



# ENERGY PARTNER OF CHOICE

FINANCIAL REPORT  
2019





# ENERGY PARTNER OF CHOICE

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## Forging Ahead

What began as  
our first domestic project has blossomed  
into some 40 projects in 15 countries.  
From a handful of office employees  
to a headcount of some 4,000.

From apprenticeship  
to international acceptance.

Our 35 years in the pursuit of energy security  
and the stewardship of society, communities,  
and the environment speaks volumes  
for our determination and commitment.





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## Bolder Steps

Armed with conviction, explorer spirit, international collaboration, and breakthrough technology and innovation, Thailand's Energy Partner of Choice is now poised for bolder steps for sustainability and fresh challenges.

## Report of Board of Directors' Responsibilities

The financial statements of PTT Exploration and Production Public Company Limited and subsidiaries being consolidated have been prepared in accordance with Thai Financial Reporting Standards under the Accounting Act B.E. 2543, being those Thai Accounting Standards issued under the Accounting Profession Act B.E. 2547 including interpretations and accounting treatment guidance announced by the Federation of Accounting Professions, as well as the financial reporting requirements of the Securities and Exchange Commission under the Securities and Exchange Act B.E. 2535.

The Company's Board of Directors are responsible for the integrity and objectivity of the financial statements of PTT Exploration and Production Public Company Limited and subsidiaries in providing reasonable assurance that the financial statements truly and fairly present financial position, results of operation and cash flows. The books and records of the Company accurately reflect all transactions to safeguard the Company's assets and the control systems are in place to prevent fraud and irregularity. The financial statements have been prepared by adoption of the appropriate accounting policy which is applied on the consistency basis and in accordance with Thai Financial Reporting Standards. In addition, significant information has been adequately disclosed in the notes to financial statements, in which the independent auditor expresses an opinion on the financial statements of PTT Exploration and Production Public Company Limited and subsidiaries in the auditor's report.

(Signed) (Mr. Prajya Phinyawat)

Chairman

(Signed) (Mr. Phongsthorn Thavisin)

President and Chief Executive Officer

February 18, 2020

## Auditor's Report

### To The Shareholders of PTT Exploration and Production Public Company Limited

#### Opinion

The State Audit Office of the Kingdom of Thailand has audited the accompanying consolidated financial statements of PTT Exploration and Production Public Company Limited and its subsidiaries (the Group), and the Company's financial statements of PTT Exploration and Production Public Company Limited (the Company), which comprise the consolidated and the Company's statements of financial position, as at December 31, 2019, the consolidated and the Company's statements of income, the consolidated and the Company's statements of comprehensive income, the consolidated and the Company's statements of changes in equity and the consolidated and the Company's statements of cash flows for the year then ended, which are presented in US Dollar and Thai Baht, and notes to the consolidated and the Company's financial statements, including a summary of significant accounting policies.

In the State Audit Office of the Kingdom of Thailand's opinion, the above mentioned consolidated and the Company's financial statements present fairly, in all material respects, the consolidated financial position of PTT Exploration and Production Public Company Limited and its subsidiaries, and the Company's financial position of PTT Exploration and Production Public Company Limited, as at December 31, 2019, and their consolidated and the Company's financial performance and cash flows for the year then ended, presented in US Dollar and Thai Baht, in accordance with Thai Financial Reporting Standards (TFRSs).

#### Basis for Opinion

The State Audit Office of the Kingdom of Thailand conducted the audit in accordance with the State Audit Standards and Thai Standards on Auditing (TSAs). The State Audit Office of the Kingdom of Thailand's responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Consolidated and the Company's Financial Statements section of the State Audit Office of the Kingdom of Thailand's report. The State Audit Office of the Kingdom of Thailand is independent of the Group and the Company in accordance with the State Audit Standard Rules as determined by the State Audit Commission and the ethical requirements set out in the Thailand Federation of Accounting Professions' Code of Ethics for Professional Accountants that are relevant to the State Audit Office of the Kingdom of Thailand's audit of the consolidated and the Company's financial statements, and has fulfilled other ethical responsibilities in accordance with the State Audit Standard Rules and these ethical requirements. The State Audit Office of the Kingdom of Thailand believes that the audit evidence



the State Audit Office of the Kingdom of Thailand has obtained is sufficient and appropriate to provide a basis for the State Audit Office of the Kingdom of Thailand's opinion.

### **Key Audit Matters**

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

The State Audit Office of the Kingdom of Thailand identifies the followings as key audit matters to communicate:

#### **1. Estimation of petroleum reserves (the consolidated and the Company's financial statements)**

Petroleum reserves are an indicator of the Group's potential to operate its businesses in the future and one of the factors taken into consideration in petroleum exploration and production that reflect the Group's ability to continue as a going concern. Petroleum reserves, especially proved reserves, have a significant impact on the financial statements in impairment testing and calculations of depreciation, depletion, and amortization expenses as described in Note 4.12, Significant Accounting Policies – Property, Plant and Equipment, Note 8, Major Estimates and Assumptions – Estimation of Petroleum Reserves, and Note 21, Property, Plant and Equipment.

Estimated proved reserves may differ from 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, an estimate may be subject to a large variance, but the variance becomes smaller when the project approaches the end of its production life. This may impact the management's investment decisions to sustain the Group's businesses. The management relies on the Group's internal teams of experts in estimating proved reserves using the estimation methods consistent with those generally employed by the petroleum exploration and production industry. The experts have to exercise significant judgment as well as experience in determining appropriate estimation methods for 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 State Audit Office of the Kingdom of Thailand considers this as a key audit matter.

The State Audit Office of the Kingdom of Thailand performed the following key audit procedures:

1. Obtaining an understanding of the proved reserve estimation processes, assessing the adequacy of the designed key internal controls, and performing tests of key controls of such 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 uses of proved reserves data in the calculation of depreciation, depletion, and amortization expenses, as well as the assessment of impairment of assets.
2. Assessing the qualifications of the Group's internal experts who are responsible for estimating proved reserves and preparing the Group's proved reserves data.
3. Using the results of the reserve estimation audit performed by the energy regulatory agency in Thailand, which has its own processes and experts for verifying the estimation of domestic petroleum reserves for projects the operators of which have submitted the required reports. The State Audit Office of the Kingdom of Thailand compared the Group's proved reserves at the end of 2018 with those verified by the regulatory agency and reconciled with the estimated proved reserves presented in internal reports related to 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 2019.
4. Verifying that 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 (the consolidated and the Company's financial statements)**

Provision for decommissioning costs is disclosed in Note 8, Major Estimates and Assumptions – Provision for Decommissioning Costs and Note 32, Provision for Decommissioning Costs. As at December 31, 2019, the total short-term and long-term provision for decommissioning costs was presented in the consolidated and the Company's financial statements in the amount of US Dollar 3,010.27 million and US Dollar 1,584.35 million, respectively. Decommissioning activities occur at the end of projects. Decommissioning methods vary with 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 with 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 State Audit Office of the Kingdom of Thailand considers this as a key audit matter.

The State Audit Office of the Kingdom of Thailand performed the following key audit procedures:

1. Obtaining an understanding of the decommissioning cost estimation processes, assessing the adequacy of the designed internal controls, and performing tests of controls over the estimation, review, and adjustment of the provision for decommissioning costs, as well as related approval.

2. Assessing the qualifications of the Group's experts who are responsible for estimating the provision for decommissioning costs and those who are responsible for inspecting and controlling the quality of engineering work.

3. Evaluating 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 State Audit Office of the Kingdom of Thailand's knowledge of the businesses, decommissioning information of other comparable projects and related laws;

3.2 Evaluating the appropriateness of the expected timing of decommissioning used in the calculation of the provision for decommissioning costs by considering its consistency with investment plans, initial decommissioning plan submitted to the energy regulatory agency in Thailand, or any other related information; and

3.3 Evaluating the appropriateness of inflation rates and discount rates through inquiry of the experts and comparison with the information from external sources.

4. Agreeing decommissioning costs used in the calculation of the provision for decommissioning costs to the information obtained from the Group's engineers, both for projects of which the Group is the operator and for projects of which the Group is non-operator.

5. Validating significant changes in the estimated decommissioning costs incurred during the year and changes that impact the statements of income against supporting evidence.

6. Testing the calculation of the provision for decommissioning costs.

7. In case of projects for which the Group had submitted the initial decommissioning plan and the decommissioning cost estimate report, required to be audited and verified by the Group's external experts, to the energy regulatory agency in Thailand, the State Audit Office of the Kingdom 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 decommissioning cost estimates.

8. Comparing actual decommissioning cost incurred with those estimated by the Group to evaluate the appropriateness of the estimation. In case that there were any significant variances, the State Audit Office of the Kingdom of Thailand considered the reasonableness of clarifications made by the Group regarding the causes of such variances, as well as considered whether the Group incorporated the experience gained from the actual decommissioning in the current year into the review of the provision appropriately.

### **3. Business combination (the consolidated and the Company's financial statements)**

As disclosed in Note 6, Business Acquisition in Murphy Oil Corporation in Malaysia, and Note 7, Business Acquisition in Partex Holding B.V., the Group acquired the 100% shareholding interests of Murphy Oil Corporation (Murphy) in Malaysia through the acquisition of 100% shares interests in Murphy's subsidiaries, which are Murphy Sabah Oil Co., Ltd. (Murphy Sabah) and Murphy Sarawak Oil Co., Ltd. (Murphy Sarawak), as well as, the Group acquired the 100% shareholding interests of Partex Holding B.V. (Partex) which operated in petroleum business, located in Middle East region. According to the acquisition of Murphy and Partex, the Group has to pay the total considerations for the acquisition of US Dollar 2,130.86 million, and US Dollar 716.16 million, respectively, with the fair value of the acquired identifiable net assets of US Dollar 1,519.70 million, and US Dollar 510.70 million, respectively. The Group's management assesses that the participating interests acquired is the business combination according to the definition under Thai Financial Reporting Standard (TFRS) 3, Business Combinations.

According to TFRS 3, Business Combinations, the Group has to recognize and measure the fair value on the acquisition date of the identifiable assets acquired, liabilities assumed, and the considerations transferred (the value of considerations for the acquisition), and recognize the deferred tax assets or liabilities, and goodwill, as well as disclose relevant information in accordance with the TFRS. The Group enlisted an independent valuer to estimate the fair value of the participating interests acquired. The fair value estimation requires the selection of valuation techniques, and various assumptions, which may vary with individual judgement and experience of the valuer. The information which the valuer obtained and used in the fair value calculation also significantly affects the fair value. As a result, the State Audit Office of the Kingdom of Thailand considers this as a key audit matter.

The State Audit Office of the Kingdom of Thailand performed the following key audit procedures:

1. Examining the Sales and Purchase Agreement of the acquisition of 100% shareholding interests in Murphy Sabah and Murphy Sarawak and the 100% shareholding interests in Partex and inquiring the Group's management to obtain an understanding of the nature and objective of the transaction, as well as significant content, terms, and conditions in the agreement, and evaluating whether the management's

exercise of judgement regarding the acquisition to determine the participating interest is appropriate in accordance with the definition in TFRS 3, Business Combinations.

2. Examining the evidence of payments and related documents used in transaction recording to assess the appropriateness of the identification of the assets acquired and liabilities assumed, as well as the considerations transferred.

3. Communicating with the auditors of the companies within the Group regarding risks, as well as reviewing their significant audit regarding the recognition and measurement of the identifiable assets, liabilities assumed and the considerations transferred (the value of considerations for the acquisition) on the acquisition date as follows;

3.1 Evaluating the knowledge, capabilities, and objectivity of the independent valuer associated with the preparation of Purchase Price Allocation report.

3.2 Validating the fair value estimation of the identifiable assets acquired and liabilities assumed in the Purchase Price Allocation report prepared by the independent valuer by assessing the appropriateness of the information used in the estimation, as well as the significant assumptions which the independent valuer used in the fair value estimation.

3.3 Evaluating independently by the independent expert from the auditors of the companies within the Group regarding the appropriateness of the fair value valuating techniques and discount rates used in the preparation of Purchase Price Allocation report.

4. Reviewing the relevant presentation and disclosures in accordance with TFRS.

#### **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 the Company's financial statements and the auditor's report thereon. Management expects to provide the annual report to the State Audit Office of the Kingdom of Thailand after the date of this auditor's report.

The State Audit Office of the Kingdom of Thailand's opinion on the consolidated and the Company's financial statements does not cover the other information and the State Audit Office of the Kingdom of Thailand will not express any form of assurance conclusion thereon.

In connection with the audit of the consolidated and the Company's financial statements, the State Audit Office of the Kingdom of Thailand's responsibility is to read the other information identified above and consider whether the other information is materially inconsistent with the consolidated and the Company's financial statements or the State Audit Office of the Kingdom of Thailand's knowledge obtained in the audit, or otherwise appears to be materially misstated.



When the State Audit Office of the Kingdom of Thailand reads the annual report, if the State Audit Office of the Kingdom of Thailand concludes that there is a material misstatement therein, the State Audit Office of the Kingdom 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 the Company's Financial Statements**

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

In preparing the consolidated and the Company's financial statements, management is responsible for assessing the Group's and the Company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intend 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 the Company's Financial Statements**

The State Audit Office of the Kingdom of Thailand's objectives are to obtain reasonable assurance about whether the consolidated and the Company's 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 State Audit Office of the Kingdom of Thailand's opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with State Audit Standard Rules and 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 the Company's financial statements.

As part of an audit in accordance with the State Audit Standard Rules and TSAs, the State Audit Office of the Kingdom of Thailand exercises professional judgment and maintain professional skepticism throughout the audit. The State Audit Office of the Kingdom of Thailand also:

- Identifies and assesses the risks of material misstatement of the consolidated and the Company's 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 State Audit Office

of the Kingdom 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 management.

- Concludes on the appropriateness of 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 State Audit Office of the Kingdom of Thailand concludes that a material uncertainty exists, the State Audit Office of the Kingdom of Thailand is required to draw attention in the auditor's report of the State Audit Office of the Kingdom of Thailand to the related disclosures in the consolidated and the Company's financial statements or, if such disclosures are inadequate, to modify the State Audit Office of the Kingdom of Thailand's opinion. The State Audit Office of the Kingdom of Thailand's conclusions are based on the audit evidence obtained up to the date of the auditor's report of the State Audit Office of the Kingdom of Thailand. 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 the Company's financial statements, including the disclosures, and whether the consolidated and the Company's 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 State Audit Office of the Kingdom of Thailand is responsible for the direction, supervision and performance of the group audit. The State Audit Office of the Kingdom of Thailand remains solely responsible for the State Audit Office of the Kingdom of Thailand's opinion.

The State Audit Office of the Kingdom 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 State Audit Office of the Kingdom of Thailand identifies during the State Audit Office of the Kingdom of Thailand's audit.



The State Audit Office of the Kingdom of Thailand also provides those charged with governance with a statement that the State Audit Office of the Kingdom of Thailand has complied with the State Audit Standard Rules 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 State Audit Office of the Kingdom of Thailand's independence, and where applicable, related safeguards.

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

*(Signed)*

Pasutnicha Jumphathes  
(Pasutnicha Jumphathes)  
Deputy Auditor General

*(Signed)*

Buddhachard Tanjong  
(Buddhachard Tanjong)  
Director of Financial and Procurement  
Audit Office No. 15

*State Audit Office of the Kingdom of Thailand*

February 18, 2020

# Financial Statements

## Statements of Financial Position

PTT Exploration and Production Public Company Limited and Subsidiaries

As at December 31, 2019

### Consolidated

		Unit: US Dollar			Unit: Baht		
	Notes	December 31, 2019	December 31, 2018 (Restated)	January 1, 2018 (Brought forward) (Restated)	December 31, 2019	December 31, 2018 (Restated)	January 1, 2018 (Brought forward) (Restated)
<b>Assets</b>							
<b>Current Assets</b>							
Cash and cash equivalents	9	2,822,897,310	3,180,095,315	1,512,181,292	85,121,635,618	103,193,560,790	49,419,466,004
Short-term investments	10	200,000,000	820,529,928	2,955,491,269	6,030,799,292	26,626,058,762	96,588,154,097
Investments in trading securities	11	213,702,922	70,550,255	207,592	6,443,997,154	2,289,343,959	6,784,308
Investments in available-for-sale securities	12	-	10,450,000	-	-	339,100,750	-
Account receivable - parent company	13, 18.2	534,837,021	637,129,582	566,568,454	16,127,473,638	20,674,748,268	18,515,974,561
Trade accounts receivable	14	258,925,878	87,250,589	109,434,304	7,807,650,023	2,831,266,994	3,576,412,993
Other accounts receivable		121,500,856	471,385,978	78,595,277	3,663,730,318	15,296,380,912	2,568,562,127
Inventories	15	32,094,999	23,401,706	19,186,294	967,792,479	759,381,456	627,025,615
Materials and supplies	16	298,241,328	258,824,758	298,063,802	8,993,167,938	8,398,820,043	9,740,997,301
Current tax assets		55,338,391	44,251,011	89,006,743	1,668,672,379	1,435,933,751	2,908,820,568
Other current assets							
Working capital from co-venturers		60,704,038	23,136,199	46,919,770	1,830,469,347	750,765,770	1,533,380,944
Accrued interests receivable		7,233,299	18,743,848	19,793,398	218,112,866	608,234,720	646,866,335
Financial derivative assets	27	12,342,074	44,760,255	720,444	372,162,847	1,452,462,783	23,544,769
Others	17	95,472,046	65,558,388	68,666,897	2,878,863,203	2,127,357,369	2,244,095,699
<b>Total Current Assets</b>		<b>4,713,290,162</b>	<b>5,756,067,812</b>	<b>5,764,835,536</b>	<b>142,124,527,102</b>	<b>186,783,416,327</b>	<b>188,400,085,321</b>
<b>Non-current Assets</b>							
Investments in available-for-sale securities	12	524,264	556,840	713,347	15,808,658	18,069,366	23,312,828
Investments in associates	19.3	227,626,116	219,796,559	212,644,091	6,863,837,299	7,132,361,802	6,949,403,099
Investments in joint ventures	19.4	225,370,160	17,412,037	18,721,333	6,795,811,001	565,017,696	611,830,253
Other long-term investments	20	345,337	223,807	11,307	10,413,300	7,262,505	369,529
Long-term loans to related parties	18.4	86,055,526	95,495,279	110,497,369	2,594,918,018	3,098,805,811	3,611,154,952
Property, plant and equipment	21	10,661,984,455	8,203,148,334	8,034,374,696	321,501,441,133	266,190,788,685	262,570,703,080
Goodwill	22	2,060,856,097	1,244,242,269	1,167,584,174	62,143,047,441	40,375,453,276	38,157,717,250
Intangible assets	23	131,976,248	82,092,341	83,988,319	3,979,611,307	2,663,882,715	2,744,814,987
Exploration and evaluation assets	24	2,639,486,065	3,071,909,369	3,066,535,679	79,591,055,959	99,682,947,548	100,217,187,484
Deferred tax assets	25.1	961,729,427	462,550,222	416,116,927	28,999,985,605	15,009,674,962	13,599,080,791
Rights to receive reimbursement from decommissioning funds		237,264,583	161,721,008	131,356,153	7,154,475,393	5,247,819,635	4,292,839,069
Other non-current assets							
Prepaid expenses	26	17,871,345	19,870,031	20,829,912	538,892,493	644,779,168	680,740,553
Deferred remuneration under agreement		11,302,332	13,060,045	14,817,758	340,810,484	423,796,265	484,257,844
Financial derivative assets	27	83,677,515	22,098,578	19,460,308	2,523,211,486	717,095,155	635,980,642
Others	28	142,142,400	113,877,349	70,095,848	4,286,161,428	3,695,300,906	2,290,796,318
<b>Total Non-current Assets</b>		<b>17,488,211,870</b>	<b>13,728,054,068</b>	<b>13,367,747,221</b>	<b>527,339,481,005</b>	<b>445,473,055,495</b>	<b>436,870,188,679</b>
<b>Total Assets</b>		<b>22,201,502,032</b>	<b>19,484,121,880</b>	<b>19,132,582,757</b>	<b>669,464,008,107</b>	<b>632,256,471,822</b>	<b>625,270,274,000</b>

Notes to financial statements are an integral part of these financial statements.

(Signed) Phongsthorn Thavisin  
(Phongsthorn Thavisin)  
President and Chief Executive Officer

(Signed) Jaroonsri Wankertphon  
(Jaroonsri Wankertphon)  
Senior Vice President, Accounting Division



## Statements of Financial Position

PTT Exploration and Production Public Company Limited and Subsidiaries

As at December 31, 2019

### Consolidated

Notes	Unit: US Dollar			Unit: Baht		
	December 31, 2019	December 31, 2018 (Restated)	January 1, 2018 (Brought forward) (Restated)	December 31, 2019	December 31, 2018 (Restated)	January 1, 2018 (Brought forward) (Restated)
<b>Liabilities and Equity</b>						
<b>Current Liabilities</b>						
Trade accounts payable	107,064,556	102,655,689	115,352,784	3,228,424,080	3,331,159,471	3,769,834,227
Working capital to co-venturers	12,439,988	17,578,681	15,640,555	375,115,360	570,425,258	511,147,634
Current portion of long-term financial liabilities	29 18,281,361	407,014,532	399,710,434	551,256,111	13,207,553,411	13,062,902,055
Accrued expenses	749,645,953	596,428,200	490,905,549	22,604,819,279	19,353,988,336	16,043,240,286
Accrued interests payable	19,774,707	16,274,462	24,150,871	596,286,435	528,103,567	789,272,508
Income tax payable	862,953,072	678,133,387	406,005,018	26,021,483,863	22,005,314,869	13,268,614,806
Short-term provisions	30 131,500,284	133,674,387	63,423,986	3,965,259,111	4,337,711,471	2,072,753,782
Deferred considerations acquired through business acquisition	-	465,971,435	-	-	15,120,695,026	-
Financial derivative liabilities	27 15,213,837	10,685,306	25,521,108	458,757,976	346,736,397	834,053,133
Other current liabilities	133,969,338	57,364,252	60,545,450	4,039,710,172	1,861,456,007	1,978,679,428
<b>Total Current Liabilities</b>	<b>2,050,843,096</b>	<b>2,485,780,331</b>	<b>1,601,255,755</b>	<b>61,841,112,387</b>	<b>80,663,143,813</b>	<b>52,330,497,859</b>
<b>Non-current Liabilities</b>						
Debentures	29 2,704,746,265	1,537,766,538	1,938,720,566	81,558,909,291	49,900,266,673	63,359,158,876
Long-term loans	29 718,674,613	985,476	568,730,791	21,670,911,741	31,978,536	18,586,641,706
Deferred tax liabilities	25.1 1,358,709,648	781,885,385	890,888,365	40,970,525,919	25,372,049,810	29,115,045,481
Provision for employee benefits	31 245,248,060	135,263,864	123,772,502	7,395,204,113	4,389,278,210	4,044,996,125
Provision for decommissioning costs	32 2,967,512,233	2,243,654,819	2,275,432,888	89,482,353,377	72,806,223,203	74,363,225,090
Provision for remuneration for the renewal of petroleum production	33 190,757,774	238,661,335	195,015,188	5,752,109,238	7,744,520,345	6,373,274,452
Other non-current liabilities						
Deferred income	5,035,540	4,957,352	7,359,738	151,841,653	160,865,239	240,522,954
Financial derivative liabilities	-	-	7,458,980	-	-	243,766,267
Others	34 118,801,033	49,767,464	22,401,371	3,582,325,936	1,614,945,891	732,097,260
<b>Total Non-current Liabilities</b>	<b>8,309,485,166</b>	<b>4,992,942,233</b>	<b>6,029,780,389</b>	<b>250,564,181,268</b>	<b>162,020,127,907</b>	<b>197,058,728,211</b>
<b>Total Liabilities</b>	<b>10,360,328,262</b>	<b>7,478,722,564</b>	<b>7,631,036,144</b>	<b>312,405,293,655</b>	<b>242,683,271,720</b>	<b>249,389,226,070</b>
<b>Equity</b>						
Share capital						
Authorized share capital						
3,969,985,400 ordinary shares of Baht 1 each	38 3,969,985,400			3,969,985,400	3,969,985,400	3,969,985,400
Issued and paid-up share capital						
3,969,985,400 ordinary shares of Baht 1 each	150,683,762	150,683,762	150,683,762	3,969,985,400	3,969,985,400	3,969,985,400
Share premium	3,439,036,612	3,439,036,612	3,439,036,612	105,417,619,764	105,417,619,764	105,417,619,764
Subordinated capital debentures	36 187,434,503	1,154,687,532	1,154,811,834	6,018,033,688	38,231,753,921	38,234,354,686
Retained earnings						
Appropriated						
Legal reserve	39 15,048,319	15,048,319	15,048,319	396,998,540	396,998,540	396,998,540
Reserve for expansion	431,231,212	431,231,212	431,231,212	16,900,000,000	16,900,000,000	16,900,000,000
Unappropriated	7,630,675,250	6,847,836,815	6,339,799,664	247,150,263,826	222,900,331,939	206,375,726,076
Other components of equity	(12,935,888)	(33,124,936)	(29,064,790)	(22,794,186,766)	1,756,510,538	4,586,363,464
<b>Total Equity</b>	<b>11,841,173,770</b>	<b>12,005,399,316</b>	<b>11,501,546,613</b>	<b>357,058,714,452</b>	<b>389,573,200,102</b>	<b>375,881,047,930</b>
<b>Total Liabilities and Equity</b>	<b>22,201,502,032</b>	<b>19,484,121,880</b>	<b>19,132,582,757</b>	<b>669,464,008,107</b>	<b>632,256,471,822</b>	<b>625,270,274,000</b>

Notes to financial statements are an integral part of these financial statements.

## Statements of Financial Position

PTT Exploration and Production Public Company Limited and Subsidiaries

As at December 31, 2019

## The Company

		Unit: US Dollar		Unit: Baht	
	Notes	December 31, 2019	December 31, 2018	December 31, 2019	December 31, 2018
<u>Assets</u>					
Current Assets					
Cash and cash equivalents	9	715,768,020	462,093,407	21,583,266,339	14,994,853,673
Short-term investments	10	200,000,000	462,699,928	6,030,799,292	15,014,535,178
Investments in trading securities	11	210,414	70,541,991	6,344,815	2,289,075,812
Investments in available-for-sale securities	12	-	10,450,000	-	339,100,750
Account receivable - parent company	13,18.2	353,316,880	399,091,972	10,653,915,949	12,950,467,667
Trade accounts receivable	14	1,185,691	987,080	35,753,312	32,030,591
Other accounts receivable		72,758,047	434,624,804	2,193,945,891	14,103,502,101
Short-term loans to related party	18.3	362,000,567	1,175,450,898	10,915,763,811	38,143,184,822
Inventories	15	5,329,916	4,271,210	160,718,274	138,600,061
Materials and supplies	16	98,727,775	101,402,073	2,977,036,991	3,290,480,304
Current tax assets		15,036,646	24,436,122	453,414,956	792,948,075
Other current assets					
Working capital from co-venturers		7,845,461	2,883,927	236,572,005	93,582,934
Accrued interests receivable		280,983,685	48,917,142	8,472,781,050	1,587,353,078
Financial derivative assets	27	253,020	5,638,411	7,629,569	182,965,483
Others	17	63,541,724	30,755,680	1,916,036,937	998,016,666
Total Current Assets		2,176,957,846	3,234,244,645	65,643,979,191	104,950,697,195
Non-current Assets					
Investments in associates	19.3	25,577,427	25,577,427	771,261,656	829,983,238
Investments in subsidiaries	19.2	924,403,328	795,711,719	27,874,454,685	25,820,712,047
Other long-term investment	20	47,837	11,307	1,442,486	366,916
Long-term loans to related parties	18.4	6,410,306,980	5,418,528,669	193,296,373,984	175,830,348,003
Property, plant and equipment	21	3,305,867,193	3,782,063,076	99,685,107,639	122,727,313,550
Goodwill	22	75,157,587	75,157,587	2,266,301,616	2,438,851,117
Intangible assets	23	78,178,825	71,600,170	2,357,404,014	2,323,413,531
Exploration and evaluation assets	24	-	149,886,527	-	4,863,792,694
Deferred tax assets	25.1	639,817,402	315,463,776	19,293,051,670	10,236,746,710
Other non-current assets					
Deferred remuneration under agreement		11,302,332	13,060,045	340,810,484	423,796,265
Financial derivative assets	27	64,096,092	22,098,578	1,932,753,308	717,095,155
Others	28	11,674,428	11,923,493	352,030,635	386,915,351
Total Non-current Assets		11,546,429,431	10,681,082,374	348,170,992,177	346,599,334,577
Total Assets		13,723,387,277	13,915,327,019	413,814,971,368	451,550,031,772

Notes to financial statements are an integral part of these financial statements.

## Statements of Financial Position

PTT Exploration and Production Public Company Limited and Subsidiaries

As at December 31, 2019

### The Company

		Unit: US Dollar		Unit: Baht	
	Notes	December 31, 2019	December 31, 2018	December 31, 2019	December 31, 2018
<u>Liabilities and Equity</u>					
<b>Current Liabilities</b>					
Trade accounts payable		23,474,448	30,527,462	707,848,423	990,611,039
Working capital to co-venturers		1,145,615	1,110,819	34,544,868	36,045,896
Current portion of long-term financial liabilities	29	298,557	407,014,532	9,002,691	13,207,553,411
Accrued expenses		285,824,345	288,067,227	8,618,746,275	9,347,733,288
Accrued interests payable		3,064,423	5,145,915	92,404,594	166,984,084
Income tax payable		679,934,364	522,663,759	20,502,738,410	16,960,351,476
Short-term provisions	30	97,890,430	93,671,595	2,951,787,688	3,039,627,557
Deferred considerations acquired through business acquisition		-	465,971,435	-	15,120,695,026
Financial derivative liabilities	27	12,026,567	9,615,920	362,649,045	312,034,992
Other current liabilities		53,898,088	29,716,745	1,625,242,763	964,303,412
<b>Total Current Liabilities</b>		<b>1,157,556,837</b>	<b>1,853,505,409</b>	<b>34,904,964,757</b>	<b>60,145,940,181</b>
<b>Non-current Liabilities</b>					
Debentures	29	377,762,214	351,006,573	11,391,040,460	11,390,104,509
Long-term loans	29	761,949	985,476	22,975,809	31,978,536
Provision for employee benefits	31	179,375,616	121,503,357	5,408,891,691	3,942,763,602
Provision for decommissioning costs	32	1,571,621,696	1,370,656,206	47,390,675,072	44,477,564,365
Provision for remuneration for the renewal of petroleum production	33	174,922,380	238,401,631	5,274,608,833	7,736,093,019
Other non-current liabilities					
Deferred income		3,044,711	3,503,193	91,810,205	113,678,016
Others	34	25,281,990	23,048,355	762,353,022	747,915,257
<b>Total Non-current Liabilities</b>		<b>2,332,770,556</b>	<b>2,109,104,791</b>	<b>70,342,355,092</b>	<b>68,440,097,304</b>
<b>Total Liabilities</b>		<b>3,490,327,393</b>	<b>3,962,610,200</b>	<b>105,247,319,849</b>	<b>128,586,037,485</b>
<b>Equity</b>					
Share capital					
Authorized share capital					
3,969,985,400 ordinary shares of Baht 1 each	38			3,969,985,400	3,969,985,400
Issued and paid-up share capital					
3,969,985,400 ordinary shares of Baht 1 each		150,683,762	150,683,762	3,969,985,400	3,969,985,400
Share premium		3,439,036,612	3,439,036,612	105,417,619,764	105,417,619,764
Subordinated capital debentures	36	156,570,483	301,226,483	4,981,992,349	9,661,771,205
Retained earnings					
Appropriated					
Legal reserve	39	15,048,319	15,048,319	396,998,540	396,998,540
Reserve for expansion		431,231,212	431,231,212	16,900,000,000	16,900,000,000
Unappropriated		6,012,419,398	5,597,858,914	200,224,792,852	187,500,874,929
Other components of equity		28,070,098	17,631,517	(23,323,737,386)	(883,255,551)
<b>Total Equity</b>		<b>10,233,059,884</b>	<b>9,952,716,819</b>	<b>308,567,651,519</b>	<b>322,963,994,287</b>
<b>Total Liabilities and Equity</b>		<b>13,723,387,277</b>	<b>13,915,327,019</b>	<b>413,814,971,368</b>	<b>451,550,031,772</b>

Notes to financial statements are an integral part of these financial statements.



## Statements of Income

PTT Exploration and Production Public Company Limited and Subsidiaries  
For the Year Ended December 31, 2019

Consolidated

	Notes	Unit: US Dollar		Unit: Baht	
		2019	2018	2019	2018
<b>Revenues</b>					
Sales		6,046,416,158	5,202,809,857	187,434,256,385	168,327,503,985
Revenue from pipeline transportation		116,396,137	107,563,734	3,618,478,463	3,481,649,960
Other income					
Gain on foreign exchange		108,597,530	-	3,364,162,379	-
Gain on financial derivatives		-	13,966,633	-	539,300,427
Interest income		86,234,821	83,352,666	2,691,774,670	2,691,351,050
Other income		55,390,651	50,784,060	1,713,008,987	1,647,110,915
<b>Total Revenues</b>		<b>6,413,035,297</b>	<b>5,458,476,950</b>	<b>198,821,680,884</b>	<b>176,686,916,337</b>
<b>Expenses</b>					
Operating expenses		750,682,327	645,084,154	23,174,701,610	20,855,434,660
Exploration expenses		128,097,990	45,685,474	3,950,741,535	1,481,056,817
Administrative expenses	18.1	383,776,512	290,233,637	11,870,413,978	9,404,564,362
Petroleum royalties		546,334,209	469,663,029	16,944,730,977	15,204,940,727
Depreciation, depletion and amortization		2,026,055,587	1,848,510,539	62,810,841,149	59,809,002,872
Other expenses					
Loss on foreign exchange		-	18,632,091	-	624,229,740
Loss on financial derivatives		109,399,724	-	3,405,789,423	-
Other expenses		-	57,768,001	-	1,886,227,194
Finance costs		234,978,741	238,564,895	7,290,639,862	7,707,126,230
<b>Total Expenses</b>		<b>4,179,325,090</b>	<b>3,614,141,820</b>	<b>129,447,858,534</b>	<b>116,972,582,602</b>
Share of profit of associates and joint ventures		12,351,839	7,932,268	380,419,707	256,247,378
<b>Profit before income taxes</b>		<b>2,246,062,046</b>	<b>1,852,267,398</b>	<b>69,754,242,057</b>	<b>59,970,581,113</b>
Income taxes	25.2	(676,998,045)	(732,658,187)	(20,951,704,151)	(23,764,290,782)
<b>Profit for the year</b>		<b>1,569,064,001</b>	<b>1,119,609,211</b>	<b>48,802,537,906</b>	<b>36,206,290,331</b>
<b>Earnings per share</b>					
Basic earnings per share	41	0.38	0.27	11.72	8.69

Notes to financial statements are an integral part of these financial statements.

## Statements of Comprehensive Income

PTT Exploration and Production Public Company Limited and Subsidiaries  
For the Year Ended December 31, 2019

Consolidated

	Notes	Unit: US Dollar		Unit: Baht	
		2019	2018	2019	2018
<b>Profit for the year</b>		<b>1,569,064,001</b>	<b>1,119,609,211</b>	<b>48,802,537,906</b>	<b>36,206,290,331</b>
<b>Other comprehensive income (loss)</b>					
<b>Items that will be reclassified subsequently to profit or loss</b>					
Exchange differences on translating financial statements	5	3,666,799	(4,808,840)	(2,296,043,900)	(498,522,049)
Loss on remeasuring available-for-sale securities		(38,246)	(150,837)	(1,306,085)	(5,158,138)
Income taxes relating to remeasuring of available-for-sale securities		1,134	(1,134)	37,087	(37,087)
Gain on cash flow hedges		15,188,878	705,714	455,066,446	15,136,434
Income taxes relating to cash flow hedges		(3,037,776)	(141,143)	(92,552,256)	(3,027,287)
Share of other comprehensive income of associates and joint ventures		4,408,259	336,094	137,371,586	10,828,716
<b>Total Items that will be reclassified subsequently to profit or loss</b>		<b>20,189,048</b>	<b>(4,060,146)</b>	<b>(1,797,427,122)</b>	<b>(480,779,411)</b>
<b>Items that will not be reclassified subsequently to profit or loss</b>					
Exchange differences on translating financial statements		-	-	(22,753,270,182)	(2,349,073,515)
Loss from changes in actuarial assumptions of provision for employee benefits	31	(26,651,682)	(3,702,983)	(805,495,659)	(121,107,966)
Income taxes from changes in actuarial assumptions of provision for employee benefits		12,021,516	774,275	363,224,671	25,323,046
Share of other comprehensive loss of associates and joint ventures		(30,753)	-	(940,226)	-
<b>Total Items that will not be reclassified subsequently to profit or loss</b>		<b>(14,660,919)</b>	<b>(2,928,708)</b>	<b>(23,196,481,396)</b>	<b>(2,444,858,435)</b>
<b>Other comprehensive income (loss) for the year - net of tax</b>		<b>5,528,129</b>	<b>(6,988,854)</b>	<b>(24,993,908,518)</b>	<b>(2,925,637,846)</b>
<b>Total comprehensive income for the year</b>		<b>1,574,592,130</b>	<b>1,112,620,357</b>	<b>23,808,629,388</b>	<b>33,280,652,485</b>

Notes to financial statements are an integral part of these financial statements.

## Statements of Income

PTT Exploration and Production Public Company Limited and Subsidiaries  
For the Year Ended December 31, 2019

## The Company

		Unit: US Dollar		Unit: Baht	
	Notes	2019	2018	2019	2018
Revenues					
Sales		3,239,250,217	2,832,497,051	100,507,848,760	91,712,945,783
Other income					
Gain on foreign exchange		48,348,320	-	1,503,434,335	-
Gain on financial derivatives		-	4,659,465	-	166,844,469
Interest income		315,066,394	92,885,998	9,775,532,625	3,019,858,698
Other income		144,354,658	115,177,833	4,463,376,042	3,723,159,334
Dividends received from related parties		46,175,204	66,297,020	1,412,601,869	2,167,208,482
Total Revenues		3,793,194,793	3,111,517,367	117,662,793,631	100,790,016,766
Expenses					
Operating expenses		279,559,667	235,458,276	8,647,466,649	7,628,665,176
Exploration expenses		259,142	11,874,628	7,929,998	371,826,640
Administrative expenses	18.1	376,337,875	283,838,494	11,644,182,377	9,192,753,402
Petroleum royalties		404,906,293	354,062,131	12,563,481,576	11,464,123,929
Depreciation, depletion and amortization		1,050,260,840	916,664,049	32,585,816,321	29,724,240,162
Other expenses					
Loss on foreign exchange		-	11,539,391	-	395,104,181
Loss on financial derivatives		73,572,180	-	2,302,963,481	-
Finance costs		108,285,400	131,782,407	3,369,991,182	4,266,270,221
Total Expenses		2,293,181,397	1,945,219,376	71,121,831,584	63,042,983,711
Profit before income taxes		1,500,013,396	1,166,297,991	46,540,962,047	37,747,033,055
Income taxes	25.2	(364,292,665)	(354,782,123)	(11,265,866,207)	(11,471,397,351)
Profit for the year		1,135,720,731	811,515,868	35,275,095,840	26,275,635,704
Earnings per share					
Basic earnings per share	41	0.28	0.20	8.80	6.50

Notes to financial statements are an integral part of these financial statements.



## Statements of Comprehensive Income

PTT Exploration and Production Public Company Limited and Subsidiaries

For the Year Ended December 31, 2019

### The Company

	Note	Unit: US Dollar		Unit: Baht	
		2019	2018	2019	2018
<b>Profit for the year</b>		<b>1,135,720,731</b>	<b>811,515,868</b>	<b>35,275,095,840</b>	<b>26,275,635,704</b>
<b>Other comprehensive income (loss)</b>					
<b>Items that will be reclassified subsequently to profit or loss</b>					
(Loss) gain on remeasuring available-for-sale securities		(5,670)	5,670	(185,437)	185,437
Income taxes relating to remeasuring of available-for-sale securities		1,134	(1,134)	37,087	(37,087)
Gain on cash flow hedges		13,053,896	705,714	392,389,523	15,136,434
Income taxes relating to cash flow hedges		(2,610,779)	(141,143)	(79,452,826)	(3,027,287)
<b>Total Items that will be reclassified subsequently to profit or loss</b>		<b>10,438,581</b>	<b>569,107</b>	<b>312,788,347</b>	<b>12,257,497</b>
<b>Item that will not be reclassified subsequently to profit or loss</b>					
Exchange differences on translating financial statements		-	-	(22,753,270,182)	(2,349,073,515)
Loss from changes in actuarial assumptions of provision for employee benefits	31	(24,116,038)	(184,084)	(728,863,049)	(6,020,448)
Income taxes from changes in actuarial assumptions of provision for employee benefits		12,058,019	92,042	364,431,524	3,010,224
<b>Total Items that will not be reclassified subsequently to profit or loss</b>		<b>(12,058,019)</b>	<b>(92,042)</b>	<b>(23,117,701,707)</b>	<b>(2,352,083,739)</b>
<b>Other comprehensive income (loss) for the year - net of tax</b>		<b>(1,619,438)</b>	<b>477,065</b>	<b>(22,804,913,360)</b>	<b>(2,339,826,242)</b>
<b>Total comprehensive income for the year</b>		<b>1,134,101,293</b>	<b>811,992,933</b>	<b>12,470,182,480</b>	<b>23,935,809,462</b>

Notes to financial statements are an integral part of these financial statements.

## Statements of Changes in Equity

PTT Exploration and Production Public Company Limited and Subsidiaries  
For the Year Ended December 31, 2019

(Unofficial Translation)

### Consolidated

Unit: US Dollar														
Note	Issued and paid-up share capital	Share premium	Subordinated capital debentures	Retained earnings			Other components of equity							
				Legal reserve	Reserve for expansion	Unappropriated	Exchange differences on translating financial statements	Available-for-sale securities	Income taxes relating to remeasuring of available-for-sale securities	Cash flow hedges	Income taxes relating to cash flow hedges	Share of other comprehensive income of associates and joint ventures	Total other components of equity	Total equity
Balance - as at January 1, 2018	150,683,762	3,439,036,612	1,154,811,834	15,048,319	431,231,212	6,354,905,664	(49,172,853)	(567,987)	-	21,328,012	(4,265,602)	3,613,640	(29,064,790)	11,516,652,613
Reclassification and adjustment	5	-	-	-	-	(15,106,000)	-	-	-	-	-	-	-	(15,106,000)
Reclassified and adjusted balance - as at January 1, 2018	150,683,762	3,439,036,612	1,154,811,834	15,048,319	431,231,212	6,339,799,664	(49,172,853)	(567,987)	-	21,328,012	(4,265,602)	3,613,640	(29,064,790)	11,501,546,613
Changes in equity for the year														
Interest expenses for subordinated capital debentures	-	-	-	-	-	(57,696,014)	-	-	-	-	-	-	-	(57,696,014)
Income tax for subordinated capital debentures	-	-	-	-	-	4,754,733	-	-	-	-	-	-	-	4,754,733
Finance cost from issuance of subordinated capital debentures	-	-	(124,302)	-	-	-	-	-	-	-	-	-	-	(124,302)
Dividends paid	-	-	-	-	-	(555,702,071)	-	-	-	-	-	-	-	(555,702,071)
Profit for the year	-	-	-	-	-	1,119,609,211	-	-	-	-	-	-	-	1,119,609,211
Other comprehensive income (loss) for the year	-	-	-	-	-	(2,928,708)	(4,808,840)	(150,837)	(1,134)	705,714	(141,143)	336,094	(4,060,146)	(6,988,854)
Balance - as at December 31, 2018	150,683,762	3,439,036,612	1,154,687,532	15,048,319	431,231,212	6,847,836,815	(53,981,693)	(718,824)	(1,134)	22,033,726	(4,406,745)	3,949,734	(33,124,936)	12,005,399,316

Notes to financial statements are an integral part of these financial statements.

## Statements of Changes in Equity (Continued)

PTT Exploration and Production Public Company Limited and Subsidiaries  
For the Year Ended December 31, 2019

(Unofficial Translation)

### Consolidated

Unit: US Dollar														
Notes	Retained earnings						Other components of equity							
	Issued and paid-up share capital	Share premium	Subordinated capital debentures	Legal reserve	Reserve for expansion	Unappropriated	Other comprehensive income (loss)							Total equity
							Exchange differences on translating financial statements	Available-for-sale securities	Income taxes relating to remeasuring of available-for-sale securities	Cash flow hedges	Income taxes relating to cash flow hedges	Share of other comprehensive income of associates and joint ventures	Total other components of equity	
<b>Balance - as at January 1, 2019</b>	150,683,762	3,439,036,612	1,154,687,532	15,048,319	431,231,212	6,862,942,815	(53,981,693)	(718,824)	(1,134)	22,033,726	(4,406,745)	3,949,734	(33,124,936)	12,020,505,316
Reclassification and adjustment	5	-	-	-	-	(15,106,000)	-	-	-	-	-	-	-	(15,106,000)
<b>Reclassified and adjusted balance - as at January 1, 2019</b>	150,683,762	3,439,036,612	1,154,687,532	15,048,319	431,231,212	6,847,836,815	(53,981,693)	(718,824)	(1,134)	22,033,726	(4,406,745)	3,949,734	(33,124,936)	12,005,399,316
<b>Changes in equity for the year</b>														
Deferred income tax of surplus from business combination under common control		-	-	-	-	325,673	-	-	-	-	-	-	-	325,673
Interest expenses for subordinated capital debentures		-	-	-	-	(53,610,567)	-	-	-	-	-	-	-	(53,610,567)
Redemption of subordinated capital debentures	36	-	-	(967,253,029)	-	(23,593,066)	-	-	-	-	-	-	-	(990,846,095)
Income tax for subordinated capital debentures		-	-	-	-	3,073,806	-	-	-	-	-	-	-	3,073,806
Dividends paid	44	-	-	-	-	(697,760,493)	-	-	-	-	-	-	-	(697,760,493)
Profit for the year		-	-	-	-	1,569,064,001	-	-	-	-	-	-	-	1,569,064,001
Other comprehensive income (loss) for the year		-	-	-	-	(14,660,919)	3,666,799	(38,246)	1,134	15,188,878	(3,037,776)	4,408,259	20,189,048	5,528,129
<b>Balance - as at December 31, 2019</b>	150,683,762	3,439,036,612	187,434,503	15,048,319	431,231,212	7,630,675,250	(50,314,894)	(757,070)	-	37,222,604	(7,444,521)	8,357,993	(12,935,888)	11,841,173,770

Notes to financial statements are an integral part of these financial statements.



## Statements of Changes in Equity (Continued)

PTT Exploration and Production Public Company Limited and Subsidiaries

For the Year Ended December 31, 2019

### Consolidated

Unit: Baht														
Note	Retained earnings						Other components of equity							
	Issued and paid-up share capital	Share premium	Subordinated capital debentures	Legal reserve	Reserve for expansion	Unappropriated	Other comprehensive income (loss)							Total equity
							Exchange differences on translating financial statements	Available-for-sale securities	Income taxes relating to remeasuring of available-for-sale securities	Cash flow hedges	Income taxes relating to cash flow hedges	Share of other comprehensive income of associates and joint ventures	Total other components of equity	
Balance - as at January 1, 2018	3,969,985,400	105,417,619,764	38,234,354,686	396,998,540	16,900,000,000	206,909,233,643	3,736,347,304	(19,592,357)	-	804,505,545	(97,007,861)	122,281,144	4,546,533,775	376,374,725,808
Reclassification and adjustment	5	-	-	-	-	(533,507,567)	39,829,689	-	-	-	-	-	39,829,689	(493,677,878)
Reclassified and adjusted balance - as at January 1, 2018	3,969,985,400	105,417,619,764	38,234,354,686	396,998,540	16,900,000,000	206,375,726,076	3,776,176,993	(19,592,357)	-	804,505,545	(97,007,861)	122,281,144	4,586,363,464	375,881,047,930
Changes in equity for the year														
Interest expenses for subordinated capital debentures	-	-	-	-	-	(1,876,708,776)	-	-	-	-	-	-	-	(1,876,708,776)
Income tax for subordinated capital debentures	-	-	-	-	-	154,780,651	-	-	-	-	-	-	-	154,780,651
Finance cost from issuance of subordinated capital debentures	-	-	(2,600,765)	-	-	-	-	-	-	-	-	-	-	(2,600,765)
Dividends paid	-	-	-	-	-	(17,863,971,423)	-	-	-	-	-	-	-	(17,863,971,423)
Profit for the year	-	-	-	-	-	36,206,290,331	-	-	-	-	-	-	-	36,206,290,331
Other comprehensive income (loss) for the year	-	-	-	-	-	(95,784,920)	(2,847,595,564)	(5,158,138)	(37,087)	15,136,434	(3,027,287)	10,828,716	(2,829,852,926)	(2,925,637,846)
Balance - as at December 31, 2018	3,969,985,400	105,417,619,764	38,231,753,921	396,998,540	16,900,000,000	222,900,331,939	928,581,429	(24,750,495)	(37,087)	819,641,979	(100,035,148)	133,109,860	1,756,510,538	389,573,200,102

Notes to financial statements are an integral part of these financial statements.

## Statements of Changes in Equity (Continued)

(Unofficial Translation)

PTT Exploration and Production Public Company Limited and Subsidiaries  
For the Year Ended December 31, 2019

### Consolidated

Unit: Baht														
Notes	Retained earnings						Other components of equity							
	Issued and paid-up share capital	Share premium	Subordinated capital debentures	Legal reserve	Reserve for expansion	Unappropriated	Exchange differences on translating financial statements	Available-for-sale securities	Income taxes relating to remeasuring of available-for-sale securities	Cash flow hedges	Income taxes relating to cash flow hedges	Share of other comprehensive income of associates and joint ventures	Total other components of equity	Total equity
Balance - as at January 1, 2019	3,969,985,400	105,417,619,764	38,231,753,921	396,998,540	16,900,000,000	223,433,839,506	885,261,033	(24,750,495)	(37,087)	819,641,979	(100,035,148)	133,109,860	1,713,190,142	390,063,387,273
Reclassification and adjustment	5	-	-	-	-	(533,507,567)	43,320,396	-	-	-	-	-	43,320,396	(490,187,171)
Reclassified and adjusted balance - as at January 1, 2019	3,969,985,400	105,417,619,764	38,231,753,921	396,998,540	16,900,000,000	222,900,331,939	928,581,429	(24,750,495)	(37,087)	819,641,979	(100,035,148)	133,109,860	1,756,510,538	389,573,200,102
Changes in equity for the year														
Deferred income tax of surplus from business combination under common control		-	-	-	-	9,956,962	-	-	-	-	-	-	-	9,956,962
Interest expenses for subordinated capital debentures		-	-	-	-	(1,662,969,359)	-	-	-	-	-	-	-	(1,662,969,359)
Redemption of subordinated capital debentures	36	-	-	(32,213,720,233)	-	(716,290,408)	-	-	-	-	-	-	-	(32,930,010,641)
Income tax for subordinated capital debentures		-	-	-	-	94,437,501	-	-	-	-	-	-	-	94,437,501
Dividends paid	44	-	-	-	-	(21,834,529,501)	-	-	-	-	-	-	-	(21,834,529,501)
Profit for the year		-	-	-	-	48,802,537,906	-	-	-	-	-	-	-	48,802,537,906
Other comprehensive income (loss) for the year		-	-	-	-	(443,211,214)	(25,049,314,082)	(1,306,085)	37,087	455,066,446	(92,552,256)	137,371,586	(24,550,697,304)	(24,993,908,518)
Balance - as at December 31, 2019		3,969,985,400	105,417,619,764	6,018,033,688	396,998,540	16,900,000,000	247,150,263,826	(24,120,732,653)	(26,056,580)	-	1,274,708,425	(192,587,404)	270,481,446	(22,794,186,766)

Notes to financial statements are an integral part of these financial statements.

## Statements of Changes in Equity

PTT Exploration and Production Public Company Limited and Subsidiaries

For the Year Ended December 31, 2019

### The Company

Unit: US Dollar											
Retained earnings						Other components of equity					
						Other comprehensive income (loss)				Total other components of equity	
Issued and paid-up share capital	Share premium	Subordinated capital debentures	Legal reserve	Reserve for expansion	Unappropriated	Available-for-sale securities	Income taxes relating to remeasuring of available-for-sale securities	Cash flow hedges	Income taxes relating to cash flow hedges	Total other components of equity	Total equity
150,683,762	3,439,036,612	301,226,483	15,048,319	431,231,212	5,356,440,194	-	-	21,328,012	(4,265,602)	17,062,410	9,710,728,992
-	-	-	-	-	(17,404,632)	-	-	-	-	-	(17,404,632)
-	-	-	-	-	3,101,597	-	-	-	-	-	3,101,597
-	-	-	-	-	(555,702,071)	-	-	-	-	-	(555,702,071)
-	-	-	-	-	811,515,868	-	-	-	-	-	811,515,868
-	-	-	-	-	(92,042)	5,670	(1,134)	705,714	(141,143)	569,107	477,065
150,683,762	3,439,036,612	301,226,483	15,048,319	431,231,212	5,597,858,914	5,670	(1,134)	22,033,726	(4,406,745)	17,631,517	9,952,716,819

Notes to financial statements are an integral part of these financial statements.



## Statements of Changes in Equity (Continued)

PTT Exploration and Production Public Company Limited and Subsidiaries

For the Year Ended December 31, 2019

(Unofficial Translation)

### The Company

Unit: US Dollar													
Notes													
	Retained earnings						Other components of equity						
							Other comprehensive income (loss)					Total other components of equity	Total equity
	Income taxes relating to remeasuring of available-for-sale securities			Cash flow hedges	Income taxes relating to cash flow hedges								
	Issued and paid-up share capital	Share premium	Subordinated capital debentures			Legal reserve	Reserve for expansion	Unappropriated	Available-for-sale securities				
Balance - as at January 1, 2019	150,683,762	3,439,036,612	301,226,483	15,048,319	431,231,212	5,597,858,914	5,670	(1,134)	22,033,726	(4,406,745)	17,631,517	9,952,716,819	
Changes in equity for the year													
Interest expenses for subordinated capital debentures	-	-	-	-	-	(13,632,287)	-	-	-	-	-	(13,632,287)	
Redemption of subordinated capital debentures	36	-	(144,656,000)	-	-	(649,000)	-	-	-	-	-	(145,305,000)	
Income tax for subordinated capital debentures	-	-	-	-	-	2,939,552	-	-	-	-	-	2,939,552	
Dividends paid	44	-	-	-	-	(697,760,493)	-	-	-	-	-	(697,760,493)	
Profit for the year	-	-	-	-	-	1,135,720,731	-	-	-	-	-	1,135,720,731	
Other comprehensive income (loss) for the year	-	-	-	-	-	(12,058,019)	(5,670)	1,134	13,053,896	(2,610,779)	10,438,581	(1,619,438)	
Balance - as at December 31, 2019		150,683,762	3,439,036,612	156,570,483	15,048,319	431,231,212	6,012,419,398	-	-	35,087,622	(7,017,524)	28,070,098	10,233,059,884

Notes to financial statements are an integral part of these financial statements.

## Statements of Changes in Equity (Continued)

PTT Exploration and Production Public Company Limited and Subsidiaries

For the Year Ended December 31, 2019

### The Company

	Unit: Baht												
	Retained earnings						Other components of equity						
							Other comprehensive income (loss)						
	Issued and paid-up share capital	Share premium	Subordinated capital debentures	Legal reserve	Reserve for expansion	Unappropriated	Exchange differences on translating financial statement	Available-for-sale securities	Income taxes relating to remeasuring of available-for-sale securities	Cash flow hedges	Income taxes relating to cash flow hedges	Total other components of equity	Total equity
Balance - as at January 1, 2018	3,969,985,400	105,417,619,764	9,661,771,205	396,998,540	16,900,000,000	179,555,557,529	856,493,540	-	-	757,614,970	(160,548,043)	1,453,560,467	317,355,492,905
Changes in equity for the year													
Interest expenses for subordinated capital debentures	-	-	-	-	-	(564,099,593)	-	-	-	-	-	-	(564,099,593)
Income tax for subordinated capital debentures	-	-	-	-	-	100,762,936	-	-	-	-	-	-	100,762,936
Dividends paid	-	-	-	-	-	(17,863,971,423)	-	-	-	-	-	-	(17,863,971,423)
Profit for the year	-	-	-	-	-	26,275,635,704	-	-	-	-	-	-	26,275,635,704
Other comprehensive income (loss) for the year	-	-	-	-	-	(3,010,224)	(2,349,073,515)	185,437	(37,087)	15,136,434	(3,027,287)	(2,336,816,018)	(2,339,826,242)
Balance - as at December 31, 2018	3,969,985,400	105,417,619,764	9,661,771,205	396,998,540	16,900,000,000	187,500,874,929	(1,492,579,975)	185,437	(37,087)	772,751,404	(163,575,330)	(883,255,551)	322,963,994,287

Notes to financial statements are an integral part of these financial statements.

## Statements of Changes in Equity (Continued)

(Unofficial Translation)

PTT Exploration and Production Public Company Limited and Subsidiaries

For the Year Ended December 31, 2019

### The Company

Unit: Baht													
Notes	Retained earnings						Other components of equity						
	Issued and paid-up share capital	Share premium	Subordinated capital debentures	Legal reserve	Reserve for expansion	Unappropriated	Other comprehensive income (loss)						Total equity
							Exchange differences on translating financial statement	Available-for-sale securities	Income taxes relating to remeasuring of available-for-sale securities	Cash flow hedges	Income taxes relating to cash flow hedges	Total other components of equity	
Balance - as at January 1, 2019	3,969,985,400	105,417,619,764	9,661,771,205	396,998,540	16,900,000,000	187,500,874,929	(1,492,579,975)	185,437	(37,087)	772,751,404	(163,575,330)	(883,255,551)	322,963,994,287
Changes in equity for the year													
Interest expenses for													
subordinated capital debentures	-	-	-	-	-	(422,134,817)	-	-	-	-	-	-	(422,134,817)
Redemption of subordinated capital debentures	36	-	(4,679,778,856)	-	-	(20,990,128)	-	-	-	-	-	-	(4,700,768,984)
Income tax for subordinated capital debentures													
capital debentures	44	-	-	-	-	90,908,054	-	-	-	-	-	-	90,908,054
Dividends paid													
Profit for the year													
Other comprehensive income (loss) for the year													
Profit for the year													
Other comprehensive income (loss) for the year													
Balance - as at December 31, 2019	3,969,985,400	105,417,619,764	4,981,992,349	396,998,540	16,900,000,000	200,224,792,852	(24,245,850,157)	-	-	1,165,140,927	(243,028,156)	(23,323,737,386)	308,567,651,519

Notes to financial statements are an integral part of these financial statements.

## Statements of Cash Flows

PTT Exploration and Production Public Company Limited and Subsidiaries  
For the Year Ended December 31, 2019

## Consolidated

	Unit: US Dollar		Unit: Baht	
	2019	2018	2019	2018
<b>Cash flows from operating activities</b>				
Profit before income taxes	2,246,062,046	1,852,267,398	69,754,242,057	59,970,581,113
Adjustment to reconcile profit before income taxes to net cash provided by (used in) operating activities				
Share of profit of associates and joint ventures	(12,351,839)	(7,932,268)	(380,419,707)	(256,247,378)
Depreciation, depletion and amortization	2,026,055,587	1,848,510,539	62,810,841,149	59,809,002,872
(Reversal of) increase in allowance for decrease in value of inventory to net realizable value	(1,363,744)	1,642,796	(43,712,350)	46,211,969
Write-off of exploration assets	76,756,433	673,405	2,368,682,811	21,470,147
Loss on disposal of assets	19,049,055	17,369,216	587,146,421	560,519,399
Other amortized expenses	32,049,621	11,974,556	972,885,487	380,498,448
Income recognized from deferred income	(3,541,237)	(5,457,190)	(109,902,234)	(176,240,204)
Loss (gain) on financial derivatives	57,849,873	(35,469,813)	1,782,312,946	(1,197,296,074)
Provision for employee benefits	35,252,078	13,395,278	1,106,330,638	432,564,030
Other provision	8,133,535	11,004,545	245,821,184	359,903,221
(Gain) loss on foreign exchange	(8,014,338)	8,005,626	(248,724,877)	258,542,066
Interest income less than interest expenses	147,107,031	147,261,911	4,565,464,609	4,765,073,023
Loss from divestment of asset	-	57,768,001	-	1,886,227,194
	<b>4,623,044,101</b>	<b>3,921,014,000</b>	<b>143,410,968,134</b>	<b>126,860,809,826</b>
Changes in operating assets (increase) decrease				
Investments in trading securities	(128,999,785)	(70,000,000)	(4,003,506,473)	(2,260,653,329)
Account receivable - parent company	103,165,691	(70,110,255)	3,201,745,735	(2,264,214,009)
Trade accounts receivable	11,815,123	22,358,808	366,682,176	722,078,767
Other accounts receivable	7,791,561	8,229,120	241,810,990	265,759,818
Inventories	(2,463,831)	(8,167,391)	(76,464,972)	(263,766,269)
Materials and supplies	(12,286,838)	17,796,849	(381,321,841)	574,750,091
Working capital from co-venturers	(37,137,150)	23,619,877	(1,152,550,933)	762,805,036
Other current assets	(18,304,834)	(10,113,775)	(568,090,247)	(326,624,860)
Rights to receive reimbursement from decommissioning funds	(26,903,288)	(30,364,855)	(834,943,161)	(980,634,427)
Prepaid expenses	637,546	(401,257)	19,786,246	(12,958,616)
Other non-current assets	40,332,784	(5,902,396)	1,251,727,386	(190,618,148)
Changes in operating liabilities increase (decrease)				
Trade accounts payable	(44,658,068)	96,951,729	(1,385,962,510)	3,131,060,695
Working capital to co-venturers	(72,571,302)	1,911,181	(2,252,249,324)	61,721,688
Accrued expenses	9,316,035	365,027	289,123,026	11,788,572
Other current liabilities	38,163,249	(5,463,046)	1,184,395,904	(176,429,323)
Deferred income	3,891,828	1,938,878	120,782,835	62,616,171
Provision	(112,677,624)	(103,750,870)	(3,496,948,444)	(3,350,639,267)
Other non-current liabilities	(3,520,925)	(5,010,630)	(109,271,867)	(161,818,541)
Currency translation differences	1,104,775	509,984	34,286,684	16,469,946
Interest received from bank deposits	66,838,520	41,713,612	2,074,332,527	1,347,143,068
Cash paid for income taxes	(926,972,067)	(550,257,922)	(28,768,564,890)	(17,770,605,756)
	<b>(1,103,438,600)</b>	<b>(644,147,332)</b>	<b>(34,245,201,153)</b>	<b>(20,802,768,693)</b>
<b>Net cash flows provided by operating activities</b>	<b>3,519,605,501</b>	<b>3,276,866,668</b>	<b>109,165,766,981</b>	<b>106,058,041,133</b>

Notes to financial statements are an integral part of these financial statements.

## Statements of Cash Flows

PTT Exploration and Production Public Company Limited and Subsidiaries  
For the Year Ended December 31, 2019

### Consolidated

	Unit: US Dollar		Unit: Baht	
	2019	2018	2019	2018
<b>Cash flows from investing activities</b>				
Cash paid for short-term investments	(744,750,000)	(1,652,634,859)	(23,113,305,629)	(53,371,921,365)
Cash received from investing in short-term investments	1,365,410,338	3,786,110,314	42,375,490,353	122,272,612,620
Cash received (paid) for investment in available-for-sale securities	10,444,330	(10,444,330)	324,139,633	(337,300,134)
Cash received for long-term loans to related parties	10,800,587	15,128,483	335,196,063	488,575,078
Cash paid for business acquisition	(2,713,300,641)	(652,851,992)	(84,207,246,710)	(21,083,886,123)
Cash prepayment for business acquisition	-	(397,779,587)	-	(12,846,310,693)
Net cash (paid) received from divestment of asset	(19,626,748)	133,091,954	(609,115,844)	4,298,210,984
Cash paid for investment in joint venture	(79,411,697)	-	(2,464,540,889)	-
Cash received from investment in joint venture	-	1,048,800	-	33,871,046
Cash paid for investment in other long-term investment	(36,530)	-	(1,133,712)	-
Dividends received from related parties	14,716,091	5,437,332	456,713,672	175,598,906
Interest received from short-term investments	15,376,377	39,796,666	477,205,647	1,285,235,233
Interest received from loans	5,218,266	3,335,083	161,948,823	107,706,654
Increase in property, plant and equipment	(1,063,093,098)	(1,081,484,756)	(32,993,079,128)	(34,926,601,616)
Increase in intangible assets	(26,146,817)	(11,694,808)	(811,466,087)	(377,684,387)
Increase in exploration and evaluation assets	(119,228,176)	(60,772,959)	(3,700,244,754)	(1,962,665,601)
<b>Net cash flows (used in) provided by investing activities</b>	<b>(3,343,627,718)</b>	<b>116,285,341</b>	<b>(103,769,438,562)</b>	<b>3,755,440,602</b>
<b>Cash flows from financing activities</b>				
Cash received from short-term loan	259,580,550	-	8,056,078,675	-
Cash paid for repayment of short-term loan	(258,825,547)	-	(8,032,647,151)	-
Cash received from issuance of debentures	1,130,045,316	-	35,070,940,278	-
Cash paid for repayment of debentures	(418,199,073)	(403,742,006)	(12,978,802,274)	(13,038,867,283)
Cash received from long-term loans	600,000,000	-	18,620,991,444	-
Cash paid for repayment of long-term loans	(7,784,707)	(575,134,857)	(241,598,267)	(18,574,007,559)
Interest paid for debentures and loans	(109,932,149)	(128,371,867)	(3,411,742,705)	(4,145,775,533)
Cash paid for redemption of subordinated capital debentures	(990,846,095)	-	(30,750,894,428)	-
Interest paid for subordinated capital debentures	(53,610,567)	(57,696,014)	(1,663,803,190)	(1,863,295,513)
Finance costs paid for issuance of debentures and long-term loans	(7,613,542)	-	(236,286,174)	-
Finance costs paid for issuance of subordinated capital debentures	-	(1,226,264)	-	(39,602,268)
Net cash received (paid) for financial derivative contracts	1,353,260	(2,395,365)	41,998,395	(77,358,436)
Dividends paid	(697,760,493)	(555,702,071)	(21,654,986,972)	(17,946,424,798)
<b>Net cash flows used in financing activities</b>	<b>(553,593,047)</b>	<b>(1,724,268,444)</b>	<b>(17,180,752,369)</b>	<b>(55,685,331,390)</b>
Net (decrease) increase in cash and cash equivalents	(377,615,264)	1,668,883,565	(11,784,423,950)	54,128,150,345
<b>Cash and cash equivalents at the beginning of the year</b>	<b>3,180,095,315</b>	<b>1,512,181,292</b>	<b>103,193,560,790</b>	<b>49,419,466,004</b>
	2,802,480,051	3,181,064,857	91,409,136,840	103,547,616,349
Adjustment for the effect of exchange rate changes	20,417,259	(969,542)	(6,287,501,222)	(354,055,559)
<b>Cash and cash equivalents at the end of the year</b>	<b>2,822,897,310</b>	<b>3,180,095,315</b>	<b>85,121,635,618</b>	<b>103,193,560,790</b>
<b>Supplementary cash flow information</b>				
Unpaid for outstanding payable from purchases of assets	246,424,994	644,480,659	7,647,796,187	20,813,533,539

Notes to financial statements are an integral part of these financial statements.



**Statements of Cash Flows**PTT Exploration and Production Public Company Limited and Subsidiaries  
For the Year Ended December 31, 2019**The Company**

	Unit: US Dollar		Unit: Baht	
	2019	2018	2019	2018
<b>Cash flows from operating activities</b>				
Profit before income taxes	1,500,013,396	1,166,297,991	46,540,962,047	37,747,033,055
Adjustment to reconcile profit before income taxes to net cash provided by (used in) operating activities				
Depreciation, depletion and amortization	1,050,260,840	916,664,049	32,585,816,321	29,724,240,162
Loss on disposal of assets	2,647,971	3,845,950	79,178,715	125,242,187
Other amortized expenses	18,947,870	2,819,502	574,645,123	91,008,481
Income recognized from deferred income	(1,110,595)	(480,490)	(34,467,284)	(15,517,454)
Loss (gain) on financial derivatives	9,047,624	(9,280,591)	288,510,615	(276,885,775)
Dividends received from related parties	(46,175,204)	(66,297,020)	(1,412,601,869)	(2,167,208,482)
Provision for employee benefits	31,251,247	11,861,080	980,361,471	383,020,294
Other provision	9,763,436	-	295,081,965	-
Loss (gain) on foreign exchange	2,730,310	(112,338,627)	84,735,149	(3,627,981,296)
Interest income (higher) less than interest expenses	(207,477,753)	37,555,761	(6,427,251,682)	1,203,130,583
	<b>2,369,899,142</b>	<b>1,950,647,605</b>	<b>73,554,970,571</b>	<b>63,186,081,755</b>
Changes in operating assets (increase) decrease				
Investments in trading securities	70,000,000	(70,000,000)	2,172,449,002	(2,260,653,329)
Account receivable - parent company	47,660,691	(78,095,566)	1,479,148,877	(2,522,100,015)
Trade accounts receivable	(204,007)	625,855	(6,331,368)	20,212,011
Other accounts receivable	(39,228,443)	3,325,497	(1,217,454,170)	107,397,072
Inventories	(395,264)	(349,150)	(12,267,012)	(11,275,820)
Materials and supplies	(668,562)	8,706,897	(20,748,824)	281,189,673
Working capital from co-venturers	(4,978,989)	5,185,491	(154,522,858)	167,465,672
Other current assets	(32,651,005)	(936,057)	(1,013,323,479)	(30,230,006)
Other non-current assets	426,414	(900,936)	13,233,762	(29,095,763)
Changes in operating liabilities increase (decrease)				
Trade accounts payable	(4,001,597)	83,575,456	(124,189,504)	2,699,073,334
Working capital to co-venturers	(32,847)	(567,800)	(1,019,392)	(18,337,128)
Accrued expenses	(1,310,792)	42,979,644	(40,680,415)	1,388,029,639
Other current liabilities	22,922,113	(9,527,802)	711,387,466	(307,700,829)
Deferred income	972,957	484,720	30,195,709	15,654,047
Provision	(90,231,073)	(84,199,380)	(2,800,320,063)	(2,719,222,979)
Other non-current liabilities	(5,993,041)	(4,338,087)	(185,993,953)	(140,098,728)
Interest received from bank deposits	25,862,231	12,949,835	802,633,981	418,215,547
Cash paid for income taxes	(518,342,197)	(301,844,934)	(16,086,742,696)	(9,748,096,483)
	<b>(530,193,411)</b>	<b>(392,926,317)</b>	<b>(16,454,544,937)</b>	<b>(12,689,574,085)</b>
<b>Net cash flows provided by operating activities</b>	<b>1,839,705,731</b>	<b>1,557,721,288</b>	<b>57,100,425,634</b>	<b>50,496,507,670</b>

Notes to financial statements are an integral part of these financial statements.

## Statements of Cash Flows

PTT Exploration and Production Public Company Limited and Subsidiaries  
For the Year Ended December 31, 2019

### The Company

	Unit: US Dollar		Unit: Baht	
	2019	2018	2019	2018
<b>Cash flows from investing activities</b>				
Cash paid for short-term investments	(744,750,000)	(613,295,843)	(23,113,305,629)	(19,806,418,429)
Cash received from investing in short-term investments	1,007,580,338	1,396,434,992	31,270,241,405	45,097,934,486
Cash received (paid) for investment in available-for-sale securities	10,444,330	(10,444,330)	324,139,633	(337,300,134)
Decrease in short-term loans to related party	814,909,261	5,721,081,385	25,290,697,295	184,762,595,402
Cash received from long-term loans to related parties	205,200,000	7,438,539	6,368,379,074	240,227,976
Cash paid for long-term loans to related parties	(1,195,617,478)	(5,400,588,120)	(37,105,971,377)	(174,412,250,155)
Cash paid for business acquisition	(71,398,811)	(630,819,897)	(2,215,861,080)	(20,372,358,575)
Cash prepayment for business acquisition	-	(397,779,587)	-	(12,846,310,693)
Cash paid for investment in subsidiaries	(128,691,609)	(177,751,391)	(3,993,942,255)	(5,740,489,624)
Decrease in investment in subsidiaries	-	39,968,574	-	1,290,786,987
Cash paid for investment in other long-term investment	(36,530)	-	(1,133,712)	-
Dividends received from related parties	46,175,204	66,297,020	1,433,046,808	2,141,065,419
Interest received from short-term investments	9,848,587	12,469,053	305,650,754	402,688,644
Interest received from loans	47,953,529	27,163,187	1,488,237,081	877,236,423
Increase in property, plant and equipment	(264,756,583)	(476,833,625)	(8,216,716,749)	(15,399,364,603)
Increase in intangible assets	(19,469,000)	(10,014,111)	(604,220,145)	(323,406,180)
Increase in exploration and evaluation assets	-	(4,578,669)	-	(147,868,326)
<b>Net cash flows used in investing activities</b>	<b>(282,608,762)</b>	<b>(451,252,823)</b>	<b>(8,770,758,897)</b>	<b>(14,573,231,382)</b>
<b>Cash flows from financing activities</b>				
Cash received from short-term loan	259,580,550	-	8,056,078,675	-
Cash paid for repayment of short-term loan	(258,825,547)	-	(8,032,647,151)	-
Cash paid for repayment of debentures	(418,199,073)	(403,742,006)	(12,978,802,274)	(13,038,867,283)
Cash paid for repayment of long-term loans	(266,900)	(134,857)	(8,283,244)	(4,355,214)
Interest paid for debentures and loans	(32,294,311)	(54,206,254)	(1,002,253,461)	(1,750,593,540)
Cash paid for redemption of subordinated capital debentures	(145,305,000)	-	(4,509,538,603)	-
Interest paid for subordinated capital debentures	(13,632,287)	(17,404,632)	(423,077,837)	(562,083,439)
Net cash received (paid) for financial derivative contracts	876,960	(2,395,365)	27,216,432	(77,358,436)
Dividends paid	(697,760,493)	(555,702,071)	(21,654,986,972)	(17,946,424,798)
<b>Net cash flows used in financing activities</b>	<b>(1,305,826,101)</b>	<b>(1,033,585,185)</b>	<b>(40,526,294,435)</b>	<b>(33,379,682,710)</b>
Net increase in cash and cash equivalents	251,270,868	72,883,280	7,803,372,302	2,543,593,578
<b>Cash and cash equivalents at the beginning of the year</b>	<b>462,093,407</b>	<b>387,985,125</b>	<b>14,994,853,673</b>	<b>12,679,708,245</b>
	713,364,275	460,868,405	22,798,225,975	15,223,301,823
Adjustment for the effect of exchange rate changes	2,403,745	1,225,002	(1,214,959,636)	(228,448,150)
<b>Cash and cash equivalents at the end of the year</b>	<b>715,768,020</b>	<b>462,093,407</b>	<b>21,583,266,339</b>	<b>14,994,853,673</b>
<b>Supplementary cash flow information</b>				
Unpaid for outstanding payable from purchases of assets	35,521,871	501,400,086	1,102,420,752	16,192,739,628
Long-term loans to related parties for interest rollover	-	18,004	-	581,428

Notes to financial statements are an integral part of these financial statements.

## Notes to Financial Statements

PTT Exploration and Production Public Company Limited and Subsidiaries  
For the Year Ended December 31, 2019

### 1. General Information

PTT Exploration and Production Public Company Limited (the Company) is registered as a company in Thailand and listed on the Stock Exchange of Thailand. The address of its registered office is 555/1 Energy Complex Building A, 6<sup>th</sup> and 19<sup>th</sup> – 36<sup>th</sup> Floor, Vibhavadi-Rangsit Road, Chatuchak, Bangkok 10900.

The principal business operations of the Company, subsidiaries, associates, joint ventures and joint operations (the Group) are exploration and production of petroleum in Thailand and overseas, midstream oil and gas business, foreign gas pipeline transportation and investment in projects strategically connected to the energy business.

As at December 31, 2019, the Group had operations relating to the exploration and production of petroleum in 15 countries and had investments in exploration and production projects with participating interests as follows:

Project	Country	Operator	Participating interest	
			2019	2018
PTT Exploration and Production Public Company Limited				
Bongkot	Thailand	PTT Exploration and Production Plc.	66.6667	66.6667
Arthit	Thailand	PTT Exploration and Production Plc.	80	80
Contract 4 (B12/27)	Thailand	Chevron Thailand Exploration and Production, Ltd.	45	45
Sinphuhorm (E5 North)	Thailand	PTTEP SP Limited	20	20
S1	Thailand	PTTEP Siam Limited	25	25
Contract 3 (B10, B11, B12 and B13)	Thailand	Chevron Thailand Exploration and Production, Ltd.	5	5
E5	Thailand	ExxonMobil Exploration and Production Khorat Inc.	20	20
Algeria Hassi Bir	People's	PTT Exploration and Production Plc.	24.5	24.5
Rekaiz	Democratic Republic of Algeria			

Project	Country	Operator	Participating interest	
			2019	2018
PTTEP International Limited (PTTEPI)				
Yadana	Republic of the Union of Myanmar	Total E&P Myanmar	25.5	25.5
Yetagun	Republic of the Union of Myanmar	Petronas Carigali Myanmar (Hong Kong) Ltd.	19.31784	19.31784
PTTEP 1	Thailand	PTTEP International Limited	100	100
G4/43	Thailand	Chevron Offshore (Thailand) Ltd.	21.375	21.375
G9/43	Thai - Kingdom of Cambodia	PTTEP International Limited	100	100
L22/43	Thailand	PTTEP International Limited	100	100
L53/43 & L54/43	Thailand	PTTEP International Limited	100	100
G4/48	Thailand	Chevron Pattani, Ltd.	5	5
Bongkot (G12/48)	Thailand	PTTEP International Limited	66.6667	66.6667
Contract 4 (G7/50) <sup>1</sup>	Thailand	Chevron Pattani, Ltd.	60	45
Arthit (G8/50)	Thailand	PTTEP International Limited	80	80
Zawtika	Republic of the Union of Myanmar	PTTEP International Limited	80	80
Myanmar M3	Republic of the Union of Myanmar	PTTEP International Limited	80	80
Myanmar M11 <sup>2</sup>	Republic of the Union of Myanmar	PTTEP International Limited	100	100
MTJDA	Thailand – Malaysia	Carigali-PTTEPI Operating Company Sdn Bhd.	50	50
PTTEP Offshore Investment Company Limited (PTTEPO)				
B8/32 & 9A <sup>3</sup>	Thailand	Chevron Offshore (Thailand) Ltd.	25.001	25.001
PTTEP Southwest Vietnam Company Limited (PTTEP SV)				
Vietnam 52/97	Socialist Republic of Vietnam	Vietnam Oil and Gas Group	7	7

Project	Country	Operator	Participating interest	
			2019	2018
PTTEP Kim Long Vietnam Company Limited (PTTEP KV)				
Vietnam B & 48/95	Socialist Republic of Vietnam	Vietnam Oil and Gas Group	8.5	8.5
PTTEP Hoang-Long Company Limited (PTTEP HL)				
Vietnam 16-1	Socialist Republic of Vietnam	Hoang-Long Joint Operating Company	28.5	28.5
PTTEP Hoan-Vu Company Limited (PTTEP HV)				
Vietnam 9-2	Socialist Republic of Vietnam	Hoan-Vu Joint Operating Company	25	25
PTTEP Algeria Company Limited (PTTEP AG)				
Algeria 433a & 416b	People's Democratic Republic of Algeria	Groupement Bir Seba	35	35
PTTEP Siam Limited (PTTEPS)				
Sinphuhorm (EU-1)	Thailand	PTTEP SP Limited	20	20
B6/27	Thailand	PTTEP Siam Limited	100	100
S1	Thailand	PTTEP Siam Limited	75	75
PTTEP South Asia Limited (PTTEP SA)				
Myanmar MD-7	Republic of the Union of Myanmar	PTTEP South Asia Limited	50	50
Myanmar MOGE 3 <sup>4</sup>	Republic of the Union of Myanmar	PTTEP South Asia Limited	77.5	75
PTTEP Canada Limited (PTTEP CA)				
Mariana Oil Sands	Canada	PTTEP Canada Limited	100	100



Project	Country	Operator	Participating interest	
			2019	2018

**PTTEP Australia Perth Pty Limited (PTTEP AP)**

PTTEP Australasia \*      Commonwealth of Australia

\* Details of operators and participating interests in PTTEP Australasia project are as follows:

Block	Operator	Participating interest	
		2019	2018
AC/RL7, AC/RL12 and AC/P54	PTTEP Australasia (Ashmore Cartier) Pty Ltd	100	100
AC/L3	PTTEP Australasia (Ashmore Cartier) Pty Ltd	100	100
AC/RL10	PTTEP Australia Timor Sea Pty Ltd	90	90
AC/RL4 (Tenacious)	PTTEP Australia Timor Sea Pty Ltd	100	100
AC/RL6 (Audacious), AC/RL6 (exclusive of Audacious)	PTTEP Australia Timor Sea Pty Ltd	100	100
AC/RL4 (exclusive of Tenacious), AC/RL5	PTTEP Australia Timor Sea Pty Ltd	100	100

Project	Country	Operator	Participating interest	
			2019	2018
PTTEP Mozambique Area 1 Limited (PTTEP MZA1)			8.5	8.5
Mozambique Area 1 <sup>5</sup>	Republic of Mozambique	Anadarko Mozambique Area 1 Limitada		
Natuna 2 B.V. (Natuna)			11.5	11.5
Natuna Sea A	Republic of Indonesia	Premier Oil Natuna Sea BV		
PTTEP Brazil Investments in Oil and Gas Exploration and Production Limitada (PTTEP BL)			25	25
Barreirinhas AP 1	Federative Republic of Brazil	Shell Brasil Petroleo Ltda.		
Brazil BM-ES-23	Federative Republic of Brazil	Petróleo Brasileiro S.A. (Petrobas)		

Project	Country	Operator	Participating interest	
			2019	2018
PTTEP SP Limited (PTTEP SP)				
Contract 4 (B12/27)	Thailand	Chevron Thailand Exploration and Production, Ltd.	15	15
Sinphuhorm (E5 North and EU-1)	Thailand	PTTEP SP Limited	35	35
PTTEP G7 Limited (PTTEP G7)				
Contract 4 (G7/50) <sup>1</sup>	Thailand	Chevron Pattani, Ltd.	-	15
PTTEP HK Offshore Limited (PTTEP HKO)				
Sarawak SK 410B	Malaysia	PTTEP HK Offshore Limited	42.5	42.5
Sarawak SK 417	Malaysia	PTTEP HK Offshore Limited	80	80
Sarawak SK 438	Malaysia	PTTEP HK Offshore Limited	80	80
Peninsular PM 407 <sup>6</sup>	Malaysia	PTTEP HK Offshore Limited	55	-
Peninsular PM 415 <sup>6</sup>	Malaysia	PTTEP HK Offshore Limited	70	-
PTTEP Mexico E&P Limited, S. de R.L. de C.V. (PTTEP MEP)				
Mexico block 12 (2.4)	Mexico	PC Carigali Mexico Operations, S.A. de C.V.	20	20
Mexico block 29 (2.4)	Mexico	Repsol Exploración México, S.A. de C.V.	16.67	16.67
PTTEP Energy Development Company Limited (PTTEP ED)				
G1/61 <sup>7</sup>	Thailand	PTTEP Energy Development Company Limited	60	-
G2/61 <sup>7</sup>	Thailand	PTTEP Energy Development Company Limited	100	-
PTTEP MENA Limited (PTTEP MENA)				
Abu Dhabi Offshore 1 <sup>8</sup>	United Arab Emirates	Eni Abu Dhabi B.V.	30	-
Abu Dhabi Offshore 2 <sup>8</sup>	United Arab Emirates	Eni Abu Dhabi B.V.	30	-

Project	Country	Operator	Participating interest	
			2019	2018
PTTEP Sabah Oil Limited (PTTEP SBO) <sup>9</sup>				
Malaysia Block K <sup>**</sup>	Malaysia			
Malaysia Block H <sup>***</sup>	Malaysia			

<sup>\*\*</sup> Details of operators and participating interests in Malaysia Block K project are as follows:

Block	Operator	Participating interest	
		2019	2018
Kikeh	PTTEP Sabah Oil Limited	56	-
SNP	PTTEP Sabah Oil Limited	22.4	-
GK	Sabah Shell Petroleum Co.Ltd.	6.366	-

<sup>\*\*\*</sup> Details of operators and participating interests in Malaysia Block H project are as follows:

Block	Operator	Participating interest	
		2019	2018
Rotan	PTTEP Sabah Oil Limited	56	-
Others	PTTEP Sabah Oil Limited	42	-

Project	Country	Operator	Participating interest	
			2019	2018
PTTEP Sarawak Oil Limited (PTTEP SKO) <sup>9</sup>				
Sarawak SK 314A	Malaysia	PTTEP Sarawak Oil Limited	59.5	-
Sarawak SK 405B	Malaysia	PTTEP Sarawak Oil Limited	59.5	-
Sarawak SK 309 and SK 311 ****	Malaysia			

<sup>\*\*\*\*</sup> Details of operators and participating interests in Sarawak SK 309 and Sarawak SK 311 projects are as follows:

Block	Operator	Participating interest	
		2019	2018
East Patricia	PTTEP Sarawak Oil Limited	42	-
Others	PTTEP Sarawak Oil Limited	59.5	-

Project	Country	Operator	Participating interest	
			2019	2018
Partex Holding B.V. <sup>10</sup>				
Angola Block 17/06	Angola	TOTAL E&P Angola Block17.06 (TEPA)	2.5	-
Potiguar	Brazil	Partex Brasil Ltda	50	-
Dunga	Kazakhstan	Maersk Oil Kazakhstan GmbH	20	-
PDO (Block 6)	Oman	Petroleum Development Oman Limited Liability Company	2	-
Mukhaizna (Block 53)	Oman	Occidental Mukhaizna,LLC	1	-

<sup>1</sup> On September 10, 2019, PTTEP International Limited (PTTEPI), received the official approval from the Director General of the Department of Mineral Fuels to receive the transfer of the 100% participating interests in concessions blocks no. G7/50 from PTTEP G7 Limited (PTTEP G7). As a result, PTTEPI's participating interests in the concessions blocks no. G7/50 increased from 45% to 60%. The transaction is a business combination under a common control.

<sup>2</sup> On September 26, 2019, PTTEP International Limited (PTTEPI) submitted a request to terminate and return 100% of the exploration blocks of Myanmar M11 project after fulfillment of the requirements of the Production Sharing Contract. The termination will be effective after receiving the official approval from the Government of the Republic of the Union of Myanmar.

<sup>3</sup> PTTEP Offshore Investment Company Limited (PTTEPO) has shareholding in Orange Energy Limited and B8/32 Partners Limited, which hold the project's concession.

<sup>4</sup> On February 28, 2019, PTTEP South Asia Limited (PTTEP SA) received the official approval from the Government of the Republic of the Union of Myanmar to receive the transfer of the participating interests in Myanmar MOGE 3 project from other partners. As a result, its participating interests increased from 75% to 77.5% and PTTEP SA is the operator of the project.

<sup>5</sup> Changed project name from Mozambique Rovuma Offshore Area 1 to Mozambique Area 1.

<sup>6</sup> On March 21, 2019, PTTEP HK Offshore Limited (PTTEP HKO), a subsidiary of the Group, entered into the Production Sharing Contract to obtain the exploration and production rights of 2 offshore exploration blocks located in the coast of Peninsula, Malaysia, which are PM 407 and PM 415, in which PTTEP HKO holds 55% and 70% participating interests, respectively. PTTEP HKO is the operator of the 2 blocks.

<sup>7</sup> On February 25, 2019, PTTEP Energy Development Company Limited (PTTEP ED), a subsidiary of the Group, entered into the Production Sharing Contract of blocks G1/61 and G2/61. PTTEP ED holds 60% and 100% participating interests, respectively. PTTEP ED is the operator of the 2 blocks.

<sup>8</sup> On January 12, 2019, PTTEP MENA Limited (PTTEP MENA), a subsidiary of the Group, and other partners signed the concession agreement to obtain the exploration and production rights of the exploration blocks Offshore 1 and Offshore 2 located on the northwestern coast of the Emirate of Abu Dhabi, the United Arab Emirates. PTTEP MENA holds 30% participating interests during the exploration period.

<sup>9</sup> On March 21, 2019, PTTEP HK Offshore Limited (PTTEP HKO), a subsidiary of the Group, signed the Share Sale and Purchase Agreement to acquire the 100% shareholding interests of Murphy Oil Corporation (Murphy) in Malaysia through acquisition of shares in Murphy's subsidiaries, which are Murphy Sabah Oil Co., Ltd. (Murphy Sabah) and Murphy Sarawak Oil Co., Ltd. (Murphy Sarawak). The acquisition was completed on July 10, 2019 as disclosed in Note 6 - Business acquisition in Murphy Oil Corporation in Malaysia.

<sup>10</sup> On June 17, 2019, PTTEP HK Holding Limited (PTTEP HK), a subsidiary of the Group, signed the Share Sale and Purchase Agreement to acquire the 100% shareholding interests of Partex Holding B.V. (Partex). The acquisition was completed on November 4, 2019 as disclosed in Note 7 - Business acquisition in Partex Holding B.V.

## 2. Basis of Financial Statement Preparation

The consolidated and the Company financial statements have been prepared in accordance with Thai Financial Reporting Standards under the Accounting Act, B.E. 2543, being those Thai Accounting Standards issued under the Accounting Profession Act, B.E. 2547 including the interpretation and accounting guidance announced by the Federation of Accounting Professions, as well as the financial reporting requirements of the Securities and Exchange Commission under the Securities and Exchange Act, B.E. 2535.

The Group's management has determined US Dollar as the functional currency and presents its financial statements in US Dollar. However, the Stock Exchange of Thailand and the Department of Business Development require the entity to present its financial statements in Thai Baht, so the Group also presents its financial statements in Thai Baht by translating from US Dollar.

Where the Group has entered into joint interest operations in the Concession or the Production Sharing Contract with other parties to participate in exploration and production of petroleum businesses, the Group records its share of expenses, assets and liabilities incurred in accordance with the Statements of Expenditures prepared by the operators of the Concession or the Production Sharing Contract. The Statements of Expenditures have been audited by other independent auditors on an annual basis and by the joint venture committee on a regular basis.

The consolidated and the Company financial statements have been prepared under the historical cost basis except as disclosed in the accounting policies.

The preparation of financial statements in conformity with Thai Financial Reporting Standards requires management to make estimates and assumptions that affect the amounts of assets, liabilities, revenues and expenses reported in the financial statements. Estimates and assumptions are based on management's past



experience and other information available which is reasonable in a particular circumstance. Therefore, actual results may differ from these estimates and assumptions.

An English language version of the consolidated and the Company's financial statements has been translated from the statutory financial statements which are prepared in the Thai language. In the event of a conflict or difference in the interpretation between the two languages, the Thai language version of the statutory financial statements shall prevail.

### 3. New and Revised Accounting Standards, Financial Reporting Standards, Interpretation to Accounting Standards and Interpretation to Financial Reporting Standards

The new and revised accounting standards, financial reporting standards, interpretation to accounting standards and interpretation to financial reporting standards which are published in the Government Gazette are as follows:

■ Effective for the periods beginning on or after January 1, 2019

Thai Accounting Standard No. 1 (Revised 2018)	Presentation of financial statements
Thai Accounting Standard No. 2 (Revised 2018)	Inventories
Thai Accounting Standard No. 7 (Revised 2018)	Statement of cash flows
Thai Accounting Standard No. 8 (Revised 2018)	Accounting policies, changes in accounting estimates and errors
Thai Accounting Standard No. 10 (Revised 2018)	Events after the reporting period
Thai Accounting Standard No. 12 (Revised 2018)	Income taxes
Thai Accounting Standard No. 16 (Revised 2018)	Property, plant and equipment
Thai Accounting Standard No. 17 (Revised 2018)	Leases
Thai Accounting Standard No. 19 (Revised 2018)	Employee benefits
Thai Accounting Standard No. 20 (Revised 2018)	Accounting for government grants and disclosure of government assistance
Thai Accounting Standard No. 21 (Revised 2018)	The effects of changes in foreign exchange rates
Thai Accounting Standard No. 23 (Revised 2018)	Borrowing costs
Thai Accounting Standard No. 24 (Revised 2018)	Related party disclosures
Thai Accounting Standard No. 26 (Revised 2018)	Accounting and reporting by retirement benefit plans
Thai Accounting Standard No. 27 (Revised 2018)	Separate financial statements
Thai Accounting Standard No. 28 (Revised 2018)	Investments in associates and joint ventures
Thai Accounting Standard No. 29 (Revised 2018)	Financial reporting in hyperinflationary economies
Thai Accounting Standard No. 33 (Revised 2018)	Earnings per share

Thai Accounting Standard No. 34 (Revised 2018)	Interim financial reporting
Thai Accounting Standard No. 36 (Revised 2018)	Impairment of assets
Thai Accounting Standard No. 37 (Revised 2018)	Provisions, contingent liabilities and contingent assets
Thai Accounting Standard No. 38 (Revised 2018)	Intangible assets
Thai Accounting Standard No. 40 (Revised 2018)	Investment property
Thai Accounting Standard No. 41 (Revised 2018)	Agriculture
Thai Financial Reporting Standard No. 1	First-time adoption of Thai financial reporting standards
Thai Financial Reporting Standard No. 2 (Revised 2018)	Share-based payment
Thai Financial Reporting Standard No. 3 (Revised 2018)	Business combinations
Thai Financial Reporting Standard No. 4 (Revised 2018)	Insurance contracts
Thai Financial Reporting Standard No. 5 (Revised 2018)	Non-current assets held for sale and discontinued operations
Thai Financial Reporting Standard No. 6 (Revised 2018)	Exploration for and evaluation of mineral resources
Thai Financial Reporting Standard No. 8 (Revised 2018)	Operating segments
Thai Financial Reporting Standard No. 10 (Revised 2018)	Consolidated financial statements
Thai Financial Reporting Standard No. 11 (Revised 2018)	Joint arrangements
Thai Financial Reporting Standard No. 12 (Revised 2018)	Disclosure of interests in other entities
Thai Financial Reporting Standard No. 13 (Revised 2018)	Fair value measurement
Thai Financial Reporting Standard No. 15	Revenue from contracts with customers
Thai Standing Interpretations Committee No. 10 (Revised 2018)	Government assistance – no specific relation to operating activities
Thai Standing Interpretations Committee No. 15 (Revised 2018)	Operating leases – incentives
Thai Standing Interpretations Committee No. 25 (Revised 2018)	Income taxes – changes in the tax status of an entity or its shareholders
Thai Standing Interpretations Committee No. 27 (Revised 2018)	Evaluating the substance of transactions involving the legal form of a lease
Thai Standing Interpretations Committee No. 29 (Revised 2018)	Service concession arrangements: Disclosures
Thai Standing Interpretations Committee No. 32 (Revised 2018)	Intangible assets – web site costs
Thai Financial Reporting Interpretations Committee No. 1 (Revised 2018)	Changes in existing decommissioning, restoration and similar liabilities

Thai Financial Reporting Interpretations Committee No. 4 (Revised 2018)	Determining whether an arrangement contains a lease
Thai Financial Reporting Interpretations Committee No. 5 (Revised 2018)	Rights to interests arising from decommissioning, restoration and environmental rehabilitation funds
Thai Financial Reporting Interpretations Committee No. 7 (Revised 2018)	Applying the restatement approach under TAS 29 (Revised 2018) Financial reporting in hyperinflationary economies
Thai Financial Reporting Interpretations Committee No. 10 (Revised 2018)	Interim financial reporting and impairment
Thai Financial Reporting Interpretations Committee No. 12 (Revised 2018)	Service concession arrangements
Thai Financial Reporting Interpretations Committee No. 14 (Revised 2018)	TAS 19 (Revised 2018) Employee benefits – the limit on a defined benefit asset, minimum funding requirements and their interaction
Thai Financial Reporting Interpretations Committee No. 17 (Revised 2018)	Distributions of non-cash assets to owners
Thai Financial Reporting Interpretations Committee No. 20 (Revised 2018)	Stripping costs in the production phase of a surface mine
Thai Financial Reporting Interpretations Committee No. 21 (Revised 2018)	Levies
Thai Financial Reporting Interpretations Committee No. 22	Foreign currency transactions and advance consideration
Thai Financial Reporting Standard No. 15 - Revenue from contracts with customers - will replace the current accounting standards, interpretation to accounting standards and interpretation to financial reporting standards listed below.	
Thai Accounting Standard No. 11 (Revised 2017)	Construction contracts
Thai Accounting Standard No. 18 (Revised 2017)	Revenue
Thai Standing Interpretations Committee No. 31 (Revised 2017)	Revenue – barter transactions involving advertising services
Thai Financial Reporting Interpretations Committee No. 13 (Revised 2017)	Customer loyalty programmes
Thai Financial Reporting Interpretations Committee No. 15 (Revised 2017)	Agreements for the construction of real estate
Thai Financial Reporting Interpretations Committee No. 18 (Revised 2017)	Transfers of assets from customers

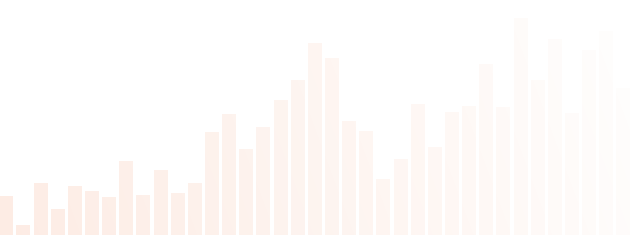
The underlying principle of the new accounting standards is that the Group will recognise revenue to depict the transfer of goods or services to customers and the customer has control of these. It replaces the principles of transferring the significant risks and rewards of ownership of the goods or services to the buyer.

The Group's management has assessed and concluded that these new and revised accounting standards, financial reporting standards, interpretation to accounting standards and interpretation to financial reporting standards are implemented without significant impact to the financial statements presented.

■ Effective for the periods beginning on or after January 1, 2020

Thai Accounting Standard No. 1	Presentation of financial statements
Thai Accounting Standard No. 2	Inventories
Thai Accounting Standard No. 7	Statement of cash flows
Thai Accounting Standard No. 8	Accounting policies, changes in accounting estimates and errors
Thai Accounting Standard No. 10	Events after the reporting period
Thai Accounting Standard No. 12	Income taxes
Thai Accounting Standard No. 16	Property, plant and equipment
Thai Accounting Standard No. 19	Employee benefits
Thai Accounting Standard No. 20	Accounting for government grants and disclosure of government assistance
Thai Accounting Standard No. 21	The effects of changes in foreign exchange rates
Thai Accounting Standard No. 23	Borrowing costs
Thai Accounting Standard No. 24	Related party disclosures
Thai Accounting Standard No. 26	Accounting and reporting by retirement benefit plans
Thai Accounting Standard No. 27	Separate financial statements
Thai Accounting Standard No. 28	Investments in associates and joint ventures
Thai Accounting Standard No. 29	Financial reporting in hyperinflationary economies
Thai Accounting Standard No. 32	Financial instruments presentation
Thai Accounting Standard No. 33	Earnings per share
Thai Accounting Standard No. 34	Interim financial reporting
Thai Accounting Standard No. 36	Impairment of assets

Thai Accounting Standard No. 37	Provisions, contingent liabilities and contingent assets
Thai Accounting Standard No. 38	Intangible assets
Thai Accounting Standard No. 40	Investment property
Thai Accounting Standard No. 41	Agriculture
Thai Financial Reporting Standard No. 1	First-time adoption of Thai financial reporting standards
Thai Financial Reporting Standard No. 2	Share-based payment
Thai Financial Reporting Standard No. 3	Business combinations
Thai Financial Reporting Standard No. 4	Insurance contracts
Thai Financial Reporting Standard No. 5	Non-current assets held for sale and discontinued operations
Thai Financial Reporting Standard No. 6	Exploration for and evaluation of mineral resources
Thai Financial Reporting Standard No. 7	Financial instruments: disclosures
Thai Financial Reporting Standard No. 8	Operating segments
Thai Financial Reporting Standard No. 9	Financial instruments
Thai Financial Reporting Standard No. 10	Consolidated financial statements
Thai Financial Reporting Standard No. 11	Joint arrangements
Thai Financial Reporting Standard No. 12	Disclosure of interests in other entities
Thai Financial Reporting Standard No. 13	Fair value measurement
Thai Financial Reporting Standard No. 15	Revenue from contracts with customers
Thai Financial Reporting Standard No. 16	Leases
Thai Standing Interpretations Committee No. 10	Government assistance – no specific relation to operating activities
Thai Standing Interpretations Committee No. 25	Income taxes – changes in the tax status of an entity or its shareholders
Thai Standing Interpretations Committee No. 29	Service concession arrangements: disclosures
Thai Standing Interpretations Committee No. 32	Intangible assets – web site costs
Thai Financial Reporting Interpretations Committee No. 1	Changes in existing decommissioning, restoration and similar liabilities
Thai Financial Reporting Interpretations Committee No. 5	Rights to interests arising from decommissioning, restoration and environmental rehabilitation funds





Thai Financial Reporting Interpretations Committee No. 7	Applying the restatement approach under TAS 29 Financial reporting in hyperinflationary economies
Thai Financial Reporting Interpretations Committee No. 10	Interim financial reporting and impairment
Thai Financial Reporting Interpretations Committee No. 12	Service concession arrangements
Thai Financial Reporting Interpretations Committee No. 14	The limit on a defined benefit asset, minimum funding requirements and their interaction under TAS 19 Employee benefits
Thai Financial Reporting Interpretations Committee No. 16	Hedges of a net investment in a foreign operation
Thai Financial Reporting Interpretations Committee No. 17	Distributions of non-cash assets to owners
Thai Financial Reporting Interpretations Committee No. 19	Extinguishing financial liabilities with equity instruments
Thai Financial Reporting Interpretations Committee No. 20	Stripping costs in the production phase of a surface mine
Thai Financial Reporting Interpretations Committee No. 21	Levies
Thai Financial Reporting Interpretations Committee No. 22	Foreign currency transactions and advance consideration
Thai Financial Reporting Interpretations Committee No. 23	Uncertainty over income tax treatments

The Group's management has assessed impact to the financial statements from the new and revised accounting standards, financial reporting standards, interpretation to accounting standards and interpretation to financial reporting standards that are not yet effective for the year ended December 31, 2019. Other than the new financial reporting standards related to financial instruments and Thai Financial Reporting Standard No.16, Lease, the new or revised accounting standards, financial reporting standards, interpretation to accounting standards and interpretation to financial reporting standards have no significant impact to the financial statements presented.

#### ■ Financial instruments

The new accounting standards, financial reporting standards and interpretation to financial reporting standards related to financial instruments are:

Thai Accounting Standard No. 32	Financial instruments: presentation
Thai Financial Reporting Standard No. 7	Financial instruments: disclosures
Thai Financial Reporting Standard No. 9	Financial instruments

Thai Financial Reporting Interpretations Committee No. 16	Hedges of a net investment in a foreign operation
Thai Financial Reporting Interpretations Committee No. 19	Extinguishing financial liabilities with equity instruments

These accounting standard, financial reporting standards and interpretation to financial reporting standards will replace the accounting standards and interpretation to accounting standards in listed below.

Thai Accounting Standard No. 101	Doubtful accounts and bad debts
Thai Accounting Standard No. 103	Disclosures in the financial statements of banks and similar financial institutions
Thai Accounting Standard No. 104 (Revised 2016)	Accounting for troubled debt restructurings
Thai Accounting Standard No. 105 (Revised 2016)	Accounting for investments in debt and equity securities
Thai Accounting Standard No. 106	Accounting for investment entities
Thai Accounting Standard No. 107 (Revised 2016)	Financial instruments: disclosure and presentation
Thai Standing Interpretations Committee No. 9	Assets transferred by debtors for debt settlement

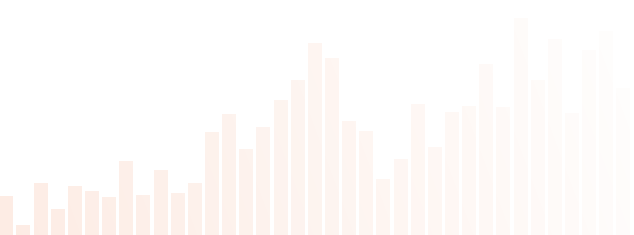
These new financial reporting standards related to financial instruments address the classification, measurement, derecognition of financial assets and financial liabilities, impairment of financial assets, hedge accounting, and presentation and disclosure of financial instruments.

On January 1, 2020, the Group will apply the new financial reporting standards on financial instruments by applying modified retrospective approach. From the preliminary assessment, the management expect that the Group will be significantly affected on the following areas.

- Classification of financial liabilities and equity

Financial instruments issued by the Group must be classified as financial liabilities or equity securities by considering contractual obligations.

- Where the Group has a contractual obligation to deliver cash or another financial asset to another entity without the right to avoid or indefinitely postpone the payment, it is considered a financial liability unless that payment can be settled by issuing a fixed number of the Group's own equity instruments in exchange with a fixed amount of cash.



- Where the group has no contractual obligation or has an unconditional right to postpone the settlement of the obligation, it is considered an equity instrument.

Currently, the Group has subordinated capital debentures which are classified as equity since the Group has considered that the subordinated capital debentures will be settled upon the winding-up of the issuing company or as per the redemption rights stipulated. The issuer 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 be accumulated but will not bear additional interest. However, in accordance with paragraph 25 of TAS 32, Financial instruments: presentation, which will be effective for the periods beginning on or after January 1, 2020 onwards, there are certain conditions in the indenture of subordinated capital debentures, which can be interpreted as the debentures' holders will have the right to redeem the debentures prior to the liquidation, as such, the subordinated capital debentures must be classified as financial liabilities. However, in accordance with an announcement issued by the Federation of Accounting Professions (TFAC) no. 95/2562, it allows the classification of the subordinated capital debentures which was issued and paid-up before December 31, 2019 as a part of equity. The relief is granted until December 31, 2022.

On December 31, 2019, the Group has subordinated capital debentures of US Dollar 187.43 million (Baht 6,018.03 million) in the consolidated financial statements, and US Dollar 156.57 million (Baht 4,981.99 million) in the Company's financial statements. The Group will classify these subordinated capital debentures as a part of equity for the periods beginning on or after January 1, 2020.

■ Thai Financial Reporting Standard No.16, Leases

According to TFRS 16, Leases, the Group, as a lessee, must change the recognition of lease contract. A right-of-use asset and a lease liability will be recognised in the statements of financial position, with exception on short-term and low-value assets leases.

On January 1, 2020, the Group will apply TFRS 16, Leases, by recognising a cumulative effect as an adjustment to opening retained earnings (Modified retrospective approach). Hence, comparative financial statements will not be restated. From the preliminary impact assessment, the management expect that, by compared to operating lease recognition according to Thai Accounting Standards No. 17, Leases, (TAS 17), the Group will be affected by the classification of expenses and cash flow activities, and the recognition of time value of money in the statements of income. However, there will be no effect to leases which the Group currently reported as finance lease liabilities under TAS 17. The Group's management is currently evaluating the impact of adopting the financial reporting standard for the first time.

## 4. Significant Accounting Policies

### 4.1 Preparation of Consolidated Financial Statements

The consolidated financial statements comprise the Company, subsidiaries, associates, joint ventures and joint operations. The major inter-company transactions between the Company, subsidiaries, associates, joint ventures and joint operations are eliminated from the consolidated financial statements.

#### Subsidiaries

Subsidiaries are entities over which the Group has control. The Group controls an entity when the Group is exposed to, or has rights to, variable returns from its involvement with the entity and has the ability to affect those returns using its power over the entity, including the authority to control the finance and operation policies and generally has more than one half of the voting rights. In assessing the ability to control other entities, the Group considers the existence and the impact of the convertible rights of the instruments, including the potential voting rights in which other entities within the Group have interests. Subsidiaries are consolidated from the date on which control is transferred to the Group and will be disconsolidated from the date that control ceases.

The Group uses the purchase method of accounting to account for the acquisition of subsidiaries. The cost of an acquisition is measured at the fair value of the assets given, equity instruments issued or liabilities incurred at the date of exchange, plus other costs directly attributable to the acquisition. Identifiable assets and liabilities acquired from a business combination are measured initially at their fair values at the acquisition date.

The excess of the cost of acquisition over the fair value of the Group's share of the subsidiary's identifiable net assets acquired is recorded as goodwill. On the other hand, if the cost of acquisition is less than the fair value of the Group's share of the subsidiary's identifiable net assets, the difference is recognized immediately in the statement of income.

Investments in subsidiaries are accounted for at cost less provision for impairment in the Company's financial statements. The cost is adjusted to reflect changes in contingent consideration expected to be paid. The cost also includes direct attributable costs of investment. The Company determines at each reporting date whether there is any indicator that the investment in subsidiaries is impaired. If the indicators exist, the Company will conduct an impairment test. If the recoverable amount of the investment is lower than its carrying value, the Company will recognize the loss in the Company's statement of income.

A list of subsidiaries is set out in Note 19.

### Associates

Associates are those entities over which the Group has significant influence over their finance and operation policies, but does not have the ability to control. Investments in associates are accounted for using the equity method in the consolidated financial statements from the date on which the Group gains significant influence until the date that significant influence ceases.

Under the equity method, the investment is initially recognized at cost. Subsequently, the carrying amount is increased or decreased based on the investor's share of the profit or loss of the investee. The Group's investment in associates includes goodwill identifiable on acquisition.

If the ownership interest in an associate is reduced but significant influence is retained, the Group will reclassify only a proportionate decrease in share ownership previously recognized in other comprehensive income to profit or loss.

The Group's share of its associates' post-acquisition profits or losses and its share of post-acquisition profits or losses in other comprehensive income (loss) are recognized in the statement of income and statement of comprehensive income, respectively. The cumulative post-acquisition movements are adjusted against the carrying amount of the investments. When the Group's share of losses in associates equals or exceeds its interest in the associates, the Group does not recognize further losses, unless it has incurred obligations or has committed to make payments for the liabilities on behalf of the associates.

Unrealized gains on transactions between the Group and its associates are eliminated to the extent of the Group's interest in the associates. Unrealized losses are also eliminated unless the transaction provides evidence of an impairment of the asset transferred. Accounting policies of associates have been changed where necessary to ensure consistency with the policies adopted by the Group.

The Group determines at each reporting date whether there is any objective evidence that the investment in associates is impaired. If the indicators exist, the Group calculates the amount of impairment as the difference between the recoverable amount of the associate and its carrying value and recognizes the amount to the share of profit (loss) of associates in the statement of income.

Investments in associates are accounted for at cost less provision for impairment in the Company's financial statements. The cost is adjusted to reflect changes in contingent consideration expected to be paid. The cost also includes direct attributable costs of investment.

A list of associates is set out in Note 19.



## Joint Arrangements

Investments in joint arrangements are classified as either joint operations or joint ventures depending on the contractual rights and obligations of each investor rather than the legal structure of the joint arrangements. The Group has assessed the nature of its joint arrangements and determined them to be joint ventures and joint operations as follows:

### Joint Ventures

Joint arrangement is classified as joint venture when the Group has rights to the net assets of the arrangement. Investments in joint ventures are accounted for using the equity method in the consolidated financial statements. They are initially recognized at cost and adjusted thereafter to recognize the Group's share of the post-acquisition profits or losses and movements in other comprehensive income (loss) based on its share proportion. When the Group's share of losses in joint ventures equals or exceeds its interests in the joint ventures (including any long-term interests that, in substance, form part of the Group's net investments in the joint ventures), the Group will not recognize further losses, unless it has incurred obligations or has committed to make payments for the liabilities on behalf of the joint ventures.

Unrealized gains on transactions between the Group and its joint ventures are eliminated to the extent of the Group's interest in the joint ventures. Unrealized losses are also eliminated unless the transaction provides evidence of an impairment of the asset transferred. Where necessary, accounting policies of the joint ventures have been changed to be conformed with the policies adopted by the Group.

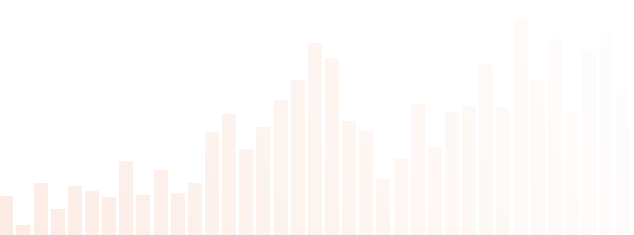
Investments in joint ventures are accounted for at cost less provision for impairment in the Company's financial statements. The cost is adjusted to reflect changes in contingent consideration expected to be paid. The cost also includes direct attributable costs of investment.

### Joint Operations

The Group has classified its investments in the joint arrangements in which the group has the rights to the assets, and obligations for the liabilities relating to the arrangement as joint operations. The Group recognized for its share of assets, liabilities, revenues and expenses relating to the joint operations in accordance with the Group's accounting policies which relate to those assets, liabilities, revenues and expenses.

The Group has not recognized its share of profit or loss resulting from the purchase of assets from the joint operations until the assets are sold to an independent third party.

For details of joint ventures and joint operations, please refer to Note 19.





### Related Parties

Related parties are those entities that directly or indirectly control, or are controlled by the Company, or are under common control with the Company. They also include holding companies, fellow subsidiaries, associates and joint ventures.

In considering each relationship between parties, attention is directed to the substance of the relationship, not merely the legal form.

### 4.2 Foreign Currency Translation

Transactions included in the financial statements of each entity in the Group are measured using US Dollar which is the Group's functional currency.

Foreign currency transactions are translated into functional currency at the exchange rates ruling on the transaction dates. Monetary assets and liabilities denominated in foreign currency remaining at the statement of financial position date are translated into functional currency at the exchange rate ruling on the statement of financial position date. Gains and losses arising from the settlement of foreign currency transactions and from the translation of monetary assets and liabilities denominated in foreign currencies are recognized in the statement of income in the period in which they are incurred.

To comply with the financial reporting requirements of the Stock Exchange of Thailand and the Department of Business Development, the Group presents the consolidated financial statements by translating from US Dollar to Thai Baht. The assets and liabilities are translated into Thai Baht using the average buying and selling rates determined by the Bank of Thailand at period-end, whereas the statement of income is translated using average exchange rates during the period. Differences from such translations have been presented in other comprehensive income (loss).

### 4.3 Cash and Cash Equivalents

Cash and cash equivalents comprise cash on hand and at banks, and other highly liquid short-term investments with original maturities of three months or less from the date of acquisition.

### 4.4 Short-term Investments

- Investments with fixed maturity of more than 3 months but within 12 months from the date of acquisition and the Group intends to hold them to maturity, are subsequently recognized at amortized cost using the effective yield method less allowance for decrease in value of investments. A test for allowance for decrease in value of investment is carried out when there is a factor indicating that the value of investments might be decreased. If the carrying value of the investments is higher than its recoverable amount, the Group will recognize the loss on decrease in value of investments in the statements of income.

- The embedded derivatives in financial assets and liabilities are separately recognized from its main financial instruments when they meet the conditions specified in the accounting standard. However, the entity may designate those financial assets or liabilities with embedded derivative as the financial assets and liabilities measured at fair value through profit or loss if the embedded derivatives significantly modify the cash flows that otherwise would be required by the contract.

#### 4.5 Investment in Trading Securities

Investments in trading securities are acquired principally for the purpose of generating a profit from the price fluctuation.

Investments in trading securities are initially recognized at cost, which is equal to the fair value of consideration paid plus transaction cost, and subsequently measured at fair value. The fair value of investments is based on value of net assets of the unit trust. The unrealized gains and losses of investments in trading securities are recognized in the statements of income.

#### 4.6 Trade Accounts Receivable

Trade accounts receivable are carried at net realizable value. An allowance for doubtful accounts is estimated, based on the review of all outstanding trade accounts receivable as at the statements of financial position date. The amount of the allowance is the difference between the carrying amount of the accounts receivable and the amount expected to be collected. Doubtful accounts are recognized as expenses in the statements of income in the year in which they are incurred.

#### 4.7 Inventories

Inventories are stated at the lower of cost or net realizable value. The cost is determined using the weighted average cost method. Net realizable value is the estimated selling price in the ordinary course of business less the costs of completion and selling expenses.

#### 4.8 Materials and Supplies

Materials and supplies are stated at the lower of cost or net realizable value. The costs of materials and supplies are determined using the weighted average cost method. The net realizable value is the estimated selling price in the ordinary course of business less the necessary expenses.

#### 4.9 Investments in Available-for-sale Securities

Investments in available-for-sale securities are initially recognized at cost, which is equal to the fair value of consideration paid plus transaction cost and subsequently measured at fair value. The fair value of investment is based on the closing price at the last day of the reporting period from the investment's reference sources. Unrealized gains or losses of investments in available-for-sale securities are recognized in other comprehensive income (loss).

A test for impairment is carried out when there is a factor indicating that an investment might be impaired. If the carrying value of the investment is higher than its recoverable amount, impairment loss is recognized in the statements of income.

On disposal of an investment, the difference between the net disposal proceeds and the carrying amount is recognized in the statements of income.

#### 4.10 Other Long-term Investments

The Group classifies Investments in non-marketable equity securities other than investments in subsidiaries, associates, joint ventures and joint operations as general investments and presents them as other long-term investments at cost less provision for impairment in the statements of financial position. A test for impairment is carried out when there is an indicator that the investment might be impaired. If the carrying value of the investment is higher than its recoverable amount, the Group will recognize the impairment loss in the statements of income.

A list of other long-term investments is set out in Note 20.

#### 4.11 Finance Costs

Borrowing costs directly attributable to the acquisition, construction or production of qualifying assets, which are assets that necessarily take a substantial period of time to get ready for their intended use or sale, are added to the cost of those assets, until the assets are ready for their intended use or sale. Capitalization shall cease when substantially all of the activities necessary to prepare the qualifying assets for its intended use or sale are completed.

For general borrowings, the Group capitalized the borrowing costs as part of the respective assets using the capitalization rate which is calculated from the weighted average interest rate of the borrowings during the year.

When borrowings are incurred for specific construction or production of qualifying assets, the borrowing costs which are capitalized as part of the costs of the respective assets are borrowing costs incurred during the year less income earned from temporary investment of such borrowings.

The Group records the transaction cost as the deduction from the share premium. The transaction cost comprises direct expense incurred for capital raising activities, such as fees, cost of publishing the offering memorandum, financial advisor fees, etc.

Other borrowing costs are recognized as expenses in the period in which they are incurred.



#### 4.12 Property, Plant and Equipment

Property, plant and equipment are presented at cost, after deducting accumulated depreciation and the provision for the impairment of assets.

##### ■ Oil and Gas Properties

The Group follows the Successful Efforts Method in accounting for its assets used for oil and gas exploration and production activities as follows:

##### Cost of Properties

Costs of properties comprise 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 exploration and evaluation assets and will be classified as oil and gas 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 statements of income.

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

Development costs, whether relating to the successful or unsuccessful development of wells, are capitalized as oil and gas properties.

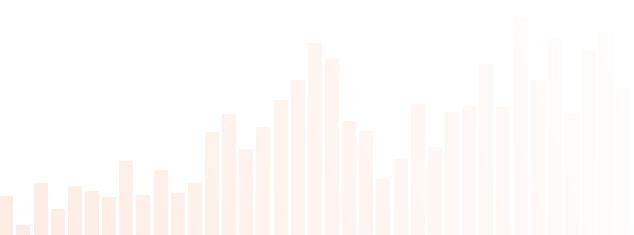
##### Depreciation and Depletion

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.

Proved reserves and proved developed reserves are calculated by the engineers of the Company and are based on the information received from the joint operators.

Depreciation for support equipment and facilities is calculated using the straight-line method with an estimated useful life of assets not exceeding 20 years.

Depreciation for remuneration for the renewal of petroleum production is calculated using the straight-line method with an estimated useful life of 10 years in accordance with the agreement.



#### ■ Pipelines and Others

Costs of properties comprise purchase prices and other direct costs necessary to bring the asset to working condition suitable for its intended use.

Depreciation of pipelines and others is determined using the straight-line method with an estimated useful life of assets not exceeding 30 years

Where the carrying amount of an asset is greater than its estimated recoverable amount, it is written down to its recoverable amount.

Gains and losses on disposal of property, plant and equipment are determined by comparing proceeds from disposal with the carrying amount and are recognized in the statement of income when incurred.

The cost of major renovations is included in the carrying amount of the asset when it is probable that future economic benefits in excess of the originally assessed standard of performance of the existing asset will flow to the Group.

Repair and maintenance costs are recognized as expenses when incurred.

#### 4.13 Carried Costs under Petroleum Sharing Contract

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 oil and gas properties, exploration and evaluation assets in the statements of financial position and exploration expenses in the statements of income.

#### 4.14 Goodwill

Goodwill arises from the business combination which represents the excess of the fair value of the consideration transferred over the fair value of the net identifiable assets, liabilities and contingent liabilities of the acquired subsidiaries, joint operations, associates or joint ventures undertaking at the date of acquisition.

Goodwill on acquisitions of subsidiaries and joint operations is separately reported in the statements of financial position, while goodwill on acquisitions of associates and joint ventures is included in investments in associates and joint ventures.

Goodwill is not amortized but is annually tested for impairment. Goodwill is allocated to cash-generating units for the purpose of impairment testing. The allocation is made to a single cash-generating unit or group of cash-generating units that are expected to gain benefit from goodwill from the business combination. Goodwill is presented at cost less accumulated impairment losses.

Impairment losses on goodwill are not reversed. The carrying amount of goodwill is included in the gains and losses on the disposal of business when it is divested.

#### 4.15 Intangible Assets

Intangible assets are presented at cost, after deducting accumulated amortization and the allowance for the impairment of assets.

Research expenditures are recognized as expenses when incurred. Development cost is recognized as intangible assets when the value can be reliably measured and when the project is assessed that it is technically feasible and is able to provide future economic benefits.

Other intangible assets comprise expenditures incurred to acquire computer software licenses, concession rights in midstream oil and gas business, and leasehold rights.

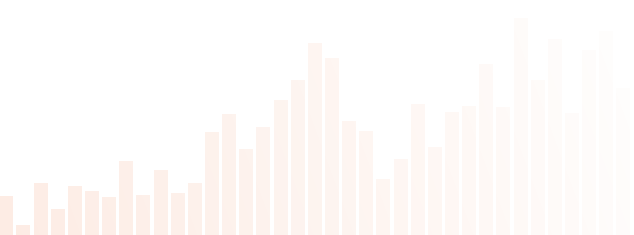
Intangible assets are amortized using the straight-line method according to asset's useful life but not exceeding 30 years.

Where the carrying amount of an asset is greater than its estimated recoverable amount, it is written down to its recoverable amount.

#### 4.16 Exploration and Evaluation Assets

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 oil and gas properties of the projects with proved reserves. Subsequent accounting is described in the accounting policy for property, plant and equipment in Note 4.12 - Property, Plant and Equipment.

The capitalized exploration and evaluation expenditure is written off as expenses in the statements 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.





#### 4.17 Impairment of Assets

The Group's assets are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount may exceed the recoverable amount. Intangible assets that have an indefinite useful life or are not ready to be used are tested for impairment annually.

An impairment loss is recognized for the amount by which the carrying amount of the assets exceeds its recoverable amount which is the higher of an asset's fair value less costs to sell and its value in use, and is recorded in the statement of income. For the purposes of assessing impairment, assets are grouped at the lowest levels in which they are separately identifiable.

Estimates of future cash flows used in the evaluation for impairment of assets which relate to petroleum production are made with consideration of the risk assessment on field and reservoir performance which includes the estimate of proved and unproved reserves.

Allowance for impairment of assets, except when relating to goodwill, is reversed as applicable to the extent that the events or circumstances that triggered the original allowance for impairment change. For this circumstance, the increased carrying amount of the assets from the reversal could not exceed the carrying amount (net of amortization or depreciation), if the Group did not recognize the impairment loss for assets in the prior period.

#### 4.18 Income Taxes

Income tax expenses for the period comprise current and deferred taxes. Income taxes are recognized in profit or loss, except to the extent that they relate to items recognized in other comprehensive income (loss) or items directly recognized in equity which must be recognized in other comprehensive income (loss) or directly recognized in equity, respectively.

The current income taxes are calculated using the tax rates as identified by tax laws enacted or substantively enacted by the end of reporting period in the countries where the Group and its subsidiaries operate and generate taxable income.

Deferred income taxes are recognized on temporary differences between the tax base of assets and liabilities and their carrying amounts in the financial statements.

However, the deferred income taxes are not accounted for if they arise from initial recognition of assets or liabilities in transactions other than a business combination, that at the time, the transactions affect neither accounting nor taxable profit or loss. Deferred income taxes are determined using tax rates (and tax laws) that have been enacted or substantially enacted by the end of the reporting period and are expected to be applied when the related deferred income tax assets are realized or the deferred income tax liabilities are settled.

Deferred income tax assets are recognized only to the extent that it is probable that future taxable profit will be available against which the temporary differences can be utilized.

Deferred income tax assets and liabilities are offset when there is a legally enforceable right to offset current tax assets against current tax liabilities and when the deferred income tax assets and liabilities relate to income taxes levied by the same taxation authority on either the same taxable entity or different taxable entities where there is an intention to settle the balances on a net basis.

#### 4.19 Deferred Remuneration under Agreement

The Company has an obligation to make a payment to the buyer (PTT) under the conditions in the Gas Sales Agreement of Arthit project. The remuneration is classified as non-current asset, presented under the caption "Deferred Remuneration under Agreement", and amortized over the contract life using the straight-line method.

#### 4.20 Borrowings

The Group records its borrowings at the fair value of the proceeds received, net of transaction costs incurred.

Borrowings are classified as current liabilities unless the Group has an unconditional right to defer the settlement of the liability for at least 12 months after the statements of financial position date.

#### 4.21 Leases

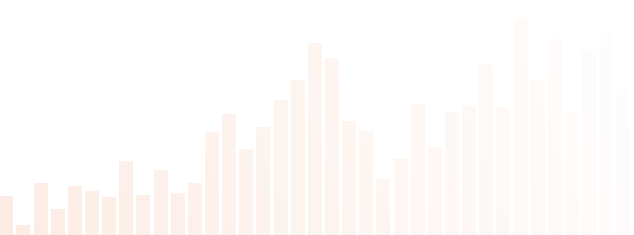
##### ■ Leases - where the Group is the lessee

Leases of property, plant and equipment in which substantially all the risks and rewards of ownership are transferred to the lessee are classified as finance leases. Finance leases are capitalized at the inception of the lease at the lower of the fair value of the leased property or the net present value of the lease payments. Each lease payment is allocated to the principal and to the finance costs so as to achieve a constant interest rate on the liability balance outstanding. The outstanding rental obligations, net of finance costs, are included in liabilities. The interest expenses are recorded in the statements of income over the lease period so as to achieve a constant periodic rate of interest on the remaining balance of the liabilities for each period.

The property, plant and equipment acquired under finance leases are depreciated over the shorter period of the useful life of the asset or the lease term.

Leases in which a significant portion of the risks and rewards of ownership are retained by the lessor are classified as operating leases. Payments made under operating leases are charged to the statements of income on a straight-line basis over the lease period.

When an operating lease is terminated before the lease period has expired, any payment required to be made to the lessor by way of penalty is recognized as an expense in the period in which the termination takes place.



■ **Leases - where the Group is the lessor**

Assets leased out under operating leases are included in property, plant and equipment in the statements of financial position. They are depreciated over their expected useful lives on a basis consistent with other similar property, plant and equipment owned by the Group. Rental income is recognized on a straight-line basis over the lease term.

#### 4.22 Employee Benefits

The Group has recognized employee benefits based on the types of benefits which are post-employment benefits and other long-term benefits.

##### **Post-employment Benefits**

The Group has recognized both defined contribution and defined benefit plans as follows:

##### Defined Contribution Plans

The Group's employees have become members of the following provident funds: "Employee of PTTEP Registered Provident Fund", "Sinsataporn Registered Provident Fund" and "TISCO Master Pooled Fund Registered Provident Fund".

The provident funds are funded by payments from employees and from the Group which are held in a separate trustee-administered fund. The Group contributes to the funds at a rate of 3% - 15% of the employees' salaries which are charged to the statements of income in the period the contributions are made.

##### Employee Retirement Benefits

The Group's obligation in respect of the retirement benefit plans is calculated by estimating the amount of future benefits that employees will earn in return for their services to the Group in current and future periods. Such benefits are discounted to the present value. The employee benefits obligation is calculated by an independent actuary using the projected unit credit method. Actuarial gains and losses arising from experience adjustments and changes in actuarial assumptions are charged or credited to equity in other comprehensive income (loss) in the period in which they arise.

Past-service costs are recognized immediately in the statements of income.

##### **Other Long-term Benefits**

The Group's other long-term benefits are benefits based on employees' length of service. The Group calculates the amount of these benefits according to the employees' service period.

The expected obligation of these benefits is calculated by independent actuarial experts and accrued over the period of employment based on the same accounting practice used for the employee retirement

benefits. Actuarial gains and losses arising from experience adjustments and changes in actuarial assumptions will be recognized in the statements of income in the period in which they arise.

The Group recognizes the obligation in respect of employee benefits in the statements of financial position under "Provision for Employee Benefits" as disclosed in Note 31.

#### 4.23 Capital Risk Management

The Group's objectives when managing capital are to safeguard the Group's ability to continue as a going concern in order to provide returns to shareholders and benefits to other stakeholders and to maintain an optimal capital structure to reduce the cost of capital.

#### 4.24 Reserve for Expansion

The Group has set aside a reserve for expanding its investments in new projects in the exploration phase, which is generally susceptible to high risk, and for exploration of additional petroleum reserves. The reserve for expansion is set aside at no more than 35% of the net taxable income from its exploration and production activities.

#### 4.25 Revenue Recognition

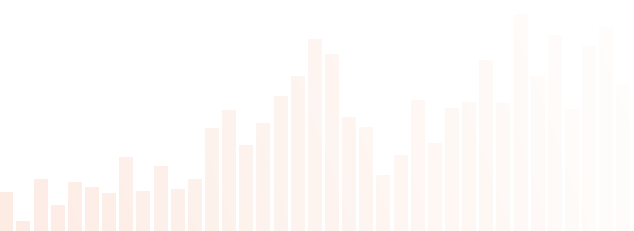
Revenue from contracts with customers is recognized when the Group complete performance obligations at a point in time by transferring petroleum product to a customer and the control over the product is transferred to a customer whom the product is physically possessed. The revenue is measured at the fair value of the consideration which the Group expects to be entitled in exchange for petroleum product, provided that collectability of the consideration is probable. Inter-company sales revenue is excluded in the consolidated financial statements.

Interest income is recognized on an effective interest rate basis.

Revenues other than those mentioned above are recognized on an accrual basis.

#### 4.26 Deferred Income under Agreements (Take-or-Pay)

Under the Gas Sales Agreements, the Group has obligations to supply minimum quantities of gas to a customer in each contract year. If in any contract year, the customer has not taken the minimum quantities of gas according to the Gas Sales Agreements, the customer shall pay for quantities of gas not taken (Take-or-Pay). If the customer is unable to take the minimum contracted quantities in a given year, the volume of gas that the customer has paid for but has not taken in that year (Make-up) can be taken free of charge in subsequent years. Payments received in advance under these agreements are recognized as deferred income. This deferred income is recognized in the statements of income when the gas is subsequently taken.



#### 4.27 Earnings per Share

Basic earnings per share are calculated by dividing the income for the year attributable to ordinary shareholders less interest expense for subordinated capital debentures by the weighted average number of ordinary shares outstanding during the year.

Diluted earnings per share are calculated by dividing the income for the year attributable to shareholders less interest expense for subordinated capital debentures by the weighted average number of ordinary shares outstanding during the year, adjusted with dilutive potential ordinary shares. The Company assumes that all dilutive potential ordinary shares are converted into ordinary shares.

#### 4.28 Segment Reporting

Operating segments are reported in a manner consistent with the internal reporting provided to the chief operating decision-maker. The chief operating decision-maker is a person responsible for allocating resources and assessing performance of the operating segments that makes strategic decisions.

In considering the segment reporting, the chief operating decision-maker considers product types as well as geographical areas classified by business segments which are identified by different business activities that are subject to risks and returns that are different from those of other business segments.

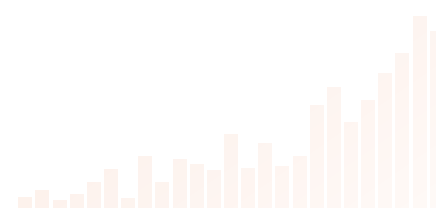
#### 4.29 Financial Instruments

##### Financial Assets and Financial Liabilities

The Group classifies its financial assets into 4 categories: (1) at fair value through statements of income, (2) held-to-maturity, (3) loans and receivables and (4) available for sale. The classification depends on the purpose for which the financial assets are acquired. Financial liabilities are classified as (1) at fair value through statements of income, and (2) at amortized cost.

Financial assets and financial liabilities are initially recognized at fair value. In case that financial assets or financial liabilities are not initially recognized at fair value through statements of income, they are recognized at the amount of fair value, net of the transaction costs directly attributable to the acquisition or the issue of such financial assets or financial liabilities. The subsequent measurement of financial assets or financial liabilities depends on their classification.

Loans and receivables, and held-to-maturity financial assets, as well as financial liabilities measured at amortized cost are initially recognized at fair value, net of the transaction cost and are subsequently measured at amortized cost using the effective interest method with gains or losses recognized in the statements of income.



### Impairment of Financial Assets

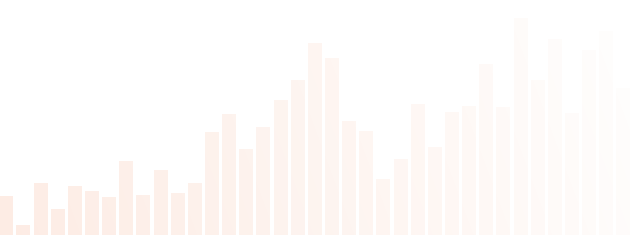
The Group assesses at each statements of financial position date whether a financial asset or group of financial assets is impaired. If there is objective evidence that an impairment loss has been incurred, the amount of impairment loss is measured as the difference between book value of financial assets and present value of future cash flows discounted using the original effective interest rate according to the contract. Impairment loss is recognized as gains or losses in the statements of income.

### Derivative Financial Instruments and Hedging

The Group recognizes derivative financial instruments in the statements of financial position at fair value and recognizes the changes in the fair value as gains or losses.

For instruments which the Group wishes to claim for hedge accounting as identified in the accounting standard, the hedging instrument effectiveness portion is offset against the hedged item's fair value. When the Group enters into the fair value hedge instruments, the change in fair value of a hedge derivative as well as the change in the fair value of the hedged item attributable to the risk being hedged are recognized as gains or losses.

For cash flow hedges, the effective portion of the gain or loss on the hedging instrument is recognized within other comprehensive income (loss) by presenting in a separate item. Amounts taken to other comprehensive income (loss) are transferred to the statements of income when the hedged transaction affects profit or loss. The ineffective portion is immediately recognized as gains or losses when incurred.





## 5. Reclassification and Adjustment

The Group has reclassified and adjusted exploration and evaluation assets from business acquisition in the current year and comparative consolidated financial statements. However, there is no impact on the consolidated statements of income for the periods ended 31 December 2019 and consolidated statements of cash flows for the period ended 31 December 2019. The effects of increase (decrease) on the consolidated financial statements are as follows:

	Unit: Million US Dollar		Unit: Million Baht	
	Consolidated		Consolidated	
	Dec 31, 2018	Jan 1, 2018	Dec 31, 2018	Jan 1, 2018
<b>Statements of financial position</b>				
Goodwill	153.20	153.20	4,971.38	5,006.78
Exploration and evaluation assets	(240.44)	(240.44)	(7,802.24)	(7,857.80)
Deferred tax liabilities	(72.13)	(72.13)	(2,340.67)	(2,357.34)
Retain earnings - unappropriated	(15.11)	(15.11)	(533.51)	(533.51)
Other components of shareholders' equity	-	-	43.32	39.83

Unit: Million US Dollar	Unit: Million Baht
Consolidated	Consolidated
Dec 31, 2018	Dec 31, 2018

## Statement of comprehensive income for the year

### Items that will be reclassified subsequently to profit or loss

Exchange differences on translating financial statement	-	3.49
Total items that will be reclassified subsequently to profit or loss	-	3.49
Other comprehensive income (loss) for the year - net of tax	-	3.49
Total comprehensive income (loss) for the year	-	3.49

## 6. Business Acquisition in Murphy Oil Corporation in Malaysia

On March 21, 2019, PTTEP HK Offshore Limited (PTTEP HKO), a subsidiary of the Group, signed the Share Sale and Purchase Agreement (SSPA) to acquire the 100% shareholding interests of Murphy Oil Corporation (Murphy) in Malaysia through acquisition of shares in Murphy's subsidiaries, which are Murphy Sabah Oil Co., Ltd. (Murphy Sabah) and Murphy Sarawak Oil Co., Ltd. (Murphy Sarawak), with total acquisition value of approximately US Dollar 2,130.86 million (Baht 65,724.27 million). Moreover, according to the SSPA, there may be contingent consideration of not exceeding US Dollar 100 million if there is significant petroleum found from exploration of SK405B project. The acquisition was completed on July 10, 2019.

Details of acquired net identifiable assets on acquisition date and goodwill are as follows:

	Unit: Million US Dollar	Unit: Million Baht
	Consolidated	Consolidated
	Fair Value	Fair Value
Cash and cash equivalents	58.90	1,816.86
Trade accounts receivable	138.04	4,257.70
Other accounts receivable	59.09	1,822.63
Inventories	7.78	240.00
Materials and supplies	19.60	604.51
Current tax assets	16.50	508.89
Other current assets	11.26	347.26
Property, plant and equipment	1,627.38	50,194.82
Intangible assets	2.49	76.71
Exploration and Evaluation Assets	410.46	12,660.24
Deferred tax assets	98.13	3,026.87
Rights to receive reimbursement from decommissioning funds	48.64	1,500.26
Other non-current assets	4.39	135.49
Trade accounts payable	(6.28)	(193.74)
Working capital to co-venturers	(67.41)	(2,079.09)
Accrued expenses	(92.05)	(2,839.08)
Other current liabilities	(35.80)	(1,104.31)

	Unit: Million US Dollar	Unit: Million Baht
	Consolidated	Consolidated
	Fair Value	Fair Value
Long-term loans	(150.14)	(4,631.07)
Deferred tax liabilities	(17.92)	(552.65)
Provision for decommissioning costs	(268.65)	(8,286.43)
Total	1,864.41	57,505.87
<u>Less</u> Deferred tax liabilities from the effect of accounting	(344.71)	(10,632.18)
Net identifiable assets	1,519.70	46,873.69
Goodwill	611.16	18,850.58
Total consideration	2,130.86	65,724.27

Goodwill of US Dollar 611.16 million (Baht 18,850.58 million) arises primarily from the recognition of deferred tax liabilities arising from the difference between the fair value of net identifiable assets acquired from the acquisition and the book value which is the tax base of these net assets. The fair value of the identifiable assets acquired and liabilities assumed may be adjusted to reflect new information obtained about facts and circumstances that existed as of the acquisition date, however, the measurement period shall not exceed one year from the date which the Group has control.

The fair value of total considerations transferred on the acquisition date of US Dollar 2,130.86 million (Baht 65,724.27 million) consists of cash payment on acquisition date of US Dollar 2,123.76 million (Baht 65,505.43 million) and deferred consideration of US Dollar 7.10 million (Baht 218.84 million), which is the fair value discounted from deferred consideration of US Dollar 7.48 million (Baht 230.70 million). The fair value is measured by using income approach based on discount rate at 2.8% and other probability assumptions which is classified as fair value level 3. The deferred consideration is presented in other non-current liabilities in the consolidated financial statements.

#### 7. Business Acquisition in Partex Holding B.V.

On June 17, 2019, PTTEP HK Holding Limited (PTTEP HK), a subsidiary of the Group, signed the Share Purchase Agreement (SPA) to acquire the 100% shareholding interests of Partex Holding B.V. (Partex) from Calouste Gulbenkian Foundation with the total acquisition value of approximately US Dollar 716.16 million (Baht 21,604.53 million). The value may be adjusted according to conditions in the SPA. The acquisition was completed on November 4, 2019.

Details of acquired net identifiable assets on acquisition date and goodwill are as follows:

	Unit: Million US Dollar	Unit: Million Baht
	Consolidated	Consolidated
	Fair Value	Fair Value
Cash and cash equivalents	139.12	4,196.90
Trade accounts receivable	45.52	1,373.26
Other accounts receivable	0.80	24.16
Materials and supplies	13.88	418.87
Other current assets	0.57	17.24
Investment in joint venture	82.96	2,502.52
Property, plant and equipment	469.08	14,150.69
Intangible assets	36.71	1,107.50
Exploration and evaluation assets	97.71	2,947.68
Other non-current assets	58.89	1,776.48
Trade accounts payable	(59.70)	(1,800.82)
Accrued expenses	(11.88)	(358.44)
Tax payables	(12.95)	(390.66)
Other current liabilities	(0.14)	(4.52)
Deferred tax liabilities	(152.54)	(4,601.64)
Provision for employee benefit	(44.89)	(1,354.08)
Provision for decommissioning costs	(62.60)	(1,888.40)
Other non-current liabilities	(4.01)	(120.99)
Total	596.53	17,995.75
<u>Less</u> Deferred tax liabilities from the effect of accounting	(85.83)	(2,589.19)
Net identifiable assets	510.70	15,406.56
Goodwill	205.46	6,197.97
Total consideration	716.16	21,604.53

Goodwill of US Dollar 205.46 million (Baht 6,197.97 million) arises primarily from the recognition of deferred tax liabilities arising from the difference between the fair value of net assets acquired from the acquisition and the book value which is the tax base of these net assets. The fair value of the identifiable assets acquired and liabilities assumed may be adjusted to reflect new information

obtained about facts and circumstances that existed as of the acquisition date, however, the measurement period shall not exceed one year from the date which the Group has control.

The fair value of total considerations transferred on the acquisition date of US Dollar 716.16 million (Baht 21,604.53 million) was fully paid in cash by PTTEP HK on the acquisition date.

## 8. Major Estimates and Assumptions

In order to prepare the financial statements in conformity with the accounting standards, management is required to use estimates and assumptions which impact assets, liabilities, revenues and expenses. The data relating to the major assumptions and uncertainties in the estimate which may have an impact on the carrying amount of assets, liabilities, revenues and expenses presented in the financial statements are as follows:

### Estimation of Petroleum Reserves

Petroleum reserves are key elements in the Group's investment decision-making process. They are also important elements in testing for impairment. Changes in proved reserves will also affect the present value of the net cash flows and depreciation calculated using the unit-of-production method.

Proved reserves are the quantities of petroleum that are demonstrated with reasonable certainty to be commercially producible in future years from known reservoirs under existing economic and operating conditions including government rules and regulations. The proved reserves have to be examined and assessed annually by the Group's geologists and reservoir engineers.

### Exploration Costs

Capitalized exploration drilling costs are expensed unless (1) proved reserves are booked or (2) commercially producible quantities of reserves are found and they are subject to further exploration or appraisal activity. In making decisions about whether to continue capitalizing exploration drilling costs, it is necessary to make assumptions about the satisfaction of each condition in the present event. If there is a change in one of these assumptions in a subsequent period, the related capitalized exploration drilling costs would be expensed in that period.

### Impairment of Assets

The Company assesses the impairment of assets based on the estimate using the discounted future cash flows. The expected future cash flows are based on management's key assumptions in relation to selling price using the future oil price, estimated future production volume based on a proved and probable reserves and margin rate. These assumptions are based on management's judgment and past experience as well as the future prediction that is believed to be reasonable in the present situation. Changes in the information or new noticeable information may lead to the change in the assumptions and the discount rate for the estimation of the discounted future cash flows.

The assumption of selling price is determined from the short-term oil price based on forward oil price curve and long-term oil price based on demand and supply of oil in the world market.

### Goodwill and Intangible Assets

For recognition and measurement of goodwill and intangible assets as of the acquisition date as well as subsequent impairment testing, management uses estimated future cash flows from assets or cash-generating unit and appropriate discount rate to determine the present value of future cash flow calculation.

### Income Tax

The Group is subject to income taxes in numerous jurisdictions. Significant judgments are required to determine the worldwide provision for income taxes due to the fact that there are many transactions and calculations for which the ultimate tax determination is uncertain during the ordinary course of business. The Group recognizes liabilities for anticipated tax based on estimates of whether additional taxes will be due. Where the final tax outcome of these matters is different from the amounts that were initially recorded, such differences will affect the income tax and deferred tax provisions in the period in which such determination is made.

Deferred tax assets are recognized to the extent that it is probable that future taxable profits will be available against which the temporary differences can be utilized. Management is required to make an estimate of the number of the deferred tax assets that should be recognized by considering the assumption about the probable future tax benefits in each period. There may be uncertainty associated with the assumption used for the future taxable income in terms of whether any change will affect the recognition of the deferred tax asset.

### Lease

In considering whether a lease agreement is an operating lease or a finance lease, management has exercised judgment in assessing terms and conditions of the agreement to ensure whether the risks and rewards of assets are transferred to the Group or not.

### Employee Benefits

The provision for employee benefits is estimated based on the amount of future benefits that employees will have earned in return for their services provided to the Group in the current and in future periods. The calculation is performed by an independent actuary using the Projected Unit Credit Method and the relevant assumptions which include financial and demographic assumptions as disclosed in Note 31.

### Provisions

The provisions, except for the provision for employee benefits, are recognized when the Group has a present legal or constructive obligation as a result of a past event and it is probable that an outflow of resources will be required to settle the obligation and the amount can be reliably estimated.

### Provision for Decommissioning Costs

The Group records a provision for decommissioning costs whenever it is probable that there would be an obligation as a result of a past event and the amount of that obligation is reliably estimated by the Group's engineers and management's judgment. The Group recognizes provision for decommissioning costs as part of oil



and gas properties, using the discounted present value before tax based on the estimated eventual costs that relate to the removal of the production facilities and amortized based on the unit of production of the proved reserve or the proved developed reserve. The Group recognizes an increase that reflects the passage of time from the unwinding discount in each period, as a finance cost in the statements of income.

The provisions are based on the current situation such as regulations, technologies and prices. The actual results could differ from these estimates as future confirming events occur.

#### Provision for Remuneration for the Renewal of Petroleum Production

The Group has entered into the Supplemental Petroleum Concession Agreement with the Ministry of Energy to extend the petroleum production period for another 10 years. As a result of this extension, the Group has to pay remuneration fee to the Ministry of Energy. The management has estimated the provision for remuneration using the discounted cash flows based on the duration of the new agreement and significant assumptions, such as sales volume data and oil price, etc.



## 9. Cash and Cash Equivalents

Cash and cash equivalents comprised:

	Unit: Million US Dollar		Unit: Million Baht	
	Consolidated		Consolidated	
	Dec 31, 2019	Dec 31, 2018	Dec 31, 2019	Dec 31, 2018
Cash on hand and at banks	1,867.51	625.04	56,312.82	20,282.30
Cash equivalents				
- Fixed deposits	900.56	2,009.35	27,155.62	65,203.14
- Debt securities	19.68	515.77	593.32	16,736.58
- Money market fund	35.15	29.94	1,059.88	971.54
Total	2,822.90	3,180.10	85,121.64	103,193.56

	Unit: Million US Dollar		Unit: Million Baht	
	The Company		The Company	
	Dec 31, 2019	Dec 31, 2018	Dec 31, 2019	Dec 31, 2018
Cash on hand and at banks	45.24	31.93	1,364.07	1,036.05
Cash equivalents				
- Fixed deposits	635.38	400.22	19,159.32	12,987.26
- Money market fund	35.15	29.94	1,059.88	971.54
Total	715.77	462.09	21,583.27	14,994.85

The interest rate on saving deposits held at call with banks for the year ended December 31, 2019 is between 0.00% - 2.65% per annum (during the year 2018: interest rate was between 0.00% - 2.50% per annum).

The interest rate on fixed deposits with banks for the year ended December 31, 2019 is between 0.50% - 5.77% per annum (during the year 2018: interest rate was between 0.83% - 6.08% per annum).

The interest rate on debt securities for the year ended December 31, 2019 is between 1.11% - 1.77% per annum (during the year 2018: interest rate was between 1.00% - 1.47% per annum).

## 10. Short-term investments

Short-term investments comprised:

	Unit: Million US Dollar		Unit: Million Baht	
	Consolidated		Consolidated	
	Dec 31, 2019	Dec 31, 2018	Dec 31, 2019	Dec 31, 2018
Fixed deposits	200.00	770.66	6,030.80	25,007.80
Debt securities (with embedded derivatives)	-	49.87	-	1,618.26
Total	200.00	820.53	6,030.80	26,626.06

	Unit: Million US Dollar		Unit: Million Baht	
	The Company		The Company	
	Dec 31, 2019	Dec 31, 2018	Dec 31, 2019	Dec 31, 2018
Fixed deposits	200.00	412.83	6,030.80	13,396.28
Debt securities (with embedded derivatives)	-	49.87	-	1,618.26
Total	200.00	462.70	6,030.80	15,014.54

The interest rate on fixed deposits with banks that have maturity more than 3 months but within 12 months for the year ended December 31, 2019 is between 2.63% - 3.60% per annum (during the year 2018: interest rate was between 1.64% - 3.10% per annum).

Short-term investment in debt securities (with embedded derivatives) that have maturity within 12 months and will be held to maturity, is a financial asset with embedded derivative. The Group classified this short-term investment in debt securities as financial asset measured at the fair value because the embedded derivatives can significantly modify the cash flow of the main instrument. The change in fair value will be recognized through profit or loss.

Movements of short-term investment in debt securities (with embedded derivatives) for the year are as follows:

	Unit: Million US Dollar	Unit: Million Baht
	Consolidated	Consolidated
Balance as at January 1, 2019	49.87	1,618.26
Decrease	(50.00)	(1,551.75)
Gain on changes in fair value	0.13	4.05
Currency translation differences	-	(70.56)
Balance as at December 31, 2019	-	-

	Unit: Million US Dollar	Unit: Million Baht
	The Company	The Company
Balance as at January 1, 2019	49.87	1,618.26
Decrease	(50.00)	(1,551.75)
Gain on changes in fair value	0.13	4.05
Currency translation differences	-	(70.56)
Balance as at December 31, 2019	-	-

## 11. Investments in Trading Securities

Movements in the investments in trading securities for the year are as follows:

	Unit: Million US Dollar	Unit: Million Baht
	Consolidated	Consolidated
Balance as at January 1, 2019	70.55	2,289.34
Increase	1,250.18	38,799.23
Decrease	(1,119.02)	(34,728.73)
Gain on changes in fair value	0.47	15.04
Foreign exchange differences	11.52	357.52
Currency translation differences	-	(288.40)
Balance as at December 31, 2019	213.70	6,444.00

	Unit: Million US Dollar	Unit: Million Baht
	The Company	The Company
Balance as at January 1, 2019	70.54	2,289.08
Decrease	(70.00)	(2,172.45)
Loss on changes in fair value	(0.34)	(10.14)
Foreign exchange differences	0.01	0.35
Currency translation differences	-	(100.50)
Balance as at December 31, 2019	0.21	6.34

## 12. Investments in Available-for-sale Securities

Investments in available-for-sale securities comprised:

	Unit: Million US Dollar		Unit: Million Baht	
	Consolidated		Consolidated	
	Dec 31, 2019	Dec 31, 2018	Dec 31, 2019	Dec 31, 2018
Current portion of investments in available-for-sale securities	-	10.45	-	339.10
Non-current portion of investments in available-for-sale securities	0.52	0.56	15.81	18.07
Total	0.52	11.01	15.81	357.17

	Unit: Million US Dollar		Unit: Million Baht	
	The Company		The Company	
	Dec 31, 2019	Dec 31, 2018	Dec 31, 2019	Dec 31, 2018
Current portion of investments in available-for-sale securities	-	10.45	-	339.10
Total	-	10.45	-	339.10

Movements in the investments in available-for-sale securities for the year are as follows:

	Unit: Million US Dollar	Unit: Million Baht
	Consolidated	Consolidated
Balance as at January 1, 2019	11.01	357.17
Decrease	(10.44)	(324.14)
Loss on changes in fair value	(0.05)	(1.31)
Currency translation differences	-	(15.91)
Balance as at December 31, 2019	0.52	15.81

	Unit: Million US Dollar	Unit: Million Baht
	The Company	The Company
Balance as at January 1, 2019	10.45	339.10
Decrease	(10.44)	(324.14)
Loss on changes in fair value	(0.01)	(0.19)
Currency translation differences	-	(14.77)
Balance as at December 31, 2019	-	-

## 13. Account Receivable - Parent Company

Account receivable - parent company comprised:

	Unit: Million US Dollar		Unit: Million Baht	
	Consolidated		Consolidated	
	Dec 31, 2019	Dec 31, 2018	Dec 31, 2019	Dec 31, 2018
Sales of petroleum products	534.84	637.13	16,127.47	20,674.75
Total	534.84	637.13	16,127.47	20,674.75

	Unit: Million US Dollar		Unit: Million Baht	
	The Company		The Company	
	Dec 31, 2019	Dec 31, 2018	Dec 31, 2019	Dec 31, 2018
Sales of petroleum products	353.32	399.09	10,653.92	12,950.47
Total	353.32	399.09	10,653.92	12,950.47

The analysis of account receivable - parent company based on outstanding age groups is shown below.

	Unit: Million US Dollar		Unit: Million Baht	
	Consolidated		Consolidated	
	Dec 31, 2019	Dec 31, 2018	Dec 31, 2019	Dec 31, 2018
Not yet due	505.14	633.54	15,231.96	20,558.19
Past due				
- Up to 3 months	0.75	-	22.75	-
- Over 3 months but not more than 6 months	-	0.21	-	6.92
- Over 6 months but not more than 12 months	27.91	0.91	841.54	29.59
- Over 12 months	2.14	2.47	64.35	80.05
	535.94	637.13	16,160.60	20,674.75
<u>Less</u> Allowance for doubtful accounts	(1.10)	-	(33.13)	-
Total	534.84	637.13	16,127.47	20,674.75

	Unit: Million US Dollar		Unit: Million Baht	
	The Company		The Company	
	Dec 31, 2019	Dec 31, 2018	Dec 31, 2019	Dec 31, 2018
Not yet due	323.99	395.70	9,769.57	12,840.45
Past due				
- Up to 3 months	0.45	-	13.55	-
- Over 3 months but not more than 6 months	-	0.01	-	0.38
- Over 6 months but not more than 12 months	27.90	0.91	841.21	29.59
- Over 12 months	2.08	2.47	62.72	80.05
	354.42	399.09	10,687.05	12,950.47
<u>Less</u> Allowance for doubtful accounts	(1.10)	-	(33.13)	-
Total	353.32	399.09	10,653.92	12,950.47



## 14. Trade Accounts Receivable

Trade accounts receivable comprised:

	Unit: Million US Dollar		Unit: Million Baht	
	Consolidated		Consolidated	
	Dec 31, 2019	Dec 31, 2018	Dec 31, 2019	Dec 31, 2018
ADNOC-Abu Dhabi National Oil Company	4.73	-	142.63	-
Binh Son Refining & Petrochemical Co.,Ltd.	12.26	3.07	369.69	99.65
Hengyuan Refining Company Berhad	87.68	-	2,643.78	-
Itochu Corporation	5.11	-	154.14	-
Myanmar Oil and Gas Enterprise	37.19	43.64	1,121.40	1,416.02
Oman Trading International	28.45	-	857.81	-
Petco Trading Labuan Company Limited	6.56	5.01	197.80	162.51
Petroleum Nasional Berhad	34.63	13.90	1,044.28	450.93
Petron Malaysia Refining & Marketing	21.08	-	635.68	-
PetroVietnam Oil Corporation	4.08	3.96	123.11	128.57
PT Pertamina (Persero)	0.98	-	29.57	-
Repsol Trading Singapore PTE LTD.	-	2.76	-	89.66
SembCorp Gas Pte Ltd.	4.97	5.00	149.83	162.28
Star Petroleum Refining Plc.	4.60	9.27	138.68	300.93
Vietnam National Oil and Gas Group	0.52	0.38	15.62	12.42
VITOL CENTRAL ASIA S.A.	5.33	-	160.67	-
Electricity Generating Authority of Thailand	-	0.03	-	0.95
Others	0.76	0.23	22.96	7.35
Total	258.93	87.25	7,807.65	2,831.27

	Unit: Million US Dollar		Unit: Million Baht	
	The Company		The Company	
	Dec 31, 2019	Dec 31, 2018	Dec 31, 2019	Dec 31, 2018
Star Petroleum Refining Plc.	1.13	0.92	34.16	29.95
Electricity Generating Authority of Thailand	-	0.01	-	0.24
Others	0.06	0.06	1.59	1.84
Total	1.19	0.99	35.75	32.03

The analysis of trade accounts receivable based on outstanding age groups is shown below.

	Unit: Million US Dollar		Unit: Million Baht	
	Consolidated		Consolidated	
	Dec 31, 2019	Dec 31, 2018	Dec 31, 2019	Dec 31, 2018
Not yet due	258.74	87.06	7,801.95	2,825.23
Past due				
- Up to 3 months	0.003	-	0.09	-
- Over 3 months but not more than 6 months	-	0.19	-	6.04
- Over 6 months but not more than 12 months	-	-	-	-
- Over 12 months	0.19	-	5.61	-
Total	258.93	87.25	7,807.65	2,831.27

	Unit: Million US Dollar		Unit: Million Baht	
	The Company		The Company	
	Dec 31, 2019	Dec 31, 2018	Dec 31, 2019	Dec 31, 2018
Not yet due	1.19	0.99	35.75	32.03
Past due				
- Up to 3 months	-	-	-	-
- Over 3 months but not more than 6 months	-	-	-	-
- Over 6 months but not more than 12 months	-	-	-	-
- Over 12 months	-	-	-	-
Total	1.19	0.99	35.75	32.03

## 15. Inventories

Inventories comprised:

	Unit: Million US Dollar		Unit: Million Baht	
	Consolidated		Consolidated	
	Dec 31, 2019	Dec 31, 2018	Dec 31, 2019	Dec 31, 2018
Inventories	32.50	25.17	980.08	816.86
<u>Less</u> Allowance for decrease in net realizable value	(0.41)	(1.77)	(12.29)	(57.48)
Total	32.09	23.40	967.79	759.38

	Unit: Million US Dollar		Unit: Million Baht	
	The Company		The Company	
	Dec 31, 2019	Dec 31, 2018	Dec 31, 2019	Dec 31, 2018
Inventories	5.33	4.27	160.72	138.60
<u>Less</u> Allowance for decrease in net realizable value	-	-	-	-
Total	5.33	4.27	160.72	138.60

## 16. Materials and Supplies

Materials and supplies comprised:

	Unit: Million US Dollar		Unit: Million Baht	
	Consolidated		Consolidated	
	Dec 31, 2019	Dec 31, 2018	Dec 31, 2019	Dec 31, 2018
Materials and supplies	321.25	278.07	9,686.88	9,023.34
<u>Less</u> Allowance for damage and obsolescence	(23.01)	(19.25)	(693.71)	(624.52)
Total	298.24	258.82	8,993.17	8,398.82

	Unit: Million US Dollar		Unit: Million Baht	
	The Company		The Company	
	Dec 31, 2019	Dec 31, 2018	Dec 31, 2019	Dec 31, 2018
Materials and supplies	111.63	111.70	3,366.12	3,624.60
<u>Less</u> Allowance for damage and obsolescence	(12.90)	(10.30)	(389.08)	(334.12)
Total	98.73	101.40	2,977.04	3,290.48

## 17. Other Current Assets

Other current assets comprised:

	Unit: Million US Dollar		Unit: Million Baht	
	Consolidated		Consolidated	
	Dec 31, 2019	Dec 31, 2018	Dec 31, 2019	Dec 31, 2018
Prepaid expenses	18.25	17.26	550.36	560.20
Accrued income	25.56	24.17	770.87	784.17
Withholding tax and VAT	14.09	11.46	424.77	371.96
Others	37.57	12.67	1,132.86	411.03
Total	95.47	65.56	2,878.86	2,127.36

	Unit: Million US Dollar		Unit: Million Baht	
	The Company		The Company	
	Dec 31, 2019	Dec 31, 2018	Dec 31, 2019	Dec 31, 2018
Prepaid expenses	9.40	9.40	283.43	304.97
Accrued income	35.29	17.40	1,064.16	564.48
Withholding tax and VAT	4.31	3.83	130.08	124.46
Others	14.54	0.13	438.37	4.11
Total	63.54	30.76	1,916.04	998.02

## 18. Significant Transactions with Related Parties

Significant transactions with related parties are summarized as follows:

### 18.1 Revenues and Expenses with Related Parties

Significant transactions with related parties for the years are as follows:

	Unit: Million US Dollar		Unit: Million Baht	
	Consolidated		Consolidated	
	2019	2018	2019	2018
Parent company - PTT Public Company Limited (PTT)				
Sales (world market reference price)	4,917.40	4,485.55	152,646.96	145,157.05
Purchase and other expenses	4.71	24.79	146.33	800.62

	Unit: Million US Dollar		Unit: Million Baht	
	Consolidated		Consolidated	
	2019	2018	2019	2018
Subsidiaries, associates, joint ventures and joint operations				
Interest income	0.63	0.60	19.46	19.43
Rental and service expenses	42.23	34.74	1,310.59	1,121.91
Other related parties				
Sales (world market reference price)	66.79	55.93	2,076.12	1,803.20
Purchase and other expenses	49.84	28.59	1,546.70	923.30
Interest income	3.14	3.27	97.61	105.51
Director and executive management				
Short - term benefits	7.65	6.40	239.26	204.94
Post - employment and other long - term benefits	0.55	0.19	16.94	6.18

	Unit: Million US Dollar		Unit: Million Baht	
	The Company		The Company	
	2019	2018	2019	2018
Parent company - PTT Public Company Limited (PTT)				
Sales (world market reference price)	3,225.83	2,819.85	100,090.63	91,304.53
Purchase and other expenses	4.47	14.65	138.86	473.25
Subsidiaries, associates and joint operations				
Interest income	275.78	42.17	8,549.21	1,383.55
Management and service fees	0.32	0.32	10.05	10.45
Rental and service expenses	41.10	34.02	1,275.42	1,098.70
Other related parties				
Purchase and other expenses	20.09	12.50	623.48	403.75
Director and executive management				
Short - term benefits	7.64	6.40	238.95	204.94
Post - employment and other long - term benefits	0.55	0.19	16.94	6.18

## 18.2 Account receivable - Related parties

Account receivable - related parties comprised:

	Unit: Million US Dollar		Unit: Million Baht	
	Consolidated		Consolidated	
	Dec 31, 2019	Dec 31, 2018	Dec 31, 2019	Dec 31, 2018
Parent company - PTT Public Company Limited (PTT)				
Account receivable - parent company	534.84	637.13	16,127.47	20,674.75

	Unit: Million US Dollar		Unit: Million Baht	
	The Company		The Company	
	Dec 31, 2019	Dec 31, 2018	Dec 31, 2019	Dec 31, 2018
Parent company - PTT Public Company Limited (PTT)				
Account receivable - parent company	353.32	399.09	10,653.92	12,950.47

## 18.3 Short-term Loans to Related Parties

Short-term loans to related parties comprised:

Borrowers	Unit: Million US Dollar		Unit: Million Baht	
	The Company		The Company	
	Dec 31, 2019	Dec 31, 2018	Dec 31, 2019	Dec 31, 2018
Subsidiary				
PTTEP Treasury Center Company Limited	362.00	1,175.45	10,915.76	38,143.18
Total	362.00	1,175.45	10,915.76	38,143.18

## 18.4 Long-term Loans to Related Parties

Long-term loans to related parties comprised:

Borrowers	Unit: Million US Dollar		Unit: Million Baht	
	Consolidated		Consolidated	
	Dec 31, 2019	Dec 31, 2018	Dec 31, 2019	Dec 31, 2018
<b>Associate</b>				
Energy Complex Company Limited	19.24	17.88	580.00	580.00
<b>Related Party</b>				
PTTGL Investment Limited	66.82	77.62	2,014.92	2,518.81
<b>Total</b>	<b>86.06</b>	<b>95.50</b>	<b>2,594.92</b>	<b>3,098.81</b>

Borrowers	Unit: Million US Dollar		Unit: Million Baht	
	The Company		The Company	
	Dec 31, 2019	Dec 31, 2018	Dec 31, 2019	Dec 31, 2018
<b>Subsidiary</b>				
PTTEP Treasury Center Company Limited	6,391.07	5,400.66	192,716.37	175,250.35
<b>Associate</b>				
Energy Complex Company Limited	19.24	17.87	580.00	580.00
<b>Total</b>	<b>6,410.31</b>	<b>5,418.53</b>	<b>193,296.37</b>	<b>175,830.35</b>

The Company has provided loans to subsidiary for the year ended December 31, 2019 with an interest rate of 4.62% per annum (during the year 2018: interest rate was between 3.19% - 3.47% per annum). The subsidiary shall occasionally repay the loans.

The Company has provided loans to an associate for the year ended December 31, 2019 with an interest rate of 3.35% per annum (during the year 2018: interest rate was 3.35% per annum).

The Group has provided loans to related party for the year ended December 31, 2019 with an interest rate between 4.01% - 4.67% per annum (during the year 2018: interest rate was 3.64% - 4.30% per annum).



Movements in the long-term loans to related parties for the year are as follows:

	Unit: Million US Dollar	Unit: Million Baht
	Consolidated	Consolidated
Balance as at January 1, 2019	95.50	3,098.81
Decrease	(10.80)	(335.20)
Foreign exchange differences	1.36	42.23
Currency translation differences	-	(210.92)
Balance as at December 31, 2019	86.06	2,594.92

	Unit: Million US Dollar	Unit: Million Baht
	The Company	The Company
Balance as at January 1, 2019	5,418.53	175,830.35
Increase	1,195.62	37,105.97
Decrease	(205.20)	(6,368.38)
Foreign exchange differences	1.36	42.23
Currency translation differences	-	(13,313.80)
Balance as at December 31, 2019	6,410.31	193,296.37

## 19. Investments in Subsidiaries, Associates, Joint Ventures and Joint Operations

### 19.1 Changes of Investments in Subsidiaries, Associates and Joint Ventures

Changes of investments in subsidiaries, associates and joint ventures are as follows:

	Unit: Million US Dollar	Unit: Million Baht
	Consolidated	Consolidated
Balance as at January 1, 2019	237.21	7,697.38
Share of net profit after income taxes	12.35	380.41
Dividends received from associates	(2.81)	(87.13)
Dividends received from joint ventures	(11.91)	(369.58)
Share of other comprehensive income	4.38	136.43
Business acquisition	82.96	2,502.52
Increase in investment	130.63	4,054.04
Currency translation differences	0.19	(654.42)
Balance as at December 31, 2019	453.00	13,659.65

	Unit: Million US Dollar	Unit: Million Baht
	The Company	The Company
Balance as at January 1, 2019	821.29	26,650.70
Increase in investments	128.69	3,993.94
Currency translation differences	-	(1,998.92)
Balance as at December 31, 2019	949.98	28,645.72

## 19.2 Investments in Subsidiaries

Details of subsidiaries are as follows:

List of subsidiaries	Registered country	Type of business	Participating interest (%) (including indirect holding)	
			Dec 31, 2019	Dec 31, 2018
1. PTTEP International Limited (PTTEPI)	Thailand	Petroleum	100	100
2. PTTEP Offshore Investment Company Limited (PTTEPO)	Cayman Islands	Petroleum	100	100
3. PTTEP Services Limited (PTTEP Services)	Thailand	Human resource support	100	100
4. PTTEP Siam Limited (PTTEPS)	Thailand	Petroleum	100	100
5. PTTEP HK Holding Limited (PTTEP HK)	Hong Kong	Petroleum	100	100
6. PTTEP Treasury Center Company Limited (PTTEP TC)	Thailand	Treasury center for the Group's business	100	100
7. PTTEP Energy Holding (Thailand) Company Limited (PTTEP EH)	Thailand	Petroleum	100	100
8. PTTEP Business Center Company Limited (PTTEP BC)	Thailand	Petroleum	100	100
9. PTTEP Energy Development Company Limited (PTTEP ED)	Thailand	Petroleum	100	100
10. EP-Tech Ventures Holding Company Limited (EP-Tech)	Thailand	Petroleum-related Technology	100	100
11. AI and Robotics Ventures Company Limited (ARV)	Thailand	Technology	100	100
12. PTTEP Southwest Vietnam Company Limited (PTTEP SV)	Cayman Islands	Petroleum	100	100
13. PTTEP Kim Long Vietnam Company Limited (PTTEP KV)	Cayman Islands	Petroleum	100	100

List of subsidiaries	Registered country	Type of business	Participating interest (%) (including indirect holding)	
			Dec 31, 2019	Dec 31, 2018
14. PTTEP Hoang-Long Company Limited (PTTEP HL)	Cayman Islands	Petroleum	100	100
15. PTTEP Hoan-Vu Company Limited (PTTEP HV)	Cayman Islands	Petroleum	100	100
16. PTTEP Algeria Company Limited (PTTEP AG)	Cayman Islands	Petroleum	100	100
17. PTTEP Holding Company Limited (PTTEPH)	Cayman Islands	Petroleum	100	100
18. PTTEP Indonesia Company Limited (PTTEP ID)	Cayman Islands	Petroleum	100	100
19. PTTEP Africa Investment Limited (PTTEP AI)	Cayman Islands	Petroleum	100	100
20. PTTEP Australia Pty Ltd (PTTEP AU)	Commonwealth of Australia	Petroleum	100	100
21. PTTEP Australia Offshore Pty Ltd (PTTEP AO)	Commonwealth of Australia	Petroleum	100	100
22. PTTEP South Asia Limited (PTTEP SA)	Cayman Islands	Petroleum	100	100
23. PTTEP Semai II Limited (PTTEP SM)	Cayman Islands	Petroleum	100	100
24. PTTEP Australia Perth Pty Ltd (PTTEP AP)	Commonwealth of Australia	Petroleum	100	100
25. PTTEP Australia Browse Basin Pty Ltd (PTTEP AB)	Commonwealth of Australia	Petroleum	100	100
26. PTTEP Australia Timor Sea Pty Ltd (PTTEP AT)	Commonwealth of Australia	Petroleum	100	100
27. PTTEP Australasia (Operations) Pty Ltd (PTTEP AAO)	Commonwealth of Australia	Petroleum	100	100
28. PTTEP Australasia (Ashmore Cartier) Pty Ltd (PTTEP AAA)	Commonwealth of Australia	Petroleum	100	100
29. PTTEP Australasia (Staff) Pty Ltd (PTTEP AAS)	Commonwealth of Australia	Petroleum	100	100
30. PTTEP International Holding Company Limited (PTTEP IH)	Cayman Islands	Petroleum	100	100
31. PTTEP Southwest Vietnam Pipeline Company Limited (PTTEP SVPC)	Cayman Islands	Gas pipeline transportation	100	100
32. PTTEP FLNG Holding Company Limited (PTTEP FH) <sup>1</sup>	Hong Kong	Petroleum	100	100

List of subsidiaries	Registered country	Type of business	Participating interest (%) (including indirect holding)	
			Dec 31, 2019	Dec 31, 2018
33. PTTEP Netherland Holding Limited (PTTEP NL)	Cayman Islands	Petroleum	100	100
34. JV Marine Limited (JV Marine)	Cayman Islands	Petroleum	100	100
35. PTTEP South Mandar Limited (PTTEP SMD)	Cayman Islands	Petroleum	100	100
36. PTTEP South Sageri Limited (PTTEP SS)	Cayman Islands	Petroleum	100	100
37. PTTEP Sadang Limited (PTTEP SD)	Cayman Islands	Petroleum	100	100
38. PTTEP Malunda Limited (PTTEP ML)	Cayman Islands	Petroleum	100	100
39. PTTEP Netherlands Coöperatie U.A. (PTTEP NC)	Netherlands	Petroleum	100	100
40. PTTEP Canada Limited (PTTEP CA)	Canada	Petroleum	100	100
41. PTTEP Canada International Finance Limited (PTTEP CIF)	Canada	Investment funding for the Group's business	100	100
42. Cove Energy Limited (Cove)	United Kingdom of Great Britain and Northern Ireland	Petroleum	100	100
43. Cove Energy Mozambique Rovuma Onshore Limited (CEMROL) <sup>2</sup>	Republic of Cyprus	Petroleum	100	100
44. Cove Energy East Africa Limited (CEEAL)	Republic of Cyprus	Petroleum	100	100
45. PTTEP Mozambique Area 1 Limited (PTTEP MZA1)	Republic of Cyprus	Petroleum	100	100
46. Cove Energy Kenya Limited (CEKL) <sup>3</sup>	Republic of Kenya	Petroleum	100	100
47. PTTEP Netherlands Holding Coöperatie U.A. (PTTEP NH)	Netherlands	Petroleum	100	100
48. PTTEP Brazil Investment B.V. (PTTEP BI)	Netherlands	Petroleum	100	100
49. PTTEP Brazil Investments in Oil and Gas Exploration and Production Limitada (PTTEP BL)	Federative Republic of Brazil	Petroleum	100	100
50. Sinphuhorm Holdings Limited (SHL)	Cayman Islands	Petroleum	100	100
51. PTTEP SP Limited (PTTEP SP)	United Kingdom of Great Britain and Northern Ireland	Petroleum	100	100
52. PTTEP G7 Limited (PTTEP G7)	Thailand	Petroleum	100	100
53. PTTEP HK Offshore Limited (PTTEP HKO)	Hong Kong	Petroleum	100	100
54. PTTEP MENA Limited (PTTEP MENA)	Hong Kong	Petroleum	100	100

List of subsidiaries	Registered country	Type of business	Participating interest (%) (including indirect holding)	
			Dec 31, 2019	Dec 31, 2018
55. PTTEP Mexico E&P Limited, S.de R.L. de C.V. (PTTEP MEP)	Mexico	Petroleum	100	100
56. PTTEP Sabah Oil Limited (PTTEP SBO) <sup>4</sup>	Bahamas	Petroleum	100	-
57. PTTEP Sarawak Oil Limited (PTTEP SKO) <sup>4</sup>	Bahamas	Petroleum	100	-
58. Partex Holding B.V. (PHBV) <sup>5</sup>	Netherlands	Petroleum	100	-
59. Partex Oil and Gas (Holdings) Corporation (POGHC) <sup>5</sup>	Cayman Islands	Petroleum	100	-
60. Partex (Kazakhstan) Corporation (PKC) <sup>5</sup>	Cayman Islands	Petroleum	100	-
61. Partex (Angola) Corporation (PANG) <sup>5</sup>	Cayman Islands	Petroleum	100	-
62. Partex (Brazil) Corporation (PBC) <sup>5</sup>	Cayman Islands	Petroleum	100	-
63. Partex Gas Corporation (PGC) <sup>5</sup>	Republic of Panama	Petroleum	100	-
64. Partex Services Corporation (PSC) <sup>5</sup>	Republic of Panama	Petroleum	100	-
65. Participations and Explorations Corporation (PEC) <sup>5</sup>	Republic of Panama	Petroleum	100	-
66. Partex (Oman) Corporation (POC) <sup>5</sup>	Republic of Panama	Petroleum	100	-
67. Partex Services Portugal – Serviços para a Indústria Petrolífera, S.A. (PSP) <sup>5</sup>	Portugal	Petroleum	100	-
68. Partex Brasil Ltda. (PBL) <sup>5</sup>	Brazil	Petroleum	100	-
69. Partex Brasil Operações Petrolíferas Ltda (PBO) <sup>5</sup>	Brazil	Human resource support	100	-

<sup>1</sup> On August 24, 2017, the Company approved for the registration for the dissolution of PTTEP FLNG Holding Company Limited (PTTEP FH). It is currently in the process of the dissolution.

<sup>2</sup> On May 22, 2017, the Company approved for the registration for the dissolution of Cove Energy Mozambique Rovuma Onshore Limited (CEMROL). It is currently in the process of the dissolution.

<sup>3</sup> On May 22, 2017, the Company approved for the registration for the dissolution of Cove Energy Kenya Limited (CEKL). It is currently in the process of the dissolution.

<sup>4</sup> On July 10, 2019, PTTEP HK Offshore Limited (PTTEP HKO), a subsidiary of the Group, acquired shares in Murphy Sabah Oil Co., Ltd. (Murphy Sabah) and Murphy Sarawak Oil Co., Ltd. (Murphy Sarawak) as disclosed in Note 6 - Business acquisition in Murphy Oil Corporation in Malaysia and proceeded to change the name to PTTEP Sabah Oil Limited (PTTEP SBO) and PTTEP Sarawak Oil Limited (PTTEP SKO), respectively.

<sup>5</sup> On November 4, 2019, PTTEP HK Holding Limited (PTTEP HK), a subsidiary of the Group, acquired the 100% shareholding interests of Partex Holding B.V. as disclosed in Note 7 - Business acquisition in Partex Holding B.V.

Investments in subsidiaries accounted for using the cost method for the Company's financial statements are as follows:

	Unit: Million US Dollar		Unit: Million Baht	
	The Company		The Company	
	Dec 31, 2019	Dec 31, 2018	Dec 31, 2019	Dec 31, 2018
PTTEP International Limited	516.38	516.38	15,571.04	16,756.56
PTTEP Services Limited	0.08	0.08	2.33	2.51
PTTEP Siam Limited	99.79	99.79	3,009.10	3,238.20
PTTEP Offshore Investment Company Limited	0.005	0.005	0.15	0.16
PTTEP HK Holding Limited	35.89	16.87	1,082.28	547.49
PTTEP Treasury Center Company Limited	0.07	0.07	2.23	2.40
PTTEP Energy Holding (Thailand) Company Limited	272.18	162.51	8,207.33	5,273.39
Total	924.40	795.71	27,874.46	25,820.71

### 19.3 Investments in Associates

Details of associates are as follows:

List of associates <sup>1</sup>	Registered country	Country of operation	Type of business	Participating interest (%) (including indirect holding)	
				Dec 31, 2019	Dec 31, 2018
1. Energy Complex Company Limited (Energy Complex)	Thailand	Thailand	Property rental services	50	50
2. PTT Digital Solutions Company Limited (PTT Digital)	Thailand	Thailand	Information technology and communication services	20	20
3. PTTEP AP Group's Associates <sup>2</sup>	Commonwealth of Australia	Commonwealth of Australia	Air base services	50	50
4. PTT Global LNG Company Limited (PTT GL)	Thailand	Thailand	Petroleum	50	50
5. Leismer Aerodrome Limited (LAL)	Canada	Canada	Air transportation	32	32

<sup>1</sup> All investments in associates have been assessed as immaterial to the Group.

<sup>2</sup> PTTEP AP's group associates are Mungalalu Truscott Airbase Pty Ltd and Troughton Island Pty Ltd.

Investments in associates accounted for using the equity method for the consolidated financial statements and using the cost method for the Company's financial statements are as follows:

	Unit: Million US Dollar		Unit: Million Baht	
	Consolidated		Consolidated	
	Dec 31, 2019	Dec 31, 2018	Dec 31, 2019	Dec 31, 2018
Energy Complex Company Limited	53.62	44.29	1,616.78	1,437.02
PTT Digital Solutions Company Limited	13.70	10.84	413.06	351.89
PTTEP AP Group's associates	4.97	7.14	149.90	231.54
PTT Global LNG Company Limited	151.50	153.66	4,568.44	4,986.26
Leismer Aerodrome Limited	3.84	3.87	115.66	125.65
Total	227.63	219.80	6,863.84	7,132.36

	Unit: Million US Dollar		Unit: Million Baht	
	The Company		The Company	
	Dec 31, 2019	Dec 31, 2018	Dec 31, 2019	Dec 31, 2018
Energy Complex Company Limited	24.79	24.79	747.50	804.42
PTT Digital Solutions Company Limited	0.79	0.79	23.76	25.57
Total	25.58	25.58	771.26	829.99

Details of share of associates are as follows:

	Unit: Million US Dollar	Unit: Million Baht
	Consolidated	Consolidated
Aggregate carrying amount of share of associates	227.63	6,863.84
Aggregate amounts of the reporting entity's share of;		
Profit from continuing operations	6.07	187.36
Other comprehensive income	4.38	136.43
Total comprehensive income for the year ended Dec 31, 2019	10.45	323.79



## 19.4 Investments in Joint Ventures

Details of joint ventures are as follows:

List of joint ventures <sup>1</sup>	Registered country	Country of operation	Type of business	Participating interest (%) (including indirect holding)	
				Dec 31, 2019	Dec 31, 2018
1. Erawan 2 FSO Bahamas Ltd. (Erawan 2 FSO Bahamas) <sup>2</sup>	Bahamas	Thailand	FSO rental services	13.11	13.11
2. APICO LLC <sup>3,4</sup>	United States of America	Thailand	Petroleum	72.8215	-
3. Oman LNG LLC (OLNG) <sup>5</sup>	Oman	Oman	Petroleum	2	-

<sup>1</sup> All investments in joint ventures have been assessed as immaterial to the Group.

<sup>2</sup> Erawan 2 has a 100% shareholding in Asia Pacific Marine Services (EF) B.V.

<sup>3</sup> On June 4, 2019, PTTEP SP Limited (PTTEP SP), a subsidiary of the Group, acquired participating interests in APICO LLC as disclosed in Note 19.6 Significant transactions during the year.

<sup>4</sup> On September 11, 2019, PTTEP HK Holding Limited (PTTEP HK), a subsidiary of the Group, acquired participating interests in APICO LLC as disclosed in Note 19.6 Significant transactions during the year.

<sup>5</sup> On November 4, 2019, PTTEP HK Holding Limited (PTTEP HK), a subsidiary of the Group, acquired the 100% shareholding interests of Partex Holding B.V. as disclosed in Note 7 Business acquisition in Partex Holding B.V.

Investments in joint ventures accounted for using the equity method for the consolidated financial statements are as follows:

	Unit: Million US Dollar		Unit: Million Baht	
	Consolidated		Consolidated	
	Dec 31, 2019	Dec 31, 2018	Dec 31, 2019	Dec 31, 2018
Erawan 2 FSO Bahamas Ltd.	18.10	17.41	545.78	565.02
APICO LLC	127.38	-	3,841.17	-
Oman LNG LLC	79.89	-	2,408.86	-
รวม	225.37	17.41	6,795.81	565.02

Details of share of joint ventures are as follows:

	Unit: Million US Dollar	Unit: Million Baht
	Consolidated	Consolidated
Aggregate carrying amount of share of joint ventures	225.37	6,795.81
Aggregate amounts of the reporting entity's share of:		
Profit from continuing operations	6.28	193.05
Total comprehensive income for year ended Dec 31, 2019	6.28	193.05

## 19.5 Investments in Joint Operations

Details of Joint Operations are as follows:

List of joint operations	Registered country	Country of operation	Type of business	Participating interest (%) (including indirect holding)	
				Dec 31, 2019	Dec 31, 2018
1. Carigali – PTTEPI Operating Company Sdn Bhd. (CPOC)	Malaysia	Malaysia	Petroleum	50	50
2. Moattama Gas Transportation Company (MGTC)	Bermuda	Republic of the Union of Myanmar	Gas pipeline transportation	25.5	25.5
3. Taninthayi Pipeline Company LLC (TPC)	Cayman Islands	Republic of the Union of Myanmar	Gas pipeline transportation	19.3178	19.3178
4. Orange Energy Limited (Orange)	Thailand	Thailand	Petroleum	53.9496	53.9496
5. B8/32 Partners Limited (B8/32 Partners)	Thailand	Thailand	Petroleum	25.0009	25.0009
6. Hoang-Long Joint Operating Company	Socialist Republic of Vietnam	Socialist Republic of Vietnam	Petroleum	28.5	28.5
7. Hoan-Vu Joint Operating Company	Socialist Republic of Vietnam	Socialist Republic of Vietnam	Petroleum	25	25
8. Groupement Bir Seba (GBRS)	People's Democratic Republic of Algeria	People's Democratic Republic of Algeria	Petroleum	35	35
9. Andaman Transportation Limited (ATL)	Cayman Islands	Republic of the Union of Myanmar	Gas pipeline transportation	80	80
10. Natuna 2 B.V. (Natuna)	Netherlands	Republic of Indonesia	Petroleum	50	50
11. Petroleum Development Oman LLC (PDO) <sup>1</sup>	Oman	Oman	Petroleum	2	-
12. Abu Dhabi Gas Industries Limited (AGP) <sup>1</sup>	United Arab Emirates	United Arab Emirates	Petroleum	2	-
13. Private Oil Holdings Oman Limited (POHOL) <sup>1</sup>	United Kingdom of Great Britain and Northern Ireland	Oman	Petroleum	5	-

<sup>1</sup> On November 4, 2019, PTTEP HK Holding Limited (PTTEP HK), a subsidiary of the Group, acquired the 100% shareholding interests of Partex Holding B.V. as disclosed in Note 7 Business acquisition in Partex Holding B.V.

## 19.6 Significant Transactions during the Year

### ■ PTTEP HK Holding Limited

On February 4, 2019, PTTEP HK Holding Limited (PTTEP HK), a subsidiary of the Group, increased its authorized share capital by Hong Kong Dollar (HK Dollar) 205,000,262 by increasing its par value per share to HK Dollar 73,409.

On June 17, 2019, PTTEP HK increased its authorized share capital by HK Dollar 390,817,947 by increasing its par value per share to HK Dollar 112,491.

### ■ PTTEP HK Offshore Limited

On February 4, 2019, PTTEP HK Offshore Limited (PTTEP HKO), a subsidiary of the Group, increased its authorized share capital by HK Dollar 172,631,800 by increasing its par value per share to HK Dollar 29,171.

On June 17, 2019, PTTEP HKO increased its authorized share capital by HK Dollar 336,406,200 by increasing its par value per share to HK Dollar 62,810.

### ■ PTTEP Mexico E&P Limited, S. de R.L. de C.V.

On February 4, 2019, PTTEP Mexico E&P Limited, S. de R.L. de C.V. (PTTEP MEP), a subsidiary of the Group, increased its authorized share capital by Mexican Peso (MXN) 78,535,050 by issuing of 78,535,050 newly issued ordinary shares, at the par value of MXN 1 each.

On June 17, 2019, PTTEP MEP increased its authorized share capital by MXN 133,179,208 by issuing of 133,179,208 newly issued ordinary shares, at the par value of MXN 1 each.

### ■ PTTEP Energy Holding (Thailand) Company Limited

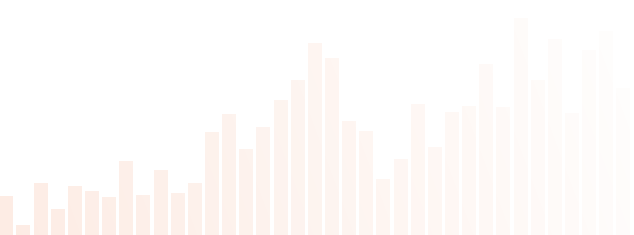
On February 11, 2019, PTTEP Energy Holding (Thailand) Company Limited (PTTEP EH), a subsidiary of the Group, increased its authorized share capital by Baht 2,325,000,000 by issuing of 23,250,000 newly issued ordinary shares, at the par value of Baht 100 each.

On March 25, 2019, PTTEP EH increased its authorized share capital by Baht 586,625,000 by issuing of 5,866,250 newly issued ordinary shares, at the par value of Baht 100 each.

On October 10, 2019, PTTEP EH increased its authorized share capital by Baht 518,145,600 by issuing of 5,181,456 newly issued ordinary shares, at the par value of Baht 100 each.

### ■ PTTEP Energy Development Company Limited

On February 11, 2019, PTTEP Energy Development Company Limited (PTTEP ED), a subsidiary of the Group, increased its authorized share capital by Baht 2,325,000,000 by issuing of 23,250,000 newly issued ordinary shares, at the par value of Baht 100 each.



■ APICO LLC

On February 15, 2019, PTTEP SP Limited (PTTEP SP), a subsidiary of the Group, signed the Share Purchase Agreement (SPA) to acquire 33.83% participating interests in APICO LLC from Tatex Thailand LLC and Tatex Thailand II LLC with total transaction value of approximately US Dollar 64 million, before adjusting the change in working capital.

The transaction was completed on June 4, 2019. The acquisition value after adjusting the change in working capital according to the agreement was amounting to US Dollar 62.94 million (Baht 1,973.03 million) consisting of cash payment amounting to US Dollar 37.57 million (Baht 1,177.68 million) and contingent consideration if the conditions specified in the SPA are met amounting to US Dollar 25.37 million (Baht 795.35 million). The fair value of the investment in joint venture was US Dollar 61.16 million (Baht 1,917.29 million) which was resulted from discounting the contingent consideration value. The fair value is measured by using income approach based on discount rate of 2.91% and probability assumption which is classified as fair value level 3.

On July 31, 2019, PTTEP HK Holding Limited (PTTEP HK), a subsidiary of the Group, signed the Share Purchase Agreement (SPA) to acquire additional 38.99% participating interests in APICO LLC from Coastal Energy Company (Khorat) Limited with total transaction value of approximately US Dollar 74 million, before adjusting the change in working capital.

The transaction was completed on September 11, 2019. The acquisition value after adjusting the change in working capital according to the agreement was amounting to US Dollar 71.15 million (Baht 2,178.58 million) consisting of cash payment amounting to US Dollar 41.85 million (Baht 1,281.38 million) and contingent consideration if the conditions specified in the SPA are met amounting to US Dollar 29.30 million (Baht 897.20 million). The fair value of the investment was US Dollar 69.47 million (Baht 2,127.28 million) which was resulted from discounting the contingent consideration value. The fair value is measured by using income approach based on discount rate of 2.62% and probability assumption which is classified as fair value level 3.

The discounted value of contingent consideration if the conditions specified in the SPA are met is recognised in other non-current liabilities in the consolidated financial statements totalling US Dollar 51.86 million (Baht 1,563.84 million). After the completion of the additional acquisition, the Group's participating interests in APICO LLC is 72.82% which is classified as investment in joint venture. Furthermore, the Group's participating interests (both direct and indirect) in Sindhuhorm project is 80.48% and the Group is the operator of the project.

■ **PTTEP G7 Limited**

On March 7, 2019, PTTEP G7 Limited (PTTEP G7), a subsidiary of the Group, increased its authorized share capital by Baht 79,200,000 by issuing of 792,000 newly issued ordinary shares, at the par value of Baht 100 each.

■ **PTTEP Netherlands Coöperatie U.A.**

On March 25, 2019, PTTEP Netherlands Coöperatie U.A. (PTTEP NC), a subsidiary of the Group, increased its authorized share capital by US Dollar 20,000,000.

On December 9, 2019, PTTEP NC increased its authorized share capital by US Dollar 15,000,000.

■ **PTTEP Canada Limited**

On March 25, 2019, PTTEP Canada Limited (PTTEP CA), a subsidiary of the Group, increased its authorized share capital by Canadian Dollar (CAD) 26,840,000 by issuing of 26,840,000 newly issued ordinary shares, at the par value of CAD 1 each.

On December 9, 2019, PTTEP CA increased its authorized share capital by CAD 19,852,500 by issuing of 19,852,500 newly issued ordinary shares, at the par value of CAD 1 each.

■ **EP-Tech Ventures Holding Company Limited**

On March 25, 2019, EP-Tech Ventures Holding Company Limited (EP-Tech), a subsidiary of the Group, increased its authorized share capital by Baht 586,625,000 by issuing of 5,866,250 newly issued ordinary shares, at the par value of Baht 100 each.

■ **AI and Robotics Ventures Company Limited**

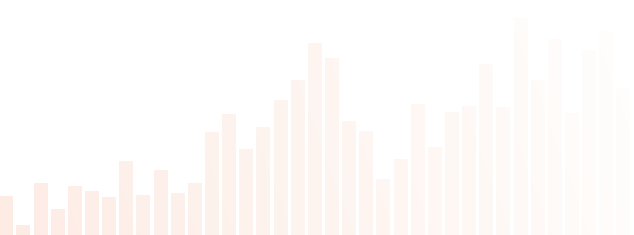
On March 26, 2019, AI and Robotics Ventures Company Limited (ARV), a subsidiary of the Group, increased its authorized share capital by Baht 586,625,000 by issuing of 5,866,250 newly issued ordinary shares, at the par value of Baht 100 each.

■ **PTTEP Business Center Company Limited**

On October 11, 2019, PTTEP Business Center Company Limited (PTTEP BC), a subsidiary of the Group, increased its authorized share capital by Baht 518,145,600 by issuing of 51,814,560 newly issued ordinary shares, at the par value of Baht 10 each.

■ **PTTEP MENA Limited**

On October 16, 2019, PTTEP MENA Limited (PTTEP MENA), a subsidiary of the Group, increased its authorized share capital by US Dollar 17,000,000 by increasing its par value per share to US Dollar 34,100.



## 20. Other long-term investments

Other long-term investments are as follows:

	Unit: Million US Dollar		Unit: Million Baht	
	Consolidated		Consolidated	
	Dec 31, 2019	Dec 31, 2018	Dec 31, 2019	Dec 31, 2018
Sarn Palung Social Enterprise Company Limited <sup>1</sup>	0.05	0.01	1.44	0.37
Mozambique LNG1 Company Pte. Ltd. <sup>3</sup>	-	0.21	-	6.89
Moz LNG1 Holding Company Ltd <sup>2,3</sup>	0.30	-	8.97	-
Total	0.35	0.22	10.41	7.26

	Unit: Million US Dollar		Unit: Million Baht	
	The Company		The Company	
	Dec 31, 2019	Dec 31, 2018	Dec 31, 2019	Dec 31, 2018
Sarn Palung Social Enterprise Company Limited <sup>1</sup>	0.05	0.01	1.44	0.37
Total	0.05	0.01	1.44	0.37

<sup>1</sup> On July 31, 2019, the Company paid for shares in Sarn Palung Social Enterprise Company Limited, which the Company has shareholding interests of 15% of the registered capital, by Baht 1,125,000. As at December 31, 2019, the Company paid 100% of the registered capital.

<sup>2</sup> On April 21, 2019, PTTEP Mozambique Area 1 Limited (PTTEP MZA1), a subsidiary of the Group, has invested with its participating interests in Moz LNG1 Holding Company Ltd, which was registered in the United Arab Emirates with a registered capital of US Dollar 999,999. The registered capital comprises 999,999 ordinary shares with a par value of US Dollar 1 each. PTTEP MZA1 has 85,000 shares with the aggregate value of US Dollar 85,000.

<sup>3</sup> On May 7, 2019, PTTEP MZA1 transferred its participating interests of 212 shares at the par value of US Dollar 100 each in Mozambique LNG1 Company Pte. Ltd. to participating interests of 212,500 shares at the par value of US Dollar 1 each in Moz LNG1 Holding Company Ltd.

## 21. Property, Plant and Equipment

	Unit: Million US Dollar			
	Consolidated			
	Oil and Gas Properties	Pipeline	Others	Total
<u>Historical cost</u>				
Balance as at January 1, 2018	26,226.23	893.72	131.52	27,251.47
Business acquisition	1,317.90	-	-	1,317.90
Increase	1,061.60	0.68	3.90	1,066.18
Transfer	55.97	-	-	55.97
Decrease	(194.75)	(3.29)	(4.02)	(202.06)
Decrease from divestment of assets	(2,627.38)	-	-	(2,627.38)
Currency translation differences	(0.02)	-	-	(0.02)
Balance as at December 31, 2018	25,839.55	891.11	131.40	26,862.06
Business acquisition	2,081.24	-	15.22	2,096.46
Increase	1,400.98	2.44	6.04	1,409.46
Transfer	996.12	-	-	996.12
Decrease	(58.96)	-	(6.29)	(65.25)
Currency translation differences	0.01	-	0.11	0.12
Balance as at December 31, 2019	30,258.94	893.55	146.48	31,298.97
<u>Accumulated depreciation</u>				
Balance as at January 1, 2018	(17,688.42)	(218.78)	(79.16)	(17,986.36)
Depreciation for the year	(1,818.50)	(29.65)	(8.89)	(1,857.04)
Decrease	23.41	-	3.38	26.79
Decrease from divestment of assets	1,492.80	-	-	1,492.80
Currency translation differences	0.02	-	0.01	0.03
Balance as at December 31, 2018	(17,990.69)	(248.43)	(84.66)	(18,323.78)
Depreciation for the year	(1,970.42)	(29.81)	(8.17)	(2,008.40)
Decrease	24.10	-	6.23	30.33
Currency translation differences	(0.01)	-	-	(0.01)
Balance as at December 31, 2019	(19,937.02)	(278.24)	(86.60)	(20,301.86)
<u>Allowance for impairment of assets</u>				
Balance as at January 1, 2018	(1,225.49)	(5.25)	-	(1,230.74)
Transfer	(4.07)	-	-	(4.07)
Decrease	5.28	-	-	5.28
Decrease from divestment of assets	894.40	-	-	894.40
Balance as at December 31, 2018	(329.88)	(5.25)	-	(335.13)
Increase	-	-	-	-
Balance as at December 31, 2019	(329.88)	(5.25)	-	(335.13)
Net book value as at December 31, 2018	7,518.98	637.43	46.74	8,203.15
Net book value as at December 31, 2019	9,992.04	610.06	59.88	10,661.98

Depreciation included in the statement of income for the year ended December 31, 2018 US Dollar 1,857.04 million

Depreciation included in the statement of income for the year ended December 31, 2019 US Dollar 2,008.40 million



	Unit: Million Baht			
	Consolidated			
	Oil and Gas Properties	Pipeline	Others	Total
<u>Historical cost</u>				
Balance as at January 1, 2018	857,097.06	29,207.83	4,298.03	890,602.92
Business acquisition	43,343.98	-	-	43,343.98
Increase	34,284.58	22.05	125.84	34,432.47
Transfer	1,807.46	-	-	1,807.46
Decrease	(6,289.46)	(106.37)	(129.74)	(6,525.57)
Decrease from divestment of assets	(84,851.26)	-	-	(84,851.26)
Currency translation differences	(6,903.22)	(206.93)	(30.49)	(7,140.64)
Balance as at December 31, 2018	838,489.14	28,916.58	4,263.64	871,669.36
Business acquisition	63,886.42	-	459.09	64,345.51
Increase	43,479.35	75.62	187.44	43,742.41
Transfer	30,914.47	-	-	30,914.47
Decrease	(1,829.63)	-	(194.96)	(2,024.59)
Currency translation differences	(62,511.75)	(2,048.00)	(298.25)	(64,858.00)
Balance as at December 31, 2019	912,428.00	26,944.20	4,416.96	943,789.16
<u>Accumulated depreciation</u>				
Balance as at January 1, 2018	(578,073.68)	(7,150.05)	(2,586.86)	(587,810.59)
Depreciation for the year	(58,837.46)	(958.12)	(287.07)	(60,082.65)
Decrease	755.95	-	109.28	865.23
Decrease from divestment of assets	48,209.91	-	-	48,209.91
Currency translation differences	4,150.12	46.60	17.84	4,214.56
Balance as at December 31, 2018	(583,795.16)	(8,061.57)	(2,746.81)	(594,603.54)
Depreciation for the year	(61,088.56)	(925.29)	(253.36)	(62,267.21)
Decrease	748.22	-	193.30	941.52
Currency translation differences	42,954.63	596.82	195.68	43,747.13
Balance as at December 31, 2019	(601,180.87)	(8,390.04)	(2,611.19)	(612,182.10)
<u>Allowance for impairment of assets</u>				
Balance as at January 1, 2018	(40,049.90)	(171.73)	-	(40,221.63)
Transfer	(131.58)	-	-	(131.58)
Decrease	170.46	-	-	170.46
Decrease from divestment of assets	28,884.69	-	-	28,884.69
Currency translation differences	421.81	1.22	-	423.03
Balance as at December 31, 2018	(10,704.52)	(170.51)	-	(10,875.03)
Currency translation differences	757.35	12.06	-	769.41
Balance as at December 31, 2019	(9,947.17)	(158.45)	-	(10,105.62)
Net book value as at December 31, 2018	243,989.46	20,684.50	1,516.83	266,190.79
Net book value as at December 31, 2019	301,299.96	18,395.71	1,805.77	321,501.44

Depreciation included in the statement of income for the year ended December 31, 2018 Baht 60,082.65 million

Depreciation included in the statement of income for the year ended December 31, 2019 Baht 62,267.21 million

	Unit: Million US Dollar		
	The Company		
	Oil and Gas Properties	Others	Total
<u>Historical cost</u>			
Balance as at January 1, 2018	11,643.57	90.42	11,733.99
Business acquisition	1,292.74	-	1,292.74
Increase	380.30	3.16	383.46
Decrease	(126.38)	(4.02)	(130.40)
Balance as at December 31, 2018	13,190.23	89.56	13,279.79
Increase	409.25	2.85	412.10
Transfer	149.89	-	149.89
Decrease	(0.06)	(6.13)	(6.19)
Balance as at December 31, 2019	13,749.31	86.28	13,835.59
<u>Accumulated depreciation</u>			
Balance as at January 1, 2018	(8,537.83)	(58.49)	(8,596.32)
Depreciation for the year	(898.48)	(6.55)	(905.03)
Decrease	0.24	3.38	3.62
Balance as at December 31, 2018	(9,436.07)	(61.66)	(9,497.73)
Depreciation for the year	(1,032.71)	(5.42)	(1,038.13)
Decrease	0.06	6.08	6.14
Balance as at December 31, 2019	(10,468.72)	(61.00)	(10,529.72)
Net book value as at December 31, 2018	3,754.16	27.90	3,782.06
Net book value as at December 31, 2019	3,280.59	25.28	3,305.87

Depreciation included in the statement of income for the year ended December 31, 2018 US Dollar 905.03 million

Depreciation included in the statement of income for the year ended December 31, 2019 US Dollar 1,038.13 million

	Unit: Million Baht		
	The Company		
	Oil and Gas Properties	Others	Total
<u>Historical cost</u>			
Balance as at January 1, 2018	380,522.68	2,955.12	383,477.80
Business acquisition	42,516.64	-	42,516.64
Increase	12,281.76	101.89	12,383.65
Decrease	(4,081.58)	(129.62)	(4,211.20)
Currency translation differences	(3,218.62)	(21.03)	(3,239.65)
Balance as at December 31, 2018	428,020.88	2,906.36	430,927.24
Increase	12,700.91	88.54	12,789.45
Transfer	4,651.73	-	4,651.73
Decrease	(1.98)	(190.37)	(192.35)
Currency translation differences	(30,775.14)	(202.73)	(30,977.87)
Balance as at December 31, 2019	414,596.40	2,601.80	417,198.20
<u>Accumulated depreciation</u>			
Balance as at January 1, 2018	(279,024.18)	(1,911.73)	(280,935.91)
Depreciation for the year	(29,137.28)	(211.55)	(29,348.83)
Decrease	7.88	109.28	117.16
Currency translation differences	1,954.61	13.04	1,967.65
Balance as at December 31, 2018	(306,198.97)	(2,000.96)	(308,199.93)
Depreciation for the year	(32,041.22)	(168.36)	(32,209.58)
Decrease	1.96	188.75	190.71
Currency translation differences	22,564.53	141.18	22,705.71
Balance as at December 31, 2019	(315,673.70)	(1,839.39)	(317,513.09)
Net book value as at December 31, 2018	121,821.91	905.40	122,727.31
Net book value as at December 31, 2019	98,922.70	762.41	99,685.11

Depreciation included in the statement of income for the year ended December 31, 2018 Baht 29,348.83 million

Depreciation included in the statement of income for the year ended December 31, 2019 Baht 32,209.58 million

As at December 31, 2019, the net book value of assets held under finance leases included in property, plant and equipment amounting to US Dollar 122.43 million (Baht 3,691.76 million) for the consolidated financial statements and US Dollar 0.97 million (Baht 29.28 million) for the Company's financial statements.

## 22. Goodwill

Historical cost

	Unit: Million US Dollar Consolidated	Unit: Million Baht Consolidated
Balance as at January 1, 2018	1,134.08	37,063.04
Reclassification and adjustment	153.20	5,006.78
Reclassified and adjusted balance as at January 1, 2018	1,287.28	42,069.82
Business acquisition	76.66	2,521.18
Decrease from divestment of assets	(7.31)	(236.20)
Currency translation differences	-	(332.24)
Balance as at December 31, 2018	1,356.63	44,022.56
Business acquisition	816.62	25,048.55
Currency translation differences	-	(3,538.99)
Balance as at December 31, 2019	2,173.25	65,532.12

Allowance for impairment of assets

Balance as at January 1, 2018	(119.70)	(3,912.10)
Decrease from divestment of assets	7.31	236.20
Currency translation differences	-	28.79
Balance as at December 31, 2018	(112.39)	(3,647.11)
Currency translation differences	-	258.04
Balance as at December 31, 2019	(112.39)	(3,389.07)
Net book value as at December 31, 2018	1,244.24	40,375.45
Net book value as at December 31, 2019	2,060.86	62,143.05

Historical cost

	Unit: Million US Dollar The Company	Unit: Million Baht The Company
Balance as at January 1, 2018	-	-
Business acquisition	75.16	2,471.83
Currency translation differences	-	(32.98)
Balance as at December 31, 2018	75.16	2,438.85
Currency translation differences	-	(172.55)
Balance as at December 31, 2019	75.16	2,266.30
Net book value as at December 31, 2018	75.16	2,438.85
Net book value as at December 31, 2019	75.16	2,266.30

**23. Intangible Assets**

	Unit: Million US Dollar		
	Consolidated		
	Other Intangible Assets	Development Cost	Total
<u>Historical cost</u>			
Balance as at January 1, 2018	158.99	7.87	166.86
Business acquisition	0.18	-	0.18
Increase	8.00	3.69	11.69
Decrease	(0.36)	(0.30)	(0.66)
Currency translation differences	(0.01)	-	(0.01)
Balance as at December 31, 2018	166.80	11.26	178.06
Business acquisition	39.20	-	39.20
Increase	19.61	6.57	26.18
Decrease	(0.01)	-	(0.01)
Currency translation differences	0.01	-	0.01
Balance as at December 31, 2019	225.61	17.83	243.44
<u>Accumulated amortization</u>			
Balance as at January 1, 2018	(82.85)	(0.02)	(82.87)
Amortization for the year	(13.14)	(0.09)	(13.23)
Decrease	0.12	-	0.12
Currency translation differences	0.01	-	0.01
Balance as at December 31, 2018	(95.86)	(0.11)	(95.97)
Amortization for the year	(15.12)	(0.37)	(15.49)
Decrease	0.01	-	0.01
Currency translation differences	(0.01)	-	(0.01)
Balance as at December 31, 2019	(110.98)	(0.48)	(111.46)
Net book value as at December 31, 2018	70.94	11.15	82.09
Net book value as at December 31, 2019	114.63	17.35	131.98

	Unit: Million Baht		
	Consolidated		
	Other Intangible Assets	Development Cost	Total
<u>Historical cost</u>			
Balance as at January 1, 2018	5,196.09	257.08	5,453.17
Business acquisition	5.79	-	5.79
Increase	258.36	119.32	377.68
Decrease	(11.56)	(9.65)	(21.21)
Currency translation differences	(36.17)	(1.29)	(37.46)
Balance as at December 31, 2018	5,412.51	365.46	5,777.97
Business acquisition	1,184.21	-	1,184.21
Increase	608.75	203.89	812.64
Decrease	(0.28)	-	(0.28)
Currency translation differences	(402.11)	(31.65)	(433.76)
Balance as at December 31, 2019	6,803.08	537.70	7,340.78
<u>Accumulated amortization</u>			
Balance as at January 1, 2018	(2,707.89)	(0.47)	(2,708.36)
Amortization for the year	(424.42)	(3.08)	(427.50)
Decrease	4.10	-	4.10
Currency translation differences	17.64	0.03	17.67
Balance as at December 31, 2018	(3,110.57)	(3.52)	(3,114.09)
Amortization for the year	(468.26)	(11.66)	(479.92)
Decrease	0.28	-	0.28
Currency translation differences	231.98	0.58	232.56
Balance as at December 31, 2019	(3,346.57)	(14.60)	(3,361.17)
Net book value as at December 31, 2018	2,301.94	361.94	2,663.88
Net book value as at December 31, 2019	3,456.51	523.10	3,979.61

	Unit: Million US Dollar		
	The Company		
	Other Intangible Assets	Development Cost	Total
<u>Historical cost</u>			
Balance as at January 1, 2018	140.67	7.87	148.54
Business acquisition	0.17	-	0.17
Increase	6.32	3.69	10.01
Decrease	(0.07)	(0.30)	(0.37)
Balance as at December 31, 2018	147.09	11.26	158.35
Increase	15.54	3.93	19.47
Decrease	(0.01)	-	(0.01)
Balance as at December 31, 2019	162.62	15.19	177.81
<u>Accumulated amortization</u>			
Balance as at January 1, 2018	(74.58)	(0.02)	(74.60)
Amortization for the year	(12.08)	(0.09)	(12.17)
Decrease	0.02	-	0.02
Balance as at December 31, 2018	(86.64)	(0.11)	(86.75)
Amortization for the year	(12.52)	(0.37)	(12.89)
Decrease	0.01	-	0.01
Balance as at December 31, 2019	(99.15)	(0.48)	(99.63)
Net book value as at December 31, 2018	60.45	11.15	71.60
Net book value as at December 31, 2019	63.47	14.71	78.18

	Unit: Million Baht		
	The Company		
	Other Intangible Assets	Development Cost	Total
<u>Historical cost</u>			
Balance as at January 1, 2018	4,597.34	257.08	4,854.42
Business acquisition	5.45	-	5.45
Increase	204.09	119.32	323.41
Decrease	(2.24)	(9.65)	(11.89)
Currency translation differences	(31.62)	(1.29)	(32.91)
Balance as at December 31, 2018	4,773.02	365.46	5,138.48
Increase	482.15	122.09	604.24
Decrease	(0.28)	-	(0.28)
Currency translation differences	(351.37)	(29.32)	(380.69)
Balance as at December 31, 2019	4,903.52	458.23	5,361.75
<u>Accumulated amortization</u>			
Balance as at January 1, 2018	(2,437.64)	(0.47)	(2,438.11)
Amortization for the year	(390.04)	(3.08)	(393.12)
Decrease	0.51	-	0.51
Currency translation differences	15.62	0.03	15.65
Balance as at December 31, 2018	(2,811.55)	(3.52)	(2,815.07)
Amortization for the year	(388.34)	(11.66)	(400.00)
Decrease	0.28	-	0.28
Currency translation differences	209.86	0.58	210.44
Balance as at December 31, 2019	(2,989.75)	(14.60)	(3,004.35)
Net book value as at December 31, 2018	1,961.47	361.94	2,323.41
Net book value as at December 31, 2019	1,913.77	443.63	2,357.40



**24. Exploration and Evaluation Assets**

	Unit: Million US Dollar Consolidated	Unit: Million Baht Consolidated
<u>Historical cost</u>		
Balance as at January 1, 2018	5,098.22	166,614.27
Reclassification and adjustment	(240.44)	(7,857.80)
Reclassified and adjusted balance as at January 1, 2018	4,857.78	158,756.47
Increase	60.94	1,968.02
Transfer	(55.97)	(1,807.46)
Decrease	(0.07)	(2.36)
Currency translation differences	(147.32)	(5,901.91)
Balance as at December 31, 2018	4,715.36	153,012.76
Business acquisition	508.17	15,607.92
Increase	119.22	3,700.24
Transfer	(996.12)	(30,914.47)
Decrease	(65.83)	(2,043.21)
Currency translation differences	84.89	(7,720.10)
Balance as at December 31, 2019	4,365.69	131,643.14
<u>Allowance for impairment of assets</u>		
Balance as at January 1, 2018	(1,791.24)	(58,539.28)
Transfer	4.07	131.58
Currency translation differences	143.72	5,077.89
Balance as at December 31, 2018	(1,643.45)	(53,329.81)
Currency translation differences	(82.75)	1,277.73
Balance as at December 31, 2019	(1,726.20)	(52,052.08)
Net book value as at December 31, 2018	3,071.91	99,682.95
Net book value as at December 31, 2019	2,639.49	79,591.06

	Unit: Million US Dollar	Unit: Million Baht
	The Company	The Company
<u>Historical cost</u>		
Balance as at January 1, 2018	145.31	4,748.79
Increase	4.58	147.87
Currency translation differences	-	(32.87)
Balance as at December 31, 2018	149.89	4,863.79
Transfer	(149.89)	(4,651.73)
Currency translation differences	-	(212.06)
Balance as at December 31, 2019	-	-
Net book value as at December 31, 2018	149.89	4,863.79
Net book value as at December 31, 2019	-	-

## 25. Income Taxes and Deferred Taxes

Income tax rates for the Group are as follows:

	Tax Rate (%)
Petroleum income tax on petroleum businesses in Thailand pursuant to Petroleum Income Tax Act, B.E. 2514 and 2532	50
Corporate income tax under Revenue Code <sup>(1)(2)</sup>	20
Corporate income tax in the Republic of the Union of Myanmar	25
Income tax from the Petroleum business in the Malaysia - Thailand Joint Development Area under the Petroleum Income Tax Act (No.5), B.E. 2541 and Petroleum Income tax in Malaysia	
- From the first to the eighth accounting period	0
- From the ninth to the fifteenth accounting period	10
- From the sixteenth accounting period onwards	20
Corporate income tax in the Socialist Republic of Vietnam	50
Corporate income tax in Australia	30
Petroleum resource rent tax in Australia	40
Corporate income tax in Canada	27 (2018), 26 (2019)
Corporate income tax in the Netherlands	25
Corporate income tax in the Republic of Kenya	30
Corporate income tax in the Republic of Mozambique	32
Corporate income tax in Indonesia	
- Corporate income tax	30
- Income tax from the profit distribution	20

	Tax Rate (%)
Corporate income tax in the Federative Republic of Brazil	34
Corporate income tax in People's Democratic Republic of Algeria	38
Petroleum income tax in Malaysia <sup>(3)</sup>	38
Corporate income tax in Mexico	30
Corporate income tax in Sultanate of Oman	80
Corporate income tax in United Arab Emirates	55
Corporate income tax in Kazakhstan	30
Corporate income tax in Angola	25
Corporate income tax in Portugal	21
Corporate income tax in United Kingdom	19

- (1) The Royal Decree issued under Revenue Code Governing (No. 586) B.E. 2558 governs the reduction of the corporate income tax rate from 20% to 10% for International Headquarters (IHQ), which provides services to affiliated enterprises or domestic and overseas branch in Treasury Center (TC) and exempt from the corporate income tax for certain types of income. The Group has applied such tax rates to calculate the corporate income tax for January - May 2019.
- (2) The Royal Decree issued under Revenue Code Governing (No. 674) B.E. 2561 governs the reduction and exemption of the corporate income tax rate for a Thai company which is an International Business Centre (IBC), incorporated for the purpose of providing supporting services, technical assistance, treasury center functions to affiliates or international trading. The reduction of the corporate income tax rates are from 20% to the followings;
- 8% if the IBC incurs expenditure of at least Baht 60 million paid to recipients in Thailand in the accounting period.
  - 5% if the IBC incurs expenditure of at least Baht 300 million paid to recipients in Thailand in the accounting period.
  - 3% if the IBC incurs expenditure of at least Baht 600 million paid to recipients in Thailand in the accounting period.
- Besides, there were exemption of corporate income tax for certain types of income. The Group has applied such tax rates to calculate the corporate income tax for the period from June to December 2019
- (3) The petroleum income tax rate for marginal field which are approved to the tax reduction incentive to 25% tax rate.

25.1 Deferred tax assets and liabilities comprised:

	Unit: Million US Dollar		Unit: Million Baht	
	Consolidated		Consolidated	
	2019	2018 (Restated)	2019	2018 (Restated)
Deferred tax assets	961.73	462.55	28,999.99	15,009.67
Deferred tax liabilities	(1,358.71)	(781.89)	(40,970.53)	(25,372.05)
	(396.98)	(319.34)	(11,970.54)	(10,362.38)

	Unit: Million US Dollar		Unit: Million Baht	
	The Company		The Company	
	2019	2018	2019	2018
Deferred tax assets	639.82	315.46	19,293.05	10,236.75
Deferred tax liabilities	-	-	-	-
	639.82	315.46	19,293.05	10,236.75

25.2 The income taxes in the consolidated and the Company statements of income comprised:

	Unit: Million US Dollar		Unit: Million Baht	
	Consolidated		Consolidated	
	2019	2018	2019	2018
Income Taxes:				
Current income tax expenses	1,095.22	841.73	33,941.43	27,120.93
Prior year income tax expenses recognized in current period	(5.59)	19.96	(175.03)	774.44
	1,089.63	861.69	33,766.40	27,895.37
Deferred Taxes:				
Change in temporary differences	(386.75)	(114.99)	(11,985.14)	(3,671.18)
Tax effect of currency translation on tax base	(25.88)	(14.04)	(829.56)	(459.90)
	(412.63)	(129.03)	(12,814.70)	(4,131.08)
Total	677.00	732.66	20,951.70	23,764.29

	Unit: Million US Dollar		Unit: Million Baht	
	The Company		The Company	
	2019	2018	2019	2018
Income Taxes:				
Current income tax expenses	679.94	521.96	21,077.80	16,895.60
Prior year income tax expenses recognized in current period	(3.68)	0.04	(114.81)	2.62
	676.26	522.00	20,962.99	16,898.22
Deferred Taxes:				
Change in temporary differences	(332.91)	(154.25)	(10,327.36)	(5,001.95)
Tax effect of currency translation on tax base	20.94	(12.97)	630.24	(424.87)
	(311.97)	(167.22)	(9,697.12)	(5,426.82)
Total	364.29	354.78	11,265.87	11,471.40

25.3 The income tax on the Group's profit before income taxes differ from the theoretical amount that would arise using the basic tax rate of the country in which the Company is located are as follows:

	Unit: Million US Dollar		Unit: Million Baht	
	Consolidated		Consolidated	
	2019	2018	2019	2018
Profit before income taxes	2,246.06	1,852.27	69,754.24	59,970.58
Tax calculated at a tax rate of 50%	1,123.03	926.13	34,877.12	29,985.29
Tax effect of :				
(Gain) loss from the entities not subject to tax	29.06	(3.98)	902.54	(128.74)
Nondeductible expenses	26.61	451.95	826.35	14,632.69
Adjustment in respect of prior year	(8.73)	19.96	(272.04)	774.44
Results of operations of associates and joint ventures, net of tax	(6.17)	(3.96)	(190.21)	(128.12)
Tax credit on petroleum royalty	(505.32)	(449.75)	(15,693.36)	(14,561.41)
Tax credit on foreign corporate income tax	-	(11.59)	-	(375.16)
Deferred tax on functional currency	(25.88)	(14.04)	(829.56)	(459.90)
Differences in tax rate of the Group's operating countries	29.37	(193.55)	911.98	(6,266.62)
Others	15.03	11.49	418.88	291.82
Income taxes	677.00	732.66	20,951.70	23,764.29

	Unit: Million US Dollar		Unit: Million Baht	
	The Company		The Company	
	2019	2018	2019	2018
Profit before income taxes	1,500.01	1,166.30	46,540.96	37,747.03
Tax calculated at a tax rate of 50%	750.01	583.15	23,270.48	18,873.52
Tax effect of :				
Gain from the entities not subject to tax	(23.09)	(33.15)	(716.34)	(1,072.85)
Nondeductible expenses	(53.60)	170.03	(1,662.95)	5,502.95
Adjustment in respect of prior year	(3.41)	0.04	(106.26)	2.62
Tax credit on petroleum royalty	(404.91)	(354.06)	(12,563.48)	(11,464.12)
Deferred tax on functional currency	20.94	(12.97)	630.24	(424.87)
Differences in tax rate on profit before income tax	94.92	1.63	2,945.23	52.67
Others	(16.57)	0.11	(531.05)	1.48
Income taxes	364.29	354.78	11,265.87	11,471.40

## 25.4 Changes in deferred tax assets and liabilities are as follows:

	Unit: Million US Dollar					
	Consolidated					
	As at Jan 1, 2019 (Restated)	Statement of income	Statement of comprehensive income	Business acquisition	Currency translation differences	As at Dec 31, 2019
Deferred tax assets:						
Decommissioning costs	828.34	75.25	-	112.56	-	1,016.15
Provision for employee benefits	74.43	16.78	12.02	-	0.15	103.38
Property, plant and equipment and intangible assets	7.80	(0.02)	-	-	-	7.78
Loss carried forward	264.77	29.55	2.94	0.51	-	297.77
Financial derivative	0.02	0.52	-	-	-	0.54
Provision for impairment loss on assets	114.74	10.69	-	-	-	125.43
Others	142.99	(16.54)	0.33	74.30	-	201.08
	1,433.09	116.23	15.29	187.37	0.15	1,752.13
Tax effect of currency translation on tax base	77.40	26.19	-	-	-	103.59
Total	1,510.49	142.42	15.29	187.37	0.15	1,855.72

Unit: Million US Dollar

**Deferred tax liabilities:**

Property, plant and equipment and intangible assets

Financial derivative

Others

Tax effect of currency translation on tax base

Total

Net

Consolidated					
As at Jan 1, 2019 (Restated)	Statement of income	Statement of comprehensive income	Business acquisition	Currency translation differences	As at Dec 31, 2019
1,820.30	(274.20)	-	677.80	-	2,223.90
3.63	7.70	3.04	-	-	14.37
5.02	(4.02)	(0.20)	12.44	-	13.24
1,828.95	(270.52)	2.84	690.24	-	2,251.51
0.88	0.31	-	-	-	1.19
1,829.83	(270.21)	2.84	690.24	-	2,252.70
(319.34)	412.63	12.45	(502.87)	0.15	(396.98)



	Unit: Million Baht					
	Consolidated					
	As at Jan 1, 2019 (Restated)	Statement of income	Statement of comprehensive income	Business acquisition	Currency translation differences	As at Dec 31, 2019
Deferred tax assets:						
Decommissioning costs	26,879.51	2,307.40	-	3,448.69	(1,992.84)	30,642.76
Provision for employee benefits	2,410.99	524.03	363.22	-	(182.50)	3,115.74
Property, plant and equipment and intangible assets	253.03	(0.79)	-	-	(17.83)	234.41
Loss carried forward	8,591.82	861.66	91.19	15.34	(581.05)	8,978.96
Financial derivative	0.76	16.21	-	-	(0.50)	16.47
Provision for impairment loss on assets	3,723.36	294.51	-	-	(235.57)	3,782.30
Others	4,639.98	(562.56)	10.06	2,290.63	(314.81)	6,063.30
	46,499.45	3,440.46	464.47	5,754.66	(3,325.10)	52,833.94
Tax effect of currency translation on tax base	2,511.42	839.33	-	-	(227.24)	3,123.51
Total	49,010.87	4,279.79	464.47	5,754.66	(3,552.34)	55,957.45

Unit: Million Baht

	Consolidated					Unit: Million Baht
	As at Jan 1, 2019 (Restated)	Statement of income	Statement of comprehensive income	Business acquisition	Currency translation differences	As at Dec 31, 2019
Deferred tax liabilities:						
Property, plant and equipment and intangible assets	59,068.01	(8,651.19)	-	20,728.07	(4,085.47)	67,059.42
Financial derivative	117.89	233.40	94.24	-	(12.14)	433.39
Others	158.89	(126.89)	(6.14)	375.38	(1.95)	399.29
	59,344.79	(8,544.68)	88.10	21,103.45	(4,099.56)	67,892.10
Tax effect of currency translation on tax base	28.46	9.77	-	-	(2.34)	35.89
Total	59,373.25	(8,534.91)	88.10	21,103.45	(4,101.90)	67,927.99
Net	(10,362.38)	12,814.70	376.37	(15,348.79)	549.56	(11,970.54)

Unit: Million US Dollar			
The Company			
As at Jan 1, 2019	Statement of income	Statement of comprehensive income	As at Dec 31, 2019
642.63	39.30	-	681.93
69.04	17.75	12.06	98.85
182.47	83.25	2.94	268.66
93.77	(10.55)	-	83.22
987.91	129.75	15.00	1,132.66
63.32	(20.94)	-	42.38
1,051.23	108.81	15.00	1,175.04
732.00	(207.36)	-	524.64
3.77	4.20	2.61	10.58
735.77	(203.16)	2.61	535.22
-	-	-	-
735.77	(203.16)	2.61	535.22
315.46	311.97	12.39	639.82

**Deferred tax assets:**

Decommissioning costs

Provision for employee benefits

Loss carried forward

Others

Tax effect of currency translation on tax base

Total

**Deferred tax liabilities:**

Property, plant and equipment and intangible assets

Others

Tax effect of currency translation on tax base

Total

Net

Unit: Million Baht				
The Company				
As at Jan 1, 2019	Statement of income	Statement of comprehensive income	Currency translation differences	As at Dec 31, 2019
20,852.87	1,219.25	-	(1,509.45)	20,562.67
2,240.19	550.58	374.06	(184.36)	2,980.47
5,921.25	2,582.65	91.19	(493.71)	8,101.38
3,043.28	(327.16)	0.03	(206.16)	2,509.99
32,057.59	4,025.32	465.28	(2,393.68)	34,154.51
2,054.83	(630.24)	-	(146.66)	1,277.93
34,112.42	3,395.08	465.28	(2,540.34)	35,432.44
23,753.52	(6,432.65)	-	(1,500.67)	15,820.20
122.15	130.61	80.99	(14.56)	319.19
23,875.67	(6,302.04)	80.99	(1,515.23)	16,139.39
-	-	-	-	-
23,875.67	(6,302.04)	80.99	(1,515.23)	16,139.39
10,236.75	9,697.12	384.29	(1,025.11)	19,293.05

**26. Prepaid Expenses**

Prepaid expenses comprised:

	Unit: Million US Dollar		Unit: Million Baht	
	Consolidated		Consolidated	
	Dec 31, 2019	Dec 31, 2018	Dec 31, 2019	Dec 31, 2018
Prepayments for the construction of a gas pipeline <sup>1</sup>	11.68	13.04	352.29	423.28
Prepayments for rental fee	2.51	2.82	75.51	91.49
Others	3.68	4.01	111.09	130.01
Total	17.87	19.87	538.89	644.78

<sup>1</sup> Prepayments for investment in the Myanmar Zawtika pipeline project to facilitate the construction of onshore gas pipeline, the Group will amortize these prepayments as expenses in accordance with Facilities, services and information sharing agreement.

**27. Financial Derivatives**

Financial derivatives comprised:

	Unit: Million US Dollar		Unit: Million Baht	
	Consolidated		Consolidated	
	Dec 31, 2019	Dec 31, 2018	Dec 31, 2019	Dec 31, 2018
<b>Financial derivative assets</b>				
<u>Financial derivative assets - Current</u>				
Oil price hedge	12.09	38.92	364.53	1,262.88
Forward foreign exchange	0.25	2.94	7.63	95.36
Cross currency and interest rate swap	-	2.90	-	94.22
Total financial derivative assets - Current	12.34	44.76	372.16	1,452.46
<u>Financial derivative assets - Non - current</u>				
Cross currency and interest rate swap	83.68	22.10	2,523.21	717.10
Total financial derivative assets - Non - current	83.68	22.10	2,523.21	717.10

	Unit: Million US Dollar		Unit: Million Baht	
	Consolidated		Consolidated	
	Dec 31, 2019	Dec 31, 2018	Dec 31, 2019	Dec 31, 2018
<b>Financial derivative liabilities</b>				
<u>Financial derivative liabilities - Current</u>				
Oil price hedge	2.09	0.82	63.16	26.56
Forward foreign exchange	13.12	3.06	395.60	99.23
Cross currency and interest rate swap	-	6.81	-	220.95
<b>Total financial derivative liabilities - Current</b>	<b>15.21</b>	<b>10.69</b>	<b>458.76</b>	<b>346.74</b>

	Unit: Million US Dollar		Unit: Million Baht	
	The Company		The Company	
	Dec 31, 2019	Dec 31, 2018	Dec 31, 2019	Dec 31, 2018
<b>Financial derivative assets</b>				
<u>Financial derivative assets - Current</u>				
Forward foreign exchange	0.25	2.74	7.63	88.75
Cross currency and interest rate swap	-	2.90	-	94.22
<b>Total financial derivative assets - Current</b>	<b>0.25</b>	<b>5.64</b>	<b>7.63</b>	<b>182.97</b>
<u>Financial derivative assets - Non - current</u>				
Cross currency and interest rate swap	64.10	22.10	1,932.75	717.10
<b>Total financial derivative assets - Non - current</b>	<b>64.10</b>	<b>22.10</b>	<b>1,932.75</b>	<b>717.10</b>
<b>Financial derivative liabilities</b>				
<u>Financial derivative liabilities - Current</u>				
Forward foreign exchange	12.03	2.81	362.65	91.08
Cross currency and interest rate swap	-	6.81	-	220.95
<b>Total financial derivative liabilities - Current</b>	<b>12.03</b>	<b>9.62</b>	<b>362.65</b>	<b>312.03</b>

Cash flow hedges

The Company entered into the foreign exchange forward that were being used to hedge cash flow risk of highly probable forecast transactions, as well as cross currency and interest rate swaps to fix the US Dollar interest rate and US Dollar redemption value to reduce the impact of foreign exchange rates volatility, with matching critical terms, i.e. the interest payment interval, maturity date on the currency leg of the swap with the underlying Thai Baht debentures or debt issuance.

In 2019, the Company follows the accounting for hedge on cross currency and interest rate swaps in which the effective portion of changes in the fair value of derivatives that are designated and qualify as cash flow hedges are recognized in other comprehensive income. The amounts that had been recognized in other comprehensive income shall be reclassified to statement of income in the same period when the underlying debt affects the statements of income. The gain or loss relating to the ineffective portion is recognized immediately in the statements of income. The Company had reclassified gain or loss previously recognized in other comprehensive income to the statements of loss during 2019 amount of US Dollar 0.01 million.

**28. Other Non-current Assets**

Other non-current assets comprised:

	Unit: Million US Dollar		Unit: Million Baht	
	Consolidated		Consolidated	
	Dec 31, 2019	Dec 31, 2018	Dec 31, 2019	Dec 31, 2018
Land usage fee	22.86	24.29	689.39	788.30
Advance payment and accrued interest	36.10	5.22	1,088.49	169.30
Pension scheme investments from joint operation	44.88	-	1,353.50	-
Prepaid assessed tax <sup>1</sup>	-	59.90	-	1,943.84
Others	38.30	24.47	1,154.78	793.86
Total	142.14	113.88	4,286.16	3,695.30

	Unit: Million US Dollar		Unit: Million Baht	
	The Company		The Company	
	Dec 31, 2019	Dec 31, 2018	Dec 31, 2019	Dec 31, 2018
Deposits	4.86	4.50	146.63	146.02
Land usage fee	5.71	6.07	172.35	197.08
Others	1.10	1.35	33.05	43.82
Total	11.67	11.92	352.03	386.92

<sup>1</sup> Prepaid assessed tax includes penalty for Natuna 2 B.V., which is a joint operation of the Group, as disclosed in Note 45 - Commitments and Contingent Liabilities under "Contingent liabilities".

## 29. Loans and Debentures

29.1 Loans and debentures are as follows:

	Unit: Million US Dollar		Unit: Million Baht	
	Consolidated		Consolidated	
	Dec 31, 2019	Dec 31, 2018	Dec 31, 2019	Dec 31, 2018
<u>Current portion of long-term financial liabilities</u>				
Current portion of debentures	-	406.75	-	13,198.88
Finance lease liabilities with maturity date within 1 Year	18.28	0.26	551.26	8.67
Total	18.28	407.01	551.26	13,207.55
<u>Long-term financial liabilities</u>				
Debentures	2,704.75	1,537.77	81,558.91	49,900.27
Total debentures	2,704.75	1,537.77	81,558.91	49,900.27
Long-term loans				
Long-term loans from financial Institutions	593.26	-	17,889.20	-
Finance lease liabilities	125.41	0.99	3,781.71	31.98
Total long-term loans	718.67	0.99	21,670.91	31.98
Total	3,423.42	1,538.76	103,229.82	49,932.25

	Unit: Million US Dollar		Unit: Million Baht	
	The Company		The Company	
	Dec 31, 2019	Dec 31, 2018	Dec 31, 2019	Dec 31, 2018
<u>Current portion of long-term financial liabilities</u>				
Current portion of debentures	-	406.75	-	13,198.88
Finance lease liabilities with maturity date within 1 Year	0.30	0.26	9.00	8.67
Total	0.30	407.01	9.00	13,207.55



	Unit: Million US Dollar		Unit: Million Baht	
	The Company		The Company	
	Dec 31, 2019	Dec 31, 2018	Dec 31, 2019	Dec 31, 2018
<u>Long-term financial liabilities</u>				
Debentures	377.76	351.01	11,391.04	11,390.10
Total debentures	377.76	351.01	11,391.04	11,390.10
Long-term loans				
Finance lease liabilities	0.76	0.99	22.98	31.98
Total long-term loans	0.76	0.99	22.98	31.98
Total	378.52	352.00	11,414.02	11,422.08

## 29.2 Debentures

Movements in debentures for the year are as follows:

	Unit: Million US Dollar	Unit: Million Baht
	Consolidated	Consolidated
Balance as at January 1, 2019	1,944.52	63,099.15
Increase	1,130.05	35,070.94
Repayment of debentures	(418.20)	(12,978.80)
Deferred finance cost	(7.23)	(209.92)
Foreign exchange differences	55.61	1,725.96
Currency translation differences	-	(5,148.42)
Balance as at December 31, 2019	2,704.75	81,558.91

	Unit: Million US Dollar	Unit: Million Baht
	The Company	The Company
Balance as at January 1, 2019	757.76	24,588.98
Repayment of debentures	(418.20)	(12,978.80)
Deferred finance cost	0.002	0.76
Foreign exchange differences	38.20	1,185.68
Currency translation differences	-	(1,405.58)
Balance as at December 31, 2019	377.76	11,391.04

The carrying value of unsecured and unsubordinated debentures comprised:

	Interest rates (% per annum)	Effective interest rates (% per annum)	Maturity date	Unit: Million US Dollar		Unit: Million Baht	
				Consolidated		Consolidated	
				Dec 31, 2019	Dec 31, 2018	Dec 31, 2019	Dec 31, 2018
Maturity date within 1 year							
- Debentures Baht 5,000 million <sup>1</sup>	4.80	4.873	May 29, 2019	-	154.08	-	4,999.75
- Debentures Baht 8,200 million <sup>2</sup>	3.91	3.976	June 6, 2019	-	252.67	-	8,199.13
Maturity date over 1 year but not exceeding 3 years							
- Debentures US Dollar 700 million <sup>3</sup>	5.692	5.815	April 5, 2021	699.73	699.52	21,099.71	22,699.25
- Debentures Baht 15,000 million <sup>4</sup>	2.26	2.314	June 19, 2022	496.95	-	14,984.94	-
Maturity date over 5 years							
- Debentures Baht 11,400 million <sup>5</sup>	4.82	4.89	June 6, 2029	377.76	351.01	11,391.04	11,390.10
- Debentures US Dollar 490 million <sup>3</sup>	6.35	6.507	June 12, 2042	487.36	487.24	14,695.76	15,810.92
- Debentures US Dollar 650 million <sup>6</sup>	3.903	3.941	December 6, 2059	642.95	-	19,387.46	-
Total carrying value				2,704.75	1,944.52	81,558.91	63,099.15

	Interest rates (% per annum)	Effective interest rates (% per annum)	Maturity date	Unit: Million US Dollar		Unit: Million Baht	
				The Company		The company	
				Dec 31, 2019	Dec 31, 2018	Dec 31, 2019	Dec 31, 2018
Maturity date within 1 year							
- Debentures Baht 5,000 million <sup>1</sup>	4.80	4.873	May 29, 2019	-	154.08	-	4,999.75
- Debentures Baht 8,200 million <sup>2</sup>	3.91	3.976	June 6, 2019	-	252.67	-	8,199.13
Maturity date over 5 years							
- Debentures Baht 11,400 million <sup>5</sup>	4.82	4.89	June 6, 2029	377.76	351.01	11,391.04	11,390.10
Total carrying value				377.76	757.76	11,391.04	24,588.98

<sup>1</sup> In June 2011, the Company entered into a Cross Currency Swap transaction with a financial institution to swap Thai Baht debenture for US Dollar 161.81 million at the average exchange rate of Baht 30.90 per US Dollar. Under this agreement, the average interest rate was charged at the rate of 4.93% per annum.

<sup>2</sup> On June 6, 2014, the Company entered into a Cross Currency Swap transaction with a financial institution to swap Thai Baht debentures for US Dollar 251.07 million at the average exchange rate of Baht 32.66 per US Dollar. Under this agreement, the average interest rate was charged at the rate of 3.013% per annum.

<sup>3</sup> The Group has Optional Redemption rights. The redemption price is the sum of the debenture par value, accrued interest, and interest payable up to the day before the maturity date plus an applicable premium whereby the applicable premium is the higher of the following:

- (1) 1.00% per annum of the debenture par value or
- (2) Present value that is higher than the debenture par value. Present value is the debenture par value and the interest receivable if the debenture is redeemed on the maturity date minus accrued interest and interest payable to the date of early redemption discounted using Treasury Rate at the early redemption date plus 0.35% per annum.

<sup>4</sup> On June 19, 2019, the group has issued and offered the 3 years unsecured and unsubordinated debentures in the amount of Baht 15,000 million with a fixed interest rate of 2.26% per annum. The Group entered into a Cross Currency Swap transaction with a financial institution to swap Thai Baht debentures for US Dollar 480 million at the average exchange rate of Baht 31.25 per US Dollar. Under this agreement, the average interest rate was charged at the rate of 2.79% per annum.

<sup>5</sup> On June 6, 2014, the Company entered into a Cross Currency Swap transaction with a financial institution to swap Thai Baht debentures for US Dollar 349.05 million at the average exchange rate of Baht 32.66 per US Dollar. Under this agreement, the average interest rate was charged at the rate of 4.989% per annum.

<sup>6</sup> On December 6, 2019, the Group has issued and offered the 40 years unsecured and unsubordinated debentures in the amount of US Dollar 650 million with a fixed interest rate of 3.903% per annum.

**29.3 Long-term loans from financial institutions**

Movements in long-term loans from financial institutions for the year are as follows:

	Unit: Million US Dollar	Unit: Million Baht
	Consolidated	Consolidated
Balance as at January 1, 2019	-	-
Increase	600.00	18,620.99
Deferred finance cost	(6.74)	(203.20)
Currency translation differences	-	(528.59)
Balance as at December 31, 2019	593.26	17,889.20

Long-term loans from financial institutions comprised:

	Interest rates (% per annum)	Effective interest rates (% per annum)	Maturity date	Unit: Million US Dollar		Unit: Million Baht	
				Consolidated		Consolidated	
				Dec 31, 2019	Dec 31, 2018	Dec 31, 2019	Dec 31, 2018
Maturity date over 3 year but not exceeding 5 years							
- Loan US Dollar 480 million <sup>1</sup>	6M LIBOR + 0.85	3.063	Oct 20, 2024	474.15	-	14,297.44	-
- Loan US Dollar 120 million <sup>1</sup>	6M LIBOR + 0.95	3.056	Oct 20, 2024	119.11	-	3,591.76	-
Total Carrying Value				593.26	-	17,889.20	-

<sup>1</sup> The Group has entered into a long-term loan agreement with a financial institution. The credit facilities is at US Dollar 600 million with maturity of 5 years. The Group has drawdown facilities in full amount by the fourth quarter of 2019.

**29.4 Finance lease liabilities**

The Group has entered into finance lease contracts which mainly are leases for petroleum exploration and production assets. The contracts period is not later than 19 years. Movements in finance lease liabilities for the year are as follows:

	Unit: Million US Dollar	Unit: Million Baht
	Consolidated	Consolidated
Balance as at January 1, 2019	1.25	40.65
Business acquisition	150.14	4,631.07
Repayment of finance lease liabilities	(12.93)	(401.48)
Deferred finance cost	5.15	160.03
Foreign exchange differences	0.08	2.59
Currency translation differences	-	(99.89)
Balance as at December 31, 2019	143.69	4,332.97

	Unit: Million US Dollar	Unit: Million Baht
	The Company	The Company
Balance as at January 1, 2019	1.25	40.65
Repayment of finance lease liabilities	(0.31)	(9.63)
Deferred finance cost	0.04	1.49
Foreign exchange differences	0.08	2.37
Currency translation differences	-	(2.90)
Balance as at December 31, 2019	1.06	31.98

Finance lease liabilities comprised:

	Unit: Million US Dollar		Unit: Million Baht	
	Consolidated		Consolidated	
	Dec 31, 2019	Dec 31, 2018	Dec 31, 2019	Dec 31, 2018
Finance lease liabilities				
- Within 1 year	27.64	0.31	833.69	10.03
- Over 1 year but not exceeding 5 years	81.46	1.04	2,456.37	33.92
- Over 5 years	78.66	-	2,371.86	-
Deferred finance cost	(44.07)	(0.10)	(1,328.95)	(3.30)
Total present value of finance lease liabilities	143.69	1.25	4,332.97	40.65

	Unit: Million US Dollar		Unit: Million Baht	
	The Company		The Company	
	Dec 31, 2019	Dec 31, 2018	Dec 31, 2019	Dec 31, 2018
Finance lease liabilities				
- Within 1 year	0.33	0.31	10.04	10.03
- Over 1 year but not exceeding 5 years	0.79	1.04	23.88	33.92
Deferred finance cost	(0.06)	(0.10)	(1.94)	(3.30)
Total present value of finance lease liabilities	1.06	1.25	31.98	40.65

### 30. Short-term Provision

Short-term provision comprised:

	Unit: Million US Dollar		Unit: Million Baht	
	Consolidated		Consolidated	
	Dec 31, 2019	Dec 31, 2018	Dec 31, 2019	Dec 31, 2018
Provision for decommissioning costs	42.76	33.60	1,289.38	1,090.30
Provision for remuneration for the renewal of petroleum production	77.87	89.07	2,348.14	2,890.32
Other provisions	10.87	11.00	327.74	357.09
Total	131.50	133.67	3,965.26	4,337.71

	Unit: Million US Dollar		Unit: Million Baht	
	The Company		The Company	
	Dec 31, 2019	Dec 31, 2018	Dec 31, 2019	Dec 31, 2018
Provision for decommissioning costs	12.73	4.68	383.87	151.94
Provision for remuneration for the renewal of petroleum production	75.40	88.99	2,273.51	2,887.69
Other provisions	9.76	-	294.41	-
Total	97.89	93.67	2,951.79	3,039.63



**31. Provision for Employee Benefits**

Provision for employee benefits are as follows:

	Unit: Million US Dollar		Unit: Million Baht	
	Consolidated		Consolidated	
	Dec 31, 2019	Dec 31, 2018	Dec 31, 2019	Dec 31, 2018
Statements of financial position				
Retirement benefits	232.91	126.34	7,022.96	4,099.80
Other long-term benefits	12.34	8.92	372.24	289.48
Liabilities in the statements of financial position	245.25	135.26	7,395.20	4,389.28
Statements of income				
Retirement benefits	32.31	12.25	1,016.30	395.47
Other long-term benefits	2.94	1.15	90.03	37.09
Total	35.25	13.40	1,106.33	432.56

	Unit: Million US Dollar		Unit: Million Baht	
	The Company		The Company	
	Dec 31, 2019	Dec 31, 2018	Dec 31, 2019	Dec 31, 2018
Statements of financial position				
Retirement benefits	167.05	112.59	5,037.13	3,653.72
Other long-term benefits	12.33	8.91	371.76	289.04
Liabilities in the statements of financial position	179.38	121.50	5,408.89	3,942.76
Statements of income				
Retirement benefits	28.31	10.71	890.38	345.73
Other long-term benefits	2.94	1.15	89.98	37.29
Total	31.25	11.86	980.36	383.02

Movements of provision for retirement benefits during the year are as follows:

	Unit: Million US Dollar	Unit: Million Baht
	Consolidated	Consolidated
Balance as at January 1, 2019	126.34	4,099.80
Business acquisition	44.89	1,354.08
Current service cost	9.36	290.71
Past service cost	18.71	593.83
Interest cost	4.24	131.76
Loss from actuarial assumptions	26.65	805.49
Benefits paid	(8.23)	(255.73)
Foreign exchange differences	10.95	340.13
Currency translation differences	-	(337.11)
Balance as at December 31, 2019	232.91	7,022.96

	Unit: Million US Dollar	Unit: Million Baht
	The Company	The Company
Balance as at January 1, 2019	112.59	3,653.72
Current service cost	8.19	254.34
Past service cost	16.24	515.57
Interest cost	3.88	120.47
Loss from actuarial assumptions	24.12	728.86
Benefits paid	(7.71)	(239.47)
Foreign exchange differences	9.74	302.49
Currency translation differences	-	(298.85)
Balance as at December 31, 2019	167.05	5,037.13

Expenses recognized in the statements of income for the years are as follows:

	Unit: Million US Dollar		Unit: Million Baht	
	Consolidated		Consolidated	
	Dec 31, 2019	Dec 31, 2018	Dec 31, 2019	Dec 31, 2018
Current service cost	9.36	8.35	290.71	269.48
Past service cost	18.71	-	593.83	-
Interest cost	4.24	3.90	131.76	125.99
Total	32.31	12.25	1,016.30	395.47
Other long-term benefits	2.94	1.15	90.03	37.09
Expenses recognized in the statements of income	35.25	13.40	1,106.33	432.56

	Unit: Million US Dollar		Unit: Million Baht	
	The Company		The Company	
	Dec 31, 2019	Dec 31, 2018	Dec 31, 2019	Dec 31, 2018
Current service cost	8.19	7.10	254.34	229.22
Past service cost	16.24	-	515.57	-
Interest cost	3.88	3.61	120.47	116.51
Total	28.31	10.71	890.38	345.73
Other long-term benefits	2.94	1.15	89.98	37.29
Expenses recognized in the statements of income	31.25	11.86	980.36	383.02

Details of (gain) loss from actuarial assumptions of provision for employee benefits recognized in the statements of comprehensive income are as follows:

	Unit: Million US Dollar		Unit: Million Baht	
	Consolidated		Consolidated	
	2019	2018	2019	2018
Change in demographic assumptions	-	2.12	-	69.55
Change in financial assumptions	26.65	2.59	805.49	84.62
Experience adjustments	-	(1.01)	-	(33.06)
Total	26.65	3.70	805.49	121.11

	Unit: Million US Dollar		Unit: Million Baht	
	The Company		The Company	
	2019	2018	2019	2018
Change in demographic assumptions	-	1.80	-	58.98
Change in financial assumptions	24.12	2.82	728.86	92.16
Experience adjustments	-	(4.44)	-	(145.12)
Total	24.12	0.18	728.86	6.02

## Major Actuarial Assumptions for Retirement Benefits

	% per annum	
	2019	2018
Discount rate	1.9 - 7.15	3.2
Inflation rate	2.0 - 2.5	2.5
Credit interest rate on provident funds	3.4 - 4.3	3.4 - 4.3
Turnover rate	0.0 - 14.0	0.0 - 14.0
Mortality rate	Based on the announcement of each country	Based on the announcement of each country

## Impact on Defined Retirement Benefit Obligation Plans

	Unit: US Million Dollar		Unit: Million Baht	
	Increase (Decrease)		Increase (Decrease)	
	2019	2018	2019	2018
Discount rate				
Increase 1%	(21.12)	(12.36)	(636.87)	(400.92)
Decrease 1%	25.51	14.67	769.08	475.88

The above sensitivity analysis is based on a change in assumption of the discount rate without other changes in the underlying assumptions. In practice, this is unlikely to occur, and changes in some of the assumptions may be correlated. When calculating the sensitivity of the defined benefit obligations to the change in major assumptions, the same method - present value of the defined benefit obligation calculated with the projected unit credit method - has been applied as when calculating the pension liability recognized within the statements of financial position.

As of December 31, 2019, the weighted average duration of the defined retirement benefit obligation is 20 years.  
(2018: 20 years)

## Maturity analysis of undiscounted retirement benefits\*:

	Unit: Million US Dollar		Unit: Million Baht	
	31 December 2019		31 December 2019	
	Consolidated	The Company	Consolidated	The Company
Less than 1 year	5.83	5.15	175.70	155.40
Over 1 to 5 years	37.67	34.98	1,135.89	1,054.90
Over 5 to 10 years	77.18	71.46	2,327.20	2,154.62
Over 10 years	323.41	291.73	9,752.07	8,796.77
Total	444.09	403.32	13,390.86	12,161.69

\* Not include retirement benefit paid of joint operations

On April 5, 2019, the Labour Protection Act (No.7) B.E. 2562 was published in the Royal Gazette and was effective in May 2019. The amendment defines the additional compensation of not less than the 400 day's pay based on the latest hiring rate for the employee being laid off by the employer after serving 20 years or more. As a result, it changes the retirement benefit plan, in which the Group's provision for retirement benefits increased by US Dollar 18.71 million (Baht 593.83 million) in the consolidated financial statement and US Dollar 16.24 million (Baht 515.57 million) in the Company's financial statement. The Group recognized the effect from the amendment by recognizing past service cost as expense in the statements of income.

### 32. Provision for Decommissioning Costs

Provision for decommissioning costs are as follows:

	Unit: Million US Dollar		Unit: Million Baht	
	Consolidated		Consolidated	
	Dec 31, 2019	Dec 31, 2018	Dec 31, 2019	Dec 31, 2018
Provision for decommissioning costs	3,010.27	2,277.25	90,771.73	73,896.52
<u>Less</u> Current portion	(42.76)	(33.60)	(1,289.38)	(1,090.30)
Non-current portion of provision for decommissioning costs	2,967.51	2,243.65	89,482.35	72,806.22

	Unit: Million US Dollar		Unit: Million Baht	
	The Company		The Company	
	Dec 31, 2019	Dec 31, 2018	Dec 31, 2019	Dec 31, 2018
Provision for decommissioning costs	1,584.35	1,375.34	47,774.55	44,629.50
<u>Less</u> Current portion	(12.73)	(4.68)	(383.87)	(151.94)
Non-current portion of provision for decommissioning costs	1,571.62	1,370.66	47,390.68	44,477.56

Movements of provision for decommissioning costs during the year are as follows:

	Unit: Million US Dollar	Unit: Million Baht
	Consolidated	Consolidated
Balance as at January 1, 2019	2,277.25	73,896.52
Business acquisition	331.25	10,174.83
Additional provision	327.44	10,162.12
Abandonment cost incurred during the year	(14.63)	(454.27)
Accretion expenses	102.82	3,192.27
Reversal of provision	(13.86)	(430.25)
Currency translation differences	-	(5,769.49)
Balance as at December 31, 2019	3,010.27	90,771.73

	Unit: Million US Dollar	Unit: Million Baht
	The Company	The Company
Balance as at January 1, 2019	1,375.34	44,629.50
Additional provision	152.43	4,730.74
Abandonment cost incurred during the year	(1.24)	(38.54)
Accretion expenses	57.82	1,795.23
Currency translation differences	-	(3,342.38)
Balance as at December 31, 2019	1,584.35	47,774.55

### 33. Provision for Remuneration for the Renewal of Petroleum Production

Provision for remuneration for the renewal of petroleum production are as follows:

	Unit: Million US Dollar		Unit: Million Baht	
	Consolidated		Consolidated	
	Dec 31, 2019	Dec 31, 2018	Dec 31, 2019	Dec 31, 2018
Provision for remuneration for the renewal of petroleum production	268.63	327.73	8,100.25	10,634.84
<u>Less</u> Current portion	(77.87)	(89.07)	(2,348.14)	(2,890.32)
Non-current portion of provision for remuneration for the renewal of petroleum production	190.76	238.66	5,752.11	7,744.52

	Unit: Million US Dollar		Unit: Million Baht	
	The Company		The Company	
	Dec 31, 2019	Dec 31, 2018	Dec 31, 2019	Dec 31, 2018
Provision for remuneration for the renewal of petroleum production	250.32	327.39	7,548.12	10,623.78
<u>Less Current portion</u>	<u>(75.40)</u>	<u>(88.99)</u>	<u>(2,273.51)</u>	<u>(2,887.69)</u>
Non-current portion of provision for remuneration for the renewal of petroleum production	174.92	238.40	5,274.61	7,736.09

Movements of provision for remuneration for the renewal of petroleum production during the year are as follows:

	Unit: Million US Dollar	Unit: Million Baht
	Consolidated	Consolidated
Balance as at January 1, 2019	327.73	10,634.84
Increase	19.35	600.65
Abandonment cost incurred during the year	(90.75)	(2,816.69)
Accretion expenses	12.33	382.74
Reversal of provision	(0.03)	(0.98)
Currency translation differences	-	(700.31)
Balance as at December 31, 2019	268.63	8,100.25

	Unit: Million US Dollar	Unit: Million Baht
	The Company	The Company
Balance as at January 1, 2019	327.39	10,623.78
Abandonment cost incurred during the year	(88.99)	(2,761.78)
Accretion expenses	11.92	370.00
Currency translation differences	-	(683.88)
Balance as at December 31, 2019	250.32	7,548.12

## 34. Other Non-current Liabilities

Other Non-current liabilities comprised:

	Unit: Million US Dollar		Unit: Million Baht	
	Consolidated		Consolidated	
	Dec 31, 2019	Dec 31, 2018	Dec 31, 2019	Dec 31, 2018
Contingent consideration from participating interest acquisition in joint venture	51.86	-	1,563.84	-
Land usage fee	27.90	25.92	841.23	841.24
Retirement reserve from co-venturers	26.09	23.29	786.84	755.69
Others	12.95	0.56	390.42	18.02
Total	118.80	49.77	3,582.33	1,614.95

	Unit: Million US Dollar		Unit: Million Baht	
	The Company		The Company	
	Dec 31, 2019	Dec 31, 2018	Dec 31, 2019	Dec 31, 2018
Land usage fee	6.97	6.48	210.31	210.31
Retirement reserve from co-venturers	18.31	16.57	552.04	537.61
Total	25.28	23.05	762.35	747.92



## 35. Fair Value

## 35.1 Fair value estimation

The following table presents the financial assets and liabilities that are measured at fair value.

	Unit: Million US Dollar				Unit: Million Baht			
	Consolidated				Consolidated			
	Dec 31, 2019				Dec 31, 2019			
	Level 1	Level 2	Level 3	Total	Level 1	Level 2	Level 3	Total
<b>Financial assets</b>								
Investments in trading securities	213.70	-	-	213.70	6,444.00	-	-	6,444.00
Investments in available-for-sale securities	0.52	-	-	0.52	15.81	-	-	15.81
Financial derivatives								
- Oil price hedge	-	12.09	-	12.09	-	364.53	-	364.53
- Forward foreign exchange	-	0.25	-	0.25	-	7.63	-	7.63
- Cross currency and interest rate swap	-	83.68	-	83.68	-	2,523.21	-	2,523.21
Other non-current assets								
- Pension scheme investments from joint operation	44.88	-	-	44.88	1,353.50	-	-	1,353.50
<b>Total assets</b>	<b>259.10</b>	<b>96.02</b>	<b>-</b>	<b>355.12</b>	<b>7,813.31</b>	<b>2,895.37</b>	<b>-</b>	<b>10,708.68</b>

	Unit: Million US Dollar				Unit: Million Baht			
	Consolidated				Consolidated			
	Dec 31, 2019				Dec 31, 2019			
	Level 1	Level 2	Level 3	Total	Level 1	Level 2	Level 3	Total
<b>Financial liabilities</b>								
Financial derivatives								
- Oil price hedge	-	2.09	-	2.09	-	63.16	-	63.16
- Forward foreign exchange	-	13.12	-	13.12	-	395.60	-	395.60
Other non-current liabilities								
- Deferred considerations acquired through business acquisition	-	-	7.10	7.10	-	-	213.94	213.94
- Contingent consideration from participating interest acquisition in joint venture	-	-	51.86	51.86	-	-	1,563.84	1,563.84
<b>Total liabilities</b>	<b>-</b>	<b>15.21</b>	<b>58.96</b>	<b>74.17</b>	<b>-</b>	<b>458.76</b>	<b>1,777.78</b>	<b>2,236.54</b>

	Unit: Million US Dollar				Unit: Million Baht			
	Consolidated				Consolidated			
	Dec 31, 2018				Dec 31, 2018			
	Level 1	Level 2	Level 3	Total	Level 1	Level 2	Level 3	Total
<b>Financial assets</b>								
Short-term investments								
- Debt securities (with embedded derivatives)	-	49.87	-	49.87	-	1,618.26	-	1,618.26
Investments in trading securities	70.55	-	-	70.55	2,289.34	-	-	2,289.34
Investments in available-for-sale securities	11.01	-	-	11.01	357.17	-	-	357.17
Financial derivatives								
- Oil price hedge	-	38.92	-	38.92	-	1,262.88	-	1,262.88
- Forward foreign exchange	-	2.94	-	2.94	-	95.36	-	95.36
- Cross currency and interest rate swap	-	25.00	-	25.00	-	811.32	-	811.32
<b>Total assets</b>	<b>81.56</b>	<b>116.73</b>	<b>-</b>	<b>198.29</b>	<b>2,646.51</b>	<b>3,787.82</b>	<b>-</b>	<b>6,434.33</b>
<b>Financial liabilities</b>								
Deferred considerations acquired through business								
acquisition	-	-	465.97	465.97	-	-	15,120.70	15,120.70
Financial derivatives								
- Oil price hedge	-	0.82	-	0.82	-	26.56	-	26.56
- Forward foreign exchange	-	3.06	-	3.06	-	99.23	-	99.23
- Cross currency and interest rate swap	-	6.81	-	6.81	-	220.95	-	220.95
<b>Total liabilities</b>	<b>-</b>	<b>10.69</b>	<b>465.97</b>	<b>476.66</b>	<b>-</b>	<b>346.74</b>	<b>15,120.70</b>	<b>15,467.44</b>

	Unit: Million US Dollar				Unit: Million Baht			
	The Company				The Company			
	Dec 31, 2019				Dec 31, 2019			
	Level 1	Level 2	Level 3	Total	Level 1	Level 2	Level 3	Total
<b>Financial assets</b>								
Investments in trading securities	0.21	-	-	0.21	6.34	-	-	6.34
Financial derivatives								
- Forward foreign exchange	-	0.25	-	0.25	-	7.63	-	7.63
- Cross currency and interest rate swap	-	64.10	-	64.10	-	1,932.75	-	1,932.75
<b>Total assets</b>	<b>0.21</b>	<b>64.35</b>	<b>-</b>	<b>64.56</b>	<b>6.34</b>	<b>1,940.38</b>	<b>-</b>	<b>1,946.72</b>
<b>Financial liabilities</b>								
Financial derivative								
- Forward foreign exchange	-	12.03	-	12.03	-	362.65	-	362.65
<b>Total liabilities</b>	<b>-</b>	<b>12.03</b>	<b>-</b>	<b>12.03</b>	<b>-</b>	<b>362.65</b>	<b>-</b>	<b>362.65</b>

	Unit: Million US Dollar				Unit: Million Baht			
	The Company				The Company			
	Dec 31, 2018				Dec 31, 2018			
	Level 1	Level 2	Level 3	Total	Level 1	Level 2	Level 3	Total
<b>Financial assets</b>								
Short-term investments								
- Debt securities (with embedded derivatives)	-	49.87	-	49.87	-	1,618.26	-	1,618.26
Investments in trading securities	70.54	-	-	70.54	2,289.08	-	-	2,289.08
Investments in available-for-sale securities	10.45	-	-	10.45	339.10	-	-	339.10
Financial derivatives								
- Forward foreign exchange	-	2.74	-	2.74	-	88.75	-	88.75
- Cross currency and interest rate swap	-	25.00	-	25.00	-	811.32	-	811.32
<b>Total assets</b>	<b>80.99</b>	<b>77.61</b>	<b>-</b>	<b>158.60</b>	<b>2,628.18</b>	<b>2,518.33</b>	<b>-</b>	<b>5,146.51</b>
<b>Financial liabilities</b>								
Deferred considerations acquired through								
business acquisition	-	-	465.97	465.97	-	-	15,120.70	15,120.70
Financial derivative								
- Forward foreign exchange	-	2.81	-	2.81	-	91.08	-	91.08
- Cross currency and interest rate swap	-	6.81	-	6.81	-	220.95	-	220.95
<b>Total liabilities</b>	<b>-</b>	<b>9.62</b>	<b>465.97</b>	<b>475.59</b>	<b>-</b>	<b>312.03</b>	<b>15,120.70</b>	<b>15,432.73</b>

Level 1: Fair value based on quoted prices in an active market for identical assets and liabilities.

Level 2: Fair value based on inputs other than quoted prices in Level 1 or based on information from reliable source that can be used in the computation of fair value of assets and liabilities.

Level 3: Fair value based on internal valuation model or that are not based on observable market data (that is, unobservable inputs).

### 35.2 Valuation Techniques Used to Derive Level 2 Fair Values

Valuation techniques used to derive level 2 fair values of financial derivative instruments are as follows:

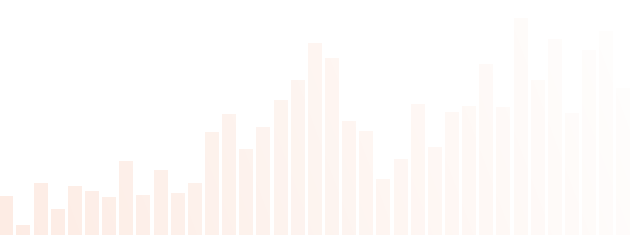
- The fair value of debt securities (with embedded derivatives) is calculated based on debt securities value with reference to the performance return of other debt security funds.
- Oil price hedge comprises oil price swaps and options. The fair value of oil price swaps is assessed based on the price level which is calculated using the market price of future contracts. The fair value of oil price options is calculated using premium which requires various variable factors, such as the price level of swap, timing of exercise, and price volatility.
- The fair value of forward foreign exchange contracts is calculated using forward foreign exchange rates that are quoted in an active market.
- The fair value of cross currency and interest rate swaps is calculated using forward interest rates derived from the yield curves in an observable interest market and forward foreign exchange rates that are quoted in an active market.

The discount factors do not significantly impact the level 2 fair value of derivative instruments.

### 35.3 Valuation Techniques Used to Derive Level 3 Fair values

Valuation techniques and assumptions used to derive level 3 fair values are as follows:

- Deferred considerations acquired through business acquisition is disclosed in Note 6 - Business Acquisition in Murphy oil Corporation in Malaysia.
- Contingent consideration from participating interest acquisition in joint venture is disclosed in Note 19.6 - Significant transactions during the year.



35.4 The details of fair value of long-term liabilities calculated by using the discounted cash flow based on a discounted rate of borrowing with similar terms are as follows:

Unit: Million US Dollar	
Consolidated	
December 31, 2019	
Book Value	Fair Value
Unsecured and unsubordinated debentures – Baht	874.71 961.32
Unsecured and unsubordinated debentures – US Dollar	1,830.04 2,049.80

Unit: Million Baht	
Consolidated	
December 31, 2019	
Book Value	Fair Value
Unsecured and unsubordinated debentures – Baht	26,375.98 28,987.64
Unsecured and unsubordinated debentures – US Dollar	55,182.93 61,809.76

Unit: Million US Dollar	
The Company	
December 31, 2019	
Book Value	Fair Value
Unsecured and unsubordinated debentures – Baht	377.76 456.74

Unit: Million Baht	
The Company	
December 31, 2019	
Book Value	Fair Value
Unsecured and unsubordinated debentures – Baht	11,391.04 13,772.42

The fair value of Baht debentures is calculated using the reference price in the secondary market of Thai Bond Market Association that are quoted in an active market and classified as level 2 fair value.

The fair value of US Dollar debentures is calculated using the reference observable price in the secondary market of foreign bond that are quoted in an active market and classified as level 2 fair value.

The fair value of the following financial assets and liabilities approximates their book value.

Consolidated	The Company
<b>Financial assets</b>	<b>Financial assets</b>
<ul style="list-style-type: none"> <li>• Cash and cash equivalents</li> <li>• Short-term investments</li> <li>• Account receivable – parent company</li> <li>• Trade and other accounts receivables</li> <li>• Other current assets</li> <li>• Long-term loans to related parties</li> <li>• Other non-current assets</li> </ul>	<ul style="list-style-type: none"> <li>• Cash and cash equivalents</li> <li>• Short-term investments</li> <li>• Account receivable – parent company</li> <li>• Trade and other accounts receivables</li> <li>• Short-term loans to related parties</li> <li>• Other current assets</li> <li>• Long-term loans to related parties</li> <li>• Other non-current assets</li> </ul>
<b>Financial liabilities</b>	<b>Financial liabilities</b>
<ul style="list-style-type: none"> <li>• Trade accounts payable and working capital to co-venturers</li> <li>• Accrued expenses and interests payable</li> <li>• Other current liabilities</li> <li>• Long-term loans</li> <li>• Other non-current liabilities</li> </ul>	<ul style="list-style-type: none"> <li>• Trade accounts payable and working capital to co-venturers</li> <li>• Accrued expenses and interests payable</li> <li>• Other current liabilities</li> <li>• Long-term loans</li> <li>• Other non-current liabilities</li> </ul>



**36. Subordinated capital debentures**

In 2019, the Group redeemed the to US Dollar subordinated capital debentures as follows:

	Unit : Million US Dollar			Unit : Million Baht		
	Before redemption	(Redeemed/ repurchased)	After redemption	Before redemption	(Redeemed/ repurchased)	After redemption
<b>PTTEP</b>						
Issuance and offering value	145.31	(145.31)	-			
Net value from finance cost	144.66	(144.66) <sup>1</sup>	-	4,679.78	(4,679.78) <sup>1</sup>	-
<b>PTTEP TC</b>						
Issuance and offering value	354.69	(354.69)	-			
Net value from finance cost	354.16	(354.16) <sup>1</sup>	-	11,808.63	(11,808.63) <sup>1</sup>	-
<b>PTTEP TC</b>						
Issuance and offering value	500.00	(469.15)	30.85			
Net value from finance cost	499.29	(468.43) <sup>2</sup>	30.86	16,761.35	(15,725.31) <sup>2</sup>	1,036.04
<b>Total</b>						
Issuance and offering value	1,000.00	(969.15)	30.85			
Net value from finance cost	998.11	(967.25)	30.86	33,249.76	(32,213.72)	1,036.04

<sup>1</sup> The redemption of subordinated capital debentures is the first exercise of the redemption rights stipulated in the offering memorandum at the par value.

<sup>2</sup> PTTEP TC repurchased the subordinated capital debentures in accordance with specified conditions and procedures.

## 37. Financial Assets and Financial Liabilities

Financial assets and financial liabilities are classified as follows:

	Unit: Million US Dollar									
	Consolidated									
	Dec 31, 2019					Dec 31, 2018				
	Fair value through statement of income	Derivative hedging instruments	Loans and accounts receivable	Available- for-sale financial assets	Held-to- maturity financial assets	Fair value through statement of income	Derivative hedging instruments	Loans and accounts receivable	Available- for-sale financial assets	Held-to- maturity financial assets
<b>Financial assets</b>										
Cash and cash equivalents	-	-	2,822.90	-	-	-	-	3,180.10	-	-
Short-term investments	-	-	-	-	200.00	-	-	-	-	820.53
Investments in trading securities	213.70	-	-	-	-	70.55	-	-	-	-
Investments in available-for-sale securities	-	-	-	0.52	-	-	-	-	11.01	-
Account receivable - parent company	-	-	534.84	-	-	-	-	637.13	-	-
Trade and other accounts receivable	-	-	380.43	-	-	-	-	558.64	-	-
Other current assets	-	-	106.71	-	-	-	-	73.24	-	-
Long-term loans to related parties	-	-	86.06	-	-	-	-	95.50	-	-
Financial derivative assets	12.34	83.68	-	-	-	41.86	25.00	-	-	-
Other non-current assets	44.88	-	71.49	-	-	-	-	89.04	-	-
<b>Total financial assets</b>	<b>270.92</b>	<b>83.68</b>	<b>4,002.43</b>	<b>0.52</b>	<b>200.00</b>	<b>112.41</b>	<b>25.00</b>	<b>4,633.65</b>	<b>11.01</b>	<b>820.53</b>

	Unit: Million US Dollar					
	Consolidated					
	Dec 31, 2019			Dec 31, 2018		
	Fair value through statement of income	Derivative hedging instruments	Amortized cost	Fair value through statement of income	Derivative hedging instruments	Amortized cost
Financial liabilities						
Trade accounts payable and working capital to co-venturers	-	-	119.50	-	-	120.23
Current portion of long-term debts	-	-	18.28	-	-	407.01
Accrued expenses and interest payable	-	-	769.42	-	-	612.70
Deferred considerations acquired through business acquisition	-	-	-	-	-	465.97
Other current liabilities	-	-	66.03	-	-	18.99
Financial derivative liabilities	15.21	-	-	3.88	6.81	-
Debentures and long-term loans	-	-	3,423.42	-	-	1,538.75
Other non-current liabilities	-	-	59.38	-	-	0.13
Total financial liabilities	15.21	-	4,456.03	3.88	6.81	3,163.78

	Unit: Million Baht									
	Consolidated									
	Dec 31, 2019					Dec 31, 2018				
	Fair value through statement of income	Derivative hedging instruments	Loans and accounts receivable	Available- for-sale financial assets	Held-to- maturity financial assets	Fair value through statement of income	Derivative hedging instruments	Loans and accounts receivable	Available- for-sale financial assets	Held-to- maturity financial assets
<b>Financial assets</b>										
Cash and cash equivalents	-	-	85,121.64	-	-	-	-	103,193.56	-	-
Short-term investments	-	-	-	-	6,030.80	-	-	-	-	26,626.06
Investments in trading securities	6,444.00	-	-	-	-	2,289.34	-	-	-	-
Investments in available-for-sale securities	-	-	-	15.81	-	-	-	-	357.17	-
Account receivable - parent company	-	-	16,127.47	-	-	-	-	20,674.75	-	-
Trade and other accounts receivable	-	-	11,471.38	-	-	-	-	18,127.65	-	-
Other current assets	-	-	3,218.05	-	-	-	-	2,376.55	-	-
Long-term loans to related parties	-	-	2,594.92	-	-	-	-	3,098.81	-	-
Financial derivative assets	372.16	2,523.21	-	-	-	1,358.25	811.31	-	-	-
Other non-current assets	1,353.50	-	2,155.71	-	-	-	-	2,889.17	-	-
<b>Total financial assets</b>	<b>8,169.66</b>	<b>2,523.21</b>	<b>120,689.17</b>	<b>15.81</b>	<b>6,030.80</b>	<b>3,647.59</b>	<b>811.31</b>	<b>150,360.49</b>	<b>357.17</b>	<b>26,626.06</b>

	Unit: Million Baht					
	Consolidated					
	Dec 31, 2019			Dec 31, 2018		
	Fair value through statement of income	Derivative hedging instruments	Amortized cost	Fair value through statement of income	Derivative hedging instruments	Amortized cost
Financial liabilities						
Trade accounts payable and working capital to co-venturers	-	-	3,603.54	-	-	901.58
Current portion of long-term debts	-	-	551.26	-	-	207.55
Accrued expenses and interest payable	-	-	23,201.11	-	-	392.09
Deferred considerations acquired through business acquisition	-	-	-	-	-	15,120.70
Other current liabilities	-	-	1,991.13	-	-	616.17
Financial derivative liabilities	458.76	-	-	125.79	220.95	-
Debentures and long-term loans	-	-	103,229.82	-	-	49,932.25
Other non-current liabilities	-	-	1,790.52	-	-	4.11
Total financial liabilities	458.76	-	134,367.38	125.79	220.95	102,674.45

Unit: Million US Dollar									
The Company									
Dec 31, 2019					Dec 31, 2018				
Fair value through statement of income	Derivative hedging instruments	Loans and accounts receivable	Available- for-sale financial assets	Held-to- maturity financial assets	Fair value through statement of income	Derivative hedging instruments	Loans and accounts receivable	Available- for-sale financial assets	Held-to- maturity financial assets
-	-	715.77	-	-	-	-	462.09	-	-
-	-	-	-	200.00	-	-	-	-	462.70
0.21	-	-	-	-	70.54	-	-	-	-
-	-	-	-	-	-	-	-	10.45	-
-	-	353.32	-	-	-	-	399.09	-	-
-	-	73.95	-	-	-	-	435.61	-	-
-	-	362.00	-	-	-	-	1,175.45	-	-
-	-	325.53	-	-	-	-	71.29	-	-
-	-	6,410.31	-	-	-	-	5,418.53	-	-
0.25	64.10	-	-	-	2.74	25.00	-	-	-
-	-	4.98	-	-	-	-	4.62	-	-
0.46	64.10	8,245.86	-	200.00	73.28	25.00	7,966.68	10.45	462.70

Unit: Million US Dollar					
The Company					
Dec 31, 2019			Dec 31, 2018		
Fair value through statement of income	Derivative hedging instruments	Amortized cost	Fair value through statement of income	Derivative hedging instruments	Amortized cost
-	-	24.62	-	-	31.64
-	-	0.30	-	-	407.01
-	-	288.88	-	-	293.21
-	-	-	-	-	465.97
-	-	3.10	-	-	5.73
12.03	-	-	2.81	6.81	-
-	-	378.52	-	-	351.99
12.03		695.42	2.81	6.81	1,555.55

**Financial liabilities**

Trade accounts payable and working capital to co-venturers	-	-	24.62	-	-	31.64
Current portion of long-term debts	-	-	0.30	-	-	407.01
Accrued expenses and interest payable	-	-	288.88	-	-	293.21
Deferred considerations acquired through business acquisition	-	-	-	-	-	465.97
Other current liabilities	-	-	3.10	-	-	5.73
Financial derivative liabilities	12.03	-	-	2.81	6.81	-
Debentures and long-term loans	-	-	378.52	-	-	351.99
Total financial liabilities	12.03		695.42	2.81	6.81	1,555.55

Unit: Million Baht									
The Company									
Dec 31, 2019					Dec 31, 2018				
Fair value through statement of income	Derivative hedging instruments	Loans and accounts receivable	Available- for-sale financial assets	Held-to- maturity financial assets	Fair value through statement of income	Derivative hedging instruments	Loans and accounts receivable	Available- for-sale financial assets	Held-to- maturity financial assets
-	-	21,583.27	-	-	-	-	14,994.85	-	-
-	-	-	-	6,030.80	-	-	-	-	15,014.54
6.34	-	-	-	-	2,289.08	-	-	-	-
-	-	-	-	-	-	-	-	339.10	-
-	-	10,653.92	-	-	-	-	12,950.47	-	-
-	-	2,229.70	-	-	-	-	14,135.53	-	-
-	-	10,915.76	-	-	-	-	38,143.18	-	-
-	-	9,815.85	-	-	-	-	2,313.30	-	-
-	-	193,296.37	-	-	-	-	175,830.35	-	-
7.63	1,932.75	-	-	-	88.75	811.31	-	-	-
-	-	150.07	-	-	-	-	149.86	-	-
13.97	1,932.75	248,644.94	-	6,030.80	2,377.83	811.31	258,517.54	339.10	15,014.54



Unit: Million Baht					
The Company					
Dec 31, 2019			Dec 31, 2018		
Fair value through statement of income	Derivative hedging instruments	Amortized cost	Fair value through statement of income	Derivative hedging instruments	Amortized cost
-	-	742.39	-	-	1,026.66
-	-	9.00	-	-	13,207.55
-	-	8,711.15	-	-	9,514.72
-	-	-	-	-	15,120.70
-	-	93.36	-	-	185.92
362.65	-	-	91.08	220.95	-
-	-	11,414.02	-	-	11,422.08
362.65	-	20,969.92	91.08	220.95	50,477.63

## 38. Share Capital

As at December 31, 2019, the Company's registered capital consists of 3,969.98 million ordinary shares at Baht 1 per share, with a total of Baht 3,969.98 million. The details of the change in the issued and fully paid-up ordinary shares are as follows:

Ordinary shares issued and fully paid-up

Balance as at January 1, 2019

New ordinary shares issued during the year

Balance as at December 31, 2019

Unit: Million Shares

3,969.98

-

3,969.98

Unit: Million Shares

Ordinary shares issued and fully paid-up

Balance as at January 1, 2018

New ordinary shares issued during the year

Balance as at December 31, 2018

3,969.98

-

3,969.98

## 39. Legal Reserve

Balance as at January 1

Appropriation during the year

Balance as at December 31

Unit: Million US Dollar

Consolidated

2019

2018

15.05

15.05

-

15.05

Unit: Million Baht

Consolidated

2019

2018

397.00

397.00

-

397.00

Unit: Million US Dollar

The Company

2019

2018

15.05

15.05

-

15.05

Unit: Million Baht

The Company

2019

2018

397.00

397.00

-

397.00

Balance as at January 1

Appropriation during the year

Balance as at December 31

Under the Public Limited Company Act., B.E. 2535, the Company is required to set aside a legal reserve at least 5 % of its net profit until the reserve is not less than 10% percent of the registered capital. The legal reserve is non-distributable by the Company. The Company has fully set aside the legal reserve as required by the law.

**40. Expenses by Nature**

Significant expenses by nature of the Group which comprise the expenses based on its percentage of interest in each project for the years are as follows:

	Unit: Million US Dollar		Unit: Million Baht	
	Consolidated		Consolidated	
	2019	2018	2019	2018
Salary, wages and employees' benefits	281.55	195.32	8,756.21	6,311.70
Repair and maintenance	152.24	143.90	4,724.80	4,960.36
Exploration well and projects write-off	76.76	0.67	2,368.68	21.47
Geological and geophysical expenses	50.57	29.28	1,569.38	945.52
Logistic	120.51	128.01	3,740.07	4,134.15

	Unit: Million US Dollar		Unit: Million Baht	
	The Company		The Company	
	2019	2018	2019	2018
Salary, wages and employees' benefits	271.30	146.76	8,425.81	4,742.62
Repair and maintenance	69.97	67.80	2,171.57	2,189.64
Geological and geophysical expenses	0.25	-	7.70	-
Logistic	50.92	53.23	1,580.17	1,719.00

**41. Earnings per Share**

Basic earnings per share for the years are calculated as follows:

	Unit: US Dollar		Unit: Baht	
	Consolidated		Consolidated	
	2019	2018	2019	2018
Profit attributable to shareholders (Unit: Million)	1,569.06	1,119.61	48,802.54	36,206.29
<u>Less:</u> Interest expenses for subordinated capital debentures (Unit: Million)	(53.61)	(57.70)	(1,662.97)	(1,876.71)
Redemption of subordinated capital debentures (Unit: Million)	(23.59)	-	(716.29)	-
Income tax for subordinated capital debentures (Unit: Million)	3.07	4.75	94.44	154.78
Profit used to determine basic earnings per share (Unit: Million)	1,494.93	1,066.66	46,517.72	34,484.36
Weighted average number of ordinary shares outstanding during the year (million shares)	3,969.98	3,969.98	3,969.98	3,969.98
Basic earnings per share	0.38	0.27	11.72	8.69

	Unit: US Dollar		Unit: Baht	
	The Company		The Company	
	2019	2018	2019	2018
Profit attributable to shareholders (Unit: Million)	1,135.72	811.52	35,275.10	26,275.64
<u>Less:</u> Interest expenses for subordinated capital debentures (Unit: Million)	(13.63)	(17.40)	(422.13)	(564.10)
Redemption of subordinated capital debentures (Unit: Million)	(0.65)	-	(20.99)	-
Income tax for subordinated capital debentures (Unit: Million)	2.94	3.10	90.91	100.76
Profit used to determine basic earnings per share (Unit: Million)	1,124.38	797.22	34,922.89	25,812.30
Weighted average number of ordinary shares outstanding during the year (million shares)	3,969.98	3,969.98	3,969.98	3,969.98
Basic earnings per share	0.28	0.20	8.80	6.50

The Group has no potential dilutive ordinary shares in issue during the year, so no diluted earnings per share is presented.

## 42. Segment Information

Unit: Million US Dollar

Items	Consolidated financial statements for the year ended December 31, 2019										
	Exploration and production						Midstream	Pipeline	Others	Inter-company	Group's
	Thailand	Other Southeast Asia	Australia	America	Africa	Others	Middle East	Southeast Asia		elimination	Total business
Revenues - Third parties	275.73	721.58	-	0.41	-	52.95	11.55	116.40	-	-	1,178.62
- Related parties	4,280.74	636.66	-	-	66.79	-	-	320.61	-	(320.61)	4,984.19
Other revenues - Third parties	19.57	3.91	4.25	-	-	-	-	0.73	122.74	(110.06)	41.14
Interest income	0.82	2.38	0.07	0.01	11.98	0.07	-	0.22	0.11	(0.11)	15.55
Total Revenues	4,576.86	1,364.53	4.32	0.42	78.77	53.02	11.55	437.96	122.85	(430.78)	6,219.50
Operating expenses	486.49	536.00	-	0.35	12.99	10.95	6.30	21.32	10.90	(334.62)	750.68
Exploration expenses											
- Write-off of exploration assets	-	74.99	-	1.47	-	-	-	-	-	-	76.46
- Geological and geophysical	1.61	29.20	2.80	3.70	0.07	14.26	-	-	-	-	51.64
Administrative expenses	43.09	39.68	12.75	4.74	23.79	7.29	1.64	6.22	91.93	(97.58)	133.55
Petroleum royalties	527.57	18.76	-	-	-	-	-	-	-	-	546.33
Depreciation, depletion and amortization	1,511.06	423.09	0.09	0.12	29.94	13.47	1.02	30.78	2.25	(3.61)	2,008.21
(Gain) loss on foreign exchange	(39.64)	(31.26)	1.08	0.28	0.02	0.04		-	(0.58)	-	(70.06)
Finance costs	104.71	37.27	-	-	0.72	1.21	0.15	0.63	-	(18.20)	126.49
Share of (gain) loss of associates and joint ventures	-	-	2.16	-	-	-	-	-	(14.51)	-	(12.35)
Total Expenses	2,634.89	1,127.73	18.88	10.66	67.53	47.22	9.11	58.95	89.99	(454.01)	3,610.95
Segment profit (loss)	1,941.97	236.80	(14.56)	(10.24)	11.24	5.80	2.44	379.01	32.86	23.23	2,608.55
Depreciation - general											(17.84)
Administrative expenses - general											(250.23)
Operating profit											2,340.48
Other income, net											14.25
Interest income											70.68
Finance costs											(108.48)
Gain on foreign exchange											38.53
Loss on financial derivatives											(109.40)
Profit before income taxes											2,246.06
Income tax - Project	(706.09)	(104.73)	-	0.09	2.97	(21.29)	(1.43)	(87.36)	(4.94)		(922.78)
- Group											245.78
Net Profit (Loss)	1,235.88	132.07	(14.56)	(10.15)	14.21	(15.49)	1.01	291.65	27.92		1,569.06

Unit: Million US Dollar

Items	Consolidated financial statements as at December 31, 2019										
	Exploration and production						Midstream	Pipeline	Others	Inter-company elimination	Group's Total business
	Thailand	Other Southeast Asia	Australia	America	Africa	Others	Middle East	Southeast Asia			
<b>Assets</b>											
Segment assets	6,194.18	5,689.28	324.44	331.12	2,812.62	983.95	60.13	668.73	33.02		17,097.47
Investments under equity method	-	-	4.97	-	-	79.89	-	-	368.14		453.00
Unallocated assets											4,651.03
<b>Total assets</b>											<b>22,201.50</b>
<b>Liabilities</b>											
Segment liabilities	4,407.02	1,315.80	3.71	5.23	74.19	425.91	9.90	136.49	35.62		6,413.87
Unallocated liabilities											3,946.46
<b>Total liabilities</b>											<b>10,360.33</b>
Capital Expenditures	930.29	3,037.04	19.56	10.49	132.29	804.87	48.95	2.44	29.38		5,015.31

Unit: Million Baht

Items	Consolidated financial statements for the year ended December 31, 2019										
	Exploration and production						Midstream	Pipeline	Others	Inter-	Group's
	Thailand	Other Southeast Asia	Australia	America	Africa	Others	Middle East	Southeast Asia		company elimination	Total business
Revenues - Third parties	8,562.87	22,186.01	-	12.27	-	1,600.74	349.29	3,618.48	-	-	36,329.66
- Related parties	132,856.46	19,790.50	-	-	2,076.11	-	-	9,963.64	-	(9,963.64)	154,723.07
Other revenues - Third parties	605.13	120.86	130.10	-	-	0.09	-	22.85	3,804.18	(3,411.47)	1,271.74
Interest income	25.56	73.13	2.40	0.37	371.37	2.11	-	6.72	3.48	(3.47)	481.67
Total Revenues	142,050.02	42,170.50	132.50	12.64	2,447.48	1,602.94	349.29	13,611.69	3,807.66	(13,378.58)	192,806.14
Operating expenses	15,065.24	16,571.53	-	10.65	405.04	331.13	190.57	662.33	336.50	(10,398.29)	23,174.70
Exploration expenses											
- Write-off of exploration assets	(0.02)	2,313.83	-	45.94	-	-	-	-	-	-	2,359.75
- Geological and geophysical	49.60	900.23	85.74	114.34	2.27	438.81		-	-	-	1,590.99
Administrative expenses	1,336.57	1,226.96	396.85	147.89	728.52	222.04	49.45	192.89	2,850.59	(3,024.51)	4,127.25
Petroleum royalties	16,374.66	570.07	-	-	-	-	-	-	-	-	16,944.73
Depreciation, depletion and amortization	46,901.78	13,066.00	2.99	3.62	930.91	407.13	30.82	955.50	69.81	(111.56)	62,257.00
(Gain) loss on foreign exchange	(1,216.95)	(955.13)	33.51	8.62	0.62	1.15	0.06	(0.03)	(17.95)	-	(2,146.10)
Finance costs	3,254.80	1,153.56	-	(0.01)	22.51	36.56	4.43	19.58	-	(566.54)	3,924.89
Share of (gain) loss of associates and joint ventures	-	-	66.05	-	-	(0.01)	-	-	(446.46)	-	(380.42)
Total Expenses	81,765.68	34,847.05	585.14	331.05	2,089.87	1,436.81	275.33	1,830.27	2,792.49	(14,100.90)	111,852.79
Segment profit (loss)	60,284.34	7,323.45	(452.64)	(318.41)	357.61	166.13	73.96	11,781.42	1,015.17	722.32	80,953.35
Depreciation - general											(553.84)
Administrative expenses - general											(7,743.16)
Operating profit											72,656.35
Other income, net											441.27
Interest income											2,210.10
Finance costs											(3,365.75)
Gain on foreign exchange											1,218.06
Loss on financial derivatives											(3,405.79)
Profit before income taxes											69,754.24
Income tax - Project	(21,909.79)	(3,240.89)	-	2.67	92.46	(643.63)	(43.23)	(2,711.47)	(153.90)		(28,607.78)
- Group											7,656.08
Net Profit (Loss)	38,374.55	4,082.56	(452.64)	(315.74)	450.07	(477.50)	30.73	9,069.95	861.27		48,802.54

Unit: Million Baht

Items	Consolidated financial statements as at December 31, 2019										
	Exploration and production						Midstream	Pipeline	Others	Inter-company elimination	Group's Total business
	Thailand	Other Southeast Asia	Australia	America	Africa	Others	Middle East	Southeast Asia			
<b>Assets</b>											
Segment assets	186,779.22	171,554.53	9,783.19	9,984.71	84,811.69	29,669.96	1,813.20	20,164.91	995.59		515,557.00
Investments under equity method	-	-	149.90	-	-	2,408.86	-	-	11,100.89		13,659.65
Unallocated assets											140,247.36
<b>Total assets</b>											<b>669,464.01</b>
<b>Liabilities</b>											
Segment liabilities	132,889.12	39,676.75	112.01	157.60	2,237.25	12,842.77	298.64	4,115.60	1,074.16		193,403.90
Unallocated liabilities											119,001.39
<b>Total liabilities</b>											<b>312,405.29</b>
<b>Capital Expenditures</b>	<b>28,871.66</b>	<b>93,748.08</b>	<b>606.98</b>	<b>321.12</b>	<b>4,105.72</b>	<b>24,324.07</b>	<b>1,476.78</b>	<b>75.62</b>	<b>911.45</b>		<b>154,441.48</b>



Unit: Million US Dollar

Items	Consolidated financial statements for the year ended December 31, 2018								
	Exploration and production					Pipeline	Others	Inter-company elimination	Group's Total business
	Thailand	Other Southeast Asia	Australia	America	Africa	Southeast Asia			
Revenues - Third parties	303.65	357.68	-	-	-	107.56	-	-	768.89
- Related parties	3,745.36	596.39	143.80	-	55.93	288.81	-	(288.81)	4,541.48
Other revenues - Third parties	20.77	1.89	0.76	-	-	0.77	109.16	(95.07)	38.28
Interest income	0.69	0.37	0.23	-	-	0.12	0.06	(0.06)	1.41
Total Revenues	4,070.47	956.33	144.79	-	55.93	397.26	109.22	(383.94)	5,350.06
Operating expenses	435.98	392.63	70.17	-	13.76	20.43	7.61	(295.50)	645.08
Exploration expenses									
- Write-off of exploration assets	0.60	(0.08)	-	0.15	-	-	-	-	0.67
- Geological and geophysical	1.60	9.01	1.34	21.20	11.86	-	-	-	45.01
Administrative expenses	34.99	38.32	22.00	4.27	7.08	4.33	80.44	(85.25)	106.18
Petroleum royalties	469.66	-	-	-	-	-	-	-	469.66
Depreciation, depletion and amortization	1,371.23	339.72	62.82	0.01	25.98	30.62	2.31	(2.34)	1,830.35
(Gain) loss on foreign exchange	7.00	3.36	0.77	1.17	(0.25)	0.26	(0.72)	-	11.59
Other expenses	-	-	80.80	-	-	-	-	(23.03)	57.77
Finance costs	103.60	37.63	3.34	-	0.54	3.02	-	(38.45)	109.68
Share of gain of associates and joint ventures	-	-	(0.10)	-	-	-	(7.83)	-	(7.93)
Total Expenses	2,424.66	820.59	241.14	26.80	58.97	58.66	81.81	(444.57)	3,268.06
Segment profit (loss)	1,645.81	135.74	(96.35)	(26.80)	(3.04)	338.60	27.41	60.63	2,082.00
Depreciation - general									(18.16)
Administrative expenses - general									(184.05)
Operating profit									1,879.79
Other income, net									12.50
Interest income									81.94
Finance costs									(128.89)
Loss on foreign exchange									(7.04)
Gain on financial derivatives									13.97
Profit before income taxes									1,852.27
Income tax - Project	(572.77)	(76.96)	(54.90)	-	2.85	(108.38)	(3.83)		(813.99)
- Group									81.33
Net Profit (Loss)	1,073.04	58.78	(151.25)	(26.80)	(0.19)	230.22	23.58		1,119.61

Unit: Million US Dollar

Items	Consolidated financial statement as at December 31, 2018								
	Exploration and production					Pipeline	Others	Inter-company elimination	Group's Total business
	Thailand	Other Southeast Asia	Australia	America	Africa	Southeast Asia			
<b>Assets</b>									
Segment assets	7,011.03	2,529.36	391.64	319.47	2,597.20	706.06	34.82		13,589.58
Investments under equity method	-	-	7.14	-	-	-	230.07		237.21
Unallocated assets									5,657.33
<b>Total assets</b>									<b>19,484.12</b>
<b>Liabilities</b>									
Segment liabilities	4,500.68	332.93	38.18	4.09	42.34	118.44	29.42		5,066.08
Unallocated liabilities									2,412.64
<b>Total liabilities</b>									<b>7,478.72</b>
<b>Capital Expenditures</b>	<b>2,154.77</b>	<b>274.07</b>	<b>14.03</b>	<b>27.01</b>	<b>49.67</b>	<b>0.68</b>	<b>13.32</b>		<b>2,533.55</b>

Unit: Million Baht

Items	Consolidated financial statements for the year ended December 31, 2018								
	Exploration and production					Pipeline	Others	Inter-company elimination	Group's Total business
	Thailand	Other Southeast Asia	Australia	America	Africa	Southeast Asia			
Revenues - Third parties	9,814.29	11,552.96	-	-	-	3,481.65	-	-	24,848.90
- Related parties	121,250.42	19,286.71	4,619.92	-	1,803.20	9,337.87	-	(9,337.87)	146,960.25
Other revenues - Third parties	676.95	59.65	24.79	-	0.04	24.85	3,528.96	(3,071.66)	1,243.58
Interest income	22.29	11.98	7.41	0.10	-	4.04	2.07	(2.07)	45.82
Total Revenues	131,763.95	30,911.30	4,652.12	0.10	1,803.24	12,848.41	3,531.03	(12,411.60)	173,098.55
Operating expenses	14,107.19	12,690.18	2,259.15	-	443.94	659.57	247.66	(9,552.26)	20,855.43
Exploration expenses									
- Write-off of exploration assets	19.16	(2.73)	-	5.04	-	-	-	-	21.47
- Geological and geophysical	50.14	292.07	43.45	702.49	371.44	-	-	-	1,459.59
Administrative expenses	1,130.02	1,236.73	714.38	138.54	228.37	140.14	2,599.64	(2,753.28)	3,434.54
Petroleum royalties	15,204.94	-	-	-	-	-	-	-	15,204.94
Depreciation, depletion and amortization	44,409.76	10,971.34	2,015.59	0.35	837.13	989.57	74.83	(76.29)	59,222.28
(Gain) loss on foreign exchange	249.00	111.69	24.84	35.52	(7.88)	8.25	(22.87)	-	398.55
Other expenses	-	-	2,637.60	-	-	-	-	(751.37)	1,886.23
Finance costs	3,360.58	1,216.83	107.21	-	17.58	96.08	0.01	(1,241.83)	3,556.46
Share of (gain) loss of associates and joint ventures	-	-	(3.24)	-	-	-	(253.01)	-	(256.25)
Total Expenses	78,530.79	26,516.11	7,798.98	881.94	1,890.58	1,893.61	2,646.26	(14,375.03)	105,783.24
Segment profit (loss)	53,233.16	4,395.19	(3,146.86)	(881.84)	(87.34)	10,954.80	884.77	1,963.43	67,315.31
Depreciation - general									(586.73)
Administrative expenses - general									(5,970.02)
Operating profit									60,758.56
Other income, net									403.53
Interest income									2,645.53
Finance costs									(4,150.66)
Loss on foreign exchange									(225.68)
Gain on financial derivatives									539.30
Profit before income taxes									59,970.58
Income tax - Project	(18,532.58)	(2,483.43)	(1,792.70)	-	89.48	(3,532.25)	(123.59)		(26,375.07)
- Group									2,610.78
Net Profit (Loss)	34,700.58	1,911.76	(4,939.56)	(881.84)	2.14	7,422.55	761.18		36,206.29

Unit: Million Baht

Items	Consolidated financial statements as at December 31, 2018								
	Exploration and production					Pipeline	Others	Inter-company elimination	Group's Total business
	Thailand	Other Southeast Asia	Australia	America	Africa	Southeast Asia			
<b>Assets</b>									
Segment assets	227,506.86	82,077.26	12,708.72	10,366.86	84,278.68	22,911.44	1,129.75		440,979.57
Investments under equity method	-	-	231.54	-	-	-	7,465.84		7,697.38
Unallocated assets									183,579.52
<b>Total assets</b>									<b>632,256.47</b>
<b>Liabilities</b>									
Segment liabilities	146,046.31	10,803.65	1,238.76	132.70	1,373.98	3,843.33	954.78		164,393.51
Unallocated liabilities									78,289.76
<b>Total liabilities</b>									<b>242,683.27</b>
<b>Capital Expenditures</b>	<b>70,416.42</b>	<b>8,851.08</b>	<b>452.98</b>	<b>872.40</b>	<b>1,604.19</b>	<b>22.05</b>	<b>430.00</b>		<b>82,649.12</b>

The Group is organized into the following business segments:

- Exploration and production: The Group operates in oil and gas exploration and production both domestically and overseas, either as an operator or as a joint venture partner with international oil and gas companies. Most domestic projects are located in the Gulf of Thailand. Overseas projects are located in Southeast Asia, Australia, America, Africa and others.
- Overseas pipelines: The Group has investments with its joint venture partners to operate pipelines to transport natural gas from the exploration and production projects where the Group has working interests i.e., Yadana, Yetagun and Zawtika projects.
- Midstream oil and gas: The Group and partners jointly operate in gas processing business which processes natural gas into other petroleum products.
- The Group's other operations consist mainly of investments in projects strategically connected to the energy business and other operations. These do not constitute a separately reportable segment.

#### 43. Risk Management

The Group exposes to various risks from its business and operation as follows:

##### Market Risk

Market risk is the situation whereby changes in commodity prices, interest rates, and foreign exchange rates may positively or adversely impact the Group's revenues, cash flows, assets, and liabilities.

The Group uses various financial instruments for the purpose of managing the risk exposure on the fluctuation in the commodity prices, interest rates and foreign exchange rates.

##### ■ Price Risk

The Group's product prices vary with those of world oil prices, which are subject to various factors beyond its control, for instance, market demand and supply, political and economic stability of various countries, OPEC's production policy, oil reserves in each country and the seasonal changes of the global climate.

Fluctuations in world oil prices directly affect the prices of the Group's crude oil and condensate. However, because of built-in natural gas pricing mechanisms found in the Gas Sale Agreement (GSA) which cushion natural gas prices from oil prices volatility (Natural Hedge), when the reference oil prices change, the typical prices of natural gas, which is the main product of the Groups, do change in the same direction. Most of the Group's contractual natural gas prices are adjusted every 6 or 12 months depending on the gas price formula of each project, the natural gas price will move correspondingly to a certain degree compared to the prices of crude oil and condensate.

In 2019, average Dubai crude oil price decreased from prior year while the crude oil price has continued to increase from the beginning of the year and rised to its highest level in April at US Dollar 74 per barrel

as a result of positive factors from the geopolitical tensions in the Middle East which cause the reduction of crude oil supply. However, according to the concern on global economic and the unresolved trade war between the United States of America and China, this resulted in a decrease and maintain of the oil price in the second half of 2019 at the level of approximately US Dollar 60 per barrel. Meanwhile, OPEC and other non-OPEC countries attempted to support oil price by continuously reduced crude oil production volume. According to the meeting in December 2019, major oil produces have a deal to cut down production by 0.5 million barrel per day from 1.2 million barrel per day, bringing the total curtailment of approximately 1.7 million barrel per day. The reduction will be extended to March 2020. The average Dubai crude oil price for the year is approximately US Dollar 63.5 per barrel.

The Group has managed the oil price risk by analyzing the impact of the level of oil price changes to revenue and net profit of the Group annually. The risk mitigation plan is reviewed by the Risk Management Committee and the Board of Directors in order to be used as the Group's operation framework.

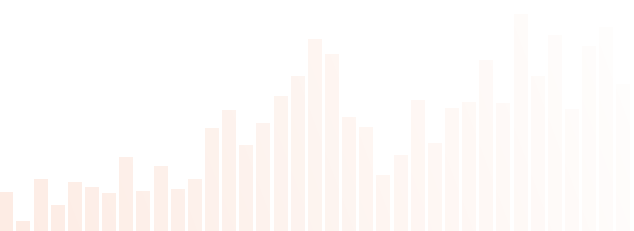
As at December 31, 2019, the Group entered into oil price hedging derivatives for the year 2020 totaling 15.79 million barrels.

#### ■ Inflation Rate Risk

The Group is exposed to the risk from changes in interest rate that will affect future cash flows and fair values of financial instruments. Some of the Group's debts are subject to floating interest rates, resulting in a higher interest expense if the market interest rates increase. In order to manage the interest rate risk, the Group has a policy to maintain a proper proportion between fixed interest rate debts and floating interest rate debts and to use the financial instruments, such as interest rate swap to swap from floating interest rate to fixed interest rate. The Group also considers costs, market conditions, and acceptable risk before entering into the financial instrument to prevent interest rate risk.

As at December 31, 2019, the Group has a proportion of float interest rate debt at 18% of total debt after entering into the interest rate swaps (in 2018, all debts were fixed interest rate debts after entering into the interest rate swaps). The weighted average interest rates of total debts was 4.41% per annum (in 2018, it was 5.32% per annum).

The changes in the Group's interest rates on borrowing as at January 1, 2020, if the floating interest rate on debt increased by 1% per annum, the profit before income taxes would decrease by approximately US Dollars 6.10 million (in 2019, no impact on the Group's profit before income taxes for the year 2019 since all debts are fixed interest rate debts after entering into the interest rate swaps). The calculation of the effect from the changes in the interest rate is based on the assumption that there is no changes in the principal amount, the debts portion, and all interest rates until December 31, 2020. However, the effect on the Group's profit before income taxes from the above analysis does not consider the effect from the changes in economic conditions, which may affect the increase or decrease of the interest rate.



■ **Foreign Exchange Rate Risk**

The vast majority of the Group's domestic and overseas business (revenues and expenses) are in US Dollar and the Group has determined the US Dollar as the functional currency by considering from revenue and operating expenses used in the primary economic environment in which the entity operates. The Group is exposed to the exchange rate risks from transactions which are denominated in currencies that are not the Group's functional currency.

The Group is aware of the risks surrounding financial assets and liabilities denominated in foreign currencies. As a result, the Group has a policy of asset and liability management by which the structure and features of transactions regarding assets, liabilities and equity are aligned with each other. In addition, the Group has considered managing foreign exchange rate risk with financial derivatives together with the costs, consideration yields and risks arising in each interval.

The Group's profit before income taxes is sensitive to changes in foreign currency that impacts net monetary assets and liabilities denominated in currencies other than functional currency. If as at December 31, 2019 and 2018, the other currencies had fluctuated 10% against the functional currency, the possible changes to the Group's profit before income taxes are as follows:

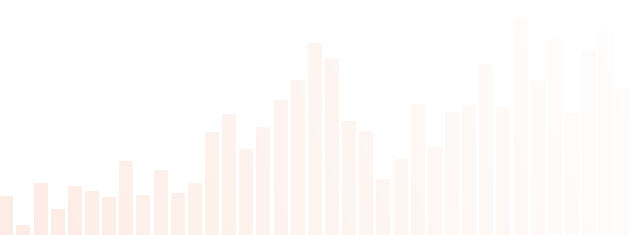
Unit: Million US Dollar	
Baht to US Dollar	Consolidated
	Exposure of asset and liability position to the exchange rate
For the year ended December 31, 2019	
Profit before income taxes decrease (10% US Dollar appreciation)	(19)
Profit before income taxes increase (10% US Dollar depreciation)	19
For the year ended December 31, 2018	
Profit before income taxes increase (10% US Dollar appreciation)	8
Profit before income taxes decrease (10% US Dollar depreciation)	(8)

## ■ Credit Risk

The Group's policy to manage its credit risk is to enter into transactions with the customers who have good credit profiles. The majority of sales is made with PTT Public Company Limited, the parent company. In addition, the Group carefully assesses and regularly reviews the credit profiles of its customers.

The Group places deposits with the banks which are rated at investment grade level. The Group regularly assesses credit quality and stability of these banks by taking into account of their credit rating, investment portfolio, and other financial ratios which demonstrate their performance and the ability to control their business risks, such as debt to deposit ratio, non-performing loan to total loan ratio. These factors are used to manage risks and to consider the amount of bank deposit limit in order to ensure that deposits are well-diversified and to avoid concentration risks with individual bank together with the consideration yields and acceptable risk in each time interval.

Before entering into financial derivative contracts, the Group has assessed the financial position and credit worthiness, including setting up credit exposure limit, of counterparty bank in the same way as when the Group assesses banks before placing deposit as described above. Currently all banks in which the Group has entered into financial derivative contracts are rated at investment grade level. In addition, the Group has adjusted, based on the timing and type of transactions, the outstanding balance of each derivative financial instrument made with banks to reflect the risk-adjusted exposure and has diversified transactions to avoid concentration risks with individual bank together with the costs, consideration yields and risks arising in each interval. The Group's maximum exposure to credit risks is the fair value of financial assets.





**Liquidity Risk**

Liquidity risk is the risk that suitable sources of funding for the Group's business activities may not be available. The Group's contractual maturity of liabilities and interest, including the derivative contracts are as follows:

	Unit: Million US Dollar				
	Within 1 year	Over 1 year but not exceeding 3 years	Over 3 years but not exceeding 5 years	Over 5 years	Total
Trade accounts payable and working capital to co-venturers	119.50	-	-	-	119.50
Accrued expenses	749.65	-	-	-	749.65
Other current liabilities	66.03	-	-	-	66.03
Deferred considerations acquired through business acquisition	-	5.79	1.31	-	7.10
Consideration paid for participating interest in joint venture	-	51.86	-	-	51.86
Loan from financial institutions with floating rate					
Principal	-	-	600.00	-	600.00
Interest paid *	17.31	35.65	35.69	-	88.65
Debentures with fixed interest rate					
Principal	-	1,197.45	-	1,518.06	2,715.51
Interest paid*	114.55	169.34	149.41	1,514.45	1,947.75
Cash outflow from foreign currency and interest rate swap **	31.30	535.70	35.36	428.53	1,030.89
Cash inflow from foreign currency and interest rate swap **	29.55	550.80	36.49	460.09	1,076.93
Cash outflow from forward foreign exchange **	1,494.63	-	-	-	1,494.63
Cash inflow from forward foreign exchange **	1,483.45	-	-	-	1,483.45

The major assumptions for the data presented in the table above are that all the interest expenses are calculated based on the nominal interest rate and there is no change in aggregate principal amounts of loans other than repayment at scheduled maturity.

- Thai Baht liabilities were equivalent to US Dollar at the weighted average exchange rate between weighted average buying and selling rates announced by the Bank of Thailand on December 30, 2019 at Baht 30.154 per US Dollar.

\* Interest paid represents the interest payment due within year.

\*\*The Group enters into derivative contracts whose cash inflow and cash outflow are not qualified for the net settlement, therefore the Group separates cash inflow from cash receipt and cash outflow from cash payment for each type of derivative contract.

The Group manages its liquidity risks by preparing cash flow forecasts and adjusting financial forecasts on a regular basis, entering into financing program, issuing short-term debt securities in order to access Thailand's capital market, as well as entering into short-term credit facilities with commercial banks with the interest rate agreed in advance.

The outstanding principal amount and undrawn facilities are summarized below:

	Unit: Million US Dollar	
	Credit limit	Undrawn amount
Short-term committed bank credit facility	265.30	265.30
Short-term uncommitted bank credit facility	480.33	480.33

Thai Baht credit facility is translated to US Dollar using the weighted average exchange rate between weighted average buying and selling rates announced by the Bank of Thailand on December 30, 2019 at Baht 30.154 per US Dollar.

The Company's International Credit Rating is comparable with the Sovereign Rating of Thailand and the National Credit Rating is at the AAA. As a result, the Company can access to the source of fund for the long-term loan at the interest rate approximate the market interest rate. For the years 2019 and 2018, the Company's credit ratings as assigned by prominent credit rating agencies are as follows:

Rating Agency	2019		2018	
	Foreign	Domestic	Foreign	Domestic
	Currency	Currency	Currency	Currency
Moody's	Baa1	Baa1	Baa1	Baa1
Standard and Poor's	BBB+	BBB+	BBB+	BBB+
Fitch Ratings	BBB+	-	-	-
TRIS Rating (National Rating)	-	AAA	-	AAA

**44. Dividends**

On March 29, 2019, the Annual General Meeting of the Shareholders approved payment of a dividend for the year 2018 of Baht 5.00 per share. The Company made an interim dividend payment for the first half-year operations of 2018 at the rate of Baht 1.75 per share on August 24, 2018 and for the second half-year operations of 2018 at the rate of Baht 3.25 per share on April 11, 2019.

The Company estimated the dividend to its shareholders for the year 2019 at Baht 6 per share. The Company made an interim dividend payment for the first half-year operations of 2019 at the rate of Baht 2.25 per share on August 23, 2019. The remaining dividend for the second half-year operations of 2019 at the rate of Baht 3.75 per share will be paid upon approval by the Annual General Meeting of the Shareholders.

**45. Commitments and Contingent Liabilities**

- Commitment under operating leases – the Group as a lessee

The future minimum lease payments for the non-cancellable operating leases are as follows:

	Unit: Million US Dollar		Unit: Million Baht	
	Consolidated		Consolidated	
	Dec 31, 2019	Dec 31, 2018	Dec 31, 2019	Dec 31, 2018
Within 1 year	72.44	20.22	2,184.42	656.25
Over 1 year but not exceeding 5 years	81.49	41.00	2,456.70	1,330.37
Over 5 years	7.86	18.08	236.64	586.55
Total	161.79	79.30	4,877.76	2,573.17

	Unit: Million US Dollar		Unit: Million Baht	
	The Company		The Company	
	Dec 31, 2019	Dec 31, 2018	Dec 31, 2019	Dec 31, 2018
Within 1 year	5.14	7.23	154.95	234.50
Over 1 year but not exceeding 5 years	5.28	1.71	156.98	55.75
Over 5 years	1.22	-	36.64	-
Total	11.64	8.94	350.57	290.25

■ Commitment from loan agreements

- The Company has a subordinated loan agreement with Energy Complex Company Limited (Energy Complex), with the loan limit of Baht 1,250 million. The agreement shall continue for 13 years and 6 months effective from April 2, 2009. The total value of loans provided to Energy Complex as at December 31, 2019 was US Dollar 19.24 million (Baht 580 million).

■ Commitment from the guarantee of debentures and subordinated capital debentures of subsidiaries

- The Company has commitment for the guarantee of unsecured and unsubordinated capital debenture of US Dollar 490 million and US Dollar 700 million for PTTEP Canada International Finance Limited (PTTEP CIF).
- The Company has commitment for the guarantee of unsecured and unsubordinated capital debentures of Baht 15,000 million and US Dollar 650 million for PTTEP Treasury Center Company Limited (PTTEP TC)
- The Company has commitment for the guarantee of subordinated capital debentures of US Dollar 30.85 million for PTTEP TC.
- The Company has commitment for the guarantee of unsecured and unsubordinated loans of US Dollar 600 million for PTTEP TC.
- The Company has commitment from entering into guarantee of a Cross Currency Swap transaction for PTTEP TC to swap Baht debenture for US Dollar with guaranteed amount of US Dollar 360 million.

■ Obligation under Gas Sale Agreement

According to the Gas Sales Agreement (GSA) of MTJDA B-17 Project, if PTTEP International Limited (PTTEPI) and the joint operation partner, as the sellers, fail to deliver the quantity of natural gas notified by the buyer on the agreed upon date, the buyer has the right to take the deficient quantity of natural gas (Shortfall) at a price equal to 75% of the current price applicable at the time the Shortfall occurred.

As at December 31, 2019, PTTEPI had an obligation for the Shortfall as per GSA mentioned above with the approximate total cost for PTTEPI of US Dollar 0.24 million (Baht 7.24 million). Currently, the negotiation between the buyer (PTT) and the seller is in process.

■ Contingent liabilities

- 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 Montara oil spill incident in the Timor Sea in 2009. 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 to defend against the claim. Currently, the case is under the court determination.

The Company considers that the claim from the representative of West Timorese seaweed farmers related to Montara oil spill incident remains unproven due to insufficient evidence to support the claim.

- The Indonesia Tax Office (ITO) issued a letter to Natuna 2 B.V., a joint operation of the Group, to assess for Transfer Tax (TT) and Branch Profit Tax (BPT) on Share Purchase Agreement of Natuna 2 B.V. in 2013, between PTTEP Netherlands Holding Cooperatie U.A., and Pertamina Hulu Energi Oil and Gas, as buyers, and HESS (Luxembourg) Exploration and Production Holding S.A.R.L., as a seller. The total amount of assessed TT, BPT and applicable penalty was approximately US Dollar 119.80 million in which US Dollar 59.90 million was the Group's proportion.

In February 2016, Natuna 2 B.V. made an advance payment for all to assessed tax and penalty to prevent additional penalty that may arise during the appeal, together with a submission of the objection of ITO's tax assessment. In 2017, ITO rejected the objection and Natuna 2 B.V. brought the case to the tax court of Indonesia to object ITO's order and tax assessment.

Subsequently, the tax court judged that Natuna 2 B.V. won the case which resulted in recovering the full amount of advance payment in the first quarter of 2019. However, the ITO has appealed against the tax court's judgment to the Supreme Court of Indonesia while Natuna 2 B.V. has submitted the argument letter. Currently, the case is under the court determination and will be finalized when it is judged by the Supreme Court.

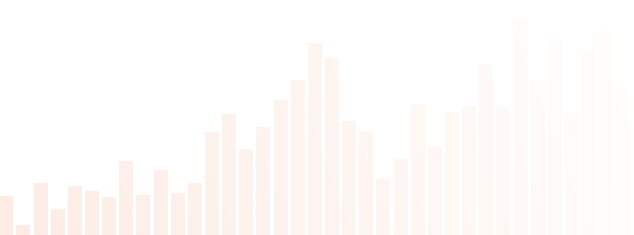
- As at December 31, 2019, the Company had contingent liabilities in the form of letters of guarantee amounting to US Dollar 275.21 million (Baht 8,298.75 million) for the Company's financial statements and US Dollar 383.54 million (Baht 11,565.17 million) for the consolidated financial statements.

#### 46. Events after the Reporting Date

- On January 10, 2020, PTTEP Treasury Center Company Limited (PTTEP TC) has repurchased the subordinated capital debentures in the all of outstanding debentures at the amount of US Dollar 30.85 million.
- On January 15, 2020, PTTEP Canada International Finance Limited (PTTEP CIF) has repurchased the unsecured and unsubordinated capital debentures in the amount of US Dollar 220 million from totalling amount of US Dollar 700 million. The remaining of debentures after redemption has the amount of US Dollar 480 million. PTTEP CIF will exercise its Optional Redemption rights for the remaining debentures in accordance with the terms and conditions of the debentures.
- On January 15, 2020, PTTEP Treasury Center Company Limited (PTTEP TC) has issued and offered the 10-year unsecured and unsubordinated debentures in the amount of US Dollar 350 million with a fixed interest rate of 2.993% per annum, guaranteed by the Company.

- On February 12, 2020, PTTEP Energy Holding (Thailand) Company Limited (PTTEP EH), a subsidiary of the Group, increased its authorized share capital by Baht 726,795,600 by issuing of 7,267,956 newly issued ordinary shares, at the par value of Baht 100 each.
- On February 13, 2020, PTTEP Business Center Company Limited (PTTEP BC), a subsidiary of the Group, increased its authorized share capital by Baht 726,795,600 by issuing of 72,679,560 newly issued ordinary shares, at the par value of Baht 10 each.
- On February 18, 2020, PTTEP MENA Limited (PTTEP MENA), a subsidiary of the Group, increased its authorized share capital by US Dollar 24,000,000 by increasing its par value per share to US Dollar 82,000.
- The Company's Board of Directors authorized for the issue of this financial statements on February 18, 2020.

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## Supplemental Information on Petroleum Exploration and Production Activities (Unaudited)

### (A) PTTEP and Our Subsidiaries' Petroleum Reserves Report as of December 31, 2019

The total Proved Reserves of PTTEP and our subsidiaries as of December 31, 2019 are shown in the attached table. The Proved Reserves are reviewed annually by Company's earth scientists and reservoir engineers to ensure rigorous professional standards. The Proved Reserves are reported on a gross basis, which includes the Company's net working interest and related host country's interest.

Furthermore, in order to improve efficiency, check and balance of the reserves estimation, reporting and disclosure, the company maintains a Reserves Committee which has the following roles and responsibilities:

- Review and endorse the Company's Annual Reserves
- Review and approve Major Changes of Reserves, and Reserves for Newly-Acquired Project
- Ensure that all activities that related to reserves estimation and disclosure of reserves information conform to regulatory and legal requirements as well as to corporate and international standards
- Approve Annual Reserves Audit Plan, appoint Reserves Auditor, as well as approve Reserves Audit Report to ensure compliance with Company's framework and continual process improvement

As of December 31, 2019, the total amount of Proved Reserves of PTTEP Group's projects<sup>1</sup> was 310 million stock-tank barrels (MMSTB) of crude oil and condensate<sup>2</sup>, and 5,097 billion standard cubic feet (BSCF) of natural gas or 830 million barrels of oil equivalent (MMBOE). The total amount of Proved Reserves in terms of oil equivalent in consolidation was therefore 1,140 MMBOE. Proved Reserves of crude and condensate are approximately 27% while, for gas, are 73% of the total Proved Reserves in terms of oil equivalent.

In 2019, the total production of PTTEP Group<sup>1</sup> was 151 MMBOE, consisting of 41 MMSTB of crude oil and condensate<sup>2</sup> and 690 BSCF or 110 MMBOE of natural gas. This was equivalent to the production rate of approximately 413,640 barrels of oil equivalent per day (BOED), which was approximately 54,255 BOED or 15.1% increase from the previous year. The increase was mainly due to the acquisition of Murphy Oil Corporation in Malaysia and Partex Holding B.V.

<sup>1</sup> Include APICO Joint Venture project

<sup>2</sup> Include the proved reserves and production of LPG

PTT Exploration and Production Public Company Limited

Crude Oil and Condensate and Natural Gas Proved Reserves <sup>(1)</sup>

	Crude Oil and Condensate <sup>(2)</sup>			Natural Gas			Barrel of Oil Equivalent		
	(MMSTB)			(BSCF)			(MMBOE)		
	Domestic	Foreign	Total	Domestic	Foreign	Total	Domestic	Foreign	Total
Company's share of reserves of consolidated companies									
As of December 31, 2017	99	57	156	1,824	1,225	3,049	398	233	631
1) Revision of previous estimates	19	5	24	108	51	159	36	14	50
2) Improved recovery	5	0	5	57	13	70	14	2	16
3) Extensions and discoveries	14	1	15	368	3	371	72	1	73
4) Purchases/Sales of Petroleum in place	6	(8)	(2)	249	-	249	47	(9)	38
5) Production	(27)	(7)	(34)	(425)	(187)	(612)	(97)	(34)	(131)
As of December 31, 2018	116	48	164	2,181	1,105	3,286	470	207	677
Company's share of reserves of consolidated companies									
As of December 31, 2018	116	48	164	2,181	1,105	3,286	470	207	677
1) Revision of previous estimates	13	(1)	12	160	(53)	107	41	(4)	37
2) Improved recovery	1	0	1	1	1	2	2	1	3
3) Extensions and discoveries	2	45	47	21	954	975	5	207	212
4) Purchases/Sales of Petroleum in place	21	106	127	816	582	1,398	153	206	359
5) Production	(30)	(11)	(41)	(475)	(212)	(687)	(107)	(43)	(150)
Company's share of Reserves of equity companies <sup>(3)</sup>	0	-	0	16	-	16	2	-	2
As of December 31, 2019	123	187	310	2,720	2,377	5,097	566	574	1,140

(1) The Proved Reserves are reported on a gross basis which includes the Company's net working interest and the related host country's interest.

(2) LPG Included

(3) Included Reserves from APICO Joint Venture project



**(B) Capitalized Costs Relating to Oil and Gas Producing Activities**

Capitalized costs represent cumulative expenditures for proved and unproved properties together with related accumulated depreciation, depletion, amortization and allowance for impairment.

Proved properties include exploration wells, development wells, transportation pipeline, producing facilities and decommissioning costs. Unproved properties represent amounts associated with capitalized cost of projects which have not yet found proved reserves.

(Unit: Million US Dollar)	2019	2018
Proved properties	31,152	26,731
Unproved properties	<u>4,366</u>	<u>4,715</u>
Gross capitalized costs	35,518	31,446
Accumulated depreciation, depletion, amortization and allowance for impairment	<u>(22,277)</u>	<u>(20,218)</u>
Net capitalized costs	<u>13,241</u>	<u>11,228</u>

**(C) Costs Incurred in Oil and Gas Property Acquisition, Exploration, and Development Activities**

Costs incurred in oil and gas property acquisition, exploration and development activities represent amounts both capitalized and charged to expense during the year.

Property acquisition costs include costs to purchase proved and unproved properties.

Exploration costs include geological and geophysical expenses, exploratory drilling cost as well as reservation fee for exploration blocks.

Development costs include costs associated with drilling and equipping development wells, improved recovery systems, facilities for extraction, treating, gathering and storage, producing facilities for existing developed reserves, and costs associated with transportation pipeline.

(Unit: Million US Dollar)	2019			2018		
	Domestic	Foreign	Total	Domestic	Foreign	Total
Acquisition of properties						
- Proved	60	2,580	2,640	1,314	-	1,314
- Unproved	-	22	22	-	26	26
Exploration costs	5	210	215	1	75	76
Development costs	<u>594</u>	<u>354</u>	<u>948</u>	<u>718</u>	<u>273</u>	<u>991</u>
Total	<u>659</u>	<u>3,166</u>	<u>3,825</u>	<u>2,033</u>	<u>374</u>	<u>2,407</u>

**(D) Results of operations for producing activities**

Results of operations from oil and gas producing activities for the year 2019 and 2018 are shown in the following table.

Operating expenses include lifting costs incurred to operate and maintain productive wells and related equipment.

Exploration expenses consist of geological and geophysical costs, and exploratory well write off expenses.

General administrative expenses are expenses directly related to oil and gas producing activities.

Depreciation, depletion and amortization expenses relates to capitalized costs incurred in acquisition, exploration and development activities, transportation pipeline, including amortized decommissioning costs.

Other expenses (income) mainly include impairment loss on assets, foreign exchange gains and losses directly related to oil and gas producing activities and other income.

Income tax expenses are based on the results of operations from petroleum producing activities.

General corporate overhead and finance costs are excluded from the results of operations for petroleum producing activities.

(Unit: Million US Dollar)	2019			2018		
	Domestic	Foreign	Total	Domestic	Foreign	Total
<b>Gross revenues</b>						
Sales – Related parties	4,281	1,024	5,305	3,745	1,085	4,830
Sales – Third parties	276	891	1,167	304	465	769
<b>Total sales</b>	<b>4,557</b>	<b>1,915</b>	<b>6,472</b>	<b>4,049</b>	<b>1,550</b>	<b>5,599</b>
<b>Expenses</b>						
Operating expenses	486	582	1,068	436	497	933
Exploration expenses	2	127	129	2	43	45
General administrative expenses	43	94	137	35	76	111
Petroleum royalties	528	19	547	470	-	470
Depreciation, depletion and amortization	1,511	497	2,008	1,371	459	1,830
Other (income) / expenses	(59)	(37)	(96)	(14)	83	69
<b>Total expenses</b>	<b>2,511</b>	<b>1,282</b>	<b>3,793</b>	<b>2,300</b>	<b>1,158</b>	<b>3,458</b>
<b>Results before income taxes</b>	<b>2,046</b>	<b>633</b>	<b>2,679</b>	<b>1,749</b>	<b>392</b>	<b>2,141</b>
Income tax expenses	706	210	916	573	237	810
<b>Net results of operations</b>	<b>1,340</b>	<b>423</b>	<b>1,763</b>	<b>1,176</b>	<b>155</b>	<b>1,331</b>

**(E) Standardized Measure of Discounted Future Net Cash Flows (SMDCF) Relating to the Proved Oil and Gas Reserves**

The standardized measure of discounted future net cash flows related to the above proved oil and gas reserves, is computed by applying 12-month average prices\* (with consideration of price changes only to the extent provided by contractual arrangements), to the estimated future production of year-end remaining proved oil and gas reserves less estimated future expenditures (based on year-end costs) to be incurred in developing and producing the proved reserves.

Future income taxes are calculated by applying the appropriate year-end statutory tax rates to the future pre-tax net cash flows and deducted by applicable tax deductions or tax credits.

Net Cash flows are discounted using a rate of 10% per year to reflect the estimated timing of the future cash flows.

The estimation of discounted future net cash flow shown below is not intended to represent the fair value of oil and gas properties. The fair value should take into account of several factors, such as probable and possible reserves which may turn into proved reserves in the future, anticipated future oil and gas prices, interest rates, changes in development and production costs and risks associated with future production. Therefore the fair value will subject to the view and perception of analyst.

\* Twelve-month average prices are calculated as the unweighted arithmetic average of the first-day-of-the-month price for each month.

Standardized Measure of Discounted Future Net Cash Flows Relating to Prove Oil and Gas Reserves

(Unit: Million US Dollar)	Domestic		Foreign		Total	
	2019	2018	2019	2018	2019	2018
Future cash inflows	17,902	16,164	20,025	6,759	37,927	22,923
Future production costs	(2,784)	(2,660)	(4,946)	(1,251)	(7,730)	(3,911)
Future development costs	(7,548)	(6,048)	(3,682)	(933)	(11,230)	(6,981)
Future income tax expenses	(2,174)	(2,288)	(3,186)	(945)	(5,360)	(3,233)
<b>Future net cash flows</b>	<b>5,396</b>	<b>5,168</b>	<b>8,211</b>	<b>3,630</b>	<b>13,607</b>	<b>8,798</b>
10% annual discount	(1,091)	(818)	(4,039)	(1,169)	(5,130)	(1,987)
<b>Standardized measure of discounted future net cash flows (SMDCF) of consolidated companies</b>	<b>4,305</b>	<b>4,350</b>	<b>4,172</b>	<b>2,461</b>	<b>8,477</b>	<b>6,811</b>
SMDCF of equity companies <sup>3</sup>	37	-	-	-	37	-
<b>Total SMDCF</b>	<b><u>4,342</u></b>	<b><u>4,350</u></b>	<b><u>4,172</u></b>	<b><u>2,461</u></b>	<b><u>8,514</u></b>	<b><u>6,811</u></b>

Changes in Standardized Measure of Discounted Future Net Cash Flows Relating to Proved Oil and Gas Reserves

(Unit: Million US Dollar)	2019	2018
Present value at beginning of year of consolidated companies	6,811	5,399
Sales and transfers of oil and gas produced, net of production costs during period	(4,652)	(3,767)
Development costs incurred during the period	960	1,145
Net changes in prices and production costs	2,197	3,216
Net changes in development costs	(112)	(564)
Extensions, discoveries and improved recovery	4,414	1,412
Revisions of previous quantity estimates	415	579
Purchases / sales of petroleum in place	3,714	1,225
Accretions of discount	(3,143)	(1,045)
Net changes in income taxes	<u>(2,127)</u>	<u>(789)</u>
<b>Present value at the year end of consolidated companies</b>	<b>8,477</b>	<b>6,811</b>
Present value at the year end of equity company <sup>3</sup>	<u>37</u>	-
<b>Total Present value at the year end</b>	<b><u>8,514</u></b>	<b><u>6,811</u></b>

<sup>3</sup> included investment in APICO Joint Venture project

**(F) Other Information****Productive Oil/Condensate and Gas Wells**

The numbers of productive wells at December 31, 2019 were as follows:

	Oil/Condensate	Gas
	Gross	Gross
Thailand	865	1,205
Foreign		
Southeast Asia	129	286
Others	9,315	-
Total	10,309	1,491

**Drilling in Progress of Oil/Condensate and Gas Wells**

The numbers of wells in progress at December 31, 2019 were as follows:

	Number of Well
<u>Exploratory</u>	
Thailand	-
Foreign	
Southeast Asia	1
Others	-
Total	1
<u>Development</u>	
Thailand	16
Foreign	
Southeast Asia	2
Others	1
Total	19

## Net Oil/Condensate and Gas Wells Drilled Annually in 2019

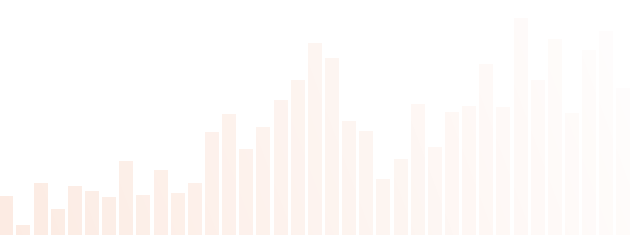
	Productive Well	Dry Well
<u>Exploratory</u>		
Thailand	-	-
Foreign		
Southeast Asia	8	8
Others	1	1
Total	9	9
<u>Development</u>		
Thailand	342	12
Foreign		
Southeast Asia	43	1
Others	-	-
Total	385	13

Quarterly Information in 2019 and 2018 for the consolidated financial statement are as follows:

	Unit: US Dollar			
<u>Year 2019</u>	<u>4thQ</u>	<u>3rdQ</u>	<u>2ndQ</u>	<u>1stQ</u>
<b>Revenues</b>				
Sales	1,754,900,631	1,494,389,633	1,469,499,654	1,327,626,240
Revenue from pipeline transportation	25,211,924	29,453,709	33,441,021	28,289,483
Other income				
Gain on foreign exchange	29,442,854	19,975,173	26,449,713	32,729,790
Interest income	13,597,516	12,741,830	32,807,784	27,087,691
Gain on financial derivatives	-	21,347,992	-	-
Other income	16,929,538	15,382,313	10,407,629	12,671,171
Total Revenues	<b>1,840,082,463</b>	<b>1,593,290,650</b>	<b>1,572,605,801</b>	<b>1,428,404,375</b>
<b>Expenses</b>				
Operating expenses	280,742,698	181,382,444	153,473,481	135,083,704
Exploration expenses	27,496,976	59,091,981	33,006,988	8,502,045
Administrative expenses	132,383,175	93,950,863	92,580,760	64,861,714
Petroleum royalties	151,527,598	135,608,689	137,138,703	122,059,219
Depreciation, depletion and amortization	577,988,263	511,721,459	476,953,188	459,392,677
Other expenses				
Loss on financial derivatives	41,020,245	-	7,709,075	82,018,396
Finance costs	62,434,355	59,800,813	55,684,491	57,059,082
Total Expenses	<b>1,273,593,310</b>	<b>1,041,556,249</b>	<b>956,546,686</b>	<b>928,976,837</b>
Share of profit of associates and joint ventures	6,303,945	802,183	2,518,049	2,727,662
<b>Profit before income taxes</b>	<b>572,793,098</b>	<b>552,536,584</b>	<b>618,577,164</b>	<b>502,155,200</b>
Income taxes	(189,146,369)	(193,931,190)	(185,994,360)	(107,926,126)
<b>Profit for the year</b>	<b>383,646,729</b>	<b>358,605,394</b>	<b>432,582,804</b>	<b>394,229,074</b>
<b>Basic earnings per share</b>				
Continuing operations	0.09	0.09	0.10	0.10

Unit: US Dollar				
Year 2018	4thQ	3rdQ	2ndQ	1stQ
<b>Revenues</b>				
Sales	1,411,017,765	1,337,321,462	1,293,593,282	1,160,877,348
Revenue from pipeline transportation	29,190,306	29,987,855	25,367,013	23,018,560
Other income				
Gain on foreign exchange	-	-	-	25,062,316
Interest income	22,703,516	19,802,410	20,873,464	19,973,276
Gain on financial derivatives	71,955,087	-	-	-
Other income	21,530,874	10,632,882	7,900,369	10,719,935
<b>Total Revenues</b>	<b>1,556,397,548</b>	<b>1,397,744,609</b>	<b>1,347,734,128</b>	<b>1,239,651,435</b>
<b>Expenses</b>				
Operating expenses	168,808,730	166,176,601	168,992,974	141,105,849
Exploration expenses	9,022,944	18,637,627	15,277,426	2,747,477
Administrative expenses	104,706,341	69,634,574	58,439,352	57,453,370
Petroleum royalties	133,659,700	121,414,377	110,641,320	103,947,632
Depreciation, depletion and amortization	484,519,932	496,344,211	459,708,136	407,938,260
Other expenses				
Loss on foreign exchange	7,386,463	6,059,895	30,248,049	-
Loss on financial derivatives	-	6,808,271	7,553,864	43,626,319
Other expenses	20,745,077	37,022,924	-	-
Finance costs	66,885,106	57,421,070	57,212,601	57,046,118
<b>Total Expenses</b>	<b>995,734,293</b>	<b>979,519,550</b>	<b>908,073,722</b>	<b>813,865,025</b>
Share of profit of associates and joint ventures	1,699,603	2,285,467	1,848,770	2,098,428
<b>Profit (loss) before income taxes</b>	<b>562,362,858</b>	<b>420,510,526</b>	<b>441,509,176</b>	<b>427,884,838</b>
Income taxes	(294,011,392)	(105,156,779)	(328,480,261)	(5,009,755)
<b>Profit for the year</b>	<b>268,351,466</b>	<b>315,353,747</b>	<b>113,028,915</b>	<b>422,875,083</b>
<b>Basic earnings per share</b>				
Continuing operations	0.07	0.07	0.03	0.10

#### Petroleum Sales Volume and Average Unit Prices





	2019	2018
Net sales of petroleum (BOED)	350,651	305,522
Average petroleum unit prices		
Average unit prices of crude oil and condensate (USD/BBL)	61.18	67.40
Average unit prices of natural gas (USD/MMBTU)	6.92	6.42
Average unit prices of petroleum (USD/BOE)	47.24	46.66
Lifting cost (USD/BOE)	4.31	4.33





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