	648.61	-	648.61
Commodity swap contracts	-	136.21	-	136.21
<b>Financial liabilities disclosed at fair value</b>				
Debentures - Baht currency	-	250,494.92	-	250,494.92
Debentures - foreign currencies	-	212,803.71	-	212,803.71
Derivatives				
Foreign currency forward contracts	-	46.53	-	46.53
Commodity swap contracts	-	974.78	-	974.78

## 40. Fair Value Measurement (Continued)

As at December 31, 2017

Unit: Million Baht

### Separate financial statements

	Level 1	Level 2	Level 3	Total
<b>Financial assets disclosed at fair value</b>				
Investments in long-term debt securities	-	15,195.46	-	15,195.46
Investment properties	-	10,964.62	619.10	11,583.72
Derivatives				
Foreign currency forward contracts	-	817.24	-	817.24
Foreign exchange option contracts	-	803.06	-	803.06
Commodity swap contracts	-	38.01	-	38.01
<b>Financial liabilities disclosed at fair value</b>				
Debentures - Baht currency	-	144,110.09	-	144,110.09
Debentures - foreign currencies	-	34,228.14	-	34,228.14
Derivatives				
Foreign currency forward contracts	-	428.42	-	428.42
Commodity swap contracts	-	43.25	-	43.25

## 40. Fair Value Measurement (Continued)

As at December 31, 2016

Unit: Million Baht

### Separate financial statements

	Level 1	Level 2	Level 3	Total
<b>Financial assets disclosed at fair value</b>				
Investment properties	-	11,227.50	719.49	11,946.99
Derivatives				
Foreign currency forward contracts	-	53.90	-	53.90
Foreign exchange option contracts	-	648.61	-	648.61
Commodity swap contracts	-	136.21	-	136.21
<b>Financial liabilities disclosed at fair value</b>				
Debentures - Baht currency	-	151,921.49	-	151,921.49
Debentures - foreign currencies	-	63,394.46	-	63,394.46
Derivatives				
Foreign currency forward contracts	-	46.53	-	46.53
Commodity swap contracts	-	60.28	-	60.28

### Fair value valuation techniques and inputs for Level 2 valuation

The fair values of debt securities and derivatives were determined based on discounted future cash flow and valuation model techniques, using an appropriate risk-adjusted discount rate. Most of the inputs used for the valuation are observable in the relevant markets such as spot rates of foreign currencies, yield curves of the respective currencies, interest rate yield curves, bonds yield curves, and commodity price yield curves, etc.

The fair value of land categorized as investment property was determined by independent property appraisers under the market approach.

### Fair value valuation techniques and inputs for Level 3 valuation

The fair values of available-for-sale investments in mutual funds were determined based on the net asset value as reported in the Capital Call Statement and translated by using the closing exchange rate.

The fair values of land and buildings for rent categorized as investment property were determined using the income approach. The inputs used for the valuation consisted of the rate of return and finance costs.

During the year, there was no transfer within the fair value hierarchy.

## 41. Subordinated Capital Debentures

In July 2017, the Group has carried out a capital structure management with respect to USD subordinated capital debentures as follows:

### Consolidated financial statements

	Unit: Million USD			Unit: Million Baht		
	Before restructuring	(redeemed)/ reissued	After restructuring	Before restructuring	(redeemed)/ reissued	After restructuring
<b>PTTEP</b>						
Issuance and offering value	1,000.00	(854.69)	145.31			
Net value from finance cost	995.53	(850.88)*	144.65	32,206.55	(27,526.73)*	4,679.82
<b>PTTEP TC</b>						
Issuance and offering value	-	854.69**	854.69			
Net value from finance cost	-	853.59	853.59	-	28,572.58	28,572.58
<b>Total</b>						
Issuance and offering value	1,000.00	-	1,000.00			
Net value from finance cost	995.53	2.71	998.24	32,206.55	1,045.85	33,252.40

\* PTTEP redeemed the subordinated capital debentures with the payment of USD 874.31 million (Baht 28,310.98 million).

\*\* PTTEP Treasury Center Co., Ltd. (PTTEP TC), a subsidiary of PTTEP, issued and offered the subordinated capital debentures, fully guaranteed by PTTEP, in the same amount as what was redeemed by PTTEP. The subordinated capital debentures will be settled upon the liquidation of the issuing company (perpetual), or as per the redemption rights stipulated in the offering memorandum. The subordinated capital debentures were issued in the two following series:

- Series 1: Issued and offered on July 17, 2017 in the amount of USD 500 million with an initial fixed interest rate of 4.6% until July 17, 2022. The right to early redeem in full amount shall be first exercisable on July 17, 2022. Subsequent interest rates and redeemable rights are stipulated in the offering memorandum.
- Series 2: Issued and offered on July 26, 2017 in the amount of USD 354.69 million with an initial fixed interest rate of 4.875% until June 18, 2019. The right to early redeem in full amount shall be first exercisable on June 18, 2019. Subsequent interest rates and redeemable rights are stipulated in the offering memorandum.

These subordinated capital debentures pay the distributions semi-annually. However, PTTEP TC may elect to defer the payment of a distribution at its sole discretion without any limit as to the number of times. The deferred distributions will not bear additional interest. In case that they are deferred from and including the date falling 12 months from the date on which it is first deferred, they will be constituted as the principal of the securities. However, if PTTEP TC elects to defer distributions of those 2 series, both PTTEP, as a guarantor, and PTTEP TC are restricted from declaring any dividends. Also, they will procure that no distribution or other payment is declared, paid or made on any of its Junior Securities or its Parity Securities. Additionally, both PTTEP and PTTEP TC will be restricted from redeeming, reducing, cancelling, or buying-back of its Junior Securities or its Parity Securities. These subordinated capital debentures are legally subordinated to all other capital debentures issued by PTTEP TC, except for equity.

## 42. Dividend Payment

On April 28, 2017, at the 2017 Annual General Shareholders' Meeting of the Company, the shareholders approved dividend payments for the year 2016 of Baht 16.00 per share, approximately amounting to Baht 45,698.58 million. On September 16, 2016, the Company paid an interim dividend for the operating results of the first half of 2016 at Baht 6.00 per share for 2,855,946,746 shares, amounting to Baht 17,135.68 million. The remaining dividends were paid as follows:

Dividends	For operating period	Dividend payment rate (Baht/share)	Number of shares (shares)	Total dividend (Million Baht)	Payment date
For the year 2016	July 1, 2016 - December 31, 2016	10.00	2,856,290,445	28,562.90	May 15, 2017

On August 18, 2017, at the Board of Directors Meeting No. 8/2017 of the Company, the Board approved interim dividend payments for the first half of 2017 as follows:

Dividends	For operating period	Dividend payment rate (Baht/share)	Number of shares (shares)	Total dividend (Million Baht)	Payment date
Interim	January 1, 2017 - June 30, 2017	8.00	2,856,261,256	22,850.09	September 15, 2017

## 43. Promotional Privileges

The Company has been granted promotional privileges for the following activities from the Board of Investment (BOI) under the Investment Promotion Act, B.E. 2520:

- the Ethane Separation Plant project
- the Gas Separation Plant Unit 6 project
- the Fourth Rayong-Kangkoi gas pipeline project
- the Thai-Myanmar onshore gas pipeline project
- the Nakhon Sawan gas pipeline project
- the Nakhon Ratchasima gas pipeline project
- the Fifth onshore gas pipeline project
- the Ratchaburi - Wang Noi 6 gas metering station to Ratchaburi province gas pipeline project
- Expansion of the First onshore gas pipeline project covering Rayong Chonburi and Saraburi new laid pipelines.

### 43. Promotional Privileges (Continued)

The promotional privileges include:

- an exemption from import duties on machinery approved by the BOI
- an exemption from corporate income tax on net income from the promoted business for periods of eight years starting from the date on which the income is first derived from such operations.

During the year 2017, the Company has exercised the privileges for the Ethane Separation Plant project and the Gas Separation Plant Unit 6 project.

The sales and service income of the Company from the promoted and non-promoted businesses for the years ended December 31, 2017 and 2016 are as follows:

Unit: Million Baht

Separate financial statements

	2017	2016
Promoted businesses	126,171.57	120,922.78
Non-promoted businesses	1,433,208.86	1,318,470.71
Total	1,559,380.43	1,439,393.49

Some subsidiaries received the following promotional privileges from the BOI under the Investment Promotion Act, B.E. 2520.

TOP has been grant privileges for its oil refinery, power and steam generation, petroleum product production, chemical product production, ethanol product production, marine transportation, offshore crude oil unloading facilities and industrial zone. The promotional privileges include exemption from import duties and tax on the machinery and equipment approved by the BOI, exemption from corporate income tax on the net income from the promoted business for seven to eight years starting from the date on which income is first derived from such operations or eight years from the date on which the income is received subsequent to when the privileges were granted, and a 50% reduction of corporate income tax on the net income from the promoted business for five years starting from the expiry date of the corporate income tax exemption.

## 43. Promotional Privileges (Continued)

PTTGC has been grant privileges for its production of upstream, intermediate and downstream petrochemical, utilities and production support facilities, jetty for loading and storage of liquid product and transportation by marine vessels, petroleum product production, research and development of polymer products and chemical formula, lab testing services and refinery. The promotional privileges include exemption from import duties and tax on the machinery approved by the BOI, exemption from corporate income tax on the net income from the promoted business up to 100% of its investment excluded cost of land and working capital for eight years starting from the date on which income is first derived from such operations and a 50% reduction of corporate income tax on the net income from the promoted business for five years starting from the expiry date of the corporate income tax exemption.

GPSC has been grant privileges for its production of electricity, steam, water and chilled water. The promotional privileges include exemption from import duties on the machinery approved by the BOI, exemption from corporate income tax on the net income from the promoted business for eight years starting from the date on which income is first derived from such operations, and a 50% reduction of corporate income tax on the net income from the promoted business for five years starting from the expiry date of the corporate income tax exemption.

IRPC has been grant privileges for its manufacture of Acetylene Black, Compounded Plastic, the cogeneration and steam power plant project (CHP), Propylene project (PRP), Blown Film project, Recovery from Purge Gas at PP Plant project, EBSM Upgrading for ABS Specialties project (EBSM), Multi Product Pipeline project (MPPL), Polypropylene Resin ("PPE") project, High Pressure HDPE Compound project and Investment project in Industrial zone. The promotional privileges include exemption from import duties and tax on materials and necessary parts including machinery approved by the BOI, exemption from corporate income tax on the net income from the promoted business for five to eight years starting from the date on which income is first derived from such operations, a 50% reduction of corporate income tax on the net income from the promoted business for five years starting from the expiry date of the corporate income tax exemption, and double deduction of logistics, electricity and water expenses for a period of ten years since income is first derived from such operations.

PTTLNG has been grant promotional privileges, Category 7.1: Public utilities and basic services, for its liquefied natural gas transportation business. The promotional privileges include exemption from import duties on the machinery approved by the BOI, exemption from corporate income tax on the net income from the promoted business for eight years starting from the date on which income is first derived from such operations, and a 50% reduction of corporate income tax on the net income from the promoted business for five years starting from the expiry date of the corporate income tax exemption.

## 43. Promotional Privileges (Continued)

PTT TANK has been grant promotional privileges, Category 7.1: Public utilities and basic services for its loading/unloading facilities for cargo ship business. The promotional privileges include exemption from import duties on the machinery approved by the BOI, exemption from corporate income tax on the net income from the promoted business up to 100% of its investment for eight years starting from the date on which income is first derived from such operations, and allow to deduct loss carry forward incurred during tax exemption period from net income incurred after tax exemption period for five year starting from expiry date of the corporate income tax exemption.

PTTGM has been grant promotional privileges Category 6.11: Manufacture of petrochemicals for its manufacture of Polymethyl Methacrylate (PMMA) production business. The promotional privileges include exemption from import duties and tax on the machinery approved by the BOI, exemption from corporate income tax of the net income from the promoted business up to 100% of its investment exclude the cost of land and working capital for eight years starting from the date on which income is first derived from such operations, and a 50% reduction of corporate income tax on the net income from the promoted business for five year starting from the expiry date of the corporate income tax exemption.

As promoted company, the Group must comply with certain terms and conditions prescribed in the promotional certificates.

## 44. Proceeding regarding the Central Administrative Court's Ordering Temporary Suspension of Projects in Map Ta Phut Area

On June 19, 2009, the Stop Global Warming Association and a group of individuals totaling 43 parties (the Petitioners) filed a complaint with the Central Administrative Court (the Court) as the black case No. 908/2552, against eight government agencies, together with a motion seeking the Court injunction to temporarily suspend all operations and activities of 76 industrial projects in the Map Ta Phut area in Rayong Province.

On September 29, 2009, the Court ordered the temporary injunction by requiring the eight accused government agencies to issue the order to temporarily suspend all 76 projects pending the Court's judgment or order otherwise, except for those projects or activities which received the permits before the effective date of the Constitution of Kingdom of Thailand B.E. 2550 or which were not required to prepare the Environmental Impact Assessment (EIA) reports pursuant to the Ministerial Announcement of Ministry of Natural Resources and Environment dated June 16, 2009. 25 projects of the Group were under the suspension order, and three of those 25 projects belonged to the Company.

#### 44. Proceeding regarding the Central Administrative Court's Ordering Temporary Suspension of Projects in Map Ta Phut Area (Continued)

On October 16, 2009, the Group, as an interested person, submitted a motion to appeal the Court's order to the Supreme Administrative Court.

On December 2, 2009, the Supreme Administrative Court issued an order No. 592/2552 amending the Court's injunction by requiring the eight accused government agencies to order the temporary suspension of all projects or activities listed in the complaint except for 11 projects, which clearly, according to the Supreme Administrative Court, did not severely affect the community but were projects intended to mitigate pollution or only additional installation to the existing projects. Among those 11 projects, seven of them belonged to the Group, comprising one project of the Company and six projects of the other companies in the Group. Two projects of the Company were still under the Court's order to suspend.

On December 18, 2009, the public prosecutor submitted the answer rejecting all allegations in the complaint.

On September 2, 2010, the Court rendered a judgment revoking the permit of the projects listed in the complaint which, according to the law, were categorized as project that might severely affect the community and did not comply with the procedures set forth in Section 67 paragraph 2 of the Constitution, B.E. 2550. The revocation was effective as of the date of the judgment. One project of the Group is within the scope of the judgment.

On October 1, 2010, the 43 prosecutors appealed the Court's judgment to the Supreme Administrative Court. On December 7, 2010, the eight accused government agencies by the public prosecutors submitted a reply to the appeal. The appeal is currently under the consideration of the Supreme Administrative Court.

## 45. Commitments and Contingent Liabilities

Details of significant changes in commitments and contingent liabilities are as follows:

45.1 Details of commitments to subsidiaries, joint ventures, associates and other related companies are as follows:

45.1.1 The Company has provided loans to its subsidiaries and joint ventures with credit limits totalling Baht 139,119.64 million. As at December 31, 2017, the Company made these loans payments to its subsidiaries and joint ventures totalling Baht 49,952.83 million. The remaining credit limits were Baht 89,166.81 million.

45.1.2 The Company entered into the Sponsor Support Agreements with subsidiaries and joint ventures with credit limits equal to the sum of the loan obligations to financial institutions of such subsidiaries and joint ventures. Under these agreements, as at December 31, 2017, the Company had commitments of USD 56.91 million or equivalent to Baht 1,908.33 million.

45.1.3 The Company had obligations under the Shareholder Agreements to pay for ordinary shares in proportion to its shareholding. As at December 31, 2017, the Company had remaining obligations amounting to Baht 4,292.76 million.

45.2 Commitments under operating leases - the Group as a lessee, the future minimum lease payments under uncancellable operating leases as at December 31, 2017 and 2016 are as follows:

Unit: Million Baht

	Consolidated financial statements		Separate financial statements	
	2017	2016	2017	2016
- Within 1 year	2,210.19	2,195.82	84.07	66.39
- Over 1 year but not over 5 years	5,831.53	5,046.53	398.81	315.60
- Over 5 years	7,038.09	5,681.37	1,419.47	1,131.64
Total	15,079.81	12,923.72	1,902.35	1,513.63

## 45. Commitments and Contingent Liabilities (Continued)

- 45.3 As at December 31, 2017, the Group had capital commitments of Baht 40,624.65 million in the consolidated financial statements.
- 45.4 As at December 31, 2017, the Group had outstanding letters of credit of Baht 26,442.68 million in the consolidated financial statements and Baht 4,796.20 million in the separate financial statements.
- 45.5 As at December 31, 2017, the Group had contingent liabilities in the form of letter of guarantee amounting to Baht 28,097.69 million in the consolidated financial statements and Baht 318.30 million in the separate financial statements.
- 45.6 A subsidiary entered into a contract to sell a product to the Company and the Company entered into a contract to resell the same product to a listed company. The term of the two contracts was 15 years, expiring on January 31, 2012. Before the expiration of the contract, the subsidiary notified the Company that the contract would not be renewed. Consequently, without product to resell, the Company had to notify the listed company that the contract would also not be renewed. The Company's notice was served to the listed company in accordance with the terms and conditions set forth in the contract. On December 3, 2009, the listed company submitted claims with the Thai Arbitration Institute (the Institute) requesting the Company and the subsidiary, as the seller and the supplier, respectively, to comply with the contracts by continuing to sell the product to the listed company or be jointly liable to pay damages.

On February 10, 2010, the subsidiary submitted motion with the Institute asking to dismiss the claims against it from the case list. The Institute issued an order to dismiss the claims relating to the subsidiary.

The Company forwarded the case to the Office of the Attorney General to submit a defense to the Institute. On April 28, 2010, the public prosecutor submitted the defense with the Institute for the Company. The tribunal finished the witness examination. Consequently, on March 25, 2016, the tribunal ruled that the Company make a partial payment for compensations to the listed company. However, the Company was of the opinion that the arbitral award might be both factually and legally inconsistent. Therefore, the Company could exercise its legal right by filing a motion with the court requesting the arbitral award to be revoked. On June 30, 2016, the Company by the public prosecutor filed a motion to revoke the arbitral award with the Civil Court. Currently, this case is under the consideration of the Civil Court. Subsequently, on December 16, 2016, the listed company submitted a motion with the Civil Court asking for the enforcement of the arbitral award. The Company by the public prosecutor submitted the objection with the Civil Court. Currently, the case is under the consideration of the Civil Court.

## 45. Commitments and Contingent Liabilities (Continued)

45.7 On May 26, 2010, the contractor for an onshore natural gas pipeline construction project (the “Contractor”) submitted claims to the Thai Arbitration Institute (the Institute) seeking overdue payment and damages for the work performed in the aforementioned project from the Company. The Company, however, considered that the submission of the claims was incompliant with the dispute resolution procedure agreed upon the contract. Therefore, the Company filed an opposition to the Contractor’s claim submission with the Institute and reserved right to protest such contractually incompliant claim submission in the arbitration procedure. After the claim submission, the Central Bankruptcy Court ordered the Contractor to be under an absolute receivership which rendered the official receiver to have sole power in any litigation pertaining to the Contractor’s assets. Subsequently, the Contractor’s official receiver has petitioned the Institute to substitute the Contractor in the dispute against the Company. Regarding the Contractor’s bankruptcy case, the Company submitted a motion for receiving a debt payment in accordance with the law as a creditor. With respect to the arbitration process, the Company submitted the defense together with counterclaims seeking damages from the Contractor. Subsequently, the arbitral tribunal rendered an award ordering the Company to partially pay for the Contractor’s claims. However, the Company considered that the arbitral award is materially both factually and legally inconsistent. The Company, therefore, filed a motion to revoke the arbitral award, while the contractor submitted a motion with the Civil Court to enforce the arbitral award. On October 17, 2017, the Civil Court delivered a judgement to enforce the arbitral award whereby some penalty amounts were reduced. However, the Company is preparing to file an appeal of the judgement of the Civil Court with the Supreme Court.

On September 8, 2010, the Contractor by the official receiver submitted another claim to the Institute seeking overdue payment and damages from the Company for the work performed in connection with another pipeline construction project. The Company, however, considered that the submission of the claims was incompliant with the dispute resolution procedure agreed upon the contract. Therefore, the Company filed an opposition to the Contractor’s claim submission with the Institute and reserved the right to protest such contractually incompliant claim submission in the arbitration procedure. In contention against the alleged claims, the Company submitted the defense together with counterclaims seeking damages from the Contractor. Currently, the arbitral tribunal has been appointed and the case is now under the consideration of the tribunal.

45.8 On February 25, 2014, the contractor for an on-shore natural gas pipeline construction project (the “Contractor”) filed a lawsuit against the Company with the Civil Court on the grounds of wrongful termination and breach of contract and claimed for outstanding payment of the work and damages. On the contrary, the Company considered that all of the Company’s actions have been in accordance with the terms and conditions of the contract. Therefore, the Company forwarded the case to the Office of the Attorney General for consideration to arguing the case for the Company and the prosecutor has submitted the answer with the Court. Consequently, the Civil Court ordered the case be transferred to the Central Administrative Court for consideration and judgment because the Civil Court and the Central Administrative Court has the corresponding opinions that this case was an administrative case. The Civil Court transferred this case to the Central Administrative Court. Currently, the case is under the consideration of the Central Administrative Court.

## 45. Commitments and Contingent Liabilities (Continued)

45.9 On August 26, 2010, PTTEP Australasia (PTTEP AA) received a letter from the Government of Indonesia (Gol) claiming compensation relating to an incident in 2009 when oil and natural gas leaked from a well in PTTEP AA's Montara project in Australian territory in the Timor Sea. PTTEP AA rejected the claim on the basis that the evidence provided by the Gol was considered unproven and unsubstantiated. No verifiable scientific evidence was ever provided to support the claim.

On March 11, 2016, PTTEP AA received a letter from a firm of Australia lawyers representing a group of West Timorese seaweed farmers, notifying PTTEP AA of their intention to commence a legal action for compensation relating to the incident. Subsequently, on August 9, 2016 PTTEP AA was notified of a claim made in the Sydney Registry of the Federal Court of Australia seeking damages on behalf of a group of seaweed farmers (Class Action). The Statement of Claim as filed does not quantify the claim, and no supporting evidence has yet been presented to the court. PTTEP AA has appointed lawyers and is defending the claim.

On July 14, 2017, the Company and PTTEP received the official statement of claim filed by the Ministry of Environment and Forestry on behalf of Gol to the Indonesian Court seeking approximately USD 2.1 billion for damages related to the incident, however, the Company has not been the operator of Montara Project. The Company and PTTEP Group will proceed to defend against this lawsuit based on the facts and matters of law.

Currently, PTTEP considers that the claims from representative of West Timorese seaweed farmers and the Gol related to Montara oil spill incident remain unproven due to insufficient evidence to support the claim.

45.10 During the third quarter of 2014, the number of people in Rayong filed several lawsuits with the Civil Court and Rayong Provincial Court against PTTGC to claim the extra compensation from oil spill incident and to perform the rehabilitation of the sea and natural environmental recovery. Some cases have been dismissed and some cases have been passed a judgement by the Civil Court on August 25, 2016 ordered PTTGC to compensate for damages, including interest and rehabilitation, of approximately Baht 11.26 million. PTTGC has appealed on February 17, 2017. Nevertheless, there are remaining cases that are still on trial by Rayong Provincial Court, in which PTTGC believes that the outcome of the consideration will not result in material damage and material financial impact to PTTGC. Therefore, PTTGC has not provided against any loss that may result from this matter in the financial statements.

## 46. Other Events

46.1 On April 4, 2016, the Ombudsman of Thailand submitted a complaint to the Administrative Court against the Minister of Finance, the Minister of Energy, the Company and other defendants as a black case No. 510/2559, requesting the Court as follows:

- 1) To revoke the Cabinet Resolutions on December 18, 2007 and August 10, 2010.
- 2) To order the Minister of Finance, the Minister of Energy and the Company to conduct a segregate and transfer of net assets according to the plaintiff's allegation as of September 30, 2001 amounting to Baht 68,569.69 million, including other compensations and benefits.
- 3) To revoke the segregate of public assets and the preferential rights to establish the gas pipeline system according to the plaintiff's allegation.

On May 26, 2016, the Administrative Court ordered the Company to submit a defense, responding to the particular issue that was whether the Company completely transferred the assets of the Petroleum Authority of Thailand (the tenth defendant), which were public assets, to the first defendant (the Minister of Finance) in accordance with the Cabinet Resolution on December 18, 2007. The Company had the public prosecutor prepared the statement and additional statement for submission to the Administrative Court. Currently, the case is under the consideration of the Administrative Court.

Nevertheless, on December 14, 2007, the Supreme Administrative Court in a red case No. Fo. 35/2550, ordered the defendants to jointly segregate the public assets to the Minister of Finance, in accordance with the judgment. Therefore, on December 18, 2007, the Cabinet acknowledged the aforesaid judgment and assigned the Minister of Finance and the Minister of Energy to jointly segregate the public assets to comply with the judgment. Consequently, on December 26, 2008, the Supreme Administrative Court declared that the defendants had completely complied with the judgment of the Court. Furthermore, the plaintiff and the co-plaintiffs had submitted complaints regarding such segregation of public assets to the Court for four times but the Court ordered to dismiss such complaints and reaffirmed that the judgment of the Supreme Administrative Court in the red case No. Fo. 35/2550 was completed. Consequently, on August 10, 2010, the Cabinet acknowledged the conduct followed the Supreme Administrative Court's judgment in accordance with the proposals of the Minister of Energy and the Minister of Finance.

46.2 On November 18, 2016, at the Board of Directors Meeting No. 11/2016 of the Company, the Board passed a resolution to approved the restructuring of PTT by means of the transfer of the oil business unit, including its assets and liabilities of the business unit, and the shares of companies related to the oil business unit from the Company to PTT Retail Business Company Limited (PTTRB), the change of PTTRB's name to PTT Oil and Retail Business Company Limited (PTTOR), the appointment of PTTOR as the flagship company for the oil and retail business of the Group, and the preliminary plan for an initial public offering of the ordinary shares of PTTOR and the listing of PTTOR in The Stock Exchange of Thailand (the SET). The Company and government agencies will hold less than 50%, but no less than 45%, of total paid-up capital (the "Restructuring of PTT"). In addition, the Board passed a resolution to proceed with the request of the Restructuring of PTT to the relevant agencies such as the Ministry of Energy, The Board of Directors of State Enterprise Policy Office ("Superboard"), the Cabinet, and the shareholders' meeting of the Company, to consider granting approvals in accordance with the relevant rules and regulations.

## 46. Other Events (Continued)

On February 17, 2017, at the Meeting No. 1/2017 (the 11<sup>st</sup> Meeting) of the National Energy Policy Council (NEPC) passed resolutions to (1) acknowledge the proposed Restructuring of PTT and to instruct the Company to proceed in compliance with relevant laws, regulations, and related cabinet resolutions while taking into consideration the maximum benefit of the public and the nation and (2) agree with the opinion of the Cabinet Secretariat that the proposed business restructuring of PTT would not have an impact on the nation's energy security. Subsequently, the Ministry of Energy notified the cabinet of the NEPC's meeting resolutions.

On April 28, 2017, the 2017 Annual General Meeting of the Company's shareholders approved the Restructuring of PTT by means of the transfer of the oil business unit, including the assets and liabilities of the business unit and the shares of companies related to the oil business unit, from the Company to PTTOR (the "Restructuring of PTT"). The business transfer will occur only after the Company obtains any approvals and/or consent from relevant governmental authorities and/or agencies necessary for the Restructuring of PTT in accordance with relevant regulations, and the Board or persons assigned by the Board are authorized to enter into negotiations and determine the criteria, conditions, and other details related to the Restructuring of PTT; execute the business transfer agreements, other agreements and supporting documents; and undertake any act necessary for and relevant to the aforementioned businesses for the purposes of the Restructuring of PTT. The Annual General Meeting also acknowledged the feasibility of the plan to launch an initial public offering (IPO) of PTTOR's ordinary shares, and to offer ordinary shares of PTTOR to PTT's existing shareholders with rights to subscribe to allocated shares, but not to offer the shares to shareholders in cases where such offering would cause PTTOR to be subject to the rules and regulations of foreign countries (Preferential Share Offering) and to list PTTOR on the SET. The Company and government agencies will hold less than 50% of the total paid-up capital after launching an IPO and listing on the SET. On the contrary, the Company will hold no less than 45% the total paid-up capital. The Company will adhere to the opinions of the Office of the Securities and Exchange Commission (the SEC) in relation to the listing of PTTOR on the SET and will obtain approval from the SEC prior to proceed further.

## 47. Events after the Reporting Period

- 47.1 On February 20, 2018, at the Board of Directors Meeting No. 2/2018 of the Company, the Board passed a resolution to propose to the Annual General Meeting of the Company's shareholders for approval a dividend payment of Baht 20.00 per share for the year 2017. On September 15, 2017, the Company paid an interim dividend of Baht 8.00 per share as described in Note 42. Accordingly, the remaining dividend of Baht 12.00 per share or approximately Baht 34,276 million will be proposed for approval by the Annual General Meeting of the Company's shareholders for the year 2018.
- 47.2 On January 23, 2018, at the Extraordinary Shareholders' Meeting No. 1/2018 of PTT Global Management Co., Ltd. (PTTGM), the Shareholders passed an extraordinary resolution to increase the authorized share capital Baht 100 per share in respect of 213.97 million shares, amounting to Baht 21,397.08 million. The Company made the share payment on February 1, 2018.
- 47.3 The board of directors of the Company approved these financial statements for public issuance on February 20, 2018.

## Audit Fee

The Company and its subsidiaries paid audit fees to auditor's office for the completed accounting period amounting to Baht 133,019,764 (One hundred thirty-three million nineteen thousand seven hundred sixty-four Baht). In addition, the Company and its subsidiaries paid non-audit fee for the professional services fees, including the Offering Memorandum of the Global Medium Term Notes Program, professional fees for financial statements certification submitted to the Revenue Department, and other certification fees for the completed accounting period amounting to Baht 45,226,190 (Forty-five million two hundred twenty-six thousand one hundred ninety Baht).





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