

PETROCHINA CO LTD  
Form 20-F  
April 27, 2018  
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**UNITED STATES**  
**SECURITIES AND EXCHANGE COMMISSION**  
**Washington, D.C. 20549**

**Form 20-F**

**(Mark One)**

**REGISTRATION STATEMENT PURSUANT TO SECTION 12(b) OR 12(g) OF THE SECURITIES EXCHANGE ACT OF 1934**

**or**

**ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

**For the fiscal year ended December 31, 2017.**

**or**

**TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

**or**

**SHELL COMPANY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

**Date of event requiring this shell company report \_\_\_\_\_**

For the transition period from \_\_\_\_\_ to \_\_\_\_\_  
Commission File Number 1-15006

(Exact name of Registrant as specified in its charter)

**PetroChina Company Limited**

(Translation of Registrant's name into English)

**The People's Republic of China**

(Jurisdiction of incorporation or organization)

**9 Dongzhimen North Street**

**Dongcheng District, Beijing 100007**

**The People's Republic of China,**

(Address of principal executive offices)

**Wu Enlai**

**Telephone number: 8610 59986270**

**Facsimile number: 8610 62099557**

**Email address: jh\_dong@petrochina.com.cn**

**Address: 9 Dongzhimen North Street, Dongcheng District, Beijing 100007, The People's Republic of China**

(Name, telephone, e-mail and/or facsimile number and address of registrant's contact person)

**Securities registered or to be registered pursuant to Section 12(b) of the Act.**

<b>Title of Each Class</b>	<b>Name of Each Exchange on Which Registered</b>
American Depositary Shares, each representing 100 H Shares, par value RMB1.00 per share*	New York Stock Exchange, Inc.
H Shares, par value RMB1.00 per share	New York Stock Exchange, Inc.**

**Securities registered or to be registered pursuant to Section 12(g) of the Act.**

None

(Title of Class)

**Securities for which there is a reporting obligation pursuant to Section 15(d) of the Act.**

None

(Title of Class)

Indicate the number of outstanding shares of each of the issuer's classes of capital or common stock as of the close of the period covered by the annual report:

A Shares, par value RMB1.00 per share***	161,922,077,818 <sup>(1)</sup>
H Shares, par value RMB1.00 per share	21,098,900,000****

(1) Includes 151,088,693,528 A Shares held by CNPC and 10,833,384,290 A Shares held by the public shareholders. Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes  No

If this is an annual or transition report, indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934. Yes  No

Note Checking the box above will not relieve any registrant required to file reports pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 from their obligations under those Sections.

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes  No

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Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes No

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or an emerging growth company. See the definitions of large accelerated filer, accelerated filer, and emerging growth company in Rule 12b-2 of the Exchange Act:

Large Accelerated Filer	Accelerated Filer	Non-Accelerated Filer	Emerging Growth company
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If an emerging growth company that prepares its financial statements in accordance with U.S. GAAP, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

The term new or revised financial accounting standard refers to any update issued by the Financial Accounting Standards Board to its Accounting Standards Codification after April 5, 2012.

Indicate by check mark which basis of accounting the registrant has used to prepare the financial statements included in this filing:

U.S. GAAP	International Financial Reporting Standards as issued by the International Accounting Standards Board	Other
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If Other has been checked in response to the previous question, indicate by check mark which financial statement item the registrant has elected to follow. Item 17 Item 18

If this is an annual report, indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes No

(APPLICABLE ONLY TO ISSUERS INVOLVED IN BANKRUPTCY PROCEEDINGS DURING THE PRECEDING FIVE YEARS)

Indicate by check mark whether the registrant has filed all documents and reports required to be filed by Sections 12, 13 or 15(d) of the Securities Exchange Act of 1934 subsequent to the distribution of securities under a plan confirmed by a court. Yes No

- \* PetroChina's H Shares are listed and traded on The Stock Exchange of Hong Kong Limited.
- \*\* Not for trading, but only in connection with the registration of American Depositary Shares.
- \*\*\* PetroChina's A Shares became listed on the Shanghai Stock Exchange on November 5, 2007.
- \*\*\*\* Includes 789,355,600 H Shares represented by American Depositary Shares.

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**CERTAIN TERMS AND CONVENTIONS**

**Conventions Which Apply to this Annual Report**

Unless the context otherwise requires, references in this annual report to:

CNPC or CNPC group are to our parent, China National Petroleum Corporation and its affiliates and subsidiaries, excluding PetroChina, its subsidiaries and its interests in long-term investments, and where the context refers to any time prior to the establishment of CNPC, those entities and businesses which were contributed to CNPC upon its establishment.

PetroChina, we, our, our company, the Company and us are to: PetroChina Company Limited, a joint company incorporated in the People's Republic of China with limited liability and its subsidiaries and branch companies.

PRC or China are to the People's Republic of China, but does not apply to its Hong Kong, Macau and Taiwan for purposes of this annual report.

We publish our consolidated financial statements in Renminbi or RMB. In this annual report, IFRS refers to International Financial Reporting Standards as issued by the International Accounting Standards Board.

**Conversion Table**

1 barrel-of-oil equivalent	= 1 barrel of crude oil	= 6,000 cubic feet of natural gas
1 cubic meter	= 35.315 cubic feet	
1 ton of crude oil	= 1 metric ton of crude oil	= 7.389 barrels of crude oil (assuming an API gravity of 34 degrees)

**Certain Oil and Gas Terms**

Unless the context indicates otherwise, the following terms have the meanings shown below:

acreage	The total area, expressed in acres, over which an entity has interests in exploration or production. Net acreage is the entity's interest, expressed in acres, in the relevant exploration or production area.
condensate	Light hydrocarbon substances produced with natural gas that condense into liquid at normal temperatures and pressures associated with surface production equipment.



crude oil

Crude oil, including condensate and natural gas liquids.

developed reserves

Under the reserves rules of the Securities and Exchange Commission, or SEC, developed reserves are reserves of any category that can be expected to be recovered:

(i) through existing wells with existing equipment and operating methods or in which the cost of the required equipment is relatively minor compared to the cost of a new well; and

(ii) through installed extraction equipment and infrastructure operational at the time of the reserves estimate if the extraction is by means not involving a well.

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development cost	For a given period, costs incurred to obtain access to proved reserves and to provide facilities for extracting, treating, gathering and storing the oil and gas.
finding cost	For a given period, costs incurred in identifying areas that may warrant examination and in examining specific areas that are considered to have prospects of containing oil and gas reserves, including costs of drilling exploratory wells and exploratory-type test wells. Finding cost is also known as exploration cost.
lifting cost	For a given period, costs incurred to operate and maintain wells and related equipment and facilities, including applicable operating costs of support equipment and facilities and other costs of operating and maintaining those wells and related equipment and facilities. Lifting cost is also known as production cost.
natural gas liquids	Hydrocarbons that can be extracted in liquid form during natural gas production. Ethane and pentanes are the predominant components, with other heavier hydrocarbons also present in limited quantities.
offshore	Areas under water with a depth of five meters or greater.
onshore	Areas of land and areas under water with a depth of less than five meters.
primary distillation capacity	At a given point in time, the maximum volume of crude oil a refinery is able to process in its basic distilling units.
proved reserves	Under the SEC reserves rules, proved reserves are those quantities of oil and gas, which, by analysis of geoscience and engineering data, can be estimated with reasonable certainty to be economically producible from a given date forward, from known reservoirs, and under existing economic conditions, operating methods, and government regulations prior to the time at which contracts providing the right to operate expire, unless evidence indicates that renewal is reasonably certain, regardless of whether deterministic or probabilistic methods are used for the estimation. The project to extract the hydrocarbons must have commenced or the operator must be reasonably certain that it will commence the project within a reasonable time.

(i) The area of the reservoir considered as proved includes:

(A) The area identified by drilling and limited by fluid contacts, if any, and (B) Adjacent undrilled portions of the reservoir that can, with reasonable certainty, be judged to be continuous with it and to contain economically producible oil or gas on the basis of available geoscience and engineering data.

(ii) In the absence of data on fluid contacts, proved quantities in a reservoir are limited by the lowest known hydrocarbons (LKH) as seen in a well penetration unless geoscience, engineering, or performance data and reliable technology establishes a lower contact with reasonable certainty.

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(iii) Where direct observation from well penetrations has defined a highest known oil (HKO) elevation and the potential exists for an associated gas cap, proved oil reserves may be assigned in the structurally higher portions of the reservoir only if geoscience, engineering, or performance data and reliable technology establish the higher contact with reasonable certainty.

(iv) Reserves which can be produced economically through application of improved recovery techniques (including, but not limited to, fluid injection) are included in the proved classification when:

(A) Successful testing by a pilot project in an area of the reservoir with properties no more favorable than in the reservoir as a whole, the operation of an installed program in the reservoir or an analogous reservoir, or other evidence using reliable technology establishes the reasonable certainty of the engineering analysis on which the project or program was based; and (B) The project has been approved for development by all necessary parties and entities, including governmental entities.

(v) Existing economic conditions include prices and costs at which economic producibility from a reservoir is to be determined. The price shall be the average price during the 12-month period prior to the ending date of the period covered by the report, determined as an unweighted arithmetic average of the first-day-of-the-month price for each month within such period, unless prices are defined by contractual arrangements, excluding escalations based upon future conditions.

reserve-to-production ratio

For any given well, field or country, the ratio of proved reserves to annual production of crude oil or, with respect to natural gas, to wellhead production excluding flared gas.

sales gas

Marketable production of gas on an as sold basis, excluding flared gas, injected gas and gas consumed in operations.

undeveloped reserves

Under the SEC reserves rules, undeveloped reserves are reserves of any category that are expected to be recovered from new wells on undrilled acreage, or from existing wells where a relatively major expenditure is required for recompletion.

(i) Reserves on undrilled acreage shall be limited to those directly offsetting development spacing areas that are reasonably certain of production when drilled, unless evidence using reliable technology exists that establishes reasonable certainty of economic producibility at greater distances.

(ii) Undrilled locations can be classified as having undeveloped reserves only if a development plan has been adopted indicating that they are scheduled to be drilled within five years, unless the specific circumstances, justify a longer time.

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(iii) Under no circumstances shall estimates for undeveloped reserves be attributable to any acreage for which an application of fluid injection or other improved recovery technique is contemplated, unless such techniques have been proved effective by actual projects in the same reservoir or an analogous reservoir, or by other evidence using reliable technology establishing reasonable certainty.

water cut

For a given oil region, the percentage that water constitutes of all fluids extracted from all wells in that region.

References to:

BOE is to barrels-of-oil equivalent,

Mcf is to thousand cubic feet, and

Bcf is to billion cubic feet.

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**FORWARD-LOOKING STATEMENTS**

This annual report contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities and Exchange Act of 1934, as amended. These forward-looking statements are, by their nature, subject to significant risks and uncertainties. These forward-looking statements include, without limitation, statements relating to:

- the amounts and nature of future exploration, development and other capital expenditures;
- future prices and demand for crude oil, natural gas, refined products and chemical products;
- development projects;
- exploration prospects;
- reserves potential;
- production of oil and gas and refined and chemical products;
- development and drilling potential;
- expansion and other development trends of the oil and gas industry;
- the planned development of our natural gas operations;
- the planned expansion of our refined product marketing network;
- the planned expansion of our natural gas infrastructure;
- the anticipated benefit from the acquisition of certain overseas assets from CNPC, our parent company;
- the plan to continue to pursue attractive business opportunities outside China;

our future overall business development and economic performance;

our anticipated financial and operating information regarding, and the future development and economic performance of, our business;

our anticipated market risk exposure arising from future changes in interest rates, foreign exchange rates and commodity prices; and

other prospects of our business and operations.

The words anticipate , believe , could , estimate , expect , intend , may , plan , seek , will and would expressions, as they related to us, are intended to identify a number of these forward-looking statements.

By their nature, forward-looking statements involve risks and uncertainties because they relate to events and depend on circumstances that will occur in the future and are beyond our control. The forward-looking statements reflect our current views with respect to future events and are not a guarantee of future performance. Actual results may differ materially from information contained in the forward-looking statements as a result of a number of factors, including, without limitation, the risk factors set forth in this annual report and the following:

fluctuations in crude oil and natural gas prices;

failure to achieve continued exploration success;

failures or delays in achieving production from development projects;

continued availability of capital and financing;

acquisitions and other business opportunities that we may pursue;



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general economic, market and business conditions, including volatility in interest rates, changes in foreign exchange rates and volatility in commodity markets;

liability for remedial actions under environmental regulations;

the actions of competitors;

wars and acts of terrorism or sabotage;

changes in policies, laws or regulations of the PRC, including changes in applicable tax rates;

the other changes in global economic and political conditions affecting the production, supply and demand and pricing of crude oil, refined products, petrochemical products and natural gas; and

the other risk factors discussed in this annual report, and other factors beyond our control.

You should not place undue reliance on any forward-looking statements.

**Table of Contents****PART I****Item 1 IDENTITY OF DIRECTORS, SENIOR MANAGEMENT AND ADVISORS**

Not applicable. However, see Item 6 Directors, Senior Management and Employees Directors, Senior Management and Supervisors and Item 16C Principal Accountant Fees and Services .

**Item 2 OFFER STATISTICS AND EXPECTED TIMETABLE**

Not applicable.

**Item 3 KEY INFORMATION****Exchange Rates**

The following table sets forth the high and low noon buying rates between Renminbi and U.S. dollars for each month during the previous six months and the most recent practicable date:

	Noon Buying Rate <sup>(1)</sup>	
	High	Low
	(RMB per US\$)	
October 2017	6.6533	6.5712
November 2017	6.6385	6.5967
December 2017	6.6210	6.5063
January 2018	6.5263	6.2841
February 2018	6.3471	6.2649
March 2018	6.3565	6.2685
April 2018 (ending through April 20)	6.3045	6.2655

(1) The exchange rates reflect the noon buying rates as set forth in the H.10 statistical release of the Federal Reserve Board. On April 20, 2018, the exchange rate was RMB6.2945 to US\$1.00.

**Average Noon Buying Rates<sup>(1)</sup>**

The following table sets forth the average noon buying rates between Renminbi and U.S. dollars for each of 2013, 2014, 2015, 2016 and 2017, calculated by averaging the noon buying rates on the last day of each month during the relevant year:

	Average Noon Buying Rate <sup>(1)</sup> (RMB per US\$)
2013	6.1412
2014	6.1701
2015	6.2869

2016	6.6549
2017	6.7350

- (1) The exchange rates reflect the noon buying rates as set forth in the H.10 statistical release of the Federal Reserve Board.

**Table of Contents****Selected Financial Data****Historical Financial Information**

You should read the selected historical financial data set forth below in conjunction with our consolidated financial statements and the notes and Item 5 Operating and Financial Review and Prospects included elsewhere in this annual report. The selected consolidated statement of comprehensive income (except for ADS data) and cash flow data for the years ended December 31, 2015, 2016 and 2017 and the selected consolidated statement of financial position data as of December 31, 2016 and 2017 set forth below are derived from our audited consolidated financial statements included elsewhere in this annual report. The selected consolidated statement of comprehensive income data (except for ADS data) and cash flow data for the years ended December 31, 2013 and 2014 and the selected consolidated statement of financial position data as of December 31, 2013, 2014 and 2015 set forth below are derived from our audited financial statements not included in this annual report. Our consolidated financial statements were prepared in accordance with IFRS as issued by the International Accounting Standards Board. The financial information included in this section may not necessarily reflect our results of operations, financial position and cash flows in the future.

	<b>As of or for the Year Ended December 31,</b>				
	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>
	<b>RMB</b>	<b>RMB</b>	<b>RMB</b>	<b>RMB</b>	<b>RMB</b>
	<b>(In millions, except for per share, per ADS data and percentages)</b>				
<b>Consolidated Statement of Comprehensive Income Data</b>					
Revenue	2,258,124	2,282,962	1,725,428	1,616,903	2,015,890
Total operating expenses	(2,069,482)	(2,113,129)	(1,646,176)	(1,556,268)	(1,948,168)
Profit from operations	188,642	169,833	79,252	60,635	67,722
Profit before income tax expense	178,063	156,759	57,815	45,140	53,089
Income tax expense	(35,789)	(37,731)	(15,726)	(15,768)	(16,296)
Profit for the year	142,274	119,028	42,089	29,372	36,793
Attributable to:					
Owners of the Company	129,599	107,172	35,517	7,857	22,798
Non-controlling interests	12,675	11,856	6,572	21,515	13,995
Basic and diluted earnings per share attributable to owners of the Company <sup>(1)</sup>	0.71	0.59	0.19	0.04	0.12
Basic and diluted net earnings per ADS <sup>(2)</sup>	70.81	58.56	19.41	4.29	12.46
<b>Consolidated Statement of Financial Position Data</b>					
Total current assets	430,953	391,308	349,344	381,665	425,162
Total non-current assets	1,911,157	2,014,165	2,044,500	2,014,986	1,979,450
Total assets	2,342,110	2,405,473	2,393,844	2,396,651	2,404,612
Total current liabilities	645,489	579,829	471,407	499,263	576,667
Total non-current liabilities	426,686	507,863	578,403	524,653	446,626
Total liabilities	1,072,175	1,087,692	1,049,810	1,023,916	1,023,293
Equity attributable to owners of the Company	1,132,735	1,175,894	1,179,716	1,189,024	1,193,520
Non-controlling interests	137,200	141,887	164,318	183,711	187,799
Total equity	1,269,935	1,317,781	1,344,034	1,372,735	1,381,319

**Other Financial Data**

Dividend declared and proposed per share	0.32	0.26	0.09	0.06	0.13
Dividend declared and proposed per ADS	31.87	26.35	8.73	5.93	13.00
Capital expenditures	318,696	291,729	202,238	172,386	216,227
Return on net assets (%) <sup>(3)</sup>	11.4	9.1	3.0	0.7	1.9

**Consolidated Statement of Cash Flow****Data**

Net cash flows from operating activities	288,529	356,477	261,312	265,179	366,655
Net cash flows used for investing activities	(266,510)	(290,838)	(215,879)	(175,887)	(243,546)
Net cash flows used for financing activities	(12,239)	(44,312)	(45,439)	(67,007)	(94,725)

- (1) As of December 31, 2013, 2014, 2015, 2016 and 2017, respectively, basic and diluted earnings per share were calculated by dividing the profit attributable to owners of the Company by 183.021 billion, the total number of shares outstanding in each of these financial years.

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- (2) Each ADS represents 100 H Shares. The basic and diluted earnings per ADS were calculated with the same method as that used for the calculation of the basic and diluted earnings per share.
- (3) Return on net assets is calculated as Profit for the year attributable to owners of the Company divided by Equity attributable to owners of the Company .

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### **Risk Factors**

Our business is primarily subject to various changing competitive, economic and social conditions. Such changing conditions entail certain risks, which are described below.

#### **Risks Related to Macro Economic Conditions**

Our operations may be adversely affected by international and domestic economic conditions. As the oil and gas industry is sensitive to macro-economic trends, oil and gas prices tend to fluctuate along with changes in macro-economic conditions. We may experience pricing pressure on our refined products in recessionary periods, which would have an adverse effect on our profitability. In 2017, the domestic economy was undergoing transformation and adjustment, which affected the demand for certain of our products. These factors may also lead to intensified competition for market share, with consequential potential adverse effects on sales volumes. Inflation may lead to increase in our operating costs. Notwithstanding the measures taken by the PRC government to control inflation, China may experience an increase in inflation in the future and our operating costs may become higher than anticipated. The financial and economic situation may also have a negative impact on third parties with whom we do, or may do, business. Any of these factors may adversely affect our financial condition, results of operations and liquidity.

#### **Risks Related to Competition**

The oil, gas and petrochemicals industries are highly competitive. There is strong competition, both within the oil and gas industry and with other industries, in supplying the fuel needs of commercial, industrial and residential markets. In recent years, with further diversification of the market players in China's petroleum and petrochemical industry, we have been facing increasingly intense competition from privately-owned companies, foreign-invested enterprises and other state-owned enterprises that recently entered the refinery, chemical, sales and oil and gas service sectors. In addition, the rapid development of unconventional oil and gas resources, new energy sources and new products also poses competition with the conventional energy and petrochemical industries. Competition puts pressure on product prices, affects oil products marketing and requires continuous management focus on identifying new trends, reducing unit costs and improving efficiency. The implementation of our growth strategy requires continued technological advances and innovation, including advances in exploration, production, refining, petrochemicals manufacturing technology and advances in technology related to energy usage. Our performance could be impeded if competitors developed or acquired intellectual property rights to technology that we required or if our innovation lagged the industry.

The Eastern and Southern regions of China have a higher demand for refined products and chemical products than the Western and Northern regions. Although we have strived to increase our refinery capacity in the Southern regions of China over recent years, most of our refineries and chemical plants are located in the Northeastern and Northwestern regions of China. We incur relatively higher transportation costs for delivery of our refined products and chemical products to certain areas of the Eastern and Southern regions from our refineries and chemical plants in Western and Northern China. We face strong competition from other traditional domestic oil companies, local independent refineries and other competitors. As a result, we expect that we will continue to encounter difficulty in increasing our sales of refined products and chemical products in these regions.

#### **Risks Related to Outbound Investments and Trading**

We are subject to various political, legal and regulatory environments in foreign developing countries where we operate, some of which are known to be unstable and differ in certain significant respects from those prevailing in

developed countries. The main factors affecting our outbound investments include unstable political situations, unstable tax policies and unstable regulatory regimes. CNPC, our controlling



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shareholder, and its affiliates and subsidiaries may choose to undertake, without our involvement, overseas investments, operations and trading in the oil and gas industry, including certain exploration and production of oil and gas, refining, transportation, trading, engineering construction and technical services, operations of pipelines and liquefied natural gas, or LNG projects, or other business activities in certain countries or with certain entities that are subject to U.S. sanctions, including Iran, Cuba, Syria, Myanmar, Russia and Venezuela.

Since July 2014, the United States has adopted economic sanctions against certain Russian persons and entities, including various entities operating in the financial, energy and defense sectors, such as Rosneft, Gazprom, OAO Novatek and Yamal LNG. These sanctions prohibit U.S. persons from transacting in, providing financing for or otherwise dealing in debt issuance by certain of these entities, or restrict exports and transfer of technologies to certain of these entities.

CNPC had certain pre-existing trading and investment relationships with some of these sanctioned Russian entities. For example, CNPC entered into a long-term agreement with Rosneft to import crude oil from Russia in June 2013 and a long-term agreement with Gazprom to import natural gas from Russia in May 2014. CNPC has resold, and will for the foreseeable future resell, all or a substantial portion of the imported crude oil from Rosneft under the crude oil agreement to us. CNPC also indirectly holds 20% equity interest in OAO Yamal LNG, which is a subsidiary of OAO Novatek, another sanctioned Russian entity. In May 2014, we entered into a long-term LNG import agreement with a subsidiary of OAO Yamal LNG to import LNG from Russia.

In August 2017, the United States imposed economic sanctions against the Government of Venezuela and certain state-owned entities, including Petroleos de Venezuela, S.A. ( PdVSA ). These sanctions prohibit U.S. persons from transacting in, providing financing for or otherwise dealing in new debt issued by these entities on or after August 25, 2017, with certain exceptions for short-term debt. Neither CNPC nor PetroChina purchased such new debt securities issued by the Government of Venezuela or by PdVSA, nor did they provide any assistance to third parties in this regard. CNPC has longstanding trading and investment activities in Venezuela. In 2017, based on certain pre-existing contract obligations, we purchased refined oil from PdVSA for resale and we sold propane to PetroMar A.V.V., which is a subsidiary of PdVSA. Our revenue generated from such dealings accounted for approximately 0.3% of our total revenue in 2017. In 2008, CNPC Exploration and Development Company Limited ( CNPC E&D ), a joint venture held as to 50% by us and 50% by a wholly-owned subsidiary of CNPC, acquired 40% stake in the Carabobo block in Monagas State, Venezuela. The other 60% stake of the block is held by PdVSA, which also serves as the operator of the block. The block produces and sells heavy oil. For the year ended December 31, 2017, the share of profit generated from the block accounted for approximately 1.4% of our total profit. CNPC E&D currently does not plan to discontinue the business or dispose of the interest in this block.

We closely monitor the possible impacts of U.S. sanctions, including sanctions against these Russian and Venezuelan entities which have trading or investment relationships with CNPC or us. We do not believe that our activities, nor those of CNPC, with these entities are in violation of applicable economic sanctions administered by the United States. However, we cannot assure you that current or future regulations or developments related to economic sanctions will not have a material adverse impact on our business or reputation. Certain U.S. based investors may not wish to invest and have proposed or adopted divestment or similar initiatives regarding investments in companies that do business with countries and entities that are subject to U.S. sanctions. These investors may not wish for CNPC or us to make investments or conduct activities in the countries or with the entities that are the subject of U.S. sanctions and may divest their investment in us because of our relationship with CNPC and its investments and activities in those countries or with those entities that are the subject of U.S. sanctions. As a result, the trading prices of our ADSs may be adversely affected.

In July 2012, the U.S. Treasury Department's Office of Foreign Assets Control, OFAC, added Bank of Kunlun Co., Ltd., or Kunlun Bank, an affiliate of our company due to common control by CNPC, to its List of Foreign Financial Institutions Subject to Part 561 pursuant to the Comprehensive Iran Sanctions,

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Accountability, and Divestment Act of 2010. OFAC reported that Kunlun Bank provided financial services to at least six Iranian banks that were on OFAC's sanctions list during 2012. These financial services included holding accounts, making transfers and paying letters of credit on behalf of the designated banks. Kunlun Bank has not informed us of the revenue and profit it generated from such activities in relation to Iran or whether it will discontinue such activities. Our company has no involvement in or control over such activities of Kunlun Bank or CNPC and CNPC subsidiaries and affiliates, and we have never received any revenue or profit derived from these activities.

## **Risks Related to Government Regulation**

Our operations, like those of other PRC oil and gas companies, are subject to extensive regulations and control by the PRC government. These regulations and control affect many material aspects of our operations, such as exploration and production licensing, industry-specific and product-specific taxes and fees and environmental and safety standards. As a result, we may face significant constraints on our ability to implement our business strategies, to develop or expand our business operations or to maximize our profitability. Our business may also be affected by future changes in certain policies of the PRC government with respect to the oil and gas industry.

Currently, the PRC government must approve the construction and major renovation of significant refining and petrochemical facilities as well as the construction of significant crude oil, natural gas and refined product pipelines and storage facilities. We presently have several significant projects pending approval from the relevant government authorities and will need approvals from the relevant government authorities in connection with several other significant projects. We do not have control over the timing and outcome of the final project approvals.

Because PRC laws, regulations and legal requirements dealing with economic matters continue to evolve, and because of the limited volume of published judicial interpretations and the non-binding nature of prior court decisions, the interpretation and enforcement of these laws, regulations and legal requirements involve some uncertainty. Because the PRC Company Law is different in certain important aspects from company laws in the United States, Hong Kong and other common law jurisdictions, and because the PRC securities laws and regulations are still at a stage of development, you may not enjoy the shareholders' protections that you may be entitled to in other jurisdictions.

## **Risks Related to Controlling Shareholder**

As of December 31, 2017, CNPC beneficially owned approximately 82.71% of our share capital. This ownership percentage enables CNPC to elect our entire board of directors without the concurrence of any of our other shareholders. Accordingly, CNPC is in a position to:

control our policies and management affairs;

subject to applicable PRC laws and regulations and provisions of our articles of association, affect the timing and amount of dividend payments and adopt amendments to certain of the provisions of our articles of association; and

otherwise determine the outcome of most corporate actions and, subject to the regulatory requirements of the jurisdictions in which our shares are listed, cause our company to effect corporate transactions without the approval of minority shareholders.

CNPC's interests may sometimes conflict with those of some or all of our minority shareholders. We cannot assure you that CNPC, as our controlling shareholder, will always vote its shares in a way that benefits our minority shareholders.

In addition to its relationship with us as our controlling shareholder, CNPC by itself or through its affiliates also provides us with certain services and products necessary for our business activities, such as

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construction and technical services, production services, materials supply services, social services and financial services. The interests of CNPC and its affiliates as providers of these services and products to us may conflict with our interests.

### **Risks Related to Pricing and Exchange Rate**

Our operations are affected by the volatility of prices for crude oil, refined products and natural gas. We set our crude oil median prices monthly based on the international trading prices for crude oil.

In recent years, international prices for crude oil have declined substantially in response to changes in global and regional economy, politics and supply and demand for crude oil. In 2017, international crude oil prices increased but still remained at a low level in general. We do not have, and will not have, control over factors affecting international prices for crude oil. Fluctuations in crude oil prices have a significant impact in our results of operations. A decline in crude oil prices may reduce revenues from, and may result in a loss in, our exploration and production segment. Further, if crude oil prices remain at a low level for a prolonged period, our company has to determine and estimate whether our oil and gas assets may suffer impairment and, if so, the amount of the impairment. An increase in crude oil prices may, however, increase the production costs of refined products reduce demand for our products and affect our operating profits.

Since 2008, the PRC government has gradually improved its refined oil pricing mechanism. When there is a change in the average crude oil price in the international market during a given time period, the PRC government can adjust refined oil prices. When international crude oil price experiences sustained increases or becomes significantly volatile, the PRC government may increase its control over the refined oil prices. As a result, the regulation on refined product prices by the PRC government may reduce our profit and cause our refining assets to suffer impairment.

We negotiate the actual settlement price with natural gas users within the ceiling of citygate price permitted by the PRC government. When the price ceiling set by the government is lower than the international natural gas price, the cost of our imported natural gas will be higher than the sales price of our natural gas, which may reduce our revenues and profit, or result in losses, cause our natural gas assets to suffer impairment.

We receive most of our revenues in Renminbi. A portion of our Renminbi revenues must be converted into other currencies to meet our foreign currency obligations. The existing foreign exchange limitations under the PRC laws and regulations could affect our ability to obtain foreign exchange through debt financing, or to obtain foreign exchange for capital expenditures. The value of Renminbi against U.S. dollar and other currencies may fluctuate and is affected by, among other things, changes in China's political and economic conditions. The PRC government has implemented a floating exchange rate system to allow the value of the Renminbi to fluctuate within a regulated band based on market supply and demand and by reference to a basket of foreign currencies. Because most of our imports of crude oil, equipment and other materials and our outbound investments are settled in foreign currencies, the exchange rates between RMB and U.S. dollars and any other relevant foreign currencies may have an effect on our crude oil purchase costs and our investment costs.

### **Risks Related to Environmental Protection and Safety Production**

Compliance with changes in laws, regulations and obligations relating to environmental protection and safety production could result in substantial expenditures and reduced profitability from increases in operating costs. In recent years, China has implemented environmental protection and safety production laws and regulations and has gradually improved refined oil standards which have stricter requirements for our business, and led to an increase in our operating costs. In the future, China will implement more stringent environmental protection and safety

production regulations and impose higher standards on refined oil products. Compliance with these new regulations and standards will increase our costs and expenses.

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Our oil and gas exploration and production activities shall comply with relevant PRC environment protection laws and regulations governing abandonment and disposal processes for oil and gas exploration and production activities. We have established standard abandonment procedures pursuant to these laws and regulations. We have included under our asset retirement obligations the costs for these abandonment activities and this asset retirement obligation is based on our best estimate of future abandonment expenditures. In addition, PRC national or local governments may enact stricter environmental protection regulations and our abandonment costs may increase as a result.

Exploring for, producing and transporting crude oil and natural gas and producing and transporting refined products and chemical products involve many hazards. These hazards may result in fires, explosions, spills, blow-outs and other unexpected or dangerous conditions causing personal injuries or death, property damage, environmental damage and interruption of operations.

Some of our oil and natural gas fields are surrounded by residential areas or located in areas where natural disasters, such as earthquakes, floods and sandstorms, tend to occur more frequently than in other areas. As with many other companies around the world that conduct similar businesses, we have experienced accidents that have caused property damage and personal injuries and death.

Significant operating hazards and natural disasters such as earthquake, tsunami and health epidemics may cause partial interruptions to our operations and property and environmental damage that could have an adverse impact on our financial condition.

## **Risks Related to Climate Change**

In recent years, the oil industry has faced an increasingly severe challenge imposed by global climate change. Numerous international, domestic and regional treaties and agreements that restrict the emission of greenhouse gas have been executed and become effective. China and some other countries in which we operate have adopted, or are considering the adoption of, regulatory frameworks to reduce greenhouse gas emissions. These include adoption of carbon emission quota and trade regimes, carbon taxes, increased efficiency standards, and incentives or mandates for renewable energies. These requirements may lead to a substantial increase in our expenditures, make our products more expensive, lengthen our project time, reduce the demand for hydrocarbons, and shift hydrocarbon demand toward relatively low carbon sources such as natural gas. Current and pending greenhouse gas regulations may also increase our compliance costs, such as those for monitoring or sequestering emissions. As a result, our results of operations and our strategic investment may be adversely affected.

China is a signatory country to the Paris Agreement which has taken effect since November 2016. China is expected to reach the peak level of carbon emissions by 2030. In 2017, China rolled out the national carbon quota trading system. As a result, a majority of our subsidiaries operating in China will be subject to mandatory requirement with respect to carbon emission quota and trading, which could increase our costs of operations.

## **Risks Related to Insurance**

Due to the fact that oil industry is susceptible to high and industry-specific risks in nature, the current ordinary commercial insurance cannot cover all the business areas in which we operate. We maintain insurance coverage against some, but not all, potential losses. We may suffer material losses resulting from uninsurable or uninsured risks or insufficient insurance coverage.

## **Risks Related to Oil and Gas Reserves**

The crude oil and natural gas reserves data in this annual report are only estimates. The reliability of reserves estimates depends on a number of factors, assumptions and variables, such as the quality and quantity of our technical and economic data and the prevailing oil and gas prices applicable to our



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production, some of which are beyond our control and may prove to be incorrect over time. Results of drilling, testing and production after the date of estimates may require substantial upward or downward revisions in our reserves data. Our actual production, revenues and expenditures with respect to our reserves may differ materially from these estimates because of these revisions.

We are actively pursuing business opportunities outside China to improve our international operations. We cannot assure you, however, that we can successfully locate sufficient, if any, alternative sources of crude oil supply due to the complexity of the international political, economic and other conditions. If we fail to obtain sufficient alternative sources of crude oil supply, our results of operations and financial condition may be materially and adversely affected.

**Risks Related to Liquidity**

We have made best endeavors to ensure an appropriate level of liquidity and financing ability. However, as we are currently making our efforts to find high-quality large-scale reserves, strengthening capacity building in key areas, constructing new, and expanding some existing, refinery and petrochemical facilities and constructing several natural gas and oil pipelines, we may have to make substantial capital expenditures and investments. We cannot assure you that the cash generated by our operations will be sufficient to fund these development plans or that our actual future capital expenditures and investments will not significantly exceed our current planned amounts. If either of these conditions arises, we may have to seek external financing to satisfy our capital needs. Our inability to obtain sufficient funding for our development plans could adversely affect our business, financial condition and results of operations.

**Risks Related to Effectiveness of Internal Control over Financial Reporting**

The SEC, as required by Section 404 of the Sarbanes-Oxley Act of 2002, has adopted rules requiring every public company in the United States to include a management report on such company's internal control over financial reporting in its annual report, which contains management's assessment of the effectiveness of our internal control over financial reporting. In addition, an independent registered public accounting firm must attest to and report on the effectiveness of our internal control over financial reporting. Although our management concluded that our internal control over our financial reporting for the fiscal year ended December 31, 2017 was effective, and our independent registered public accounting firm has issued an attestation report, which concluded that our internal control over financial reporting was effective in all material aspects as of December 31, 2017, we may discover other deficiencies in the course of our future evaluation of our internal control over our financial reporting and may be unable to remediate such deficiencies in a timely manner. If we fail to maintain the adequacy of our internal control over financial reporting, we may not be able to conclude that we have effective internal control over financial reporting on an ongoing basis, in accordance with the Sarbanes-Oxley Act. Moreover, effective internal control is necessary for us to produce reliable financial reports and is important to prevent fraud. As a result, our failure to maintain effective internal control over financial reporting could result in the loss of investor confidence in the reliability of our financial statements, which in turn could harm our business and negatively impact the trading prices of our ADSs, H Shares or A Shares.

**Risks Related to Audit Reports Prepared by an Auditor who is not Inspected by the Public Company Accounting Oversight Board**

As a company with shares registered with the U.S. Securities and Exchange Commission, or the SEC, and traded publicly in the United States, our independent registered public accounting firm is required under the laws of the United States to be registered with the Public Company Accounting Oversight Board, or the PCAOB, and undergo regular inspections by the PCAOB to assess its compliance with the laws of the United States and professional standards. The PCAOB, however, is currently unable to inspect a registered public accounting firm's audit work

relating to a company's operations in China where the documentation of such audit work is located in China. Accordingly, our independent registered public accounting firm's audit of our operations in China is not subject to the PCAOB inspection.

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The PCAOB has conducted inspections of independent registered public accounting firms outside of China and has at times identified deficiencies in the audit procedures and quality control procedures of those accounting firms. Such deficiencies may be addressed in those accounting firms' future inspection process to improve their audit quality. Due to the lack of PCAOB inspections of audit work undertaken in China, our investors do not have the benefit of the PCAOB inspection of our independent registered public accounting firm's audit work and audit quality control procedures.

### **Risks Related to SEC Litigation Against the Big Four PRC-based Accounting Firms**

On January 22, 2014, Judge Cameron Elliot, an SEC administrative law judge, issued an initial decision suspending the Chinese member firms of the Big Four accounting firms, including our independent registered public accounting firm, from, among other things, practicing before the SEC for six months. In February 2014, the initial decision was appealed. While under appeal and in February 2015, the Chinese member firms of Big Four accounting firms reached a settlement with the SEC. As part of the settlement, each of the Chinese member firms of Big Four accounting firms agreed to settlement terms that include a censure, undertakings to make a payment to the SEC, procedures and undertakings as to future requests for documents by the SEC and possible additional proceedings and remedies should those undertakings not be adhered to.

If the settlement terms are not adhered to, the Chinese member firms of Big Four accounting firms may be suspended from practicing before the SEC, which could in turn delay the timely filing of our financial statements with the SEC. In addition, it could be difficult for us to timely identify and engage another registered public accounting firm to audit and issue an opinion on our financial statements and our internal control over financial reporting. A delinquency in our filing of the annual report with the SEC may result in the NYSE initiating delisting procedures, which could harm our reputation and have other material adverse effects on our overall growth and prospect.

### **Risks Related to Employee Misconduct**

We may not be able to detect or prevent employee misconduct, including misconduct by senior management, and such misconduct may damage our reputation and could adversely affect the trading price of our ordinary shares and ADSs.

We have gradually reinforced and enhanced our internal control and corporate governance policies and procedures in order to strengthen our ability to detect and prevent employee misconduct. We cannot assure you, however, that we will be able to detect or prevent such misconduct in a timely fashion, or at all. If we fail to prevent employee misconduct, our reputation may be harmed, and the trading price of our ordinary shares and ADSs could be adversely affected.

### **Risks Related to Cyber Security**

Our activities depend heavily on the reliability and security of our information technology (IT) systems. If the integrity of our IT systems were compromised due to technical failure, cyber attack, computer intrusions and viruses, power or network outages or natural disasters, our activities and assets could sustain serious damage, material intellectual property could be divulged and, in some cases, personal injury, environmental harm and regulatory violations could occur, potentially having a material adverse effect on our business and financial conditions.

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### **Item 4 INFORMATION ON THE COMPANY**

#### **Introduction**

##### **History and Development of Our Company**

Our legal name is \_\_\_\_\_ and its English translation is PetroChina Company Limited.

We are the largest oil and gas producer and seller occupying a leading position in the oil and gas industry in the PRC and one of the largest companies in the world. We are engaged in a broad range of petroleum and natural gas related activities, including the exploration, development, production and marketing of crude oil and natural gas; the refining of crude oil and petroleum products, as well as the production and marketing of basic petrochemical products, derivative chemical products and other chemical products; the marketing of refined oil products and trading; and the transmission of natural gas, crude oil and refined oil products as well as the sale of natural gas.

Currently, substantially all of our crude oil and natural gas reserves and production-related assets are located in China. Our exploration, development and production activities commenced in the early 1950s. Over more than six decades, we have conducted crude oil and natural gas exploration activities in many regions of China.

We commenced limited refining activities in the mid-1950s. Our chemicals operations commenced in the early 1950s. In the early 1960s, we began producing ethylene. Our natural gas transmission and marketing activities commenced in Sichuan in Southwestern China in the 1950s.

We have increased our efforts to pursue attractive business opportunities outside China as part of our business growth strategy to utilize both domestic and international resources to strengthen our competitiveness. Since 2005, we have acquired interests in various oil and natural gas assets in several countries, which significantly expanded our overseas operations and effectively increased our oil and gas reserves and production volumes. We are currently assessing the feasibility of making further investments in international oil and gas markets. At the same time, we have been maintaining certain proportion of imported crude oil and natural gas in accordance with our needs. In 2017, we imported approximately 572.5 million barrels of crude oil, as compared to 488.6 million barrels and 486.1 million barrels of crude oil in 2015 and 2016, respectively.

We were established as a joint stock company with limited liability under the Company Law of the PRC on November 5, 1999 as part of a restructuring in which CNPC transferred to us most of the assets and liabilities of CNPC relating to its exploration and production, refining and marketing, chemicals and natural gas businesses.

On April 7, 2000, we completed a global offering of H Shares and ADSs. In September 2005, we completed a follow-on offering of over 3 billion H Shares at the price of HK\$6.00 per share. In October 2007, we issued 4 billion A Shares at an issue price of RMB16.7 per share. The A Shares were listed on the Shanghai Stock Exchange on November 5, 2007. As of December 31, 2017, CNPC beneficially owned 151,380,211,528 shares in us, which included 291,518,000 H Shares indirectly held by CNPC through Fairy King Investments Limited, an overseas wholly owned subsidiary of CNPC, representing approximately 82.71% of the share capital of us.

For a description of our principal subsidiaries, see Note 18 to our consolidated financial statements.

Our headquarters are located at 9 Dongzhimen North Street, Dongcheng District, Beijing, China, 100007, and our telephone number at this address is (86-10) 5998-6223. Our website address is [www.petrochina.com.cn](http://www.petrochina.com.cn). The information on our website is not part of this annual report.



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***Our Corporate Organization Structure***

The following chart illustrates our corporate organization structure as of December 31, 2017.

- (1) Indicates approximate shareholding.
- (2) Indicates approximate shareholding, including the 291,518,000 H Shares indirectly held by CNPC as of December 31, 2017 through Fairy King Investments Limited, a wholly owned overseas subsidiary of CNPC, and not including the 5,881,000,000 A shares transferred to and held in a trust account as collaterals for the exchangeable bonds issued by CNPC.
- (3) Includes PetroChina Planning & Engineering Institute, PetroChina Exploration & Development Research Institute, IT Service Center, PetroChina Petrochemical Research Institute and several other companies.

***Acquisitions and Divestment***

For material acquisition and divestment, please see Item 7-Major Shareholders and Related Party Transactions-Related Party Transactions .

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**Table of Contents****Exploration and Production**

We engage in crude oil and natural gas exploration, development and production. Substantially all of our total estimated proved crude oil and natural gas reserves are located in China, principally in Northeastern, Northern, Southwestern and Northwestern China. Meanwhile, we have enhanced our overseas cooperation and expanded our strategic presence in five major overseas oil and gas cooperation regions by conducting new project development. In the year ended December 31, 2017, the crude oil and natural gas produced by us at overseas regions accounted for 16.2% and 7.9% of our total production of crude oil and natural gas, respectively.

We currently hold exploration and exploitation licenses for oil and gas (including coal seam gas) covering a total area of approximately 316.5 million acres, including the exploration licenses covering a total area of approximately 286.8 million acres and the exploitation licenses covering a total area of approximately 29.7 million acres.

The following table sets forth the financial and operating data of our exploration and production segment for each of the years ended December 31, 2015, 2016 and 2017:

	<b>Year Ended December 31,</b>		
	<b>2015</b>	<b>2016</b>	<b>2017</b>
Revenue (RMB in millions)	475,412	412,484	505,430
Profit from operations (RMB in millions)	33,961	3,148	15,475
Proved developed and undeveloped reserves			
Crude oil (million barrels)	8,521.1	7,437.8	7,481.3
Natural gas (Bcf)	77,524.7	78,711.8	76,887.6
Production			
Crude oil (million barrels)	971.9	920.7	887.0
Natural gas for sale (Bcf)	3,131.0	3,274.5	3,423.4

**Reserves**

Our estimated proved reserves as of December 31, 2017 totaled approximately 7,481.3 million barrels of crude oil and approximately 76,887.6 Bcf of natural gas. As of December 31, 2017, proved developed reserves for crude oil and natural gas accounted for 74.8% and 51.0% of our total proved crude oil and natural gas reserves, respectively. Total proved hydrocarbon reserves, including our overseas crude oil reserves of 859.4 million barrels and overseas natural gas reserves of 2,185.5 Bcf, decreased by 1.3% from approximately 20,556.4 million BOE as of December 31, 2016 to approximately 20,295.9 million BOE as of December 31, 2017. Natural gas as a percentage of total proved hydrocarbon reserves decreased from 63.8% as of December 31, 2016 to 63.1% as of December 31, 2017.

We prepared our reserves estimates as of December 31, 2015, 2016 and 2017 on the basis of the reports prepared by independent engineering consultants, namely DeGolyer and MacNaughton, Ryder Scott Company L.P., GLJ Petroleum Consultants and McDaniel & Associates Consultants Ltd. Our reserves estimates include only crude oil and natural gas which we believe can be reasonably produced within the current terms of our production licenses or within the terms of the licenses which we are reasonably certain can be renewed. See [Regulatory Matters](#) [Exploration Licenses and Production Licenses](#) for a discussion of our production licenses. Also see [Item 3 Key Information](#) [Risk Factors](#) [Risks Related to Oil and Gas Reserves](#) for a discussion of the uncertainty inherent in the estimation of proved reserves.



Our reserves data in 2015, 2016 and 2017 were prepared in accordance with the SEC's final rules on Modernization of Oil and Gas Reporting .

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***Internal Controls Over Reserves Estimates***

We have appointed a Reserves Assessment Directing Team, or the RAD Team. The leader of the RAD Team is our vice president in charge of our upstream business.

In recent years, we have been implementing a practicing professional certification regime to supervise our employees engaged in oil and gas reserves evaluation and auditing functions. We have set up a team of reserves auditors covering our headquarter office and regional companies to perform reserves evaluation and audits. Meanwhile, we have established a special reserves management department in our exploration and production segment. Each of the officers and employees of that department has over 20 years' experience in oil industry and over 10 years' experience in SEC-guided reserves evaluation. All of the members of that department have national-level registered qualifications in reserves expertise. Each regional company has established a reserves management committee and a multi-disciplinary reserves research office. Mr. Duan Xiaowen, the head of the Reserves Administration Division of the exploration and production segment, is the person in charge of our reserves estimation. Mr. Duan holds a bachelor's degree in geology and a master's degree in business administration. He has over 25 years of work experience in oil and gas exploration and development industry and has been engaged in reserves estimate and management for a long time. Since 2008, Mr. Duan has been involved in the supervision of reserves estimation and management in our company. In 2016, Mr. Duan became the division head primarily responsible for overseeing the preparation of the reserves estimates, estimation technology and management. The reserves research offices of the regional companies are responsible for estimating newly discovered reserves and updating the estimates of existing reserves. The results of our oil and gas reserves assessment are subject to a two-level review by both the regional companies and our exploration and production company, with final examination and approval by the RAD Team.

In addition, we commissioned independent assessment firms to independently reassess our annually assessed proved reserves in accordance with relevant SEC rules. We disclose the reserves as assessed by independent assessment firms in accordance with the SEC requirements.

***Third-Party Reserves Report***

DeGolyer and MacNaughton, an independent petroleum engineering consulting firm based in the United States, carried out an independent assessment of our reserves in China and certain other countries as of December 31, 2015, 2016 and 2017. Mr. Thomas C. Pence, a senior vice president of DeGolyer and MacNaughton, is primarily responsible for supervising the preparation of our reserves report. Mr. Pence is a Registered Professional Engineer in Texas, a member of the International Society of Petroleum Engineers, and has over 35 years of experience in oil and gas reservoir studies and reserves evaluations.

Ryder Scott Company, L.P. ( Ryder Scott ), an independent petroleum engineering consulting firm based in the United States, carried out an independent assessment of certain of our selected petroleum assets such as in Chad, West Qurna and Peru as of December 31, 2015, 2016 and 2017. Mr. John MacDonald and Mr. Timour Baichev, each a vice president of Ryder Scott, were responsible for overseeing the estimate of the reserves, future production and income as stated in the reserves report. Mr. John MacDonald is a licensed professional engineer and has over 33 years of experience in the petroleum reserves estimation and evaluation industry. Mr. Timour Baichev is a licensed professional engineer and has over 34 years of experience in the petroleum reserves estimation and evaluation industry.

GLJ Petroleum Consultants ( GLJ ), a petroleum consulting firm based in Canada, carried out an independent assessment of our reserves for certain gas and oil properties in Canada as of December 31, 2015, 2016 and 2017. Ms. Trisha MacDonald was the project manager for the evaluation. She is a senior engineer and has over 10 years of

relevant experience. Mr. Jodi L. Anhorn, the executive vice president and chief operation officer of GLJ, was the technical supervisor for the evaluation. He is an internationally recognized oil and gas resource evaluation expert and has over 20 years of working experience.

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McDaniel & Associates Consultants Ltd., a petroleum consulting firm with its headquarters in Canada, carried out an independent assessment of our reserves held through PetroKazakhstan Inc. as of December 31, 2015, 2016 and 2017. Mr. Cam Boulton, a vice president of McDaniel & Associates Consultants Ltd., was responsible for supervising the preparation of our reserves report. Mr. Boulton is a member of the Association of Professional Engineers and Geoscientists of Alberta and a member of Society of Petroleum Engineers. He has over 10 years experience in oil and gas reservoir evaluation.

None of the above consulting firms or their partners, senior officers or employees has any direct or indirect financial interest in our company and the remunerations to the firms are not in any way contingent upon reported reserves estimates.

For detailed information about our net proved reserves estimates, please refer to the summary reports of reserves filed hereto as exhibits to this annual report on Form 20-F.

The following table sets forth our estimated proved reserves (including proved developed reserves and proved undeveloped reserves), proved developed reserves and proved undeveloped reserves of crude oil and natural gas as of December 31, 2015, 2016 and 2017.

	Crude Oil (Million barrels)	Natural Gas <sup>(1)</sup> (Bcf)	Combined (BOE, in millions)
<b>Proved developed and undeveloped reserves</b>			
Reserves as of December 31, 2014	10,593.4	71,097.5	22,443.0
Revisions of previous estimates	(1,662.9)	(206.0)	(1,697.1)
Extensions and discoveries	456.9	9,764.2	2,084.3
Improved recovery	105.6		105.6
Sold			
Production for the year	(971.9)	(3,131.0)	(1,493.9)
Reserves as of December 31, 2015	8,521.1	77,524.7	21,441.9
Revisions of previous estimates	(810.9)	(863.2)	(954.7)
Extensions and discoveries	491.7	4,770.3	1,286.8
Improved recovery	93.0		93.0
Bought	63.6	554.5	156.0
Production for the year	(920.7)	(3,274.5)	(1,466.6)
Reserves as of December 31, 2016	7,437.8	78,711.8	20,556.4
Revisions of previous estimates	486.2	(1,750.8)	194.6
Extensions and discoveries	346.3	3,350.0	904.6
Improved recovery	98.0		98.0
Bought			
Production for the year	(887.0)	(3,423.4)	(1,457.7)
Reserves as of December 31, 2017	7,481.3	76,887.6	20,295.9
<b>Proved developed reserves</b>			
As of December 31, 2015	6,195.8	40,406.1	12,930.2
As of December 31, 2016	5,176.3	40,663.8	11,953.5
As of December 31, 2017	5,592.9	39,242.6	12,133.2
<b>Proved undeveloped reserves</b>			
As of December 31, 2015	2,325.3	37,118.6	8,511.7

As of December 31, 2016	2,261.5	38,048.0	8,602.9
As of December 31, 2017	1,888.4	37,645.0	8,162.7

(1) Represents natural gas remaining after field separation for condensate removal and reduction for flared gas. Our proved undeveloped reserves were 8,162.7 million BOE in 2017. The main changes in our proved undeveloped reserves in 2017 included (i) an increase of 904.6 million BOE through extensions and discoveries; (ii) an increase of 98.0 million BOE through improved recovery; (iii) a decrease of 465.6 million BOE due to our optimization adjustment in the investment plans with respect to certain proved undeveloped reserves; and (iv) the conversion of 977.2 million BOE of proved undeveloped reserves into proved developed reserves. In 2017, we spent RMB107,472 million on developing proved undeveloped reserves. The overwhelming majority of our

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proved undeveloped reserves were situated around the oil fields that are currently producing. The majority of our proved undeveloped reserves are already scheduled for development within five years after initial booking.

Some of our natural gas proved undeveloped reserves are being developed more than five years after their initial disclosure primarily due to the effect of long-term natural gas supply contracts. The sale of natural gas produced from our reserves located in China is subject to our long-term contractual obligations to provide a stable supply of natural gas to customers. We sell all of the natural gas through our pipelines and under long-term supply arrangements with customers.

There are mainly two types of long-term supply arrangements. The first is multi-year supply contracts with terms ranging from 20 to 30 years that can be extended upon mutual agreement. The second type is renewable annual contracts. The majority of the natural gas produced from our gas fields in China is put into our nationwide, long-range pipeline system and sold to customers who have entered into multi-year supply contracts with us in the areas where the long-range pipeline system covers. A small portion of the natural gas produced by our company is put into local or internal pipeline systems and sold to customers in the areas adjacent to our gas fields. These customers typically have formed de-facto long-term relationships with our company over the years and enter into supply contracts with us before the year end to determine the amount of gas to be purchased for the next year, with such contracts being renewed every year. In general, our supply relationships with customers under the annual contracts have existed for more than ten years.

Mainly as a result of our contractual obligations to ensure a long-term, stable supply of natural gas to customers, we must maintain a relatively large amount of proved undeveloped natural gas reserves and develop them over an extended period of time (in some cases, longer than five years).

The following tables set forth our crude oil and natural gas proved reserves and proved developed reserves by region as of December 31, 2015, 2016 and 2017.

	2015		As of December 31, 2016		2017	
	Proved Developed and Undeveloped	Proved Developed	Proved Developed and Undeveloped	Proved Developed	Proved Developed and Undeveloped	Proved Developed
<b>Crude oil reserves</b>						
Daqing	1,804.7	1,483.0	1,504.7	1,226.3	1,513.7	1,283.9
Changqing	2,186.0	1,600.6	1,917.8	1,319.1	2,049.2	1,413.9
Xinjiang	1,040.0	875.6	795.1	730.5	927.3	855.9
Other regions <sup>(1)</sup>	3,490.4	2,236.6	3,220.2	1,900.4	2,991.1	2,039.2
Total	8,521.1	6,195.8	7,437.8	5,176.3	7,481.3	5,592.9

	2015		As of December 31, 2016		2017	
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	<b>Proved Developed and Undeveloped</b>	<b>Proved Developed</b>	<b>Proved Developed and Undeveloped</b>	<b>Proved Developed</b>	<b>Proved Developed and Undeveloped</b>	<b>Proved Developed</b>
<b>Natural gas reserves<sup>(2)</sup></b>						
Changqing	25,808.0	10,826.0	25,697.9	9,920.8	25,509.2	9,107.4
Tarim	24,270.6	14,303.3	24,019.2	14,336.1	22,918.7	14,054.7
Chuanyu	13,399.5	5,833.1	13,905.1	6,982.4	13,838.0	6,756.5
Other regions <sup>(1)</sup>	14,046.6	9,443.7	15,089.6	9,424.5	14,621.7	9,324.0
Total	77,524.7	40,406.1	78,711.8	40,663.8	76,887.6	39,242.6

(1) Represents other oil regions in China and our overseas oil and gas fields.

(2) Represents natural gas remaining after field separation for condensate removal and reduction for flared gas.

**Table of Contents****Exploration and Development**

We are currently conducting exploration and development efforts in 12 provinces, two municipalities under the direct administration of the central government and three autonomous regions in China as well as in certain regions in other countries. We believe that we have more extensive experience in the exploration and development of crude oil and natural gas than any of our principal competitors in China.

The following table sets forth the number of wells we drilled, or in which we participated, and the results thereof, for the periods indicated.

Year	Daqing	Xinjiang	Changqing	Others <sup>(1)</sup>	Total
<b>2015</b>					
<b>Net exploratory wells drilled<sup>(2)</sup></b>	136	123	790	549	1,598
Crude oil	118	79	414	303	914
Natural gas	5	6	103	76	190
Dry <sup>(3)</sup>	13	38	273	170	494
<b>Net development wells drilled<sup>(2)</sup></b>	3,674	1,359	4,967	3,385	13,385
Crude oil	3,645	1,339	4,098	2,957	12,039
Natural gas	22	20	841	392	1,275
Dry <sup>(3)</sup>	7		28	36	71
<b>2016</b>					
<b>Net exploratory wells drilled<sup>(2)</sup></b>	148	134	955	550	1,787
Crude oil	127	87	625	353	1,192
Natural gas	9	1	125	75	210
Dry <sup>(3)</sup>	12	46	205	122	385
<b>Net development wells drilled<sup>(2)</sup></b>	3,150	792	5,135	2,194	11,271
Crude oil	3,129	777	4,526	1,824	10,256
Natural gas	15	15	551	354	935
Dry <sup>(3)</sup>	6		58	16	80
<b>2017</b>					
<b>Net exploratory wells drilled<sup>(2)</sup></b>	217	132	868	608	1,825
Crude oil	184	69	539	346	1,138
Natural gas	13	11	59	108	191
Dry <sup>(3)</sup>	20	52	270	154	496
<b>Net development wells drilled<sup>(2)</sup></b>	3,205	1,520	6,020	3,731	14,476
Crude oil	3,185	1,504	4,217	2,898	11,804
Natural gas	10	13	1,746	820	2,589
Dry <sup>(3)</sup>	10	3	57	13	83

(1) Represents the Liaohe, Jilin, Huabei, Dagang, Sichuan, Tarim, Tuha, Qinghai, Jidong, Yumen, Zhejiang, southern and other oil regions.

(2) Net wells refer to the wells after deducting interests of others. No third parties own any interests in any of our wells.

(3) Dry wells are wells with insufficient reserves to sustain commercial production.

We had 571 wells in the process of being drilled and 7,706 wells with multiple completions as of December 31, 2017.





**Table of Contents****Oil-and-Gas Properties**

The following table sets forth our interests in developed and undeveloped acreage by oil region and in productive crude oil and natural gas wells as of December 31, 2017.

Oil Region	Acreage <sup>(1)</sup> (Thousand acres)					
	Productive Wells <sup>(1)</sup>		Developed		Undeveloped	
	Crude Oil	Natural Gas	Crude Oil	Natural Gas	Crude Oil	Natural Gas
Daqing	75,137	328	1,151.91	103.41	796.18	112.28
Changqing	61,356	13,074	1,397.48	5,863.47	730.42	1,932.27
Xinjiang	32,884	284	390.48	63.44	229.39	18.27
Other regions <sup>(2)</sup>	73,917	6,027	1,635.40	1,305.08	1,064.25	1,754.88
<b>Total</b>	<b>243,294</b>	<b>19,713</b>	<b>4,575.27</b>	<b>7,335.40</b>	<b>2,820.24</b>	<b>3,817.70</b>

(1) Includes all wells and acreage in which we have an interest. No third parties own any interests in any of our wells or acreage.

(2) Represents the Liaohe, Jilin, Huabei, Dagang, Southwestern, Tarim, Tuha, Qinghai, Jidong, Yumen, Zhejiang, Southern and other oil regions.

**Production**

The following table sets forth our historical average net daily crude oil and natural gas production by region and our average sales price for the years ended December 31, 2015, 2016 and 2017.

	For the Year Ended December 31,			% of 2017 Total
	2015	2016	2017	
<b>Crude oil production<sup>(1)</sup></b>				
(thousand barrels per day, except percentages or otherwise indicated)				
Daqing	755.8	717.2	668.8	27.5
Changqing	502.0	482.7	479.9	19.7
Xinjiang	238.9	224.7	229.0	9.4
Other <sup>(2)</sup>	1,166.1	1,090.9	1,052.4	43.4
<b>Total</b>	<b>2,662.8</b>	<b>2,515.5</b>	<b>2,430.1</b>	<b>100</b>
Annual production (million barrels)	971.9	920.7	887.0	
Average sales price (US\$ per barrel)	48.35	37.99	50.64	

**Natural gas production<sup>(1)(3)</sup>**

(million cubic feet per day, except percentages or otherwise indicated)

Changqing	3,181.2	3,103.5	3,121.7	33.3
Tarim	2,083.0	2,093.1	2,277.3	24.3
Chuanyu	1,412.5	1,696.1	1,844.1	19.7
Other <sup>(4)</sup>	1,901.4	2,054.1	2,136.1	22.7
Total	8,578.1	8,946.8	9,379.2	100
Annual production (Bcf)	3,131.0	3,274.5	3,423.4	
Average realized price (US\$ per Mcf) <sup>(5)</sup>	6.23	4.67	5.18	

- (1) Production volumes for each region include our share of the production from all of our cooperative projects with foreign companies in that region.
- (2) Represents production from the Liaohe, Jilin, Huabei, Dagang, Tarim, Tuha, Qinghai, Jidong, Yumen and other oil regions and our share of overseas production as a result of our acquisition of overseas assets.
- (3) Represents production of natural gas for sale.
- (4) Represents production from the Daqing, Qinghai, Tuha, Xinjiang, Liaohe, Huabei, Dagang, Jilin, Jidong, Yumen and other oil and gas regions and our share of overseas production as a result of our acquisition of overseas assets.
- (5) For natural gas citygate price, please refer to Item 5 Operating and Financial Review and Prospects Overview .

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In 2017, we supplied a substantial majority of our total crude oil sales to our refineries. In addition, we enter into annual crude oil mutual supply framework agreement with Sinopec for supply of crude oil to each other's refineries. Under the annual agreement for 2018, we agreed in principle to supply 1.09 million tons of crude oil to Sinopec's refineries and Sinopec agreed in principle to supply 1.57 million tons of crude oil to us in 2018.

The following table sets forth our average sales prices and average lifting costs of crude oil and natural gas of our company on an overall basis and those in China in 2015, 2016 and 2017.

	<b>Crude Oil Average Realized Prices (RMB/ton)</b>	<b>Natural Gas Average Realized Prices (RMB/Kilostere)</b>	<b>Average Lifting Cost (US\$/BOE)</b>
2015			
Overall	2,225	1,371	12.98
China	2,237	1,468	14.26
2016			
Overall	1,865	1,097	11.67
China	1,831	1,146	13.00
2017			
Overall	2,526	1,236	11.53
China	2,494	1,225	12.71

**Principal Oil and Gas Regions*****Daqing Oil Region***

The Daqing oil region, our largest oil and gas producing property, is located in the Songliao basin and covers an area of approximately one million acres. In 2015, 2016 and 2017, our crude oil production volume in the Daqing oil region was 755.8 thousand barrels, 717.2 thousand barrels and 668.8 thousand barrels per day, respectively. As of December 31, 2017, we produced crude oil from 40 fields in the Daqing oil region.

As of December 31, 2017, our proved crude oil reserves in the Daqing oil region were 1,513.7 million barrels, representing 20.2% of our total proved crude oil reserves. As of December 31, 2015 and 2016, the proved crude oil reserves in our Daqing oil region were 1,804.7 million barrels and 1,504.7 million barrels, respectively. In 2017, the crude oil reserve-to-production ratio of the Daqing oil region was 6.1 years.

Daqing's crude oil has low sulfur and high paraffin content. As many refineries in China, particularly those in Northeastern China, are configured to refine Daqing crude oil, we have a stable market for the crude oil we produce in the Daqing oil region.

***Changqing Oil and Gas Region***

The Changqing oil and gas region covers parts of Shaanxi Province, Gansu Province, Ningxia, Inner Mongolia and Shanxi Province. As of December 31, 2017, our proved crude oil reserves in the Changqing oil region were 2,049.2 million barrels, representing 27.4% of our total proved crude oil reserves. In 2017, our crude oil production in the Changqing oil region averaged 479.9 thousand barrels per day, representing approximately 19.7% of our total daily crude oil production. In 2017, the crude oil reserve-to-production ratio at the Changqing oil region was 11.7

years.

In the early 1990s, we discovered the Changqing oil and gas region, which had total proved natural gas reserves of 25,509.2 Bcf as of December 31, 2017, representing 33.2% of our total proved natural gas reserves. In January 2001, we discovered the Sulige gas field in the Changqing oil and gas region, which had total proved natural gas reserves of 14,822.6 Bcf as of December 31, 2017. Sulige gas field is currently the largest gas field in China. In 2017, the Changqing oil and gas region produced 1,139.4 Bcf of natural gas for sale, representing an increase of 0.3% from 1,135.9 Bcf in 2016.

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***Xinjiang Oil Region***

The Xinjiang oil region is one of our four largest crude oil producing properties and is located in the Junggar basin in Northwestern China. We commenced our operations in the Xinjiang oil region in 1951. The Xinjiang oil region covers a total area of approximately 900,000 acres.

As of December 31, 2017, our proved crude oil reserves in the Xinjiang oil region were 927.3 million barrels, representing 12.4% of our total proved crude oil reserves. In 2017, our oil fields in the Xinjiang oil region produced an average of 229.0 thousand barrels of crude oil per day, representing approximately 9.4% of our total daily crude oil production. In 2017, the crude oil reserve-to-production ratio at the Xinjiang oil region was 11.1 years.

***Tarim Oil and Gas Region***

The Tarim oil and gas region is located in the Tarim basin in Northwestern China with a total area of approximately 590,000 acres. In 1998, we discovered the Kela 2 natural gas field in the Tarim oil and gas region. As of December 31, 2017, the proved natural gas reserves in the Tarim oil and gas region reached 22,918.7 Bcf, representing 29.8% of our total proved natural gas reserves.

In 2017, we produced 831.2 Bcf of natural gas for sale in the Tarim oil and gas region. We have completed the construction of the pipelines to deliver natural gas in the Tarim oil and gas region to the central and Eastern regions of China where there is strong demand for natural gas transmitted through our West-East Gas Pipelines. See [Natural Gas and Pipeline](#) [Natural Gas Transmission Infrastructure](#) for a discussion of our West-East Gas Pipeline.

***Chuanyu Gas Region***

We began natural gas exploration and production in the Chuanyu gas region in the 1950s. The Chuanyu gas region covers a total area of approximately 2.3 million acres. The natural gas reserve-to-production ratio in the Chuanyu gas region was approximately 20.6 years in 2017. As of December 31, 2017, we had 116 natural gas fields under development in the Chuanyu gas region.

As of December 31, 2017, our proved natural gas reserves in the Chuanyu gas region were 13,838.0 Bcf, representing 18.0% of our total proved natural gas reserves and a decrease of 0.5% from 13,905.1 Bcf as of December 31, 2016. In 2017, our natural gas production for sale in the Chuanyu gas region reached 673.1 Bcf, representing 19.7% of our total natural gas production for sale.

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**Table of Contents****Refining and Chemicals**

We now operate 29 enterprises located in nine provinces, four autonomous regions and three municipalities to engage in refining of crude oil and petroleum products, as well as the production and marketing of basic petrochemical products, derivative chemical products and other chemical products.

The following table sets forth the financial and operating data of our refining and chemicals segment for each of the years ended December 31, 2015, 2016 and 2017:

	<b>Year Ended December 31,</b>		
	<b>2015</b>	<b>2016</b>	<b>2017</b>
Revenue (RMB in millions)	642,428	582,510	707,804
Profit from operations (RMB in millions)	4,883	39,026	39,961
Crude oil processed (million barrels)	998.1	953.3	1,016.9
Crude oil primary distillation capacity (million barrels/year)	1,252.4	1,257.6	1,347.0
Production of refined oil products (thousand tons)	91,933	86,022	92,715

**Refining*****Refined Products***

We produce a wide range of refined products at our refineries. Some of the refined products are for our internal consumption and used as raw materials in our petrochemical operation. The table below sets forth production volumes for our principal refined products for each of the years ended December 31, 2015, 2016 and 2017.

<b>Principal Product</b>	<b>Year Ended December 31,</b>		
	<b>2015</b>	<b>2016</b>	<b>2017</b>
	<b>(In thousand tons)</b>		
Diesel	54,182	46,689	48,241
Gasoline	32,258	33,275	37,363
Kerosene	5,493	6,058	7,111
Lubricants	1,210	1,164	1,636
Fuel oil	2,700	2,222	1,880
Naphtha	9,748	9,919	10,032

***Our Refineries***

Most of our refineries are strategically located close to our crude oil production and storage bases along our crude oil and refined product transmission pipelines and railways, which provide our refineries with secure supplies of crude oil and facilitate our distribution of refined products to the domestic markets.

In 2017, we further optimized our production processes, adjusted our products portfolio and concentrated our resources and production capacity on products with high profit margins. We reduced the diesel-gasoline ratio from 1.40 in 2016 to 1.29 in 2017. In each of the years ended December 31, 2015, 2016 and 2017, our exploration and production operations supplied approximately 69.9%, 71.8% and 67.0%, respectively, of the crude oil processed in our refineries.





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The table below sets forth certain operating statistics regarding our refineries as of December 31, 2015, 2016 and 2017.

	As of December 31,		
	2015	2016	2017
<b>Primary distillation capacity<sup>(1)</sup></b> (thousand barrels per day)			
Lanzhou Petrochemical	212.6	212.6	212.6
Dalian Petrochemical	415.0	415.0	415.0
Fushun Petrochemical	222.7	222.7	222.7
Dushanzi Petrochemical	202.4	202.4	202.4
Guangxi Petrochemical	202.4	202.4	202.4
Jilin Petrochemical	198.4	198.4	198.4
Sichuan Petrochemical	202.4	202.4	202.4
Yunnan Petrochemical <sup>(2)</sup>			263.2
Other refineries	1,775.4	1,789.6	1,771.4
<b>Total</b>	<b>3,431.3</b>	<b>3,445.5</b>	<b>3,690.5</b>
<b>Refining throughput</b> (thousand barrels per day)			
Lanzhou Petrochemical	195.8	166.6	178.3
Dalian Petrochemical	280.7	263.5	217.4
Fushun Petrochemical	164.0	170.5	158.9
Dushanzi Petrochemical	139.8	151.2	149.1
Guangxi Petrochemical	130.3	90.9	143.3
Jilin Petrochemical	162.0	184.3	181.6
Sichuan Petrochemical	152.0	141.0	147.5
Yunnan Petrochemical <sup>(2)</sup>			81.4
Other refineries	1,509.9	1,443.9	1,528.6
<b>Total</b>	<b>2,734.5</b>	<b>2,611.8</b>	<b>2,786.1</b>

(1) Represents the primary distillation capacity of crude oil and condensate.

(2) Yunnan Petrochemical commenced operations in August 2017.

In each of the years ended December 31, 2015, 2016 and 2017, the average utilization rate of the primary distillation capacity at our refineries was 84.2%, 80.3% and 80.3%, respectively, and the average yield for our four principal refined products (gasoline, kerosene, diesel and lubricants) at our refineries was 69.0%, 67.6% and 68.6%, respectively. Yield represents the number of tons of a refined product expressed as a percentage of the number of tons of crude oil from which that product is processed. In each of the years ended December 31, 2015, 2016 and 2017, the overall refining yield at our refineries was 93.8%, 93.5% and 93.3%, respectively.

In 2017, Dalian Petrochemical, Yunnan Petrochemical, Fushun Petrochemical, Lanzhou Petrochemical, Dushanzi Petrochemical, Guangxi Petrochemical, Sichuan Petrochemical, and Jilin Petrochemical were our leading refineries in terms of both primary distillation capacity and refining throughput.

To maintain efficient operations of our facilities and lower production costs, we have endeavored to achieve the most cost-efficient proportions of various types of crude oil in our refining process. We purchase a portion of our crude oil requirements from third-party international suppliers located in different countries and regions. In 2017, we purchased crude oil sourced from Rosneft, a Russian company which is subject to U.S. economic sanctions for use in our refining operations. The revenue generated from our refinery from the crude oil sourced from Rosneft accounted for 2.27% of our total revenue in 2017, respectively. See Item 3 Key Information Risk Factors Risks Related to Outbound Investments and Trading.

### **Chemicals**

Most of our chemical plants are close to our refineries and are connected to the refineries by pipelines, providing additional production flexibility and opportunities for cost competitiveness. The raw materials required by our chemicals operations have been supplied by our own refineries.

**Table of Contents*****Our Chemical Products***

The table below sets forth the production volumes of our principal chemical products for each of the years ended December 31, 2015, 2016 and 2017.

	<b>Year Ended December 31,</b>		
	<b>2015</b>	<b>2016</b>	<b>2017</b>
	<b>(In thousand tons)</b>		
<b>Basic petrochemicals</b>			
Propylene	4,848	5,120	5,322
Ethylene	5,032	5,589	5,764
Benzene	1,896	1,918	2,209
<b>Derivative petrochemicals</b>			
Synthetic resin	8,215	9,078	9,284
Other synthetic fiber raw materials and polymer	1,348	1,410	1,390
Synthetic rubber	713	760	809
<b>Other chemicals</b>			
Urea	2,566	1,900	1,439

We are one of the major producers of ethylene in China. We use the bulk of the ethylene we produce as a principal feedstock for the production of many chemical products, such as polyethylene. As of December 31, 2017, our annual ethylene production capacity was 5,910 thousand tons. We produce a number of synthetic resin products, including polyethylene, polypropylene and ABS. As of December 31, 2017, our annual production capacities for polyethylene, polypropylene and ABS were 5,062 thousand tons, 4,120 thousand tons and 705 thousand tons, respectively.

***Marketing of Chemicals***

Our chemical products are distributed to a number of industries including the automotive, construction, electronics, medical manufacturing, printing, electrical appliances, household products, insulation, packaging, paper, textile, paint, footwear, agriculture and furniture industries.

The following table sets forth the sales volumes of our chemical products by principal product category for each of the years ended December 31, 2015, 2016 and 2017.

<b>Product</b>	<b>Year Ended December 31,</b>		
	<b>2015</b>	<b>2016</b>	<b>2017</b>
	<b>(In thousand tons)</b>		
<b>Derivative petrochemicals</b>			
Synthetic resin	8,222.3	8,998.4	9,166.0
Synthetic fiber	83.7	83.6	76.9
Synthetic rubber	764.5	793.7	813.6
Intermediates	8,838.3	9,262.4	10,324.6
<b>Other chemicals</b>			
Urea	2,106.1	2,181.8	1,171.8

In each of the years ended December 31, 2015, 2016 and 2017, our capital expenditures for our refining and chemicals segment amounted to approximately RMB15,725 million, RMB12,847 million and RMB17,705 million, respectively. These capital expenditures were incurred primarily in connection with the construction and expansion of our refining and chemical facilities and the upgrading of our product quality. We believe that our refined products are capable of meeting the product specification and environmental protection requirements as set by the PRC government.

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**Table of Contents****Marketing**

We engage in the marketing of refined products through 37 regional sales companies including three distribution branch companies, one lubricant branch company, one fuel oil company and one convenience store chain company, PetroChina uSmile Company Limited, operated under the trade name uSmile. These operations include the transportation and storage of the refined products, and the wholesale, retail and export of gasoline, diesel, kerosene, lubricant, asphalt and other refined products. In addition, with respect to our international trading sector, we have optimized the import and export resources, focused on synergies, actively expanded into the high-end markets, and maintained growth in trading volume and improved operation results.

The following table sets forth the financial and operating data of our marketing segment for each of the years ended December 31, 2015, 2016 and 2017:

	<b>Year Ended December 31,</b>		
	<b>2015</b>	<b>2016</b>	<b>2017</b>
Revenue (RMB in millions)	1,383,426	1,301,616	1,660,456
(Loss)/profit from operations (RMB in millions)	(500)	11,048	8,279
External sales volume of refined oil products (thousand tons)	160,097	159,107	169,466

We market a wide range of refined products, including gasoline, diesel, kerosene and lubricants, through an extensive network of sales personnel and independent distributors and a broad wholesale and retail distribution system across China. As of December 31, 2017, our marketing network consisted of:

Numerous nationwide wholesale distribution outlets. All of these outlets are located in high demand areas across China, particularly in the coastal areas, along major railways and along the Yangtze River; and

21,399 service stations, consisting of 20,350 service stations owned and operated by us and 1,049 franchised service stations owned and operated by third parties.

In addition, we took active steps to adapt to changes in market condition and customer demand, including enhanced integrated marketing of refined products, fuel cards, non-oil business, lubricants and gas, enhanced internet marketing and carried out various promotion activities. We integrated our WeChat official account and our mobile application, expanded our internet payment services and enhanced our marketing of non-oil businesses.

The PRC government and other institutional customers, including railway, transportation and fishery operators, are long-term purchasers of the gasoline and diesel that we produce. We sell gasoline and diesel to these customers at the supply prices for special customers published by the PRC government. See [Regulatory Matters Pricing Refined Products](#) for a discussion of refined product pricing.

The following table sets forth our sales volumes of diesel, gasoline, kerosene and lubricants for each of the years ended December 31, 2015, 2016 and 2017.

**Year Ended December 31,**

<b>Product</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>
	<b>(In thousand tons)</b>		
Diesel	84,763	80,168	87,324
Gasoline	60,651	62,406	65,293
Kerosene	14,683	16,533	16,849
Lubricants	1,150	1,122	1,283



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***Wholesale Marketing***

We sell refined products both directly and through independent distributors into various wholesale markets, as well as to utility, commercial, petrochemical, aviation, agricultural, fishery and transportation companies in China. Our gasoline and diesel sales also include the amount we transferred to our retail operations.

***Retail Marketing***

The weighted average sales volume of gasoline and diesel per business day at our service station network was 10.6 tons, 10.5 tons and 10.5 tons per service station in 2015, 2016 and 2017, respectively.

Capital expenditures for the marketing segment for the years ended December 31, 2015, 2016 and 2017 amounted to RMB7,061 million, RMB7,983 million and RMB10,982 million, respectively, which were used mainly for the construction of sales network facilities including service stations and oil storage tanks.

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**Table of Contents****Natural Gas and Pipeline**

We are China's largest natural gas transporter and seller in terms of sales volume. We sell natural gas primarily to industrial companies, power plants, fertilizer and chemical companies, commercial users and municipal utilities owned by local governments. In addition, we also transmit crude oil and refined products in the natural gas and pipeline segment.

The following table sets forth the financial and operating data of our natural gas and pipeline segment for each of the years ended December 31, 2015, 2016 and 2017:

	<b>As of December 31 or Year Ended December 31,</b>		
	<b>2015</b>	<b>2016</b>	<b>2017</b>
Revenue (RMB in millions)	281,778	247,477	295,786
Profit from operations (RMB in millions)	51,231	17,885	15,688
Total length of natural gas pipelines (km)	48,629	49,420	51,315
Total length of crude oil pipeline (km)	18,892	18,872	19,670
Total length of refined oil products pipeline (km)	10,091	10,560	11,389
Total volume of natural gas sold <sup>(1)</sup> (Bcf)	5,583.6	6,469.8	6,588.5

(1) Represents the natural gas sold to third parties.

**Our Principal Markets for Natural Gas**

We sell our natural gas across China. Our natural gas supply covers all provinces, municipalities under direct administration of the central government and autonomous regions of China, other than Macau and Taiwan. We supply natural gas to Tibet by means of LNG tanker trucks.

The Bohai Rim is one of our principal markets for natural gas. The natural gas supplied to Bohai Rim is primarily sourced from the Changqing oil and gas region and transmitted through the Shaanxi to Beijing natural gas pipeline system.

The Yangtze River Delta and Southwestern region in China are also our principal markets. We supply natural gas to these regions primarily from our domestic production sites and through long-distance pipelines and by LNG tanker trucks.

In addition to the above, provinces such as Henan, Hubei, Anhui and Hunan, consume more and more natural gas and have become another significant natural gas market of us.

We are committed to providing approximately 5,547 Bcf of natural gas in 2018. However, the committed quantity of supply may be adjusted by the buyers in light of the actual situation.

Driven by environmental and efficiency concerns, the PRC government is increasingly encouraging industrial and residential use of natural gas. The PRC government has adopted a number of laws and regulations to require local governments to increase the use of clean energy, such as natural gas and liquefied petroleum gas, to replace the use of raw coal. Several local governments have adopted policies to facilitate an increase in natural gas consumption in order

to reduce the air pollution level. The PRC government has also adopted preferential value-added tax rate for natural gas production. Effective from May 1, 2018, the value-added tax rate for natural gas will be 10%, as compared to 16% for crude oil. In 2017, the PRC government issued a new policy to accelerate the large-scale and high-efficient utilization of natural gas in urban gas, industrial fuel, gas-fired power generation and transportation, and to significantly increase the proportion of use of natural gas in primary energy consumption. The overall goal of the policy is that the proportion of natural gas in the primary energy consumption to reach around 10% by 2020 and 15% by 2030, and the underground gas storage to form an effective working gas volume of over 14.8 billion cubic meters by 2020 and over 35 billion cubic meters by 2030.

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We believe that these policies have had a positive effect on the development and consumption of natural gas in many municipalities that are our existing or potential markets for natural gas. We believe that these favorable policies will continue to benefit our natural gas business.

### **Natural Gas Transmission Infrastructure**

As of December 31, 2017, we owned and operated approximately 51,315 kilometers of natural gas pipelines in China. Our natural gas pipelines represent the vast majority of China's onshore natural gas pipelines. Our existing natural gas pipelines form a national trunk network for natural gas supply and the regional natural gas supply networks in Northwestern, Southwestern, Northern and central China as well as the Yangtze River Delta.

#### ***The First West-East Gas Pipeline***

The construction of the First West-East Gas Pipeline commenced officially in July 2002 and was completed and put into operation on October 1, 2004. The main line of our West-East Gas Pipeline links our natural gas fields in Xinjiang and Changqing with Henan Province, Anhui Province, Jiangsu Province, Shanghai Municipality and other areas in the Yangtze River Delta. It is designed to mainly transmit the natural gas produced at Tarim oil region to Henan, Anhui, Jiangsu, Zhejiang and Shanghai. The First West-East Gas Pipeline includes one main line, three main branch lines and numerous accessory branch lines, and two underground storage facilities, with a total length of 5,778 kilometers, of which the main line has a total length of 3,833 kilometers. The First West-East Gas Pipeline has a designed annual throughput capacity of 600.4 Bcf.

#### ***The Second West-East Gas Pipeline***

In February 2008, we commenced the construction of the Second West-East Gas Pipeline. The west section of the Second West-East Gas Pipeline was put into operation in December 2009. In June 2011, the east section was put into operation. By the end of 2012, the main line and branch lines as well as the Hong Kong branch line of the Second West-East Gas Pipeline were all completed and put into operation. The Second West-East Gas Pipeline includes one main line, eight main branch lines and numerous accessory branch lines and three underground storage facilities, with a total length of 8,601 kilometers. The main line of the Second West-East Gas Pipeline has a length of 4,845 kilometers. The western section of the main line extends from Horgos to Zhongwei with a length of 2,325 kilometers and a designed annual throughput capacity of 1,059.5 Bcf. The eastern section of the main line extends from Zhongwei to Guangzhou with a length of 2,520 kilometers and a designed annual throughput capacity of 988.8 Bcf.

#### ***The Third West-East Gas Pipeline***

The Third West-East Gas Pipeline extends from Horgos to Fuzhou via Zhongwei. It consists of the western section, middle section and the eastern section. The western section extending from Horgos to Zhongwei, with a length of 2,445 kilometers and an annual throughput capacity of 1,059.4 Bcf, was completed in the end of 2014. The eastern section extending from Ji'an to Fuzhou, with a length of 817 kilometers and an annual throughput capacity of 529.7 Bcf, was completed in the end of 2016. The middle section extends from Zhongwei to Ji'an, of which, the Zhongwei-Zaoyang section is 1,218 kilometers long with a designed throughput capacity of 1,059.4 Bcf, which is expected to be completed by 2023, and the Zaoyang-Ji'an section is 798 kilometers long with a designed capacity of 882.8 Bcf, which is expected to be completed by 2021. In 2017, the Zhongwei-Jingbian line, as a linking-up line of the middle section, was completed and commenced operations.

In addition, we also operate other natural gas pipelines, such as the Zhong County-Wuhan natural gas pipeline, the four Shaanxi-Beijing natural gas pipelines and Sebei-Lanzhou natural gas pipelines. The construction of the fourth

Shaanxi-Beijing Natural Gas Pipeline was completed and commenced operations in 2017.

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### **Crude Oil Transportation Infrastructure**

We have an extensive network for transportation, storage and distribution of crude oil, which covers many regions of China. As of December 31, 2017, we had crude oil pipelines of 19,670 kilometers.

#### ***Russia-China Crude Oil Pipeline***

In May 2009, we commenced the construction of the Russia-China crude oil transmission pipeline (the Mohe-Daqing section) upon the approval of the National Development and Reform Commission, or NDRC. In September 2010, we completed construction of the entire line and put it into commercial production in January 2011. We were the builder and operator of the section crossing the Heilongjiang River and the section which lies in China. This pipeline extends from the Skovorodino off-take station of Russia's Far East Pipeline through Galinda at the Russian border, Heilongjiang Province, Inner Mongolia, to Daqing terminal station. This pipeline is 935 kilometers long and has a designed annual transmission capacity of 15 million tons. In February 2016, the second Russia-China oil pipeline from Mohe to Daqing was approved by the NDRC. We commenced the construction of the line in July 2016 and put it into operations in January 2018. The pipeline is 941 kilometers long and has a designed annual transmission capacity of 15 million tons.

In addition, we also operate other crude oil pipelines, including the western crude oil pipeline, the northeastern crude oil pipeline network and the Lanzhou-Chengdu crude oil pipeline.

### **Refined Product Transportation Infrastructure**

As of December 31, 2017, we had refined product pipelines of 11,389 kilometers.

#### ***The Lanzhou-Zhengzhou-Changsha Pipeline***

We received approval from the NDRC for and commenced construction of the Lanzhou-Zhengzhou-Changsha refined oil pipeline in December 2007. The pipeline starts from Lanzhou of Gansu Province and terminates at Changsha of Hunan Province, with a total length of 3,027 kilometers, including the length of all the main lines and branch lines. We finished construction and commenced the operation of the section from Lanzhou to Zhengzhou in April 2009 and the section from Zhengzhou to Wuhan in August 2009. The construction of all the main lines and branch lines was completed by October 2013.

In addition, we also operate other refined product pipelines, such as the refined product pipelines for western regions and Lanzhou-Chengdu-Chongqing refined product pipeline.

During the past three years, we have not experienced any delays in delivering natural gas, crude oil and refined products due to pipeline capacity constraints.

### **Competition**

As an oil and gas company operating in a competitive industry, we compete in each of our business segments in both China and international markets for desirable business prospects and for customers. Our principal competitors in China are China Petroleum and Chemical Corporation, or Sinopec, and China National Offshore Oil Corporation, or CNOOC.

### **Exploration and Production Operations**

We are the largest onshore oil and gas company in China in terms of proved crude oil and natural gas reserves as well as crude oil and natural gas production and sales. However, we compete with other domestic oil and gas companies for the acquisition of desirable crude oil and natural gas prospects. Similarly, we face some



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competition in the development of offshore oil and gas resources. In addition, the gradual development of the low-cost shale gas and shale oil in the United States has had a material effect on our business. We believe that our experience in crude oil and natural gas exploration and production and our advanced exploration and development technologies that are suitable for diverse geological conditions in China will enable us to maintain our dominant position in discovering and developing crude oil and natural gas reserves in China.

### **Refining and Chemicals Operations and Marketing Operations**

We compete with Sinopec in our refining and chemicals operations and marketing operations on the basis of price, quality and customer service. Most of our refineries and chemical plants are located in the Northeastern and Northwestern regions of China where we have the dominant market share for refined products and chemical products. We sell the remainder of our refined products and chemical products to the Eastern, Southern, Southwestern and Central-southern regions of China, where our products have a considerable market share. The Eastern and Southern regions of China, where refined products and chemical products are in higher demand, are important markets for our refined products and chemical products. Sinopec has a strong presence in the Eastern and Southern regions of China in competition with us, and most of Sinopec's refineries, chemical plants and distribution networks are located in these regions in close proximity to these markets. Moreover, as the newly constructed facilities of CNOOC commenced operation in the same region, large quantity of chemical products have been marketed into that area, which made the competition even intense. We expect that we will continue to face competition in our refined products and chemical products sales in these regions.

As a result of China's recent policies towards diversification of market participants, we also face competition from new market participants. Over the recent years, large state-owned enterprises, such as Sinochem Group and China North Industries Group Corporation, have entered the refinery sector and local independent refineries have been growing rapidly. The refinery sector in China, which had long been dominated by us and Sinopec, has been more competitive.

We also face competition from imported refined products and chemical products in terms of price and quality. In recent years, competition from foreign producers of refined products and chemical products has increased and the retail and wholesale markets in China for refined products and chemical products have been gradually opened to foreign competition as a result of the changes in China's tariff policies toward imported refined products and chemical products. For example, sales of chemical products imported from the Middle East increased rapidly in China in recent years. In response, we have to reduce our production costs, improve the quality of our products and optimize our product mix.

In addition, we also face competition from alternative energies. For example, electric car, as a clean means of transport with zero pollution and zero emission has won the favor of the government. The central and local governments have imposed restrictions on oil-powered cars, while encouraged electricity-powered cars. The alternative energy-powered cars, especially electric cars, will continue to grow. Despite the issues such as immature technologies, short range and limited infrastructure with respect to electric cars, with the importance attached by the central governments to the development of electric car batteries and electric car technologies and the focus given by the local government to the construction of electric car charging infrastructure, the advantages of electric cars will be fully demonstrated in the future. As a result, the impact of the innovation of electric cars on us will become increasingly obvious and the effect of the refined oil being substituted will be even more prominent.

### **Natural Gas and Pipeline Operations**

We are the largest natural gas supplier in the PRC in terms of sales volume. Currently, we face competition from Sinopec, CNOOC, coal-based natural gas producers and other companies engaged in import of natural gas in the

supply of natural gas to Beijing, Tianjin, Hebei Province, Shanghai, Jiangsu Province, Anhui Province, Henan Province, Hubei Province, Hunan Province and the Northwestern regions of China, our existing principal

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markets for natural gas. Currently, Sinopec has natural gas fields in Sichuan Province and Chongqing Municipality and sells natural gas to users in places such as Sichuan, Chongqing, Hunan, Jiangsu, Zhejiang and Shanghai. We have also expanded into the coastal regions in Eastern and Southern China where we may face competition from CNOOC and Sinopec. We believe that our dominant natural gas resources base, our relatively advanced automatic technologies in pipeline transmission and our skills in managing long distance pipelines will enable us to continue to be a dominant player in the natural gas markets in China.

See Item 3 Key Information Risk Factors Risks Related to Competition .

### **Environmental Matters**

Like other companies in the industries in which we operate, we are subject to numerous national, regional and local environmental laws and regulations promulgated by the governments in those jurisdictions. These laws and regulations concern our oil and gas exploration and production operations, petroleum and petrochemical products and other activities. In particular, some of these laws and regulations:

require an environmental evaluation report to be submitted and approved prior to the commencement of exploration, production, refining and chemical projects;

restrict the type, quantities, and concentration of various substances that can be released into the environment in connection with drilling and production activities;

limit or prohibit drilling activities within protected areas and certain other areas; and

impose penalties for pollution resulting from oil, natural gas and petrochemical operations, including criminal and civil liabilities for serious pollution.

These laws and regulations may also restrict air emissions and discharges to surface and subsurface water resulting from the operation of natural gas processing plants, chemical plants, refineries, pipeline systems and other facilities that we own. In addition, our operations are subject to laws and regulations relating to the generation, handling, storage, transportation, disposal and treatment of solid waste materials.

We anticipate that the environmental laws and regulations to which we are subject will become increasingly strict and are therefore likely to have an increasing impact on our operations. It is difficult, however, to predict accurately the effect of future developments in such laws and regulations on our future earnings and operations. Some risk of environmental costs and liabilities is inherent in our operations and products, as it is with other companies engaged in similar businesses. We cannot assure you that material costs and liabilities will not be incurred. However, we do not currently expect any material adverse effect on our financial condition or results of operations as a result of compliance with such laws and regulations. We paid pollutant discharge fees of approximately RMB347 million, RMB388 million and RMB333 million in 2015, 2016 and 2017, respectively.

To meet future environmental obligations, we are engaged in a continuous program to develop effective environmental protection measures. This program includes:

building environment-friendly projects;

reducing sulfur levels in gasoline and diesel fuel;

reducing olefins and benzene content in gasoline, and continuously reducing the quantity of emissions and effluents from our refineries and petrochemical plants; and

developing and installing monitoring systems at our pollutant discharge openings and developing environmental impact assessments for construction projects.

Our capital expenditures on environmental programs in 2015, 2016 and 2017 were approximately RMB4.14 billion, RMB3.10 billion and RMB4.17 billion, respectively.

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Because a number of our production facilities are located in populated areas, we have established a series of preventative measures to improve the safety of our employees and surrounding residents and minimize disruptions or other adverse effects on our business. These measures include:

providing each household in areas surrounding our production facilities with printed materials to explain and illustrate safety and protection knowledge and skills; and

enhancing the implementation of various effective safety production measures we have adopted previously. We believe that these preventative measures have helped reduce the possibility of incidents that may result in serious casualties and environmental consequences. In addition, the adoption of these preventative measures has not required significant capital expenditures to date, and therefore, will not have a material adverse effect on our results of operations and financial condition.

See Item 3 Key Information Risk Factors Risks Related to Environmental Protection and Safety and Item 3 Key Information Risk Factors Risks Related to Climate Change .

## **Legal Proceedings**

We are involved in several legal proceedings concerning matters arising in the ordinary course of our business. We believe, based on currently available information, that these proceedings, individually or in the aggregate, will not have a material adverse effect on our results of operations or financial condition.

## **Properties**

We own substantially all of our properties, plants and equipment relating to our business activities. We hold exploration and production licenses covering all of our interests in developed and undeveloped acreage, oil and natural gas wells and relevant facilities.

## **Intellectual Property**

Our company logo is jointly owned by us and CNPC and has been used since December 26, 2004. Together with CNPC, we have applied for trademark registrations of the logo with the State Trademark Bureau of the PRC. To date, most of our applications for registration of and our other trademarks have been approved and certain others are either in the process of review or public announcement phase. In addition, together with CNPC, we have applied for international trademark registration for our logo in other jurisdictions. We have received 583 International Trademark Registration Certificates for our logo covering more than 50 jurisdictions.

As of December 31, 2017, we owned approximately 13,500 patents in China and other jurisdictions. We were granted 2,292 patents in China in 2017.

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**Regulatory Matters**

**Overview**

China's oil and gas industry is subject to extensive regulation by the PRC government with respect to exploration, production, transmission and marketing of crude oil and natural gas as well as production, transportation and marketing of refined products and chemical products. The following central government authorities exercise control over China's oil and gas industry:

The Ministry of Natural Resources (formerly known as the Ministry of Land and Resources), or the MNR, has the authority to grant, examine and approve oil and gas exploration and production licenses, and to oversee the registration and transfer of exploration and production licenses;

The Ministry of Commerce, or the MOFCOM,

sets and grants import and export volume quotas for crude oil and refined products in accordance with the market supply and demand in China as well as WTO requirements for China; and

issues import and export licenses for crude oil and refined products to oil and gas companies that have obtained import and export quotas.

The National Development and Reform Commission, or the NDRC:

is responsible for industry administration, industry policy and policy coordination over China's oil and gas industry;

publishes guidance prices for natural gas and maximum retail prices for certain refined products, including gasoline and diesel;

formulates the plan for aggregate import and export volume of crude oil and refined products in accordance with the market supply and demand in China;

approves significant petroleum, natural gas, oil refinery and chemical projects set forth under the Catalogs of Investment Projects Approved by the Central Government; and

approves Sino-foreign equity and cooperative projects of certain types.

**Exploration Licenses and Production Licenses**

The *Mineral Resources Law* authorizes the MNR to exercise administrative authority over the exploration and production of mineral resources within the PRC. The *Mineral Resources Law* and its supplementary regulations provide the basic legal framework under which exploration licenses and production licenses are granted. The MNR has the authority to issue exploration licenses and production licenses. Applicants must be companies approved by the State Council to engage in oil and gas exploration and production activities.

Applicants for exploration licenses must first register with the MNR blocks in which they intend to engage in exploration activities. The holder of an exploration license is obligated to make a progressively increasing annual minimum exploration investment in each corresponding block. Investments range from RMB2,000 per square kilometer for the initial year to RMB5,000 per square kilometer for the second year, and to RMB10,000 per square kilometer for the third and subsequent years. Additionally, the holder has to pay an annual exploration license fee that starts at RMB100 per square kilometer for each of the first three years and increases by an additional RMB100 per square kilometer per year for subsequent years up to a maximum of RMB500 per square kilometer. The maximum term of an oil and natural gas exploration license is seven years, subject to renewal upon expiration of the original term, with each renewal being up to two years. At the exploration stage, an applicant can also apply for a progressive exploration and production license that allows the holder to test and develop reserves not yet fully proven. Upon the detection and confirmation of the quantity of reserves in a certain block, the holder must apply for a production license based on economic evaluation, market conditions and

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development planning in order to shift into the production phase in a timely fashion. In addition, the holder needs to obtain the right to use that block of land. Generally, the holder of a full production license must obtain a land use rights certificate for industrial land use covering that block of land.

The MNR issues production licenses to applicants on the basis of the reserves reports approved by the relevant authorities. Production license holders are required to pay an annual production right usage fee of RMB1,000 per square kilometer. Administrative rules issued by the State Council provide that the maximum term of a production license is 30 years, 20 years, or 10 years as applicable to large, medium and small mineral blocks, respectively. In accordance with a special approval from the State Council, the MNR has issued production licenses with terms coextensive with the projected productive life of the assessed proven reserves as discussed above. Each of our production licenses is renewable upon our application 30 days prior to expiration. If oil and gas prices increase, the productive life of our crude oil and natural gas reservoirs may be extended beyond the current terms of the relevant production licenses.

Among the major PRC oil and gas companies, the exploration licenses and production licenses held by us, Sinopec and CNOOC account for the majority of mining rights in China. Among those companies, we and Sinopec primarily engage in onshore exploration and production, while CNOOC primarily engages in offshore exploration and production.

## **Pricing**

### ***Crude Oil***

We and Sinopec set the crude oil median prices each month based on the average international market FOB prices for crude oil of different grades in the previous month. In addition, PetroChina and Sinopec negotiate a premium or discount to reflect transportation costs, the differences in oil quality and the supply and demand.

### ***Refined Products***

The prices of our gasoline and diesel products are set by the government.

On December 18, 2008, the NDRC issued the *Notice on Implementing Price and Tax Reform of Refined Oil*, which improved the pricing mechanism for refined oil products. Under the improved mechanism, the domestic ex-factory prices of refined oil products are determined on the basis of the relevant international crude oil prices, by taking into consideration the average domestic processing cost, tax and a pre-determined profit margin. The prices of diesel and gasoline continue to follow the government guiding prices. The highest retail price set for gasoline and diesel is calculated by using the relevant ex-factory price and a determined profit margin for retailing activities.

On March 26, 2013, the NDRC issued the *Notice on Further Improvement of Refined Oil Pricing Mechanism* and the amended and restated *Measures for Oil Prices Management (on trial)*. Under this new system, (i) the price adjustment period was shortened from 22 working days to 10 and the 4% limit on the price adjustment range was eliminated; (ii) the composition of the basket of crudes to which refined oil products prices are linked was adjusted in light of the composition of the imported crudes and changes in crudes trading on the international market; and (iii) the refined oil products pricing mechanism was further enhanced.

In order to promote the oil product quality upgrading, on September 16, 2013, the NDRC issued the *Circular regarding Relevant Opinions on the Pricing Policy for Oil Product Quality Upgrading*, pursuant to which the price increase standard for the auto-use gasoline and diesel upgraded to China IV Standard shall be set as RMB290 per ton



and RMB370 per ton, respectively, and the price increase standard for the auto-use gasoline and diesel upgraded from China IV to China V Standard shall be set at RMB170 per ton and RMB160 per ton, respectively.

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On January 13, 2016, the NDRC issued the *Notice on Issues Concerning Further Improving the Pricing Mechanism for Refined Oil*, pursuant to which, starting from January 13, 2016, downward adjustment of the refined oil price is subject to a floor of US\$40 per barrel. Accordingly, when the international crude oil price drops to US\$40 per barrel or below, the refined oil price in China shall not be adjusted downwards and the unadjusted amount shall be allocated to the reserve fund to be used for energy saving, reduction of emission, improving the oil quality and securing a safe supply of refined oil. When the international crude oil price surges to US\$130 per barrel or above, appropriate financial and taxation policies shall be adopted to ensure the production and supply of refined oil but the refined oil price shall in principle remain unadjusted or shall only be slightly adjusted upwards. This regulation also liberalized the ex-factory price of liquefied petroleum gas.

On December 15, 2016, the Ministry of Finance ( MOF ) and NDRC issued *Circulation on Collection of Risk Reserves for Oil Price Control* (the Rules ), pursuant to which, effective from January 13, 2016, when the price of crude oil in international market drops below the lower limit set by the Chinese government, domestic enterprises which are engaged in production, commissioned processing and import and export of such refined oil products as gasoline and diesel shall make full payment of risk reserves according to sales volumes and the corresponding collection rates.

Sales volumes refer to the actual sales volumes of such enterprises between the two adjacent window periods of price adjustment. Collection rates for risk reserves are determined with reference to the unadjusted prices of refined oil products. The NDRC and the MOF jointly determine the collection rates on a quarterly basis and notify the collection agencies in writing..

On December 22, 2016, MOF issued *Notice on Proper Collection of Risk Reserves for Oil Price Adjustment in 2016*, pursuant to which, if the subsidiaries (limited to listed companies) of CNPC, Sinopec and CNOOC have already recognized the risk reserves accrued as operation revenue, such subsidiaries may opt to have such risk reserves to be paid by their parent companies out of the net profit.

***Chemical Products***

We determine the prices of all of our chemical products based on market conditions.

***Natural Gas***

On June 28, 2013, the NDRC announced the initiation of a program for adjustment of natural gas prices from July 10, 2013. The program consists of (i) changing pricing mechanism of natural gas from ex-factory price to citygate price, and no longer differentiating the prices payable by the users in different provinces; (ii) establishment of the mechanism linking the citygate price of natural gas to the price of alternative energy with a view to gradually shift to a market-driven pricing mechanism for natural gas; (iii) adopting differential pricing approaches towards the existing usage and the incremental usage so as to establish as soon as practicable a new pricing mechanism for natural gas while reducing the impact that the pricing reform will have on existing gas users.

On August 10, 2014, based on the natural gas price reform roadmap, the NDRC issued price adjustment programs for non-residential use stock natural gas, pursuant to which, effective from September 1, 2014, (i) the natural gas citygate price for non-residential uses was increased by RMB400 per thousand cubic meters; (ii) no adjustment will be made to the citygate price for natural gas consumed by residential users; and (iii) further actions will be taken to implement the policy in connection with the liberalization of the sales price of imported liquefied natural gas and the ex-factory prices for shale gas, coal-seam gas and coal gas.

On February 26, 2015, the NDRC announced the unification of the prices of domestic natural gas of existing and incremental gas volume starting from April 1, 2015.

On November 18, 2015, the NDRC announced the reduction of the price of natural gas for non-residential use from November 20, 2015, whereby the citygate price ceiling for non-resident users was decreased by

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RMB700/kilostere while the preferential policy and price for natural gas used by fertilizer makers remain unchanged. With a view to improve the market-driven pricing mechanism for natural gas, since November 20, 2016, suppliers and non-residential users can negotiate prices of natural gas up to 20% above the benchmark price for non-residential uses.

On October 15, 2016, the NDRC issued *Clarifying the Price Policy for Gas Storage Facilities*, which announced that the prices for natural gas purchase and sale to be conducted by and the prices of gas storage services to be provided by the gas storage facilities shall be formed through the operation of market.

On November 5, 2016, NDRC issued *Notice on Enhancing Price Liberalization for Gas Used as Fertilizer Feedstock*, pursuant to which, effective from November 10, 2016, prices for gas used as fertilizer feedstock were fully liberalized and subject to negotiations between the vendors and the purchasers. It encourages the trading of the natural gas used by fertilizer makers in the oil and gas exchange centers in order to achieve open and transparent pricing of gas as fertilizer feedstock.

On November 11, 2016, the NDRC issued *Notice on Relevant Issues concerning the Price Policy for Natural Gas Citygate Price in Fujian Province*, which expressly liberated the citygate natural gas price in Fujian Province and made Fujian the first province that would implement fully liberated citygate natural gas price.

On August 29, 2017, the NDRC issued *Notice on Reduction of the Benchmark City Gate Price of Non-residential Natural Gas*, which reduced the benchmark city gate price of non-residential natural gas by RMB100 per thousand cubic meters effective from September 1, 2017.

## ***Pipeline Transmission Tariff***

Pipeline transmission tariffs for crude oil, refined oil and natural gas are set by the government. Cross province transmission tariffs are set by the NDRC and provincial transmission tariffs are set by the provincial level branches of the NDRC.

For those pipelines constructed prior to 1984, which were funded by the government, the transmission tariff is a uniform flat tariff determined based on the principle of minimum profit margin. For those pipelines constructed with the funds of the enterprises after 1984, the tariffs must be submitted to the NDRC for examination and approval on a case by case basis and based on the capital investment made in the pipeline, the operation period for the pipeline and a reasonable profit margin.

On October 9, 2016, the NDRC issued *Rules on Administration of the Pipeline Transmission Tariff for Natural Gas (on trial)* and *Rules on Supervision and Review of the Costs Used in Setting the Pipeline Transmission Tariff (on trial)*, which expressly stipulated that the pipeline transmission tariff for natural gas shall be reviewed and set on the principle of permissible costs plus reasonable margins, and the rules intended to regulate the tariff charged by companies engaged in cross-province pipeline transmission operation.

## **Production and Marketing**

### ***Crude Oil***

Each year, the NDRC publishes the projected target for the production and process of crude oil in China based on the domestic consumption estimates submitted by domestic producers, including but not limited to us, Sinopec and CNOOC, the production of these companies as well as the forecast of international crude oil prices. The actual production levels are determined by the producers themselves and may vary from the submitted estimates. Since

January 1, 2007, when the *Measures on the Administration of the Refined Products Market* promulgated by the MOFCOM became effective, qualified domestic producers are permitted to engage in the sale and storage of crude oil. Foreign companies with the required qualifications are also allowed to establish and invest in enterprises to conduct crude oil business.

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**Table of Contents*****Refined Products***

Previously, only we, Sinopec and joint ventures established by the two companies had the right to conduct gasoline and diesel wholesale business. Other companies, including foreign invested companies, were not allowed to engage in wholesale of gasoline and diesel in China's domestic market. In general, only domestic companies, including Sino-foreign joint venture companies, were permitted to engage in retail of gasoline and diesel. Since December 11, 2004, wholly foreign-owned enterprises are permitted to conduct refined oil retail business. Since January 1, 2007, when the *Measures on the Administration of the Refined Products Market became effective*, all entities meeting certain requirements are allowed to submit applications to the MOFCOM to conduct refined oil products wholesale, retail and storage businesses.

***Natural Gas***

The NDRC determines each year the annual national natural gas production target based on the natural gas production targets submitted by domestic natural gas producers. Domestic natural gas producers determine their annual natural gas production targets on the basis of consumption estimates. The actual production volume of each producer is determined by the producer itself, which may deviate from the production target submitted by it. The NDRC also formulates the annual natural gas guidance supply plan, which requires natural gas producers to distribute a specified amount of natural gas to designated key municipalities and key enterprises.

**Foreign Investments*****Cooperation in Exploration and Production with Foreign Companies***

Currently, CNPC is one of the few Chinese companies that have the right to cooperate with foreign companies in onshore crude oil and natural gas exploration and production in China. CNOOC has the right to cooperate with foreign companies in offshore crude oil and natural gas exploration and production in China.

Sino-foreign cooperation projects and foreign parties in onshore oil and gas exploration and production in China are generally selected through open bids and bilateral negotiations. Those projects are generally conducted through production sharing contracts. The MOFCOM must approve those contracts.

As authorized by the Regulations of the PRC on Exploration of Onshore Petroleum Resources in Cooperation with Foreign Enterprises, CNPC has the right to enter into joint cooperation arrangements with foreign oil and gas companies for onshore crude oil and natural gas exploration and production. We do not have the capacity to enter into production sharing contracts directly with foreign oil and gas companies under existing PRC law. Accordingly, CNPC will continue to enter into production sharing contracts. After signing a production sharing contract, CNPC will, subject to approval of the MOFCOM, assign to us most of its commercial and operational rights and obligations under the production sharing contract as required by the Non-competition Agreement between CNPC and us.

***Transportation and Refining***

Since December 1, 2007, PRC regulations have encouraged foreign investment in the construction and operation of oil and gas pipelines and storage facilities. On March 10, 2015, PRC lifted the restrictions on foreign investment in refineries with a production capacity of below 10 million tons per annum. Furthermore, when appropriate, projects must receive necessary approvals from relevant PRC government agencies. See Item 3 Key Information Risk Factors Risks Related to Government Regulation.

**Import and Export**

Since January 1, 2002, state-owned trading companies have been allowed to import crude oil under an automatic licensing system. Non-state-owned trading companies have been allowed to import crude oil and

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refined products subject to quotas. The export of crude oil and refined oil products by both state-owned trading companies and non-state-owned trading companies is subject to quota control. The MOFCOM has granted us the right to conduct crude oil and refined product import and export business.

**Capital Investment and Financing**

Capital investments in exploration and production of crude oil and natural gas made by Chinese oil and gas companies are subject to approval by or filing with relevant government authorities. The following projects are subject to approval by the NDRC or the competent local authorities:

facilities for taking delivery of and storing liquefied petroleum gas (excluding accessory projects of oil or gas fields or refineries);

new facilities for taking delivery of or storing imported liquefied natural gas (including expansion on a different site other than the original facilities);

oil or gas transmission pipeline networks (excluding gathering and transmission pipeline networks of oil or gas fields);

new refineries, expansion of existing primary processing refineries;

new ethylene, paraxylene (PX), diphenylmethane diisocyanate (MDI) projects; and

new coal-to-olefins projects, new coal to paraxylene (PX) projects, and new coal-to-methanol projects with a capacity of 1 million tons per annum or more.

**Taxes, Fees and Royalties**

We are subject to a variety of taxes, fees and royalties. The table below sets forth the major taxes, fees and royalty fees payable by us or by Sino-foreign oil and gas exploration and development cooperative projects. Our subsidiaries which have legal person status should report and pay enterprise income tax to the relevant tax authorities based on the applicable laws and regulations.

<b>Tax Item</b>	<b>Tax Base</b>	<b>Tax Rate</b>
<i>Enterprise income tax</i>	Taxable income	25%, or 15% for qualified taxpayers in certain western regions of China
<i>Value-added tax</i>	Revenue	Prior to July 1, 2017, value added tax rates were 17%, 13%, 11% and 6%, as applicable. In particular, 13% was for liquefied natural



gas, natural gas, liquefied petroleum gas, agricultural film and fertilizers and 17% for oil products and other products.

Effective from July 1, 2017, the rate of 13% was cancelled and the applicable rate for natural gas has been changed from 13% to 11%.

Effective from May 1, 2018, the rate of 17% will be changed to 16% and the rate of 11% will be changed to 10%.

Since May 1, 2016, as a result of the reform of value-added tax in lieu of business tax, certain sectors such as real estate, engineering construction, financial and other sectors, which previously were subject to business tax, have been subject to value-added tax instead.

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<b>Tax Item</b>	<b>Tax Base</b>	<b>Tax Rate</b>
<i>Consumption tax</i>	Aggregate volume sold or self-consumed	RMB1.52 per liter for gasoline, naphtha, solvent naphtha and lubricant and RMB1.2 per liter for diesel, aviation kerosene and fuel oil.
		Collection of taxes on aviation kerosene continues to be suspended.
<i>Resource tax</i>	Sales	6%, exemption or deduction may apply if qualified.
<i>Crude oil special gain levy</i>	Sales amount above specific threshold	Five-level progressive tax rates from 20% to 40%, taxable if the crude oil price reach the threshold of US\$65 per barrel.
<i>Exploration license fee<sup>(1)</sup></i>	Area	RMB100 to RMB500 per square kilometer per year
<i>Production license fee<sup>(1)</sup></i>	Area	RMB1,000 per square kilometer per year
<i>Royalty fee<sup>(2)</sup></i>	Production volume	Progressive rate of 0-12.5% for crude oil and 0-3% for natural gas

- (1) Effective from April 13, 2017, the exploration license fee and production license fee were renamed to mining right occupancy fees.
- (2) It shall be paid in cash and is only applicable to Sino-foreign oil and gas exploration and development cooperative projects in China. However, effective from December 1, 2010, the royalty fee payable by new Sino-foreign oil and gas exploration and development cooperative projects in Western regions was replaced by the resource tax, while those cooperative projects under contracts signed before December 1, 2010 continue to be subject to the royalty fee until the contracts expire. Effective from November 1, 2011, the royalty fee payable by new Sino-foreign oil and gas exploration and development cooperative projects in the whole country was replaced by the resource tax, while those cooperative projects under contracts signed before November 1, 2011 continue to be subject to the royalty fee until the contracts expire.

**Environmental Regulations**

We are subject to various PRC national environmental laws and regulations and also environmental regulations promulgated by the local governments in whose jurisdictions we have operations. China has adopted extensive environmental laws and regulations that affect the operation of the oil and gas industry. There are national and local standards applicable to emissions control, discharges to surface and subsurface water and disposal, and the generation, handling, storage, transportation, treatment and disposal of solid waste materials.

The environmental regulations require a company, such as us, to register or file an environmental impact report with the relevant environmental authority for approval before it undertakes any construction of a new production facility or any major expansion or renovation of an existing production facility. The new facility or the expanded or renovated facility will not be permitted to operate unless the relevant environmental authority has inspected the environmental equipment installed at the facility and decides it satisfies the environmental protection requirements. A company that wishes to discharge pollutants, whether it is in the form of emission, water or materials, must submit a pollutant discharge declaration statement detailing the amount, type, location and method of treatment. After reviewing the

pollutant discharge declaration, the relevant environmental authority will determine the amount of discharge allowable under the law and will issue a pollutant discharge license for that amount of discharge subject to the payment of discharge fees. If a company discharges more than is permitted in the pollutant discharge license, the relevant environmental authority can fine the company up to several times the discharge fees payable by the offending company for its allowable discharge, or require the offending company to close its operation to remedy the problem.

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### **Item 4A *UNRESOLVED STAFF COMMENTS***

We do not have any unresolved staff comment.

### **Item 5 *OPERATING AND FINANCIAL REVIEW AND PROSPECTS***

#### **General**

You should read the following discussion together with our consolidated financial statements and their notes included elsewhere in this annual report. Our consolidated financial statements have been prepared in accordance with IFRS.

#### **Overview**

We are engaged in a broad range of petroleum and natural gas related activities, including:

the exploration, development, production and sale of crude oil and natural gas;

the refining of crude oil and petroleum products, and the production and marketing of basic petrochemical products, derivative chemical products and other chemical products;

marketing of refined oil products and trading; and

the transmission of natural gas, crude oil and refined oil products as well as the sale of natural gas.

We are China's largest producer of crude oil and natural gas and are one of the largest companies in China in terms of revenue. In 2017, we produced approximately 887.0 million barrels of crude oil and approximately 3,423.4 Bcf of natural gas for sale. Our refineries processed approximately 1,016.9 million barrels of crude oil in 2017. In 2017, we had revenue of RMB2,015,890 million and profit attributable to owners of the Company of RMB22,798 million.

#### **Factors Affecting Results of Operations**

Our results of operations and the period-to-period comparability of our financial results are affected by a number of external factors, including changes in the prices, production and sales volume of our principal products and the regulatory environment.

#### ***Prices of Principal Products***

The fluctuations in the prices of crude oil, refined products, chemical products and natural gas have a significant impact on our revenue. See [Item 4 Information on the Company Regulatory Matters Pricing](#) for a more detailed discussion of current PRC pricing regulations and [Item 3 Risk Factors Risks Related to Pricing and Exchange Rate](#).

The table below sets forth the average realized prices of our principal products in 2015, 2016 and 2017.

	<b>2015</b>	<b>2016</b>	<b>2017</b>
Crude oil (US\$/barrel)	48.35	37.99	50.64
Natural gas (US\$/thousand cubic feet) <sup>(1)</sup>	7.42	5.68	6.27
Gasoline (US\$/barrel)	112.80	101.41	111.26
Kerosene (US\$/barrel)	67.77	54.67	66.60
Diesel (US\$/barrel)	96.39	82.84	90.84

(1) Natural gas citygate price

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### ***Production and Sales Volume for Oil and Gas Products***

Our results of operations are also affected by production and sales volumes. Our crude oil and natural gas production volumes depend primarily on the level of the proved developed reserves in the fields in which we have an interest, as well as other factors such as general economic environment and market supply and demand conditions.

### ***Regulatory Environment***

Our operating activities are subject to extensive regulations and control by the PRC government, including the issuance of exploration and production licenses, the imposition of industry-specific taxes or product-specific taxes and levies and the implementation of environmental policies and safety standards. Our results of operations will be affected by any future changes of such regulatory environment.

### ***Critical Accounting Policies***

The preparation of our consolidated financial statements requires our management to select and apply significant accounting policies, the application of which may require management to make judgments and estimates that affect the reported amounts of assets and liabilities, disclosure of contingent assets and liabilities as of the date of our financial statements, and the reported amounts of revenue and expenses during the reporting period. Notwithstanding the presentation of our principal accounting policies in Note 3 to our consolidated financial statements included elsewhere in this annual report, we have identified the accounting policies below as most critical to our business operations and the understanding of our financial condition and results of operations presented in accordance with IFRS. Although these estimates are based on our management's best knowledge of current events and actions, actual results ultimately may differ from those estimates.

### ***Accounting for Oil and Gas Exploration and Production Activities***

We use the successful efforts method of accounting, with specialized accounting rules that are unique to the oil and gas industry, for oil and gas exploration and production activities. Under this method, geological and geophysical costs incurred are expensed when incurred. However, all costs for developmental wells, support equipment and facilities, and proved mineral interests in oil and gas properties are capitalized. Costs of exploratory wells are capitalized as construction in progress pending determination of whether the wells find proved reserves. For exploratory wells located in regions that do not require substantial capital expenditures before the commencement of production, the evaluation of the economic benefits of the reserves in such wells will be completed within one year following the completion of the exploration drilling. Where such evaluation indicates that no economic benefits can be obtained, the relevant costs of exploratory wells will be converted to dry hole exploration expenses. The relevant costs will be classified as oil and gas assets and go through impairment review if the evaluation indicates that economic benefits can be obtained. For wells with economically viable reserves in areas where a major capital expenditure would be required before production can begin, the related well costs remain capitalized only if additional drilling is under way or firmly planned. Otherwise the well costs are expensed as dry holes. We have no material costs of unproved properties capitalized in oil and gas properties.

### ***Oil and Gas Reserves***

The estimation of the quantities of recoverable oil and gas reserves in oil and gas fields is integral to effective management of our exploration and production operations. Because of the subjective judgments involved in developing and assessing such information, engineering estimates of the quantities of recoverable oil and gas reserves in oil and gas fields are inherently imprecise and represent only approximate amounts.

Before estimated oil and gas reserves are designated as proved, certain engineering criteria must be met in accordance with industry standards and the regulations of the SEC. Proved oil and gas reserves are the estimated

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quantities of crude oil and natural gas, which, by analysis of geoscience and engineering data, can be estimated with reasonable certainty to be economically producible from a given date forward, from known reservoirs, and under existing economic conditions, operating methods, and government regulation before the time at which contracts providing the right to operate expire, unless evidence indicates that renewal is reasonably certain, regardless of whether the estimate is a deterministic estimate or probabilistic estimate. Therefore, these estimates do not include probable or possible reserves. Our proved reserves estimates are updated annually by independent, qualified and experienced oil and gas reserves engineering firms in the United States, Singapore and Canada. Our oil and gas reserves engineering department has policies and procedures in place to ensure that these estimates are consistent with these authoritative guidelines. Among other factors required by authoritative guidelines, this estimation takes into account recent information about each field, including production and seismic information, estimated recoverable reserves of each well, and oil and gas prices and operating costs as of the date the estimate is made. The price shall be the average price during the 12-month period before the ending date of the period covered by this report, determined as an unweighted arithmetic average of the first-day-of-the-month price for each month within such period, unless prices are defined by contractual arrangements, excluding escalations based upon future conditions. The costs shall be that prevailing at the end of the period.

Despite the inherent imprecision in these engineering estimates, estimated proved oil and gas reserves quantity has a direct impact on certain amounts reported in the financial statements. In addition to the capitalization of costs related to oil and gas properties on the balance sheet discussed earlier, estimated proved reserves also impact the calculation of depreciation, depletion and amortization expenses of oil and gas properties. The cost of oil and gas properties is amortized at the field level on the unit of production method. Unit of production rates are based on the total oil and gas reserves estimated to be recoverable from existing facilities based on the current terms of our production licenses. Our reserves estimates include only crude oil and natural gas which management believes can be reasonably produced within the current terms of the production licenses that are granted by the Ministry of Natural Resources, ranging from 30 years to 55 years from the effective date of issuance in March 2000, renewable upon application 30 days prior to expiration. Consequently, the impact of changes in estimated proved reserves is reflected prospectively by amortizing the remaining book value of the oil and gas property assets over the expected future production. If proved reserves estimates are revised downward, earnings could be affected by higher depreciation expense or an immediate write-down of the property's book value had the downward revisions been significant. See *Property, Plant and Equipment* below. Given our large number of producing properties in our portfolio, and the estimated proved reserves, it is unlikely that any changes in reserves estimates will have a significant effect on prospective charges for depreciation, depletion and amortization expenses.

In addition, due to the importance of these estimates in understanding the perceived value and future cash flows of a company's oil and gas operations, we have also provided supplemental disclosures of proved oil and gas reserves estimates prepared in accordance with authoritative guidelines elsewhere in this annual report.

***Property, Plant and Equipment***

Where it is probable that property, plant and equipment, including oil and gas properties, will generate future economic benefits, their costs are initially recorded in the consolidated statement of financial position as assets. Cost represents the purchase price of the asset and other costs incurred to bring the asset into existing use. Subsequent to their initial recognition, property, plant and equipment are carried at cost less accumulated depreciation, depletion and amortization (including any impairment).

Depreciation, to write off the cost of each asset, other than oil and gas properties, to their residual values over their estimated useful lives is calculated using the straight-line method.





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The Company uses the following useful lives for depreciation purposes:

Buildings and plant	8-40 years
Equipment and machinery	4-30 years
Motor vehicles	4-14 years
Other	5-12 years

No depreciation is provided on construction in progress until the assets are completed and ready for use.

The assets' residual values and useful lives are reviewed, and adjusted if appropriate, at the end of each reporting period.

Property, plant and equipment, including oil and gas properties, are reviewed for possible impairments when events or changes in circumstances indicate that the carrying amount may not be recoverable. Determination as to whether and how much an asset is impaired involves management estimates and judgments such as future crude oil prices, prices of refined products and chemical products, the operation costs, the product mix, production volumes and the oil and gas reserves. Certain estimates and assumptions adopted by the management in the impairment reviews and calculations are formed by the internal professional team (including operations and finance teams) by reference to external institutions' analysis reports and taking into account current economic conditions. The other estimates and assumptions are consistent with the assumptions used in our business plans.

In forming the relevant estimates and assumptions for impairment tests by our management, our internal professional team (including operations and finance teams) forms a preliminary conclusion by reference to the external institutions' analysis reports and our historical financial data, and taking into account current economic conditions and our business plans. Then, the preliminary conclusion is reviewed and approved by the management. The approved estimates and assumptions are then utilized by our subsidiaries and branches to perform the impairment tests.

When determining whether there are indications of impairment for oil and gas properties, we consider internal factors, mainly including the decline of production and reserves volumes at the late development stage of certain oil blocks and a significant drop in economic benefits of certain oil blocks resulting from the lower price of crude oil, and external factors, mainly including a significant drop in international prices of crude oil, resulting from the imbalance of supply and demand of global crude oil. When an indication of impairment of certain oil blocks is identified, we will perform the impairment tests on the oil blocks. An impairment loss is recognized for the amount by which the carrying amount of the cash generate unit exceeds the higher of its fair value less costs to sell and its value in use. Value in use is determined by reference to the discounted expected future cash flows to be derived from the cash generate unit.

The expected medium-to-long-term future international prices of crude oil utilized by us when estimating the expected future cash flows are determined mainly based upon the forecast of the international prices of crude oil made by principal international investment institutions combined with the judgment and analysis of the future trends of international prices of crude oil made by us. We calculated the expected future cash flows of each oil block according to the estimates of future production volume levels per year stated in the oil and gas reserves reports, the estimates of operation costs of oil and gas made by us, and taking into account its future capital expenditure plan. We refer to the weighted average cost of capital of the oil and gas industry when determining the discount rate and makes relevant adjustments according to specific risks in different countries or regions. In the year ended December 31, 2016 and 2017, the after-tax discount rates adopted by most of our oil and gas regions were between 7.1% and 10.3%, and between 7.6% and 11.0%, respectively.



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Given the broad scope of our property, plant and equipment, the impairment test involves numerous assumptions, which are interrelated to each other to a certain extent. For example, the estimates and judgments with respect to the product mix, production costs and oil and gas reserves may vary along with the changes in crude oil prices. The sensitivity analysis performed after taking into account the interrelationship among all of the estimates and judgments would be neither cost efficient nor time efficient. As a result, the management believes that a sensitivity analysis of relevant assumptions on impairment is not practicable. Favorable changes to some assumptions might have avoided the need to impair any assets or make it necessary to reverse an impairment loss recognized in prior periods, whereas unfavorable changes might have caused an additional unknown number of other assets to become impaired, or resulted in larger impacts on impaired assets.

Our operating results in the following fiscal year may deviate from management's estimates or judgments. This would require an adjustment to the provision for impairment of the property, plant and equipment disclosed in Note 15 to the consolidated financial statements.

Gains and losses on disposals of property, plant and equipment are determined by reference to their carrying amounts and are recorded in the consolidated profit or loss.

Interest and other costs on borrowings to finance the construction of property, plant and equipment are capitalized during the period of time that is required to complete and prepare the asset for its intended use. Costs for repairs and maintenance activities are expensed as incurred except for costs of components that result in improvements or betterments which are capitalized as part of property, plant and equipment and depreciated over their useful lives.

### ***Provision for Asset Decommissioning***

Provision is recognized for the future decommissioning and restoration of oil and gas properties. The amounts of the provision recognized are the present values of the estimated future expenditures. The estimation of the future expenditures is based on current local conditions and requirements, including legal requirements, technology, price level, etc. In addition to these factors, the present values of these estimated future expenditures are also impacted by the estimation of the economic lives of oil and gas properties. Changes in any of these estimates will impact the operating results and the financial position of the Company over the remaining economic lives of the oil and gas properties.

## **Operating Results**

The following discussion is based on our historical results of operations. As a result of the factors discussed above, such results of operations may not be indicative of our future operating performance.

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Our statement of comprehensive income for each of the years ended December 31, 2015, 2016 and 2017 is summarized in the table below.

	<b>Year Ended December 31,</b>		
	<b>2015</b>	<b>2016</b>	<b>2017</b>
	<b>(RMB in millions)</b>		
Revenue	1,725,428	1,616,903	2,015,890
Operating expenses	(1,646,176)	(1,556,268)	(1,948,168)
Profit from operations	79,252	60,635	67,722
Exchange (loss)/gain, net	(632)	1,257	(1,094)
Interest expense, net	(22,309)	(20,857)	(19,507)
Share of profit of affiliates and joint ventures	1,504	4,105	5,968
Profit before income tax expense	57,815	45,140	53,089
Income tax expense	(15,726)	(15,768)	(16,296)
Profit for the year attributable to non-controlling interests	6,572	21,515	13,995
Profit for the year attributable to owners of the Company	35,517	7,857	22,798

The table below sets forth our revenue by business segment for each of the years ended December 31, 2015, 2016 and 2017 as well as the percentage changes in revenue for the periods shown.

	<b>2015</b>	<b>2016</b>	<b>2016 vs. 2015</b>		<b>2017 vs. 2016</b>	
			<b>2016</b>	<b>vs.</b>	<b>2017</b>	<b>vs.</b>
	<b>(RMB in millions, except percentages)</b>					
<b>Revenue</b>						
Exploration and production	475,412	412,484	(13.2)%	505,430	22.5%	
Refining and chemicals	642,428	582,510	(9.3)%	707,804	21.5%	
Marketing	1,383,426	1,301,616	(5.9)%	1,660,456	27.6%	
Natural gas and pipeline	281,778	247,477	(12.2)%	295,786	19.5%	
Headquarters and others	2,507	2,197	(12.4)%	2,057	(6.4)%	
<b>Total</b>	<b>2,785,551</b>	<b>2,546,284</b>	<b>(8.6)%</b>	<b>3,171,533</b>	<b>24.6%</b>	
Less intersegment sales	(1,060,123)	(929,381)	(12.3)%	(1,155,643)	24.3%	
<b>Consolidated net sales from operations</b>	<b>1,725,428</b>	<b>1,616,903</b>	<b>(6.3)%</b>	<b>2,015,890</b>	<b>24.7%</b>	

The table below sets forth our operating income by business segment for each of the years ended December 31, 2015, 2016 and 2017, as well as the percentage changes in operating income for the periods shown. Other profit from operations shown below consists of research and development, business services and infrastructure support to our operating business segments.

<b>2015</b>	<b>2016</b>	<b>2016 vs. 2015</b>		<b>2017 vs. 2016</b>	
		<b>2016</b>	<b>vs.</b>	<b>2017</b>	<b>vs.</b>

	2015			2016	
	(RMB in millions, except percentages)				
<b>Profit/(loss) from operations</b>					
Exploration and production	33,961	3,148	(90.7)%	15,475	391.6%
Refining and chemicals	4,883	39,026	699.2%	39,961	2.4%
Marketing	(500)	11,048		8,279	(25.1)%
Natural gas and pipeline	51,231	17,885	(65.1)%	15,688	(12.3)%
Headquarters and others	(10,323)	(10,472)		(11,681)	11.5%
<b>Total</b>	<b>79,252</b>	<b>60,635</b>	<b>(23.5)%</b>	<b>67,722</b>	<b>11.7%</b>

**Table of Contents****Year Ended December 31, 2017 Compared to Year Ended December 31, 2016****Consolidated Results of Operations****Overview**

In 2017, our revenue was RMB2,015,890 million, representing an increase of 24.7% as compared with 2016. Net profit attributable to our owners was RMB22,798 million, representing an increase of 190.2% as compared with 2016. Basic earnings per share were RMB0.12, representing an increase of RMB0.08 as compared with 2016.

**Revenue** Our revenue increased by 24.7% from RMB1,616,903 million in 2016 to RMB2,015,890 million in 2017. This increase was primarily due to (i) the increasing selling prices of the majority of oil and gas products and (ii) the increase in the sales volume.

The table below sets out the external sales volume and average realized prices for our major products in 2016 and 2017, respectively:

	Sales Volume ( 000 ton)			Average Realized Price (RMB/ton)		
	2016	2017	Percentage of Change (%)	Percentage of Change		
				2016	2017	
Crude oil	100,108	114,930	14.8	1,881	2,392	27.2
Natural gas (hundred million cubic meters, RMB/ 000 cubic meter)	1,832.05	1,865.65	1.8	1,097	1,236	12.7
Gasoline	62,406	65,293	4.6	5,725	6,386	11.5
Diesel	80,168	87,324	8.9	4,127	4,600	11.5
Kerosene	16,533	16,849	1.9	2,869	3,552	23.8
Heavy oil	22,952	23,395	1.9	1,892	2,380	25.8
Polyethylene	4,764	4,739	(0.5)	7,981	8,559	7.2
Lubricant	1,122	1,283	14.3	7,424	7,693	3.6

Note: The sales volumes listed in the table above represent all of our external sales volumes.

**Operating Expenses** Operating expenses increased by 25.2% from RMB1,556,268 million in 2016 to RMB1,948,168 million in 2017.

**Purchases, Services and Other Expenses** Purchases, services and other expenses increased by 34.0% from RMB959,640 million in 2016 to RMB1,285,716 million in 2017. This increase was primarily due to the increase in purchase of oil and gas products.

**Employee Compensation Costs** Employee compensation costs (including salaries and additional costs such as insurance, housing funds and training fees) were RMB125,384 million in 2017, representing an increase of 6.6% from RMB117,662 million in 2016. This increase was primarily due to the improvement of our performance-based

remuneration system and the increase in our employee salaries and costs in line with the general increase of employee average salaries in the industry.

**Exploration Expenses** Exploration expenses increased by 28.6% from RMB18,576 million in 2016 to RMB23,884 million in 2017. This increase was primarily due to the fact that, in order to consolidate the oil and gas resource foundations, we optimized our exploration deployment and increased our investment in oil and gas exploration.

**Depreciation, Depletion and Amortization** Depreciation, depletion and amortization increased by 8.8% from RMB218,147 million in 2016 to RMB237,375 million in 2017. This increase was primarily due to (i) our



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provision made for assets impairment, and (ii) an increase in depreciation and depletion as a result of an increase in the cost of property, plant and equipment.

**Selling, General and Administrative Expenses** Selling, general and administrative expenses increased by 3.8% from RMB74,255 million in 2016 to RMB77,042 million in 2017. This increase was primarily due to the increases in repair expenses and lease expenses as a result of the expansion of our business.

**Taxes other than Income Taxes** Taxes other than income taxes increased by 4.4% from RMB189,608 million in 2016 to RMB198,022 million in 2017. In particular, the consumption tax increased by RMB2,440 million from RMB140,268 million in 2016 to RMB142,708 million in 2017; and the resource tax increased by RMB3,528 million from RMB14,472 million in 2016 to RMB18,000 million in 2017.

**Other Expenses/Income, net** Net other expenses in 2017 were RMB745 million, as compared to net other income of RMB21,620 million in 2016. This was primarily due to the combined effects of the following factors: (i) our disposal of certain equity interests in Trans-Asia Gas Pipeline Co., Ltd. (the Trans-Asia Pipeline ) in 2016 for which we recognized a net gain of RMB24,534 million, and (ii) the increase in the VAT refund relating to the importation of natural gas as recognized in 2017.

**Profit from Operations** The profit from operations in 2017 was RMB67,722 million, representing an increase of 11.7% from RMB60,635 million in 2016.

**Net Exchange (Loss)/Gain** Net exchange loss in 2017 was RMB1,094 million, as compared to the net exchange gain of RMB1,257 million in 2016. This was primarily due to the depreciation of US Dollar against Renminbi in 2017.

**Net Interest Expense** Net interest expense decreased by 6.5% from RMB20,857 million in 2016 to RMB19,507 million in 2017, primarily due to a decrease in the average balance of interest-bearing borrowings as compared with 2016 as a result of our active measures to control debts and reduce interest.

**Profit Before Income Tax Expense** Profit before income tax expense increased by 17.6% from RMB45,140 million in 2016 to RMB53,089 million in 2017.

**Income Tax Expense** The income tax expense increased by 3.3% from RMB15,768 million in 2016 to RMB16,296 million in 2017, which was primarily due to the increase in taxable income.

**Profit for the Year** As a result of the foregoing, our profit in 2017 increased by 25.3% from RMB29,372 million in 2016 to RMB36,793 million in 2017.

**Profit Attributable to Non-controlling Interests** Net profit attributable to non-controlling interests decreased by 35.0% from RMB21,515 million in 2016 to RMB13,995 million in 2017, which was primarily due to the fact that the disposal of certain equity interests in Trans-Asia Pipeline in 2016 was attributable to non-controlling interests.

**Profit Attributable to Owners of the Company** The net profit attributable to owners of the company increased by 190.2% from RMB7,857 million in 2016 to RMB22,798 million in 2017.

**Segment Results****Exploration and Production Segment**

**Revenue** Revenue of the exploration and production segment was RMB505,430 million in 2017, representing an increase of 22.5% from RMB412,484 million in 2016. This increase was primarily due to the

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combined effects of (i) the increase in the price of crude oil as partially offset by the decrease in the sales volume of crude oil, and (ii) the increase in the sales volume of natural gas and shale gas. Our average realized crude oil price in 2017 was US\$50.64 per barrel, representing an increase of 33.3% from US\$37.99 per barrel in 2016.

***Operating Expenses*** Operating expenses of the exploration and production segment increased by 19.7% from RMB409,336 million in 2016 to RMB489,955 million in 2017. This increase was primarily due to the combined effects of (i) realized gains derived from the disposal of certain equity interests in the Trans-Asia Pipeline in 2016, and (ii) the increase in depreciation, depletion and amortization in 2017.

We enhanced our control over costs and expenses continuously. Our unit oil and gas lifting cost was US\$11.53 per barrel in 2017, representing a decrease of 1.2% from US\$11.67 per barrel in 2016.

***Profit from Operations*** In 2017, in response to the increasingly complex development situation, in domestic operations, we adhered to the low-cost strategy and the meticulous management, optimized development plans, and took multi-measures to save energy and tap the potential synergies so as to raise the profit per single well. In overseas operations, we devoted major efforts to broadening sources of income and reducing expenditure as well as cutting costs and enhancing efficiency by various means such as optimizing assets and decreasing inventory. In 2017, the exploration and production segment realized an operating profit of RMB15,475 million, representing an increase of RMB12,327 million from RMB3,148 million in 2016, contributing a substantial increase in the profit level.

***Refining and Chemicals Segment***

***Revenue*** The revenue of the refining and chemicals segment increased by 21.5% from RMB582,510 million in 2016 to RMB707,804 million in 2017. This increase was primarily due to the increase in oil prices and the production of high-profitability products as a result of our optimized product structure. Both the sales volume and price of most of the refined and chemical products were increased.

***Operating Expenses*** Operating expenses of the refining and chemicals segment increased by 22.9% from RMB543,484 million in 2016 to RMB667,843 million in 2017. This increase was primarily due to the combined effects of (i) the increase in the expenses associated with the purchase of crude oil and feedstock oil from external suppliers; and (ii) impairment provision for some petrochemical assets with higher costs of production and operation in accordance with the accounting standards.

In 2017, we continued to optimize our productions and operations in the refining and chemicals segment. Due to the effects of the increase in the processing volume of crude oil and strengthened control over costs and expenses, the cash processing cost of our refineries was RMB169.04 per ton, representing a decrease of RMB10.89 per ton from RMB179.93 per ton in 2016.

***Profit from Operations*** In 2017, in our refining and chemicals segment, we focused on the principle of market orientation and benefit, energetically pushed forward the structure optimization, reform and innovation, increased the production of high value-added and market-favorable products, and improved internal profit generating capabilities; intensified control over costs and expenses. These efforts resulted in several economic indicators being better than 2016 and maintaining a dominant position in profit contribution. In 2017, we realized operating profits of RMB39,961 million in the refining and chemicals segment, representing an increase of 2.4% as compared with RMB39,026 million in 2016. The refining operations recorded an operating profit of RMB32,573 million, representing an increase of 18.2% as compared with RMB27,565 million in 2016 due to the optimized product structure and the increase in gross profit. Taking advantage of the prosperous cycle of the chemical product market, we increased the sales of high-profitability products. However, as affected by the impairment provision for some

petrochemical assets with higher production and operation costs, our chemical operations realized an operating profit of RMB7,388 million, representing a decrease of 35.5%, as compared with RMB11,461 million in 2016.

**Table of Contents*****Marketing Segment***

**Revenue** Revenue of the marketing segment increased by 27.6% from RMB1,301,616 million in 2016 to RMB1,660,456 million in 2017. This increase was primarily due to the combined effects of (i) the increase in both sales volume and prices of such products as gasoline and kerosene, and the rise in the price and the decrease in the sales volume of diesel; and (ii) the increase in revenue derived from trading of oil products.

**Operating Expenses** Operating expenses of the marketing segment increased by 28.0% from RMB1,290,568 million in 2016 to RMB1,652,177 million in 2017, primarily due to an increase in the expenses for purchase of refined oil from external suppliers.

**Profit from Operations** In 2017, in active response to the unfavourable condition of fiercer competition in the market, the marketing segment aimed for maximizing the overall results of the company. In domestic operations, we kept strengthening connection between production, sales and inventory management, optimized allocation of resources, enhanced cost and expense control, improved the integration of marketing and increased the profit from our non-oil business. In international trading, the marketing segment intensified the coordination and cooperation with domestic industrial chain, and optimized the import and export of oil and gas resources. In 2017, the marketing segment realized an operating profit of RMB8,279 million, representing a decrease of 25.1% as compared with RMB11,048 million in 2016.

***Natural Gas and Pipeline Segment***

**Revenue** Revenue of the natural gas and pipeline segment amounted to RMB295,786 million in 2017, representing an increase of 19.5% as compared with RMB247,477 million in 2016, primarily due to the increase in the sales volume of natural gas.

**Operating Expenses** Operating expenses of the natural gas and pipeline segment amounted to RMB280,098 million in 2017, representing an increase of 22.0% as compared with RMB229,592 million in 2016, primarily due to the increase in the expenses for purchasing natural gas.

**Profit from Operations** In 2017, in the natural gas and pipeline segment, we overcame the negative effects of decline in citygate price, optimized the allocation of resources, reduced comprehensive purchase costs, continued to enhance cost control, and realized an operating profit of RMB15,688 million, representing a decrease of 12.3% as compared with RMB17,885 million in 2016. This decrease was primarily due to the effects that (i) the impairment on goodwill related to the acquisition of PetroChina United Pipelines Co., Ltd. amounted to RMB3,709 million; and (ii) the sales of imported gas recorded a net loss of RMB23,947 million, representing an increase of loss of RMB9,063 million as compared with 2016.

In 2017, our international operations realized a revenue of RMB721,374 million, accounting for 35.8% of the our total revenue. Profit before income tax expense amounted to RMB4,543 million, accounting for 8.6% of our pre-tax profit. Our international operations maintained a healthy development with further improved international operating ability.

Our four operating segments are exploration and production, refining and chemicals, marketing as well as natural gas and pipeline. Overseas operations do not constitute a separate operating segment. The financial data of overseas operations are included in the financial data of the respective operating segment mentioned above.

**Year Ended December 31, 2016 Compared to Year Ended December 31, 2015**

***Consolidated Results of Operations***

***Overview***

In 2016, our revenue was RMB1,616,903 million, representing a decrease of 6.3% compared with the preceding year. Profit attributable to our owners was RMB7,857 million, representing a decrease of 77.9%

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compared with the preceding year. Basic and diluted earnings per share were RMB0.04, representing a decrease of RMB0.15 compared with the preceding year.

**Revenue** Revenue decreased by 6.3% from RMB1,725,428 million in 2015 to RMB1,616,903 million in 2016. This decrease was primarily due to the combined effects of (i) the decreasing selling prices of oil and gas products, and (ii) the changes in the sales volume of crude oil, natural gas, refined oil and other major products. The table below sets out the external sales volume and average realized prices for our major products in 2015 and 2016, respectively:

	Sales Volume ( '000 ton)			Average Realized Price (RMB/ton)		
	2015	2016	Percentage of Change (%)	Average Realized Price (RMB/ton)		Percentage of Change (%)
				2015	2016	
Crude oil	101,620	100,108	(1.5)	2,134	1,881	(11.9)
Natural gas (hundred million cubic meter, RMB/ '000 cubic meter)	1,581.10	1,832.05	15.9	1,371	1,097	(20.0)
Gasoline	60,651	62,406	2.9	5,972	5,725	(4.1)
Diesel	84,763	80,168	(5.4)	4,503	4,127	(8.3)
Kerosene	14,683	16,533	12.6	3,334	2,869	(13.9)
Heavy oil	15,635	22,952	46.8	2,439	1,892	(22.4)
Polyethylene	4,270	4,764	11.6	8,202	7,981	(2.7)
Lubricant	1,150	1,122	(2.4)	8,234	7,424	(9.8)

Note: The sales volumes listed in the table above represent all of our external sales volumes.

**Operating Expenses** Operating expenses decreased by 5.5% from RMB1,646,176 million in 2015 to RMB1,556,268 million in 2016.

**Purchases, Services and Other Expenses** Purchases, services and other expenses decreased by 9.2% from RMB1,056,795 million in 2015 to RMB959,640 million in 2016. This decrease was primarily due to the facts that (i) our expenses for purchasing oil and gas products declined as a result of the decrease in oil and gas prices, and (ii) certain purchase costs decreased as a result of optimization of production and operations.

**Employee Compensation Costs** Employee compensation costs (including salaries and additional costs such as insurances, housing funds and training fees) were RMB117,662 million in 2016, representing a decrease of 0.4% from RMB118,082 million in 2015. This decrease was primarily due to the fact that we improved our efficiency-based remuneration system and implemented strict control over the total number of employees and labor costs.

**Exploration Expenses** Exploration expenses amounted to RMB18,576 million and RMB18,380 million in 2016 and 2015, respectively. We continued to optimize our exploration deployment and endeavored to discover quality reserves of large scales.

**Depreciation, Depletion and Amortization Expenses** Depreciation, depletion and amortization expenses increased by 7.5% from RMB202,875 million in 2015 to RMB218,147 million in 2016. This increase was mainly due to (i) the decrease in proved reserves as a result of low oil and gas prices, and (ii) an increase in the rate of depletion and

amortization, which resulted in the increase in depletion and amortization of our oil and gas properties.

***Selling, General and Administrative Expenses*** Selling, general and administrative expenses increased by 4.2% from RMB71,270 million in 2015 to RMB74,255 million in 2016. This increase was primarily due to



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increased lease expenses as a result of the increase in land-use taxes and the increase in trade volume. We proactively implemented measures for broadening sources of income, reducing expenditure and enhancing efficiency. As a result, our non-production costs and expenses continued to decrease.

**Taxes other than Income Taxes** Taxes other than income taxes decreased by 7.9% from RMB205,884 million in 2015 to RMB189,608 million in 2016. This decrease was primarily due to (i) a decrease in the consumption tax by RMB9,055 million, from RMB149,323 million in 2015 to RMB140,268 million in 2016, and (ii) a decrease in the resource tax by RMB4,112 million, from RMB18,584 million in 2015 to RMB14,472 million in 2016.

**Other Income, net** Other net income in 2016 was RMB21,620 million, representing a decrease of RMB5,490 million, from RMB27,110 million in 2015. This decrease was primarily due to the combined effects of the following factors: (i) an investment gain of RMB22,807 million in 2015 derived from the integration of certain pipeline assets and the gain from the equity disposals of some subsidiaries; (ii) the disposal of certain equity interests in Trans-Asia Gas Pipeline Co., Ltd., with gain of RMB24,534 million in 2016; and (iii) the VAT refund relating to the importation of natural gas recognized decreased in 2016 as compared to the preceding year.

**Profit from Operations** Profit from operations in 2016 was RMB60,635 million, representing a decrease of 23.5% from RMB79,252 million in 2015.

**Net Exchange Gain/(Loss)** We had a net exchange gain of RMB1,257 million in 2016, while we incurred a net exchange loss of RMB632 million in 2015. This change was primarily due to the appreciation of the US dollar against Renminbi as compared to the preceding year.

**Net Interest Expenses** Net interest expenses decreased by 6.5% from RMB22,309 million in 2015 to RMB20,857 million in 2016, primarily due to a decrease in the average balance of interest-bearing borrowings as a result of our active measures to control debts and reduce interest.

**Profit Before Income Tax Expense** Profit before income tax expense decreased by 21.9% from RMB57,815 million in 2015 to RMB45,140 million in 2016.

**Income Tax Expense** The income tax expense in 2016 was RMB15,768 million, compared to RMB15,726 million in 2015, which was primarily due to the combined effects of (i) the decrease in taxable income as a result of the decrease in oil prices, and (ii) the increase in income tax expense as a result of the increase in profits of certain subsidiaries.

**Profit for the Year** As a result of the foregoing, our profit for the year decreased by 30.2% from RMB42,089 million in 2015 to RMB29,372 in 2016.

**Profit Attributable to Non-controlling Interests** Net profit attributable to non-controlling interests increased by RMB14,943 million from RMB6,572 million in 2015 to RMB21,515 million in 2016, primarily due to the increase in the profits of certain subsidiaries.

**Profit Attributable to Owners of the Company** The net profit attributable to owners of the Company decreased by 77.9% from RMB35,517 million in 2015 to RMB7,857 million in 2016.

**Segment Results****Exploration and Production Segment**

**Revenue** The realized revenue of the exploration and production segment was RMB412,484 million in 2016, representing a decrease of 13.2% from RMB475,412 million in 2015, primarily due to the combined

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effects of (i) the decrease in the prices of crude oil and gas, and (ii) the decrease in the sales volume of crude oil. The average realized crude oil price was US\$37.99 per barrel in 2016, representing a decrease of 21.4% from US\$48.35 per barrel in 2015.

**Operating Expenses** Operating expenses of the exploration and production segment decreased by 7.3% from RMB441,451 million in 2015 to RMB409,336 million in 2016, primarily due to the combined effects of the following factors: (i) realized gain derived from the disposal of certain equity interests in the Trans-Asia Pipeline; (ii) a provision made in 2015 for impairment of oil and gas properties; and (iii) an increase in depletion of oil and gas assets as a result of a decrease in proved reserves and an increase in depletion rate due to the oil price drop; and (iv) a decrease in purchase expenses for imported crude oil.

We enhanced our control over costs and expenses continuously. The oil and gas lifting cost was US\$11.67 per barrel in 2016, representing a decrease of 10.1% from US\$12.98 per barrel in 2015.

**Profit from Operations** In 2016, in our exploration and production segment, we adhered to the low-cost strategy in our domestic operations, optimized our development plans, strengthened the dynamic adjustment of output, focused on the management and control of key elements of production, continued to save energy and tap the potential synergies. In our overseas operations, we devoted our efforts to broadening sources of income, reducing expenditure, as well as enhancing efficiency by various means such as expanding sales, increasing prices and optimizing investments. In an adverse situation where the prices of crude oil and gas dropped, the exploration and production segment realized an operating profit of RMB3,148 million, representing a decrease of 90.7% from RMB33,961 million in 2015.

***Refining and Chemicals Segment***

**Revenue** Revenue of the refining and chemicals segment decreased by 9.3% from RMB642,428 million in 2015 to RMB582,510 million in 2016, primarily due to the combined effects of (i) the drop in refined and chemicals products prices such as diesel, and (ii) the changes in the sales volume as affected by the market.

**Operating Expenses** Operating expenses of the refining and chemicals segment decreased by 14.8% from RMB637,545 million in 2015 to RMB543,484 million in 2016, primarily due to (i) a decrease in the expenses associated with the purchase of crude oil and feedstock oil from external suppliers, and (ii) the decrease in consumption tax.

In 2016, we optimized our production and operations under the cost pressure of the upgrading of oil quality in the refining and chemicals segment and prudently reduced the processing volume of crude oil based on market condition. The cash processing cost of refineries was RMB179.93 per ton in 2016, representing an increase of RMB2.13 per ton from RMB177.80 per ton in 2015.

**Profit from Operations** In 2016, in our refining and chemicals segment, we emphasized the principle of market orientation and benefit, optimized the allocation of resources and the structure of products, enhanced new technology development to improve the efficiency of facilities, increased the production of highly valued-added market-favorable products, and took the initiative to increase profit. We also intensified control over costs and expenses, which led to the improvement in major economic indicators and contributed to our profit under low oil prices. In 2016, in the refining and chemicals segment, we realized operating profits of RMB39,026 million, representing an increase of RMB34,143 million, as compared with RMB4,883 million in 2015. Among this, the refining operations recorded an operating profit of RMB27,565 million, representing an increase of RMB22,875 million in profit as compared with RMB4,690 million in 2015, due to the optimization of operation and increase in gross profit. Taking the opportunity

of favorable changes in the chemical market, we optimized our chemical operations by enhancing the structure of products and increasing the sales of high-profitability products. We recorded an operating profit of RMB11,461 million, representing an increase of RMB11,268 million, as compared with RMB193 million in 2015.

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**Table of Contents*****Marketing Segment***

**Revenue** Revenue of the marketing segment decreased by 5.9% from RMB1,383,426 million in 2015 to RMB1,301,616 million in 2016. This decrease was primarily due to the combined effects of (i) the decrease in the sales volume and price of diesel, partially offset by the decrease in the prices and the increase in the sales volume of gasoline and kerosene; and (ii) the decrease in revenue derived from trade of oil products.

**Operating Expenses** Operating expenses of the marketing segment decreased by 6.7% from RMB1,383,926 million in 2015 to RMB1,290,568 million in 2016, primarily due to the decrease in the expenses in purchase of refined oil from external suppliers.

**Profit from Operations** In 2016, facing such adverse factors as the slow-down in domestic demand for refined products and the fierce competition in the market, we aimed to maximize the whole value of the Company and continuously improved the quality of marketing and trade and profitability. In domestic operations, we strengthened connection between production and sales and inventory management, optimized logistics and allocation of resources, intensified cost and expense control and increased the profit from non-oil businesses. In international trade, we intensified the coordination and cooperation with domestic upstream, middle-stream and downstream businesses, optimized the importation of oil and gas resources and expanded exports of products processed with importing materials. In 2016, we realized an operating profit of RMB11,048 million in our marketing segment, representing an increase of RMB11,548 million, as compared with an operating loss of RMB500 million in 2015.

***Natural Gas and Pipeline Segment***

**Revenue** Revenue of the natural gas and pipeline segment amounted to RMB247,477 million in 2016, representing a decrease of 12.2% as compared to RMB281,778 million in 2015. This decrease was primarily due to a decrease in the price of nature gas, partially offset by the increase in the revenue derived from pipeline transportation.

**Operating Expenses** Operating expenses of the natural gas and pipeline segment amounted to RMB229,592 million in 2016, compared with RMB230,547 million in 2015. This slight decrease was primarily due to the decrease in the expenses of purchasing natural gas.

**Profit from Operations** In 2016, in the natural gas and pipeline segment, we achieved an increase in sales and stability in profitability by optimizing the allocation of resources, reducing purchase costs, utilizing price leverage to adjust demand and supply and strengthening marketing efforts in high-profitability markets. We realized an operating profit of RMB17,885 million in this segment, which, after excluding the effect of the income of RMB22,807 million generated from the integration of certain pipeline assets in 2015, represented a decrease of RMB10,539 million in operating profit as compared with RMB51,231 million in 2015. In 2016, we recorded a net loss of RMB14,884 million in the natural gas and pipeline segment from sales of imported gas, representing a decrease of loss of RMB1,415 million as compared with 2015.

In 2016, we generated a revenue of RMB515,848 million from our international operations, representing 31.9% of our total revenue. Profit before income tax expense amounted to RMB32,265 million, including an income of RMB24,534 million derived from disposal of certain equity interest in the Trans-Asia Pipeline. We maintained a healthy development with further improved operating ability in our international operations.

Our four operating segments are exploration and production, refining and chemicals, marketing as well as natural gas and pipeline. Overseas operations do not constitute a separate operating segment. The financial data of overseas operations are included in the financial data of the respective operating segment mentioned above.

**Liquidity and Capital Resources**

Our primary sources of funding include cash generated by operating activities and short-term and long-term borrowings. Our primary uses of funds were for operating activities, capital expenditures, repayment of

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short-term and long-term borrowings and distributions of dividends to shareholders. Our payments to CNPC are limited to dividends and payments for services provided to us by CNPC. For the year ended December 31, 2017, we distributed as dividends 45% of our reported income for the year attributable to our shareholders together with additional interim and final special dividends in return to our shareholders. See Item 8 Financial Information Dividend Policy for a discussion of factors which may affect the determination by our board of directors of the appropriate level of dividends.

Our financing ability may be limited by our financial condition, our results of operations and the international and domestic capital markets. Prior to accessing the international and domestic capital markets, we must obtain approval from the relevant PRC government authorities. In general, we must obtain PRC government approval for any project involving significant capital investment for our refining and chemicals, marketing and natural gas and pipeline segments. For a more detailed discussion of factors which may affect our ability to satisfy our financing requirements, see Item 3 Key Information Risk Factors Risks Related to Liquidity .

We plan to fund the capital and related expenditures described in this annual report principally through cash from operating activities, short-term and long-term borrowings and cash and cash equivalents. Net cash flows from operating activities in the year ended December 31, 2017 was RMB366,655 million. As of December 31, 2017, we had cash and cash equivalents of RMB122,777 million. While each of the projects described in this annual report for which significant capital expenditures will be required is important to our future development, we do not believe that failure to implement any one of these projects would have a material adverse effect on our financial condition or results of operations. If the price of crude oil declines sharply in the future, it is likely that we would delay or reduce the scale of the capital expenditures for our exploration and production segment.

We currently do not have any outstanding options, warrants or other rights for any person to require us to issue any common stock at a price below its market value. We do not currently intend to issue any such rights or to otherwise issue any common stock for a price below its market value.

In addition, as of December 31, 2017, we did not have any transactions, arrangements or other relationships with unconsolidated entities or other persons that are reasonably likely to materially affect the liquidity or availability of or requirements for our capital resources.

The table below sets forth our cash flows for each of the years ended December 31, 2015, 2016 and 2017 and our cash equivalents at the end of each year.

	<b>Year Ended December 31,</b>		
	<b>2015</b>	<b>2016</b>	<b>2017</b>
	<b>(RMB in millions)</b>		
Net cash flows from operating activities	261,312	265,179	366,655
Net cash flows used for investing activities	(215,879)	(175,887)	(243,546)
Net cash flows used for financing activities	(45,439)	(67,007)	(94,725)
Currency translation difference	(999)	2,873	(3,538)
Cash and cash equivalents at year end	72,773	97,931	122,777

Our cash and cash equivalents increased by 25.4% from RMB97,931 million as of December 31, 2016 to RMB122,777 million as of December 31, 2017.

**Net Cash Flows from Operating Activities**

Our net cash flows from operating activities amounted to RMB366,655 million for the year ended December 31, 2017, representing an increase of 38.3% from RMB265,179 million for the year ended December 31, 2016. This was mainly due to a combined effect of an increase in profit and strengthened



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management over inventories, payables and other working capital during the reporting period. As of December 31, 2017, we had cash and cash equivalents of RMB122,777 million. Our cash and cash equivalents were denominated in Renminbi, US Dollars, HK Dollars and other currencies (approximately 57.8% were denominated in Renminbi, approximately 36.4% were denominated in US Dollars, approximately 4.9% were denominated in HK Dollars and approximately 0.9% were denominated in other currencies).

Our net cash flows from operating activities amounted to RMB265,179 million for the year ended December 31, 2016, representing an increase of 1.5% from RMB261,312 million for the year ended December 31, 2015. This was mainly due to a combined effect of a decrease in profit and the decrease in tax expenses during the reporting period. As of December 31, 2016, we had cash and cash equivalents of RMB97,931 million. Our cash and cash equivalents were denominated in Renminbi, US Dollars, HK Dollars and other currencies (approximately 52.6% were denominated in US Dollars, approximately 44.3% were denominated in Renminbi, approximately 1.7% were denominated in HK Dollars and approximately 1.4% were denominated in other currencies).

Our net cash flows from operating activities amounted to RMB261,312 million for the year ended December 31, 2015, representing a decrease of 26.7% from RMB356,477 million for the year ended December 31, 2014. This was mainly due to a combined effect of a decrease in profit and the change of working capital during the reporting period. As of December 31, 2015, we had cash and cash equivalents of RMB72,773 million. Our cash and cash equivalents were denominated in Renminbi, US Dollars, HK Dollars and other currencies (approximately 52.9% were denominated in Renminbi, approximately 43.3% were denominated in US Dollars, approximately 2.2% were denominated in HK Dollars and approximately 1.6% were denominated in other currencies).

**Net Cash Flows Used for Investing Activities**

Our net cash flows used for investing activities in 2017 amounted to RMB243,546 million, representing an increase of 38.5% from RMB175,887 million in 2016. The increase was primarily due to a combined effect of the adjustment of our investment plans based on the oil price trend and market change and the increase in capital expenditures in 2017.

Our net cash flows used for investing activities in 2016 amounted to RMB175,887 million, representing a decrease of 18.5% from RMB215,879 million in 2015. The decrease was primarily due to a combined effect of the adjustment of our investment plans based on the oil price trend and market change, a decrease in capital expenditures during the current reporting period and payment of considerations for integration of certain pipelines assets in 2015.

Our net cash flows used for investing activities in 2015 amounted to RMB215,879 million, representing a decrease of 25.8% from RMB290,838 million in 2014. The decrease was primarily due to a combined effect of the adjustment of our investment plans based on the oil price trend and market change, a decrease in capital expenditures during the reporting period and payment of considerations for integration of certain pipelines assets.

**Net Cash Flows Used for Financing Activities**

Our net cash flows used for financing activities in 2017 was RMB94,725 million, representing an increase of 41.4% from RMB67,007 million in 2016. This was primarily due to a combined effect of (i) our efforts in optimizing financial arrangement and debt structure; (ii) the decrease in amount of debts and financing cost, (iii) the decrease in long-term borrowings in 2017, and (iv) the increase in balance of short-term borrowings as of December 31, 2017.

Our net cash flows used for financing activities in 2016 was RMB67,007 million, representing an increase of 47.5% from RMB45,439 million in 2015. This was primarily due to a combined effect of (i) our efforts in



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optimizing financial arrangement and debt structure, and strengthening the management of our interest-bearing borrowings, (ii) the decrease in financing cost, (iii) the decrease in long-term borrowings in 2016, and (iv) the increase in balance of short-term borrowings as of December 31, 2016.

Our net cash flows used for financing activities in 2015 was RMB45,439 million, representing an increase of 2.5% from RMB44,312 million in 2014. This was primarily due to a combined effect of our efforts in optimizing financial arrangement, strengthening the management of our interest-bearing borrowings, overall arrangement and optimization of our debt structure and the increase of repayments of borrowings in 2015, and the decrease of balance of short-term borrowings as of December 31, 2015.

Our net borrowings as of December 31, 2015, 2016 and 2017 were as follows:

	<b>As of December 31,</b>		
	<b>2015</b>	<b>2016</b>	<b>2017</b>
	<b>(RMB in millions)</b>		
Short-term borrowings (including current portion of long-term borrowings)	106,226	143,384	175,417
Long-term borrowings	434,475	372,887	289,858
<b>Total borrowings</b>	<b>540,701</b>	<b>516,271</b>	<b>465,275</b>
Less:			
Cash and cash equivalents	72,773	97,931	122,777
<b>Net borrowings</b>	<b>467,928</b>	<b>418,340</b>	<b>342,498</b>

Our total borrowings as of December 31, 2017 consisted of approximately 54.5% of fixed-rate loans and approximately 45.5% of floating-rate loans. Of our borrowings as of December 31, 2017, approximately 71.4% were denominated in Renminbi, approximately 26.7% were denominated in US Dollars and approximately 1.9% were denominated in other currencies.

Our total borrowings as of December 31, 2016 consisted of approximately 54.8% of fixed-rate loans and approximately 45.2% of floating-rate loans. Of our borrowings as of December 31, 2016, approximately 72.1% were denominated in Renminbi, approximately 26.5% were denominated in US Dollars and approximately 1.4% were denominated in other currencies.

Our total borrowings as of December 31, 2015 consisted of approximately 66.3% of fixed-rate loans and approximately 33.7% of floating-rate loans. Of our borrowings as of December 31, 2015, approximately 76.4% were denominated in Renminbi, approximately 22.2% were denominated in US Dollars and approximately 1.4% were denominated in other currencies.

Our debt to capital ratio (calculated by dividing interest-bearing debts by the aggregate of interest-bearing debts and shareholder's equity) as of December 31, 2015, 2016 and 2017 was 28.7%, 27.3% and 25.2%.

As of December 31, 2017, the outstanding amount of our debts secured by CNPC and its subsidiaries and other third parties was RMB45,463 million.

## **Capital Expenditures and Investments**

In 2017, we focused on the principles of quality and profitability for capital expenditures, continued to optimize our investment structure and control our overall capital expenditures, with a focus on the investment in upstream oil and gas projects in order to enhance our sustainable development capability. In 2017, our capital expenditures were RMB216,227 million, representing an increase of 25.4% from RMB172,386 million in 2016.

The table below sets forth our capital expenditures and investments by business segment for each of the years ended December 31, 2015, 2016 and 2017 as well as those anticipated for the year ending December 31,

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2018. Actual capital expenditures and investments for periods after January 1, 2018 may differ from the amounts indicated below.

	2015		2016		2017		2018 Anticipated	
	(RMB in millions)	%	(RMB in millions)	%	(RMB in millions)	%	(RMB in millions)	%
Exploration and production <sup>(1)</sup>	157,822	78.04	130,248	75.56	161,997	74.92	167,600	74.22
Refining and chemicals	15,725	7.78	12,847	7.45	17,705	8.19	19,800	8.77
Marketing	7,061	3.49	7,983	4.63	10,982	5.08	16,500	7.31
Natural gas and pipeline	20,360	10.07	20,340	11.80	24,529	11.34	20,000	8.86
Headquarters and others	1,270	0.62	968	0.56	1,014	0.47	1,900	0.84
Total	202,238	100.00	172,386	100.00	216,227	100.00	225,800	100.00

(1) If investments related to geological and geophysical exploration costs are included, the capital expenditures and investments for the exploration and production segment in 2015, 2016, 2017 and the estimates for the same in 2018 would be RMB166,594 million, RMB139,135 million, RMB176,426 million and RMB178,600 million, respectively.

As of December 31, 2017, the capital commitments contracted but not provided for were approximately RMB70,563 million.

***Exploration and Production***

A majority of our capital expenditures and investments relate to our exploration and production segment. For each of the three years ended December 31, 2015, 2016 and 2017, capital expenditures in relation to the exploration and production segment amounted to RMB157,822 million, RMB130,248 million and RMB161,997 million, respectively. In 2017, our capital expenditures were primarily used for the exploration projects in our 16 domestic oil and gas fields, construction of production facilities in our oil and gas fields, and the exploration and development projects in our five major overseas oil and gas cooperation regions.

We anticipate that the capital expenditures for our exploration and production segment in 2018 would amount to RMB167,600 million. Domestic exploration activities will be focused on the key basins such as Songliao Basin, Erdos Basin, Tarim Basin, Sichuan Basin and Bohai Bay Basin. Domestic development activities will be focused on maintaining a stable production of crude oil and a growth in the output of natural gas by developing oil and gas fields in Daqing, Changqing, Liaohe, Xinjiang, Tarim and the Southwest region and enhancing the development of unconventional resources such as shale gas. Overseas operations will be aimed at continued cooperation with our current partners in the operation of the existing projects and the development of new projects in the Middle East, Central Asia, the Americas and the Asia-Pacific regions to ensure an effective growth of our reserves and production.

***Refining and Chemicals***

Our capital expenditures for our refining and chemicals segment for each of the years ended December 31, 2015, 2016 and 2017 were RMB15,725 million, RMB12,847 million and RMB17,705 million, respectively. In 2017, our capital expenditures were mainly spent on the construction of large-scale refining and chemicals facilities, including the Yunnan petrochemical project and certain other oil product quality upgrading projects.

We anticipate that the capital expenditures for the refining and chemicals segment in 2018 would amount to RMB19,800 million, which are expected to be used primarily for the construction of large-scale refining and chemical projects, refined oil quality upgrading projects and refining-chemical transformation and upgrading projects, such as the Liaoyang Petrochemical's optimization and efficiency renovation project for processing

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crude oil imported from Russia, Huabei Petrochemical's project for quality upgrading, technical reformation with respect to safety production and environmental protection, the refining-chemical integration project in Guangdong, Daqing Petrochemical's project in relation to adjustment and upgrading of product structure and the large-scale refining-chemical project of producing ethylene out of ethane.

### ***Marketing***

Our capital expenditures for our marketing segment for each of the years ended December 31, 2015, 2016 and 2017 were RMB7,061 million, RMB7,983 million and RMB10,982 million, respectively. Our capital expenditures for the marketing segment in 2017 were mainly used for the construction of service stations, storage facilities and other facilities for our sales network.

We anticipate that the capital expenditures for our marketing segment for the year of 2018 will amount to RMB16,500 million, which are expected to be used primarily for the construction and expansion of high-profitability refined oil sales networks and the construction of the overseas oil and gas operation centers.

### ***Natural Gas and Pipeline***

Our capital expenditures for the natural gas and pipeline segment for each of the three years ended December 31, 2015, 2016 and 2017 were RMB20,360 million, RMB20,340 million and RMB24,529 million, respectively. Our capital expenditures for the natural gas and pipeline segment in 2017 were mainly used for construction projects including the Third West-East Gas Pipeline, the Fourth Shaanxi-Beijing Gas Pipeline, the second Sino-Russia Crude Oil Pipeline and the Jinzhou-Zhengzhou Refined Oil Pipeline.

We anticipate that our capital expenditures for the natural gas and pipeline segment in 2018 will amount to approximately RMB20,000 million, which are expected to be used primarily for the construction of key natural gas transmission projects such as the China-Russia East Natural Gas Pipeline Project, Fujian-Guangdong main branch, gas storage and LNG equipment for storage and transportation, as well as the construction of gas branches and sales terminals.

### ***Headquarters and Others***

Our non-segment-specific capital expenditures and investments for each of the years ended December 31, 2015, 2016 and 2017 were RMB1,270 million, RMB968 million and RMB1,014 million, respectively, which were primarily used for research activities and development of the IT system.

Our anticipated capital expenditures for the headquarters and others in 2018 will amount to RMB1,900 million. These planned capital expenditures and investments mainly include capital expenditures for scientific research activities and the development of the IT system.

### **Off-Balance Sheet Arrangements**

As of December 31, 2017, there were no off-balance sheet arrangements that had or were reasonably likely to have a current or future effect on our financial condition, changes in financial condition, revenues or expenses, results of operations, liquidity, capital expenditures or capital resources that is material to investors.

### **Long-Term Contractual Obligations and Other**

**Commercial Commitments and Payment Obligations**

All information that is not historical in nature disclosed under Item 5 Operating and Financial Review and Prospects Long-Term Contractual Obligations and Other Commercial Commitments and Payment Obligations is deemed to be a forward looking statement. See Forward-Looking Statements for additional information.



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The tables below set forth our long-term contractual obligations outstanding as of December 31, 2017.

Contractual Obligations	Total	Payment Due by Period			
		Less Than 1 Year	1-3 Years	3-5 Years	After 5 Years
		(RMB in millions)			
Long-term debt	371,394	81,536	134,829	99,290	55,739
Capital lease obligations	1,934	235	506	233	960
Operating leases	229,384	11,519	18,967	18,066	180,832
Capital commitments	70,563	12,811	37,057	2,524	18,171
Other long-term obligations					
Debt-related interest	52,798	11,439	16,657	10,262	14,440
<b>Total</b>	<b>726,073</b>	<b>117,540</b>	<b>208,016</b>	<b>130,375</b>	<b>270,142</b>

We are obligated to make annual payment with respect to our exploration and production licenses to the Ministry of Natural Resources. The table below sets forth the estimated amount of the annual payments in the next five years:

Year	Annual Payment (RMB in millions)
2018	800
2019	800
2020	800
2021	800
2022	800

**Assets Retirement Obligation**

A number of provinces and regions in which our oil and gas exploration and production activities are located have promulgated environmental protection regulations, which set forth specific abandonment and disposal processes for oil and gas exploration and production activities. We have established standard abandonment procedures, including plugging all retired wells, dismantling all retired metering stations and other related facilities and performing site restoration, in response to the issuance of these provincial and regional regulations. As of December 31, 2017, the balance of assets retirement obligation was RMB131,546 million.

**Research and Development**

We have a research and development management department, directly under which there are three research institutions. Except for our branch companies which are engaged in marketing activities, each of our branch companies has its own research and development management department. Most of our branch companies have their own research institutions. Our research and development management departments are mainly responsible for managing and coordinating the research and development activities conducted by each of the research institutions. As of December 31, 2017, we had 39,377 employees in our research and development departments and institutions.

In each of the years ended December 31, 2015, 2016 and 2017, our total expenditures for research and development were approximately RMB19,300 million, RMB17,565 million and RMB18,601 million, respectively.

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**Exploration and Production**

Most of China's major oil and gas fields are characterized by a broad range of geological conditions, and a majority of China's oil and gas fields are in continental sedimentary basins with complex structures. Our research and development efforts with respect to our exploration and production business focus on:

theories and technologies of crude oil and natural gas exploration;

oil and gas development theories and technologies;

engineering technologies and equipment;

theories and technologies for oil and gas storage and transportation; and

technologies for security, energy conservation and environment protection.

**Refining and Chemicals**

Currently, our research and development efforts in the refining and chemicals segment are focusing on the following areas:

technologies for clean refined oil products;

technologies for unqualified heavy oil processing;

refining-chemical integration technologies;

technologies for production of olefin aromatics;

technologies for new products of synthetic resin and synthetic rubber;

new catalyst and catalytic materials; and

technologies for safety, energy saving and environment protection.

**Trend Information**

In 2018, the global economy is expected to grow stronger although it still faces challenges. As the global oil market gradually tends to be balanced, international oil price is likely to remain volatile at a low or medium level. China's economy is expected to keep growing in a stable manner with an expected GDP growth of approximately 6.5% in 2018. The consumption demand for oil and gas in China remains a growth momentum as a whole. With the implementation of system reform in the oil and gas sector and the implementation of the Belt and Road initiative, sources of resources and the manners of cooperation in the oil and gas sector will become more diversified. Meanwhile, with the newly issued regulation on oil product consumption tax, a fairer market environment will be nurtured in China which will facilitate our long-term development. We will continue to adhere to our guidelines of steady development and endeavor to implement our four major strategies with respect to resources, markets, globalization and innovation. We will continue to optimize the structure of our industry chain, improve the value of our oil and gas business chains, and vigorously broaden our source of income, reduce expenditures, cut costs and improve efficiency in an effort to maintain a steady and positive improvement of our operations, and continue to improve our competitiveness and our company value.

With respect to the exploration and production segment, we will focus on efficient exploration and development and make great efforts to increase reserves and production as well as improve profitability. With respect to our oil and gas exploration, we will aim to explore large-scale and high quality reserves, strengthen centralized exploration and fine exploration of the major basins and key series and strata, promote comprehensive exploration of resources including tight oil and gas, shale oil and gas and coalbed methane, and consolidate the resource base. With respect to our oil and gas production, we will, on the basis of stable output of oil and increase of gas, carry out construction of key projects of production capacity, focus on optimization,

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arrangement and adjustment of development plans, achieve lean manufacturing driven by innovation and a balance between production and efficiency, advance the unconventional oil and gas businesses such as coalbed methane and shale gas in an orderly manner and endeavor to increase both production and efficiency.

With respect to the refining and chemicals segment, we will, focus on market demand and facility features, make reasonable arrangement for processing workload, continuously optimize resource allocation and product structure, in order to achieve the most efficient utilization of resources and maximum of overall value. With respect to the refining business, we will control the diesel-gasoline ratio, increase production of high-profitability and featured products. With respect to the chemical business, we will, considering market cycle, broaden sources of raw materials of fine quality, accelerate the research and development in new products, and improve the proportion of products of high-end, high value-added and high profitability. With respect to the sales of chemical products, we will pay close attention to the market trend, promote integration of production, marketing, research and application, and enhance market cultivation and development so as to increase sales and boost profit. We will implement the transformation and upgrading plan for oil refining and chemical businesses, accelerate structure adjustment and optimization, and continuously improve sustainable development capability and profitability.

With respect to the marketing segment, we will pay close attention to the changes of the market, strengthen the interaction between production and marketing, improve marketing network and enhance overall profitability. We will improve our strategy on competitiveness, deepen the integrated marketing of refined oil, fuel cards, non-oil business, lubricants and natural gas, promote reconstruction and upgrading of intelligent gas stations, give full play to advantages of our brand "uSmile", enhance innovation efforts on "Internet + Marketing", deepen cross-industry cooperation, create an ecosystem of "people, vehicle and life", and continuously enhance our profitability and market competitiveness.

With respect to the natural gas and pipeline segment, we will devote efforts to coordinating resources and market, creating a strategic and value-oriented natural gas business chain. We will carry out overall management of the production, import, storage, transportation and marketing links, give play to comprehensive peak arrangement capability, form a pipeline network system featuring effective operation, flexible dispatch and stability and safety. We will continue to optimize sales flow, implement flexible sales strategy, track new business growth area of natural gas, carry out orderly market development and enhance the scale and strength of the development of end markets including urban gas. We will continue to push forward the construction of key pipelines and reinforce the construction of natural gas branches and terminal facilities.

With respect to the international operations, we will continue to improve the strategic layout of the five major overseas oil and gas cooperation zones, the four major strategic oil and gas channels and the three major oil and gas operation hubs, further integrate resources and adjust structures, and increase operation efficiency as well as profitability. We will enhance comprehensive assessment and business negotiation of new projects, emphasize the exploration and development of existing key projects and high-profitability projects, and endeavor to increase reserve, output and profit. We will leverage the synergy and cooperation between international trading, production and sales, make overall arrangements for import and export structures as well as domestic and foreign resources, improve the trading channels and marketing network, and improve the capability to allocate resources and profit creation capability.

Other than as disclosed above and elsewhere in this annual report, we are not aware of any trends, uncertainties, demands, commitments or events for the periods covered in this annual report that are reasonably likely to have a material adverse effect on our net revenue, profit, liquidity or capital resources, or that would cause the disclosed financial information to be misleading.



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**Other Information**

**Inflation**

Inflation or deflation did not have a significant impact on our results of operations for the year ended December 31, 2017.

**Related Party Transactions**

For a discussion of related party transactions, see Item 7 Major Shareholders and Related Party Transactions Related Party Transactions and Note 36 to our consolidated financial statements included elsewhere in this annual report.

**Recent Developments in IFRS**

For a detailed discussion of recent developments in IFRS, see Note 3 to our consolidated financial statements.

**Item 6 *DIRECTORS, SENIOR MANAGEMENT AND EMPLOYEES***

**Directors, Senior Management and Supervisors**

As of the date of this report, our board of directors consisted of 13 directors, five of whom were independent non-executive directors. Directors are elected at shareholder meetings for three-year term. The directors may be re-elected and re-appointed upon the expiration of his/her term of office. The functions and duties conferred on the board of directors include:

convening shareholders meetings and reporting its work to the shareholders meeting;

implementing the resolutions of the shareholders meeting;

determining our business plans and investment programs;

formulating our annual budget and final accounts;

formulating our profit distribution and loss recovery proposals;

formulating proposals for the increase or reduction of our registered capital and the issuance of our debentures or other securities and listings;

proposing to redeem shares, merge, spin-off, dissolve or otherwise change the form of the Company;

deciding on our internal management structure;

appointing or dismissing the president of the company, and upon the nomination of the president, appointing or dismissing the senior vice president, vice president, chief financial officer and other senior management, and determining matters relating to their remuneration;

formulating our basic management system;

preparing amendments to our articles of association;

managing the information disclosures of our company; and

exercising any other powers and duties conferred by the shareholders at general meetings.  
Eight of the directors are affiliated with CNPC or its subsidiaries.



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The PRC Company Law requires a joint stock company with limited liability to establish a supervisory board. This requirement is reflected in our articles of association. The supervisory board is responsible for monitoring our financial matters and overseeing the corporate actions of our board of directors and our senior management personnel. At the end of this reporting period, the supervisory board consisted of nine supervisors, five of whom were elected, and may be removed, by the shareholders in a general meeting, and four of whom are employees representatives who were elected by our staff, and may be removed, by our staff. Five of our supervisors are affiliated with CNPC. The term of office of our supervisors is three years. The supervisors may be re-elected and re-appointed. An elected supervisor cannot concurrently hold the position of a director, manager or financial controller.

The supervisory board shall be responsible to the shareholders meeting and shall exercise the following functions and powers in accordance with law:

to review the periodic reports prepared by the board of directors and issue written opinions in connection with such review;

to review our financial condition;

to oversee the performance of duties by the directors, the president, senior vice presidents, vice presidents, the chief financial officer and other senior officers of the company and to propose the removal of any of the foregoing persons who acts in contravention of any law, regulation, the company's articles of association or any resolutions of the shareholders meeting;

to demand any director, the president, senior vice president, vice president, the chief financial officer or any other senior officer who acts in a manner which is harmful to the company's interest to rectify such behavior;

to check the financial information such as the financial report, business report and plans for distribution of profits to be submitted by the board of directors at the shareholders meetings and to authorize, in the company's name, publicly certified and practicing auditors to assist in the re-examination of such information should any doubt arise in respect thereof;

to propose the convening of an extraordinary shareholders meeting, and convene and preside over a shareholders meeting when the board fails to perform its duties to do so as set forth in the PRC Company Law;

to submit proposals at the shareholders meetings;

to confer with any director, or initiate legal proceedings on behalf of the company against any director, the president, senior vice president, vice president, the chief financial officer or any other senior officer in accordance with Article 152 of the PRC Company Law;

to initiate investigations upon being aware of any extraordinary development in the operational conditions of the company;

together with the audit committee of the board of directors, to review the performance of the outside auditors on a yearly basis, and to propose the engagement, renewal of engagement and termination of engagement of the outside auditors, as well as the service fees with respect to the audit services;

to oversee the compliance of related party transactions; and

other functions and powers as set forth in the articles of association of the company.

Supervisors shall attend meetings of the board of directors as observers.

In the event that any action of our directors adversely affects our interests, supervisors shall confer with or initiate legal proceedings against such directors on our behalf. A resolution proposed at any meeting of the supervisory board shall be adopted only if it is approved by two-thirds or more of our supervisors.

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Our senior management is appointed by and serves at the supervision of our board of directors. The board of directors will review, evaluate and supervise the performance of the management and reward or punish the members of the management in accordance with relevant rules and regulations.

The following table sets forth certain information concerning our directors, supervisors and executive officers as of the date of this report:

<b>Name<sup>(1)</sup></b>	<b>Age</b>	<b>Position</b>	<b>Time of Election<sup>(2)</sup></b>
Wang Yilin	61	Chairman of the Board of Directors	June 2015
Zhang Jianhua	53	Vice-Chairman and Non-executive Director	October 2016
Yu Baocai	52	Non-executive Director	May 2011
Liu Yuezhen	56	Non-executive Director	May 2014
Liu Hongbin	54	Non-executive Director	May 2014
Hou Qijun	51	Executive Director and Vice President	June 2017
Duan Liangwei	50	Non-executive Director	June 2017
Qin Weizhong	46	Non-executive Director	June 2017
Lin Boqiang	60	Independent Non-executive Director	May 2014
Zhang Biyi	64	Independent Non-executive Director	October 2014
Elsie Leung Oi-sie	78	Independent Non-executive Director	June 2017
Tokuchi Tatsuhito	65	Independent Non-executive Director	June 2017
Simon Henry	56	Independent Non-executive Director	June 2017
Xu Wenrong	56	Chairman of the Board of Supervisors	
Zhang Fengshan	56	Supervisor	
Jiang Lifu	54	Supervisor	
Lu Yaozhong	52	Supervisor	
Wang Liang	55	Supervisor	
Fu Suotang	55	Supervisor appointed by employees representatives	
Li Jiamin	54	Supervisor appointed by employees representatives	
Liu Xianhua	54	Supervisor appointed by employees representatives	
Li Wendong	53	Supervisor appointed by employees representatives	
Sun Longde	55	Vice President	
Lin Aiguo	59	Chief Engineer	
Wu Enlai	57	Secretary to the Board of Directors	
Tian Jinghui	55	Vice President	
Chai Shouping	56	Chief Financial Officer	
Ling Xiao	54	Vice President	
Yang Jigang	54	Vice President	
Wang Zhongcai	58	Vice President	

(1) The following changes have taken place to our board and senior management since our last annual report:

**Directors**

On June 8, 2017, at the annual general meeting of the Company for 2016, Mr. Wang Yilin, Mr. Wang Dongjin, Mr. Yu Baocai, Mr. Liu Yuezhen, Mr. Liu Hongbin, Mr. Hou Qijun, Mr. Duan Liangwei and Mr. Qin Weizhong were elected as the Company's directors; Mr. Lin Boqiang, Mr. Zhang Biyi, Ms. Elsie Leung Oi-sie, Mr. Tokuchi Tatsuhito and Mr. Simon Henry were elected as independent non-executive

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directors of the Company. Mr. Xu Wenrong, Mr. Shen Diancheng, Mr. Zhao Zhengzhang, Mr. Richard H. Matzki and Mr. Chen Zhiwu no longer served as directors of the Company. On June 8, 2017, the board of directors elected Wang Yilin as the chairman of the Company, and each of Mr. Zhang Jianhua and Mr. Wang Dongjin as the Company's vice chairman. On April 2, 2018, Mr. Wang Dongjin resigned from the positions of vice chairman, director and president of the Company due to position adjustment.

**Supervisors**

On June 8, 2017, at the annual general meeting of the company for 2016, Mr. Xu Wenrong, Mr. Zhang Fengshan, Mr. Jiang Lifu and Mr. Lu Yaozhong were elected as supervisors of the Company. Each of Mr. Fu Suotang and Mr. Li Jiamin was elected as an employee representative supervisor of the Company. Mr. Guo Jinping, Mr. Li Qingyi, Mr. Jia Yimin, and Mr. Yang Hua no longer served as supervisors of the Company. On June 8, 2017, the supervisory board of the Company elected Mr. Xu Wenrong as the chairman of the supervisory board at its third meeting. On October 26, 2017, Mr. Wang Liang was elected as a supervisor of the Company at the extraordinary general meeting of the Company.

**Senior Officers**

On June 8, 2017, Mr. Hou Qijun was appointed as a vice president of the Company. Mr. Zhao Zhengzhang and Ms. Wang Lihua no longer served as vice presidents of the Company due to age. On December 28, 2017, Mr. Ling Xiao, Mr. Yang Jigang and Mr. Wang Zhongcai were appointed as vice presidents of the Company. Mr. Huang Weihe, Mr. Xu Fugui and Mr. Lv Gongxun no longer served as vice presidents of the Company due to age.

(2) For directors only.

**Directors**

**Wang, Yilin**, age 61, is the chairman of our company, the chairman of CNPC and the secretary of the Communist Party of China (CPC) Leadership Group of CNPC. Mr. Wang is a professor-level senior engineer and holds a doctorate degree. He has over 35 years of work experience in China's oil and gas industry. Mr. Wang was appointed as the standing member of the CPC Committee, deputy director and chief exploration geologist of Xinjiang Petroleum Administration Bureau in June 1996, and the general manager and secretary of the CPC Committee of our Xinjiang Oilfield Company in September 1999. He served as the assistant general manager of CNPC since July 2003. Mr. Wang was appointed as a deputy general manager and a member of the CPC Leadership Group of CNPC in December 2003. From July 2004, he worked concurrently as the chief safety officer of CNPC. He was a director of our company from November 2005 to April 2011. From April 2011, Mr. Wang was the chairman of CNOOC, the secretary of the CPC Leadership Group of CNOOC and the chairman of CNOOC Limited. He was appointed as the chairman of CNPC and the secretary of the CPC Leadership Group of CNPC in April 2015, and the chairman of our company in June 2015.

**Zhang, Jianhua**, age 53, is the vice chairman of our company, a director and the general manager of CNPC, and the deputy secretary of the CPC Leadership Group of CNPC. Mr. Zhang is a professor-level senior engineer and holds a doctorate degree. He has over 30 years of work experience in China's petrochemical industry. He was appointed as a deputy manager of Shanghai Gaoqiao Petrochemical Company of Sinopec Group in April 1999, a deputy manager of Sinopec Shanghai Gaoqiao Company in February 2000, and the general manager of Sinopec Shanghai Gaoqiao Company in September 2000. He was appointed as a vice president of China Petroleum & Chemical Corporation, or Sinopec Corp., in April 2003, and concurrently served as the general director of the Production and Operation

Management Department of Sinopec Corp. from November 2003. He was appointed as a member of the CPC Leadership Group of Sinopec Group in February 2005, and a senior vice president of Sinopec Corp in March 2005. He was appointed as a director of Sinopec Corp in May 2006, and concurrently served as the chairman of Sinopec (Hong Kong) Limited from June 2007, and concurrently served

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as the chairman of Sinopec Engineering (Group) Co., Ltd. from October 2014. He was appointed as a director and the general manager of CNPC and deputy secretary of the CPC Leadership Group of CNPC in July 2016. In October 2016, Mr. Zhang was appointed as a director and vice chairman of our company.

**Yu, Baocai**, age 52, is a director of our company, a deputy general manager of CNPC and a member of the CPC Leadership Group of CNPC. Mr. Yu is a senior engineer, holds a master's degree and has over 30 years of work experience in China's oil and petrochemical industry. He was appointed as a deputy general manager and a member of the CPC Committee of PetroChina Daqing Petrochemical Company in September 1999 and was promoted to general manager and deputy secretary of the CPC Committee in December 2001. In September 2003, Mr. Yu was appointed as the secretary of the CPC Committee and the general manager of PetroChina Lanzhou Petrochemical Company, and in September 2008, he was appointed as the deputy general manager and a member of the CPC Leadership Group of CNPC. Mr. Yu was elected as a representative of the 10th National People's Congress of PRC in February 2003 and a representative of the 11th National People's Congress of PRC in February 2008. In May 2011, Mr. Yu was elected as a director of our company.

**Liu, Yuezhen**, age 56, is a director of our company and the chief accountant and a member of the CPC Leadership Group of CNPC. Mr. Liu is a researcher-level senior accountant, holds a master's degree and has over 35 years of financial and accounting experience. He served as deputy general manager and chief accountant of AVIC Jiangnan Aviation Life-saving Appliance Corporation since March 1996. In February 2000, he was promoted to general manager of Jiangnan Aviation Life-saving Appliance Corporation and concurrently served as the director of the 610 Research Institute. Mr. Liu served as the chairman of the board of directors and general manager of AVIC Beijing Qingyun Aviation Instruments Co., Ltd. from May 2003 and as the chief accountant and a member of the CPC Leadership Group of CASIC (Group) Company from November 2006. Mr. Liu has been the chief accountant and a member of the CPC Leadership Group of CNPC since December 2013. He was elected as a director of our company in May 2014.

**Liu, Hongbin**, age 54, is a director of our company and a deputy general manager and a member of the CPC Leadership Group of CNPC. Mr. Liu is a senior engineer, holds a bachelor's degree and has nearly 35 years of work experience in China's oil and gas industry. He was appointed as the chief engineer of Tuha Petroleum Exploration & Development Headquarters in June 1995, a deputy general manager and a member of the CPC Committee of PetroChina Tuha Oilfield Company in July 1999, the commander and deputy secretary of the CPC Committee of Tuha Petroleum Exploration & Development Headquarters in July 2000, the general manager of the Planning Department of our company in March 2002, and the director of the Planning Department of CNPC in September 2005. Mr. Liu was appointed as a vice president of our company in June 2007. He was appointed as the general manager and secretary of the CPC Committee of PetroChina Marketing Company in November 2007. In July 2013, he was appointed as a deputy general manager and a member of the CPC Leadership Group of CNPC. Mr. Liu was appointed as an executive director and general manager of Daqing Oilfield Company Ltd. in August 2013, and he was elected as a director of our company in May 2014.

**Hou Qijun**, age 51, is a director and vice president of our company, and concurrently the deputy general manager of CNPC. Mr. Hou is a professor-level senior engineer and holds a doctorate degree. He has nearly 30 years of work experience in China's oil and gas industry. He served as a director, deputy general manager and a member of the CPC Committee of Daqing Oilfield Company Limited since October 2002. He served as the general manager and deputy secretary of the CPC Committee of Jilin Oilfield Company from October 2004, and concurrently an executive director and the general manager of Jilin Petroleum (Group) Company Limited from July 2007. He served as the secretary of the CPC Committee and deputy general manager of PetroChina Natural Gas and Pipelines Company from September 2011, and concurrently a deputy general manager of PetroChina Natural Gas Marketing Company from November 2011. He served concurrently as the director of PetroChina Oil & Gas Pipeline Control Center from March 2012. He

served as the general manager of the Planning Department of the company and concurrently the general manager of the Planning Department of CNPC from November 2013. He was appointed as a deputy general manager of CNPC in March 2017. Mr. Hou has served concurrently as the general manager and deputy secretary of the CPC Committee of PetroChina Exploration and



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Production Company from April 2017. In June 2017, he was appointed as a director and vice president of our company.

**Duan Liangwei**, age 50, is a director of our company, and concurrently a deputy general manager and the chief safety officer of CNPC. Mr. Duan is a professor-level senior engineer and holds a doctorate degree. He has nearly 30 years of work experience in China's petrochemical industry. From February 2006, Mr. Duan served as a deputy general manager, the chief safety officer and a member of the CPC Committee of Jilin Petrochemical Company. From March 2010, he served concurrently as the general manager of Jilin Fuel Ethanol Company Limited. From September 2011, he served as the general manager of Dagang Petrochemical Company. From July 2013, he served as the general manager and the deputy secretary of the CPC Committee of PetroChina Dalian Petrochemical Company, the manager of Dalian Petrochemical Corporation, and the director of Dalian Regional Companies Coordination Group. He was appointed as a deputy general manager of CNPC in March 2017. Mr. Duan has served concurrently as the chief safety director of CNPC since April 2017. In June 2017, he was appointed as a director of our company.

**Qin Weizhong**, age 46, is a director of our company and a deputy general manager of CNPC. Mr. Qin is a senior engineer and holds a doctorate degree. He has over 20 years of work experience in China's oil and petrochemical industry. From October 2004, he served as a deputy director of the Development & Planning Department of Sinopec Corp. From May 2007, he worked concurrently as a director of New Energy Office of Sinopec Corp. From July 2010, he served as the director and deputy secretary of the CPC Committee of Sinopec Group Jiujiang Petrochemical Plant and the general manager of Sinopec Jiujiang Company. He was appointed as a deputy general manager of CNPC in March 2017. In June 2017, he was appointed as a director of our company.

**Independent Non-executive Directors**

**Lin, Boqiang**, age 60, is an independent non-executive director of our company. Mr. Lin holds a doctorate degree in economics from the University of California. He was formerly a senior energy economist at the Asian Development Bank, and is currently working at Xiamen University in such capacity as a Distinguished Professor of the Changjiang Scholars Program at the School of Management, the director of Research Institute for China's Energy Policy, the director of 2011 Collaborative Innovation Center for Energy Economics and Energy Policy, and a doctoral advisor. Mr. Lin is a member of the National Energy Consultation Committee under the National Energy Commission, a member of the Energy Price Consultation Committee under the National Development and Reform Commission, a guest economic analyst of Xinhua News Agency, a guest commentator of China National Radio, the vice-chairman of China Energy Society, and a member of the Board of Stewards of Future of Energy of the World Economic Forum based in Davos Switzerland. Mr. Lin was elected as an independent non-executive director of our company in May 2014.

**Zhang, Biyi**, age 64, is an independent non-executive director of our company. Mr. Zhang is a senior accountant. He graduated from the department of finance and banking from Xiamen University in February 1982. He served as the head of the Enterprise Division, assistant to the director, and deputy director of the Finance Bureau at China Ship Industry Corporation. In July 1999, Mr. Zhang was appointed as a deputy general manager of China Shipbuilding Industry Corporation, and he served as deputy general manager and chief accountant of China Shipbuilding Industry Corporation from December 2004 to February 2014. From March 2008 to January 2010, he also served concurrently as the general manager of China Shipbuilding Industry Company Ltd. Mr. Zhang was elected as an independent non-executive director of our company in October 2014.

**Elsie Leung Oi-sie**, age 78, is an independent non-executive director of our company. She is a consultant of Iu, Lai & Li Solicitors & Notaries, and an independent non-executive director of China Life Insurance Company Limited, United Company RUSAL, Plc. and China Resources Power Holdings Co., Ltd. Ms. Leung obtained her LL.M degree

from the University of Hong Kong, and is an academician of College of International Marriage Law. She holds the practicing qualifications for attorney of Hong Kong and Britain. Ms. Leung was the first Secretary for Justice of the Hong Kong Special Administrative Region and a member of Executive Council of

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HKSAR. Ms. Leung was appointed as the Justice of the Peace, the Notary Public, and the China-Appointed Attesting Officer, and was awarded a Grand Bauhinia Medal. In June 2017, she was appointed as a non-executive independent director of our company.

**Tokuchi Tatsuhito**, age 65, is an independent non-executive director of our company. He is also the executive director & research fellow of the Center for Industrial Development and Environment Governance (CIDE), Tsinghua University, the senior fellow of Rebuild Japan Initiative Foundation, and the member & experts adviser to the Foreign Advisory Committee of State Administration of Foreign Experts Affairs of the PRC. Mr. Tokuchi graduated from the Department of Chinese Language and Literature, Peking University, and received his master's degree in East Asian Economy from the Center for East Asian Studies of Stanford University. He previously held such positions as the general manager of Investment Banking Division of Daiwa Securities SMBC Co., Ltd., the president of Daiwa Securities Singapore Limited, the Executive Vice President of Daiwa Securities (Hong Kong) Inc. in charge of investment banking business, a vice president of Daiwa Securities (America) Inc., the vice chairman of Singapore Investment Banking Association, and a deputy general manager, managing director, general manager, and Investment Banking Committee chairman of CITIC Securities Co., Ltd. In 2009, Mr. Tokuchi was awarded the China Friendship Award, China's highest award for foreigners. In June 2017, he was appointed as a non-executive independent director of our company.

**Simon Henry**, age 56, is an independent non-executive director of our company. He is a fellow of the UK Chartered Institute of Management Accountants, and has rich experience in the areas of finance management, strategic planning, marketing, and investor relations. Mr. Henry obtained a first class Bachelor's degree in mathematics from Cambridge University in 1982 and was awarded a Master's degree in 1986 by Cambridge. He joined Royal Dutch Shell in 1982. He worked for 8 years until March 2017 as the Chief Finance Officer and an executive director of the Board of Royal Dutch Shell. He now serves as a non-executive director and the chairman of the audit committee of the board of directors of Lloyds Banking Group and as a non-executive director of Rio Tinto plc. In addition, Mr. Henry is currently also a member of the UK Defense Board. In June 2017, he was appointed as a non-executive independent director of our company.

**Supervisors**

**Xu, Wenrong**, age 56, is the chairman of the supervisory board of our company and a deputy secretary of the CPC Leadership Group and deputy general manager of CNPC. Mr. Xu is a professor-level senior engineer and holds a doctorate degree. Mr. Xu has nearly 30 years of work experience in China's oil and gas industry. Mr. Xu served as a deputy director of Bureau of Geophysical Prospecting of CNPC from November 1997, the director and deputy secretary of the CPC Committee of the Bureau of Geophysical Prospecting of CNPC from December 1999, and the vice chairman of the board of directors, general manager and deputy secretary of the CPC Committee of BGP Inc. from December 2002. He was appointed as an assistant president of CNPC in January 2004, and from September 2005 Mr. Xu concurrently served as the director general of the Development and Research Department of CNPC, and the chairman of CNPC Services & Engineering Ltd from June 2006. He served as a member of the CPC Leadership Group and chief of the Discipline Inspection Group of China Shipping (Group) Company from May 2011. He was appointed as a director of China Shipping (Group) Company in October 2011. He served concurrently as the principal of China Shipping Party School from December 2011, and the chairman of the Labor Union of China Shipping (Group) Company from January 2012. He served concurrently as the president of China Shipping Management Cadre College from May 2013. He was appointed as a deputy general manager, a member of the CPC Leadership Group and chief of Discipline Inspection Group of China Shipping (Group) Company in February 2014. He served as a deputy general manager and member of the CPC Leadership Group of CNPC from January 2016. He was appointed as a deputy secretary of the CPC Leadership Group and deputy general manager of CNPC in November 2016. Mr. Xu was appointed as a director of our company in May 2016. In June 2017, he was appointed as a member and the chairman

of the board of supervisors of our company.

**Zhang, Fengshan**, age 56, is a supervisor and the chief safety officer of our company and the general manager of our Quality, Security and Environmental Protection Department. He is concurrently the deputy chief

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safety officer of CNPC, the general manager of Quality, Security and Environmental Protection Department of CNPC and the director of the Security, Environmental Protection Supervision Center of CNPC. Mr. Zhang is a professor-level senior engineer, holds a master's degree and has over 35 years of experience in China's oil and gas industry. He was appointed as a deputy director and a standing member of the CPC Committee of Liaohe Oil Exploration Bureau in July 2000, the safety director of Liaohe Oil Exploration Bureau in May 2002, the director and deputy secretary of the CPC Committee of Liaohe Petroleum Exploration Bureau in August 2004 and in February 2008, the general manager and deputy secretary of the CPC Committee of Great Wall Drilling and Exploration Company Ltd., where he also served as an executive director from July 2008. Mr. Zhang has been the general manager of the Security, Environment, and Energy Conservation Department of our company and of CNPC since June 2012. He was elected to our board of supervisors in May 2014. In July 2014, Mr. Zhang was appointed as the chief safety officer of our company and the deputy chief safety officer of CNPC. In December 2015, Mr. Zhang was appointed as the director of the Security, Environmental Protection Supervision Center of CNPC. In December 2016, Mr. Zhang was appointed as the general manager of our Quality, Security and Environmental Protection Department and the general manager of the Quality, Security and Environmental Protection Department of CNPC.

**Jiang, Lifu**, age 54, is a supervisor of our company, the general manager of our Reform and Enterprise Management Department and the general manager of the Reform and Enterprise Management Department of CNPC. Mr. Jiang is a professor-level senior economist, holds a doctorate degree and has over 20 years of work experience in China's oil and gas industry. He was appointed as a deputy general manager of our Capital Operation Department in August 2003, a deputy director of CNPC's Planning Department in May 2005, a deputy general manager of our Planning Department in June 2007 and a deputy director of CNPC's Planning Department. Since April 2014, Mr. Jiang has been the general manager of the Enterprise Management Department of our company and the general manager of the Enterprise Management Department of CNPC. He was elected as a supervisor of our company in October 2014. In April 2015, Mr. Jiang was appointed as the general manager of our Reform and Enterprise Management Department and the general manager of the Reform and Enterprise Management Department of CNPC.

**Lu Yaozhong**, age 52, is a supervisor of our company, the general manager of our Capital Operation Department, and the general manager of the Capital Operation Department of CNPC. Mr. Lu is a professor-level senior accountant and holds a master's degree. He has over 30 years of work experience in China's oil and gas industry. He served as the chief accountant and a member of the CPC Committee of PetroChina Kazakhstan Company from December 2009 and the chief accountant of Overseas Exploration and Development Branch Company of China National Oil and Gas Exploration and Development Corporation from August 2013. Mr. Lu has served as the general manager of the Capital Operation Department of our company and concurrently the general manager of the Capital Operation Department of CNPC since April 2017. In June 2017, he was appointed as a supervisor of our company.

**Wang Liang**, age 55, is a supervisor of our company, the general manager of our Audit Department, and concurrently the general manager of the Audit Department, and the director and deputy secretary of the CPC Committee of the Audit Service Center of CNPC. Mr. Wang is a professor-level senior accountant and holds a bachelor's degree. He has over 35 years of work experience in China's oil and gas industry. He served as a director, chief accountant and member of the CPC Committee of CNPC Offshore Engineering Company Limited from January 2005, a member of the CPC Leadership Group and deputy director of Liaoning Provincial Finance Department from April 2006, the chairman of the board of directors Generali China Insurance Co., Ltd. from April 2007, the chief accountant and a member of the CPC Committee of CNPC Chuanqing Drilling Engineering Company Limited from February 2008, the general manager and deputy secretary of the CPC Committee of CNPC Assets Management Co., Ltd. from October 2009, the chairman of the board of directors, general manager, and deputy secretary of the CPC Committee of Kunlun Trust Co., Ltd. from March 2014, the chairman of the board of directors, secretary of the CPC Committee, secretary of the discipline inspection commission, and chairman of the Labor Union of CNPC Assets Management Co., Ltd. from July 2014, and the secretary of the CPC Committee, secretary of the Discipline Inspection Commission, chairman of the

Labor Union and deputy

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general manager of China Petroleum Finance Co., Ltd. from July 2016. He has been the general manager of our Audit Department, and concurrently the general manager of the Audit Department and director of the Audit Service Center of CNPC since May 2017. In October 2017, he was appointed as a supervisor of our company.

**Fu Suotang**, age 55, is an employee representative supervisor of our company. He is also the general manager and the secretary of the CPC Committee of PetroChina Changqing Oilfield Company, and the director of Changqing Petroleum Exploration Bureau. Mr. Fu is a professor-level senior engineer and holds a doctorate degree. He has over 35 years of work experience in China's oil and gas industry. He served as the chief geologist and member of the CPC Committee of PetroChina Qinghai Oilfield Company from April 2007. He served as the general manager and deputy secretary of the CPC Committee of PetroChina Qinghai Oilfield Company and concurrently the director of Qinghai Petroleum Management Bureau from April 2014. He has served as the general manager and deputy secretary of the CPC Committee of PetroChina Changqing Oilfield Company and concurrently the director of Changqing Petroleum Exploration Bureau since April 2017. In June 2017, he was appointed as an employee representative supervisor of our company.

**Li, Jiamin**, age 54, is an employee representative supervisor of our company. He is also the general manager and the secretary of the CPC Committee of PetroChina Lanzhou Petrochemical Company, and the general manager of Lanzhou Petroleum & Chemical Company. Mr. Li is a professor-level senior engineer and holds a master's degree. He has over 30 years of work experience in China's oil and petrochemical industry. He was appointed as a deputy general manager, chief security officer and member of the CPC Committee of Lanzhou Petroleum & Chemical Company in August 2004. He was promoted to general manager and deputy secretary of the CPC Committee of PetroChina Lanzhou Petrochemical Company and the general manager Lanzhou Petroleum & Chemical Company in March 2012. Mr. Li was appointed as an employee representative supervisor of our company in May 2014.

**Liu, Xianhua**, age 54, is an employee representative supervisor of our company. He is also the general manager and deputy secretary of the CPC Committee of PetroChina Liaoning Marketing Company and the general manager of Liaoning Petroleum Corporation. Mr. Liu is a professor-level senior economist and holds a master's degree. He has nearly 35 years of work experience in China's oil and petrochemical industry. In May 2005, he was appointed as the general manager and deputy secretary of the CPC Committee of PetroChina Shandong Marketing Company. In March 2012, he was appointed as the general manager and deputy secretary of the CPC Committee of PetroChina Northeast Marketing Company. In December 2015, he was appointed as the general manager and deputy secretary of the CPC Committee of PetroChina Liaoning Marketing Company, and the general manager of Liaoning Petroleum Corporation. Mr. Liu was appointed as an employee representative supervisor of our company in May 2016.

**Li, Wendong**, age 53, is an employee representative supervisor of our company. He is also the general manager and the secretary of the CPC Committee of Beijing Natural Gas Pipelines Company. Mr. Li is a professor-level senior engineer and holds a master's degree. He has over 35 years of work experience in China's oil and gas industry. In January 2006, he was appointed as a deputy director and a member of the CPC Committee of China Petroleum Pipeline Bureau. In August 2011, he was appointed as the secretary of the CPC Committee, the secretary of the Discipline Inspection Commission, the chairman of the Labor Union and deputy general manager of PetroChina West Pipelines Company. In November 2013, he was appointed as the general manager, the secretary of the CPC Committee, the secretary of the Discipline Inspection Commission and the chairman of the Labor Union of PetroChina West Pipeline Company, and the general manager of PetroChina West-East Natural Gas Sales Company. Since March 2016, he has served as the general manager and secretary of the CPC Committee of PetroChina West-East Natural Gas Transmission Pipelines Company, and the general manager of PetroChina West-East Natural Gas Sales Company. Mr. Li was appointed as an employee representative supervisor of our company in May 2016.





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**Sun, Longde**, age 55, is a vice president of our company. He is also an executive director and the general manager of Daqing Oilfield Company Ltd., an executive director and the general manager of Daqing Petroleum Administration Bureau Co., Ltd, and a deputy secretary of the CPC Committee of Daqing Oilfield. Mr. Sun is a professor-level senior engineer and holds a doctorate degree. He has nearly 35 years of work experience in China's oil and geological industry. He was appointed as the manager of Exploration & Development Company of the Shengli Petroleum Administration Bureau in September 1997, the chief geologist and a member of the CPC Committee of Tarim Petroleum Exploration & Development Headquarters in November 1997, a deputy general manager and a member of the CPC Committee of PetroChina Tarim Oilfield Company in September 1999, and the general manager and secretary of the CPC Committee of PetroChina Tarim Oilfield Company in July 2002. He has been a vice president of our company since June 2007 and was elected as an academician to the Chinese Academy of Engineering in December 2011. In April 2014, Mr. Sun was appointed as the director of the consultancy center of CNPC. In July 2015, Mr. Sun was appointed as the general manager of our Science and Technology Management Company and the general manager of the Science and Technology Department of CNPC. He was appointed as an executive director and the general manager of Daqing Oilfield Company Ltd., the director of Daqing Petroleum Administration Bureau, and a deputy secretary of the CPC Committee of Daqing Oilfield in March 2016.

**Lin, Aiguo**, age 59, is the chief engineer of our company. Mr. Lin is a professor-level senior engineer and holds a bachelor's degree. He has over 35 years of work experience in China's oil and petrochemical industry. Mr. Lin was appointed as a deputy manager and standing deputy manager of the Shengli Refinery of Qilu Petrochemical Company in July 1993, a deputy general manager and a member of the CPC Committee of Dalian West Pacific Petrochemical Co. Ltd. in May 1996, the general manager and secretary of the CPC Committee of Dalian West Pacific Petrochemical Co. Ltd. in August 1998, and the general manager and secretary of the CPC Committee of our Refining & Marketing Company in December 2002. Mr. Lin has served as the chief engineer of our company since June 2007 and concurrently as the director and deputy secretary of the CPC Committee of the Petrochemical Research Institute since February 2011.

**Tian, Jinghui**, age 55, is a vice president of our company, and an executive director and secretary of the CPC Committee of PetroChina International Company Ltd., and the chairman of China National United Oil Corporation. Mr. Tian is a professor-level senior economist and holds a master's degree. He has nearly 35 years of experience in China's oil and gas industry. In May 1998, he was appointed as the chief of the Preparatory Group of PetroChina Northwest Marketing Company. He was appointed as a deputy general manager and member of the CPC Committee of our Refining & Marketing Company from December 1999, a deputy general manager, chief safety officer and member of the CPC Committee of PetroChina Marketing Company from November 2007. In June 2009, he was appointed as the secretary of the CPC Committee and deputy general manager of PetroChina Marketing Company. In August 2013, he was appointed as the general manager and secretary of the CPC Committee of PetroChina Marketing Company. In November 2015, Mr. Tian was appointed as a vice president of our company. In April 2017, Mr. Tian was appointed as the general manager and deputy secretary of the CPC Committee of PetroChina Marketing Company, an executive director of the board of directors and secretary of the CPC Committee of PetroChina International Company Ltd., and the chairman of China National United Oil Corporation.

**Chai, Shouping**, age 56, is the chief financial officer of our company. Mr. Chai is a professor-level senior accountant and holds a master's degree. He has nearly 30 years of work experience in financial operations and management in China's oil and petrochemical industry. In April 2002, he was appointed as a deputy general manager of the Finance Department of our company. In September 2012, he was appointed as the chief accountant and a member of the CPC Committee of China National Oil and Gas Exploration and Development Corporation (overseas exploration and development branch), the deputy general manager and the chief financial officer of CNPC Exploration and

Development Company Limited and the chief financial officer of PetroChina International Investment Company Limited. In March 2013, he was appointed as the general manager of the

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Finance Department of our company. Mr. Chai was appointed as the chief financial officer of our company in January 2017.

**Ling Xiao**, age 54, is a vice president of our company, the general manager and deputy secretary of the CPC Committee of our Natural Gas Sales Company (PetroChina Natural Gas Pipelines Company), the chairman of the board of directors and the secretary of the CPC Committee of PetroChina Pipelines Co., Ltd., and the chairman of Kunlun Energy Co., Ltd. Mr. Ling is a professor-level senior engineer and holds a doctorate degree. He has over 35 years of experience in China's oil industry. He was appointed as a deputy director and member of the CPC Committee of Xinjiang Petroleum Administration Bureau in June 2001, the chairman of the board of directors and general manager of West Pipeline Co., Ltd. in August 2004, the secretary of the CPC Committee of West Pipeline Co., Ltd. in January 2015, the general manager and deputy secretary of the CPC Committee of PetroChina West Pipeline Company in March 2009, the general manager and secretary of the CPC Committee of West-East Gas Transmission Pipeline Company and concurrently the general manager of West-East Gas Transmission Sales Company in November 2013, the secretary of the CPC Committee and deputy general manager of PetroChina Natural Gas and Pipelines Company and concurrently the deputy general manager of our Natural Gas Sales Company in March 2016, the secretary of the CPC Committee and deputy general manager of our Natural Gas Sales Company (PetroChina Natural Gas and Pipelines Company) and general manager and secretary of the CPC Committee of PetroChina Pipelines Co., Ltd. in September 2016. Mr. Ling was appointed as the general manager and deputy secretary of the CPC Committee of our Natural Gas Sales Company (PetroChina Natural Gas and Pipelines Company), and the chairman of the board of directors and secretary of the CPC Committee of PetroChina Pipelines Co., Ltd. in November 2017. He was appointed as a vice president of our company in December 2017.

**Yang Jigang**, age 54, is a vice president of our company, and the general manager and the secretary of the CPC Committee of our Refinery and Chemical Engineering Company. Mr. Yang is a professor-level senior engineer and holds a master's degree. He has over 30 years of experience in China's petroleum and petrochemical industry. He was appointed as the deputy manager of Lanzhou Chemical Industry Corporation in August 1997, the chief engineer of the Oil Refinery and Chemical Engineering Department of CNPC in November 1998, a member of the preparatory group for the establishment of our Refining and Chemicals Marketing Company in September 1999, the chief engineer and member of the CPC Committee of our Refinery and Marketing Branch Company in December 1999, a deputy general manager, chief engineer and member of the CPC Committee of our Chemical Engineering and Marketing Company in August 2000, the general manager and deputy secretary of the CPC Committee of PetroChina Daqing Petrochemical Company in May 2005, the secretary of the CPC Committee and deputy general manager of our Refinery and Chemical Engineering Company in December 2009, and the general manager and secretary of the CPC Committee of our Refinery and Chemical Engineering Company in November 2017. He was appointed as a vice president of our company in December 2017.

**Wang Zhongcai**, age 58, is a vice president of our company, and the chairman of the board of directors, the secretary of the CPC Committee and chairman of the Labor Union of China National Oil and Gas Exploration and Development Company Ltd. Mr. Wang is a professor-level senior engineer and holds a doctorate degree. He has over 35 years of experience in China's oil industry. He served as the deputy general manager of CNPC International (Kazakhstan) Ltd. and concurrently the chairman of JSC CNPC International Aktobe Petroleum from March 1999, a senior deputy general manager of CNPC International (Kazakhstan) Ltd. and concurrently the general manager of JSC CNPC International Aktobe Petroleum from April 2000, a deputy general manager of China National Oil and Gas Exploration and Development Corporation and concurrently the general manager of CNPC International (Russia) Ltd. from May 2003, a deputy general manager of China National Oil and Gas Exploration and Development Corporation and concurrently the chief of the CNPC Russian Coordination Leading Group from March 2005, a deputy general manager of China National Oil and Gas Exploration and Development Corporation and concurrently the general manager of CNPC International (Kazakhstan) Ltd. and JSC CNPC International Aktobe Petroleum from November

2005, the general manager, secretary of the CPC Committee and the chief of Kazakhstan Coordination Group of CNPC International (Kazakhstan) Ltd. from

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September 2008, a senior deputy general manager and a member of the CPC Committee of Overseas Exploration and Development Branch (China National Oil and Gas Exploration and Development Corporation) from December 2009, and the secretary of the CPC Committee, senior deputy general manager and chairman of the Labor Union of Overseas Exploration and Development Branch (China National Oil and Gas Exploration and Development Corporation) from April 2014. Mr. Wang was appointed as the chairman of the board of directors, secretary of the CPC Committee and the chairman of the Labor Union of China National Oil and Gas Exploration and Development Company Ltd. in November 2017. Mr. Wang was appointed as a vice president of our company in December 2017.

**Secretary to the Board of Directors**

**Wu, Enlai**, age 57, is the secretary to the board of directors of our company. He is a professor-level senior engineer and holds a master's degree. Mr. Wu has over 35 years of work experience in China's oil and petrochemical industry. Mr. Wu was appointed as a deputy director general of Tarim Petrochemical Engineering Construction Headquarters in August 1997, a deputy director general of the Capital Operation Department of CNPC in August 2002 and a deputy general manager of China National Oil and Gas Exploration and Development Corporation in January 2004. He was appointed as the chief of the Preparatory Work Group for PetroChina Guangxi Petrochemical Company in May 2005, and the general manager, secretary of the CPC Committee, secretary of the Discipline Inspection Commission and chairman of the Labor Union of PetroChina Guangxi Petrochemical Company in October 2005, and the head of the Enterprise Coordination Group of our company in Guangxi in September 2012. Mr. Wu was appointed as the secretary to our board of directors in November 2013. He was appointed as an executive director and the general manager of CNPC Hong Kong (Holding) Ltd. and a director and the chairman of Kunlun Energy Company Ltd. in December 2013.

**Compensation**

The senior management members' compensation has two components, namely, fixed salaries and variable compensation. The variable component, which accounts for approximately 75% of the total compensation package, is linked to the attainment of specific performance targets, such as our income for the year, return on capital and the individual performance evaluation results. All of our senior management members have entered into performance contracts with us.

Our directors and supervisors, who hold senior management positions or are otherwise employed by us and other senior management of our company receive compensation in the form of salaries, insurance and other benefits in kind, including our contribution to the pension plans for them.

The aggregate amount of salaries, insurance and other benefits in kind paid by us to the five highest paid individuals during the year ended December 31, 2017 was RMB4,095,987. We paid RMB572,959 as our contribution to the pension plans with respect to these individuals in the year ended December 31, 2017.

The aggregate amount of salaries or other compensation, insurance and other benefits in kind paid by us to our directors, who hold senior management positions or are otherwise employed by us, during the year ended December 31, 2017 was RMB1,386,770 which does not include the fees totaling RMB1,159,223 paid to our independent directors. The aggregate amount of salaries or other compensation, insurance and other benefits in kind paid by us to our supervisors, who hold senior management position or are otherwise employed by us during the year ended December 31, 2017 was RMB2,930,080. The aggregate amount of salaries or other compensation, insurance and other benefits in kind paid by us to other senior management during the year ended December 31, 2017 was RMB6,303,173.

In 2017, we paid RMB1,644,562 as our contribution to the pension plans for our directors and supervisors, who hold senior management positions or are otherwise employed by us and other senior management of our company.

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Save as disclosed, no other payments have been paid or are payable, with respect to the year ended December 31, 2017, by us or any of our subsidiaries to our directors. In addition, we have no service contracts with our directors that provide for benefits to our directors upon the termination of their employment with us.

For discussions about the compensations of our individual directors and supervisors, please see Note 11 to our consolidated financial statements included elsewhere in this annual report.

## **Board Practices**

Our board of directors has five committees: a nominating committee, an audit committee, an investment and development committee, an evaluation and remuneration committee and a health, safety and environment committee.

### **Nominating Committee**

The current members of our nominating committee are Mr. Wang Yilin, the chairman of the committee, Mr. Lin Boqiang and Mr. Zhang Biyi. The nominating committee's major responsibilities include:

reviewing and discussing the structure, size and composition of the board of directors regularly, and making recommendations on changes to the board to follow the company's corporate strategy;

considering the criteria and procedures for selection of directors, president and other senior management, and making recommendations to the board of directors;

considering the board diversity policy and the training systems for directors and management;

extensively selecting qualified candidates for directorship and members of senior management, reviewing the qualifications of candidates for directorship and president, and making recommendations;

reviewing the proposals on candidates nominated by the nominators who have the nominating rights under the Articles of Association;

reviewing and making assessment on the independence of independent non-executive directors; and

attending the shareholders' meeting and answer the investor's consultation on the work of the Nomination Committee, as well as the relevant laws, regulations, listing rules and other matters authorized by the board of directors.

### **Audit Committee**

Our audit committee is currently composed of two non-executive independent directors, Mr. Lin Boqiang and Mr. Zhang Biyi, and one non-executive director, Mr. Liu Yuezhen. Mr. Lin Boqiang serves as the chairman of the

committee. Under our audit committee charter, the chairman of the committee must be an independent director and all resolutions of the committee must be approved by independent directors. The audit committee's major responsibilities include:

reviewing and supervising the engagement of external auditors and their performance;

reviewing and ensuring the completeness of annual reports, interim reports and quarterly reports, if any, and related financial statements and accounts, and reviewing any material opinion contained in the aforesaid statements and reports with respect to financial reporting;

reporting to the board of directors in writing on the financial reports of the company and related information, having considered the issues raised by external auditors;

reviewing and scrutinizing the work conducted by the internal audit department in accordance with the applicable PRC and international rules;



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monitoring the financial reporting system and internal control procedures of the company, as well as checking and assessing matters relating to, among others, the financial operations, internal control and risk management of the company;

receiving, keeping and dealing with complaints or anonymous reports regarding accounting, internal accounting control or audit matters and ensuring the confidentiality of such complaints or reports;

reporting regularly to the board of directors with respect to any significant matters which may affect the financial position of the company and its operations and with respect to the self-evaluation of the committee on the performance of their duties; and

performing other responsibilities as may be required under relevant laws, regulations and the listing rules of the stock exchanges where the shares of the company are listed (as amended from time to time).

## **Investment and Development Committee**

The current members of our investment and development committee are Mr. Liu Hongbin and Mr. Simon Henry. The investment and development committee's major responsibilities include:

studying the strategies of the company as proposed by our president and making recommendations to the board of directors;

studying the annual investment budget and the adjustment proposal regarding the investment plan as proposed by our president and making recommendations to the board of directors; and

reviewing feasibility studies and preliminary feasibility studies for material investment projects subject to the approval of the board of directors and making recommendations to the board of directors.

## **Evaluation and Remuneration Committee**

The current members of our evaluation and remuneration committee are Ms. Elsie Leung Oi-sie, the chairman of the committee, Mr. Yu Baocai and Mr. Tokuchi Tatsuhito. The evaluation and remuneration committee's major responsibilities include:

studying the evaluation criteria for directors and senior officers, conducting the evaluations and proposing suggestions;

studying and evaluating the remuneration policies and plans for directors and senior officers (including the compensation in connection with the removal or retirement of the director and senior officers);

organizing the evaluation of the performance of our president and reporting the evaluation result to the board of directors, supervising the evaluation of the performance of our senior vice presidents, vice presidents, chief financial officer and other senior management members conducted under the leadership of the president;

studying our incentive plan and compensation plan, supervising and evaluating the implementation of these plans and making recommendations for improvements to and perfection of such plans; and

studying the relevant laws, regulations and the listing rules of the stock exchanges where the shares of the company are listed (as amended from time to time) and other matters authorized by the board of directors.

#### **Health, Safety and Environment Committee**

The current members of our health, safety and environment committee are Mr. Zhang Jianhua, the chairman of the committee, Mr. Hou Qijun, Mr. Duan Liangwei and Mr. Qin Weizhong. The health, safety and environment committee's major responsibilities include:

supervising the effective implementation of our Health, Safety and Environmental Protection Plan, or the HSE Plan;

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making recommendations to the board of directors and our president regarding major decisions with respect to health, safety and environmental protection; and

inquiring about the occurrence of and determining the responsibilities for material accidents of the company, and examining and supervising the treatment of such accidents.

**Employees**

As of December 31, 2015, 2016 and 2017, we had 521,566, 508,757 and 494,297 employees (not including the temporary employees), respectively. During 2017, we employed 319,407 temporary employees on an average. As of December 31, 2017, we had 318,561 temporary employees. The table below sets forth the number of our employees by business segment as of December 31, 2017.

	<b>Employees</b>	<b>% of Total</b>
Exploration and production	277,553	56.15
Refining and chemicals	143,253	28.98
Marketing	51,863	10.49
Natural gas and pipeline	15,919	3.22
Headquarters and others <sup>(1)</sup>	5,709	1.16
Total	494,297	100.00

(1) Including the numbers of employees of the management of our headquarters, specialized companies, PetroChina Exploration & Development Research Institute, PetroChina Planning & Engineering Institute, Petrochemical Research Institute and other units.

Our employees participate in various basic social insurance plans organized by municipal and provincial governments whereby we are required to make monthly contributions to these plans at certain rates of the employees' salary as stipulated by relevant local regulations. Expenses incurred by us in connection with the retirement benefit plans were approximately RMB16,357 million, RMB16,184 million and RMB16,010 million, respectively, for the years ended December 31, 2015, 2016 and 2017, respectively.

In 2017, we did not experience any strikes, work stoppages, labor disputes or actions that affected the operation of any of our businesses. Our company maintains good relationship with our employees.

**Share Ownership**

As of December 31, 2017 our directors, senior officers and supervisors did not have share ownership in us or any of our affiliates.

**Item 7 MAJOR SHAREHOLDERS AND RELATED PARTY TRANSACTIONS****Major Shareholders**

We were established on November 5, 1999 with CNPC as its sole promoter. As of March 31, 2018, CNPC beneficially owned 151,380,211,528 shares, which include 291,518,000 H shares indirectly held by CNPC through Fairy King Investments Limited, an overseas wholly owned subsidiary of CNPC, representing approximately 82.71% of the share capital of us, and, accordingly, CNPC is our controlling shareholder.

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The following table sets forth the major shareholders of our A shares as of March 31, 2018:

Name of Shareholders	Class of Shares	Number of Shares Held	Percentage of Such Share in That Class of the Issued Shares Capital (%)	Percentage of the Total Share Capital (%)
CNPC	A shares	151,088,693,528	93.31	82.55

The following table sets forth the major shareholders of our H shares as of March 31, 2018:

Name of Shareholders	Number of Shares Held	Percentage of Such Share in That Class of the Issued Shares Capital (%)	Percentage of the Total Share Capital (%)
CNPC	291,518,000 (Long Position) <sup>(1)</sup>	1.38	0.16
BlackRock, Inc. <sup>(2)</sup>	2,133,602,075 (Long Position) 45,656,400 (Short Position)	10.11 0.22	1.17 0.02
JPMorgan Chase & Co. <sup>(3)</sup>	1,166,628,093 (Long Position) 157,271,150 (Short Position) 608,978,090 (Lending Pool)	5.52 0.74 2.88	0.64 0.09 0.33
Citigroup Inc. <sup>(4)</sup>	1,106,487,132 (Long Position) 37,885,954 (Short Position) 950,545,797 (Lending Pool)	5.24 0.17 4.50	0.6 0.02 0.52

(1) Held by Fairy King Investments Limited, an overseas wholly-owned subsidiary of CNPC.

(2) Blackrock, Inc., through various subsidiaries, had an interest in the H shares of the Company, of which 2,133,602,075 H shares (long position) and 45,656,400 H shares (short position) were held in its capacity as interest of corporation controlled by the substantial shareholder.

(3) JPMorgan Chase & Co., through various subsidiaries, had an interest in the H shares of the Company, of which 437,607,586 H shares (long position) and 157,271,150 H shares (short position) were held in its capacity as beneficial owner, 120,017,317 H shares (long position) were held in its capacity as investment manager, 25,100 H shares (long position) were held in its capacity as trustee, and 608,978,090 H shares (long position) were held in its capacity as approved lending agent. These 1,166,628,093 H shares (long position) included the interests held in its capacity as beneficial owner, investment manager, trustee and approved lending agent.

(4) Citigroup Inc., through various subsidiaries, had an interest in the H shares of the Company, of which 15,486,776 H shares (long position) were held in its capacity as holder of the guaranteed interest of shares, 140,454,559 H shares (long position) and 37,885,954 H shares (short position) were held in its capacity as interest of corporation controlled by the substantial shareholder, and 950,545,797 H shares (long position) were held in its capacity as approved lending agent. These 1,106,487,132 H shares (long position) included the interests held in its capacity as holder of the guaranteed interest of shares, corporation controlled by the substantial shareholder and approved lending agent.

**Related Party Transactions**

CNPC is a controlling shareholder of our company. We enter into extensive transactions with CNPC and other members of the CNPC group, all of which constitute related party transactions for us. We also continued to carry out existing continuing transactions with other related parties in the year ended December 31, 2017.

***Continuing Related Party Transactions***

Since 2000, our company has engaged a variety of continuing related party transactions with CNPC. CNPC provides various services to us and our company also provides specific products and services to CNPC. These

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transactions are governed by several agreements between CNPC and us, including the comprehensive products and services agreement, land lease, building lease, intellectual property licensing contracts and contract for the transfer of rights under production sharing contracts, as amended.

### 1. Renewal of the comprehensive products and services agreement

The comprehensive products and services agreement entered into between CNPC and us is updated every three years. Given that the agreement signed in August 2014 would expire on December 31, 2017, we and CNPC signed the new agreement on August 24, 2017, which covers the period from January 1, 2018 to December 31, 2020. In the new agreement, we added certain categories of products and services provided by our company to CNPC, and partially amended the pricing basis in accordance with relevant laws and regulations. Other terms and conditions of the agreement remain unchanged. The new agreement was approved at the extraordinary general meeting held on October 26, 2017.

The products and services provided by CNPC to us include (a) engineering and technical services, mainly to be provided before the commercial operation of projects, including but not limited to, exploration technological services, downhole operational services, oilfield construction services, refinery construction services and engineering design services; (b) production services, mainly for our daily operations after the projects commence operations, including but not limited to crude oil, natural gas, refined products, chemical products, supply of water, power and gas, and communication services; (c) materials supply services, which are mainly intermediary services for the procurement of materials provided before and after the official commissioning are granted, including but not limited to purchase of materials, quality inspections, storage and transport of materials; (d) social and life services, including but not limited to security, education, hospitals, property management, staff canteens, training centers and hotels; and (e) financial services, including loans and other financial assistance, deposit services, entrusted loans, settlement services, financial leasing services and others.

The products and services provided by our company to CNPC and the companies jointly-held by CNPC and us include: (a) general products and services, including refined oil products, chemical products, natural gas, crude oil, supply of water, power and gas and heating, metering, and commissioned operations, supply of materials, other products and services that CNPC may request us to provide from time to time for itself to consume, use or sell; and (b) financial services provided by the company to jointly held companies, including provision of entrusted loans, guarantees and other financial services .

The general principle of the comprehensive agreement is that the products and services provided are in accordance with the needs of the recipients, and the prices are fair and reasonable. The terms and conditions are not inferior to those of independent third party providers. The pricing of the general agreement follows government pricing, market price, cost price, and agreement price, depending on the circumstances. The comprehensive agreement is not exclusive, and the parties may provide and purchase products and services from other third parties, but all parties are obliged to provide the products and services set forth in the comprehensive agreement and the provisions of the annual plan.

### 2. Land Lease

We entered into a land lease agreement with CNPC in March 2000, pursuant to which, CNPC leased to us land across China totaling approximately 1,145 million square meters, which were related to our various operations and businesses, for a term of 50 years. We may adjust the land area and the rent every three years based on our production and operating requirement and the market prices. In 2014, we and CNPC confirmed that since January 1, 2015, the total area of land leased by us was adjusted to 1,777.21 million square meters and the rent was adjusted to no more

than RMB 4,831.21 million. On August 24, 2017, the parties signed a new confirmation letter, pursuant to which, since January 1, 2018, the total area of land was adjusted to 1,772.65 million square meters and the annual rent was adjusted to no more than RMB5,783 million. Other terms of the lease remain unchanged. The independent valuer Savills Valuation and Professional Consultancy Co., Ltd.



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has reviewed the confirmation letter and confirmed that the rent as adjusted is fair and reasonable, and such rent is not higher than the market level. The new confirmation letter of the land lease was approved at the extraordinary general meeting held on October 26, 2017.

**3. Real Estate Lease**

We entered into a real estate lease with CNPC in March 2000, which was amended in September 2002. Pursuant to the lease, CNPC leased 712,500 square meters of real estate across China to us for our business operations. Both parties agreed to adjust the number and rent of leased properties every three years based on the needs of production and operation or changes in the market price of real estate. According to the adjustment in 2014, starting from January 1, 2015, we agreed to lease from CNPC a total of approximately 1,179,585.57 square meters of real estate for a total rent of approximately RMB707.71 million per year. Other terms of the lease remain unchanged. On August 24, 2017, we and CNPC signed a new real estate lease, effective from January 1, 2018, for a term of 20 years. Pursuant to the new agreement, starting from January 1, 2018, the company agreed to lease a total gross floor area of 1,152,968 square meters from CNPC, and agreed to pay a total annual rent of RMB730 million. The area and rent are to be adjusted every three years and the rent should not be higher than the fair market price. The independent valuer Savills Valuation & Professional Consultants Limited has reviewed the new real estate lease and confirmed that the adjusted rent is fair and reasonable and not higher than the market level. The new real estate lease was approved at the extraordinary general meeting held on October 26, 2017.

As of December 31, 2017, the outstanding amount of our debts secured by CNPC and its subsidiaries was RMB45,182 million.

During the reporting period, we carried out a number of continuing related party transactions with certain companies including CNPC Exploration and Development Company Limited. A detailed discussion of our relationships and transactions with these parties is set forth in Item 7 Major Shareholders and Related Party Transactions Related Party Transactions in our annual report on Form 20-F filed with the SEC on May 27, 2008, and the 6-K filed with the SEC on August 28, 2014, August 24, 2017 and September 8, 2017, respectively.

**Loans from Related Parties**

As of December 31, 2017, we had unsecured short-term and long-term loans from CNPC and its affiliates in an aggregate amount of RMB216,721 million with an average annual interest rate of 4.02%.

**One-off Related Party Transactions**

On September 28, 2017, we entered into a share transfer agreement with PetroChina Kunlun Gas Co., Ltd. ( Kunlun Gas ), a wholly-owned subsidiary of Kunlun Energy Co., Ltd., which is controlled by us. Pursuant to the agreement, we agreed to sell and Kunlun Gas agreed to acquire a 51% stake in CNPC Jingtang LNG Co., Ltd. ( Jingtang ) held by us for a consideration of RMB1,547 million, which shall be adjusted based on the profit and loss during the transition period. The consideration was negotiated and determined by the two parties based on the independent appraiser's appraisal of the net assets value of Jingtang, and considering the industry's development prospects and business conditions. Jingtang was established on September 28, 2012 by our company and two third party shareholders. The registered capital of Jingtang before acquisition was RMB2.6 billion. Prior to the acquisition, we were the controlling shareholder of Jingtang in which we held 51% of the shares. Jingtang's main business includes receipt, storage and re-evaporation of LNG. The transaction was completed by the end of 2017.

**Interests of Experts and Counsel**

Not applicable.

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**Item 8 FINANCIAL INFORMATION**

**Financial Statements**

See pages F-1 to F-62 following Item 19.

**Dividend Policy**

Our board of directors will declare dividends, if any, in Renminbi on a per share basis and will pay such dividends in Renminbi with respect to A Shares and HK dollars with respect to H Shares. Any final dividend for a financial year shall be subject to shareholders' approval. The Bank of New York will convert the HK dollar dividend payments and distribute them to holders of ADSs in U.S. dollars, less expenses of conversion. The holders of the A Shares and H Shares will share proportionately on a per share basis in all dividends and other distributions declared by our board of directors.

The declaration of dividends is subject to the discretion of our board of directors. Our board of directors will take into account factors including the following:

general business conditions;

our financial results;

capital requirements;

contractual restrictions on the payment of dividends by us to our shareholders or by our subsidiaries to us;

our shareholders' interests;

the effect on our debt ratings; and

other factors our board of directors may deem relevant.

We may only distribute dividends after we have made allowances for:

recovery of losses, if any;

allocations to the statutory common reserve fund; and

allocations to a discretionary common reserve fund if approved by our shareholders.

The allocation to the statutory funds is 10% of our income for the year attributable to our shareholders determined in accordance with PRC accounting rules. Under PRC law, our distributable earnings will be equal to our income for the year attributable to our shareholders determined in accordance with PRC accounting rules or IFRS, whichever is lower, less allocations to the statutory and discretionary funds.

We believe that our dividend policy strikes a balance between two important goals:

providing our shareholders with a competitive return on investment; and

assuring sufficient reinvestment of profits to enable us to achieve our strategic objectives.

In 2017, a dividend of RMB0.06926 per share (inclusive of applicable taxes) for the six months ended June 30, 2017 was paid to our A shareholders and H shareholders. The board of directors recommended that a final dividend of RMB0.02489 per share (which is 45% of the net profit of the Company for the second half of 2017) and an additional special final dividend of RMB0.03585 per share, totaling RMB0.06074 (inclusive of applicable taxes) should be paid. The final dividend for the year ended December 31, 2017 is subject to the approval by the annual general meeting to be held on June 5, 2018, and shall be paid to our shareholders listed on our shareholder register as of the close of business on June 20, 2018.

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**Significant Changes**

None.

**Item 9 THE OFFER AND LISTING**

**Nature of the Trading Market and Market Price Information**

Our ADSs, each representing 100 H Shares, par value RMB1.00 per H Share, have been listed and traded on the New York Stock Exchange since April 6, 2000 under the symbol PTR . Our H Shares have been listed and traded on the Hong Kong Stock Exchange since April 7, 2000. In September 2005, our company issued an additional 3,196,801,818 H Shares. CNPC also sold 319,680,182 state-owned shares it held concurrently with our company's issuance of new H Shares in September 2005. In October 2007, we issued 4 billion A Shares and these shares were listed on the Shanghai Stock Exchange on November 5, 2007. Following the issuance of A Shares, all the domestic shares of our company existing prior to the issuance of A Shares, i.e. the shares held by CNPC (our controlling shareholder) in our company, have been registered with China Securities Depository and Clearing Corporation Limited as tradable A Shares. The New York Stock Exchange, the Hong Kong Stock Exchange and Shanghai Stock Exchange are the principal trading markets for our ADSs, H Shares and A Shares, respectively.

As of December 31, 2017, there were 21,098,900,000 H Shares and 161,922,077,818 A Shares issued and outstanding. As of December 31, 2017, there were 188 registered holders of American depository receipts evidencing 38,586 ADSs and the total ADSs outstanding was 7,893,556. The depository of the ADSs is the Bank of New York.

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The high and low closing sale prices of our A Shares on the Shanghai Stock Exchange, of H Shares on the Hong Kong Stock Exchange and of the ADSs on the New York Stock Exchange for each year from 2013 through 2017, for each quarter from 2016 to 2018 (up to the end of the first quarter of 2018), and for each month from October 2017 to April 2018 (through April 23, 2018) are set forth below.

	Price Per H Share HK\$		Price Per ADS US\$		Price Per A Share RMB	
	High	Low	High	Low	High	Low
<b>Annual Data</b>						
2013	11.30	7.86	145.80	101.47	9.40	7.31
2014	11.62	7.33	149.48	94.75	10.81	7.47
2015	10.64	5.02	136.37	63.90	14.65	8.23
2016	6.02	4.18	76.15	54.05	8.35	8.23
2017	6.23	4.73	81.36	60.94	8.70	7.39
<b>Quarterly Data</b>						
<b>2016</b>						
First quarter	5.42	4.18	71.84	54.05	8.35	7.08
Second quarter	5.92	4.85	75.86	61.95	7.79	7.12
Third quarter	5.50	4.96	70.65	63.87	7.54	7.19
Fourth quarter	6.02	5.09	76.15	65.67	8.16	7.22
<b>2017</b>						
First quarter	6.32	5.66	81.36	72.34	8.76	7.85
Second quarter	5.70	4.74	73.90	61.28	8.04	7.39
Third quarter	5.03	4.73	65.30	60.94	8.19	7.70
Fourth quarter	5.58	4.93	71.79	63.33	8.59	7.87
<b>2018</b>						
First quarter	6.48	5.24	82.14	67.10	9.35	7.60
<b>Monthly Data</b>						
<b>2017</b>						
October	5.09	4.93	65.60	63.33	8.30	7.97
November	5.58	5.11	71.79	65.97	8.59	8.08
December	5.52	5.13	70.91	65.91	8.22	7.87
<b>2018</b>						
January	6.48	5.50	82.14	71.67	9.33	8.25
February	6.33	5.29	78.58	67.94	9.35	7.95
March	5.53	5.24	71.25	67.10	8.11	7.60
April(through April 23 2017)	5.94	5.31	75.17	67.28	7.75	7.46

The closing prices per A Share, per H Share and per ADS on April 23, 2018 were RMB7.58, HK\$5.82 and US\$74.95, respectively.

**Item 10 ADDITIONAL INFORMATION****Memorandum and Articles of Association****Our Articles of Association Currently in Effect**

On October 26, 2017, the company approved the amendment to the Articles of Association at the extraordinary general meeting. The amendment took effect as of the same day. The amendment includes, among others, (i) according to the PRC Company Law and the Constitution of the Communist Party of China, the company shall set up the Party's organizations and working bodies with adequate staff and funds; the Party organizations shall play the role of the core of leadership and political center of the company. The board of

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directors of the company shall take the Party organization's advices before it determines such material matters as the orientations of the company's reform and development, key objectives and tasks and major work arrangements. With respect to appointment of management of the company, the Party organizations shall consider and provide their comments and suggestions on the candidates nominated by the board of directors or the president, or the Party organizations may recommend candidates to the board of directors and the president; (ii) a cumulative voting system of the company is implemented for election of directors and supervisors at general meeting; and (iii) the tenure of re-elected independent directors cannot exceed six years.

### **Material Contracts**

We have not entered into any material contracts other than in the ordinary course of business and other than those described under Item 4 Information on the Company, Item 7 Major Shareholders and Related Party Transactions or elsewhere in this Form annual report.

### **Foreign Exchange Controls**

The Renminbi currently is not a freely convertible currency. We receive most of our revenues in Renminbi. A portion of our Renminbi revenues must be converted into other currencies to meet our foreign currency obligations, including:

debt service on foreign currency-denominated debt;

external capital expenditures and equity investment;

purchases of imported equipment and materials; and

payment of any dividends declared with respect to the H Shares.

Under the existing foreign exchange regulations in China, we may undertake current account foreign exchange transactions, including the payment of dividends, without prior approval from the State Administration of Foreign Exchange by producing commercial documents evidencing such transactions, provided that they are processed through Chinese banks licensed to engage in foreign exchange transactions.

Foreign exchange transactions under the capital account, including principal payments with respect to foreign currency-denominated obligations, continue to be subject to limitations and require the prior approval of the State Administration of Foreign Exchange. These limitations could affect our ability to obtain foreign exchange through debt financing, or to obtain foreign exchange for capital expenditures.

We have been, and will continue to be, affected by changes in exchange rates in connection with our ability to meet our foreign currency obligations and will be affected by such changes in connection with our ability to pay dividends on the H Shares in Hong Kong dollars and on ADSs in U.S. dollars. We believe that we have or will be able to obtain sufficient foreign exchange to continue to satisfy these obligations. We do not engage in any financial contract or other arrangement to hedge our currency exposure.



We are not aware of any other PRC laws, decrees or regulations that restrict the export or import of capital or that affect the remittance of dividends, interest or other payments to non-resident holders.

### **Taxation**

The following discussion addresses the main PRC and United States federal income tax consequences of the ownership of H Shares or ADSs purchased held by the investor as capital assets.

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**Table of Contents****PRC Taxation*****Dividends and Individual Investors***

Pursuant to the Individual Income Tax Law of the PRC, all foreign individuals are subject to a 20% withholding tax on dividends paid by a PRC company on its shares listed overseas, or Overseas Shares, unless specifically exempt by the financial authority of the State Council of the PRC. However, pursuant to the *Notice on the Collection of Individual Income Tax after the Abolishment of Guoshuifa [1993] No. 045*, or Circular 348, issued by the State General Administration of Taxation of the PRC on June 28, 2011, foreign individual shareholders holding H shares, or Individual H Shareholders, in a PRC company listed in Hong Kong may be subject to different levels of withholding taxes on dividends based on the tax treaties of their home countries with China. Individual H Shareholders, who are residents of Hong Kong or Macau or who enjoy a 10% tax rate on dividends based on the tax treaties of their home countries with China, are subject to a withholding tax rate of 10% with respect to the H-share dividends they receive. For those Individual H Shareholders whose home countries have tax treaties with China prescribing a tax rate on dividends lower than 10%, the PRC company, whose shares are held by such Individual H Shareholders, need to make tax filings on behalf of the Individual H Shareholders in order for them to enjoy such tax treatment. For Individual H Shareholders whose home countries have tax treaties with China prescribing a tax rate on dividends between 10% and 20%, the PRC company, whose shares are held by such Individual H Shareholders, shall withhold the individual income tax at the agreed-upon tax rate. For Individual H Shareholders whose home countries have no tax treaties with China or whose home countries have tax treaties with China prescribing a tax rate on dividends higher than 20%, the PRC company shall withhold the tax at a rate of 20%.

***Dividends and Foreign Enterprises***

Pursuant to the *Enterprise Income Tax Law of the PRC* and the implementing rules thereunder, the *Circular on Issues Concerning the Withholding of Corporate Income Tax by PRC Resident Enterprises from Dividends Payable to H Share Non-resident Corporate Shareholders*, and the *Measures for the Administration of the Enjoyment by Non-residents of the Treatments under the Tax Treaties*, when paying any of its H share non-resident corporate shareholders any dividends, we withhold the corporate income tax from such dividends at a rate of 10%. For an H share non-resident corporate shareholder, whose home country has tax treaty with China prescribing a tax rate on dividends lower than 10%, such H share non-resident corporate shareholder may by itself or through an agent or us, make filings with the competent taxation authority for the treatment under the applicable tax treaty and present the documents evidencing that such shareholder is qualified to be a beneficial owner as defined under the applicable tax treaty.

***Tax Treaties***

If you are a tax resident or citizen of a country that has entered into a double-taxation treaty with the PRC, you may be entitled to a reduction in the amount of tax withheld, if any, imposed on the payment of dividends. The PRC currently has such treaties with a number of countries, including but not limited to:

the United States;

Australia;

Canada;

France;

Germany;

Japan;

Malaysia;

Singapore;

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the United Kingdom; and

the Netherlands.

Under certain treaties, the rate of withholding tax imposed by China's taxation authorities may be reduced. Pursuant to the *Measures for the Administration of the Enjoyment by Non-residents of the Treatments under the Tax Treaties* promulgated by the State Administration of Taxation on August 27, 2015, non-PRC residents are entitled to the applicable benefit under tax treaties when they make tax filings or upon withholding by third parties and no prior approvals of the taxation authorities are required.

***Capital Gains***

The *Individual Income Tax Law of the PRC*, provides for a capital gain tax of 20% on individuals. The *Provisions for Implementing the Individual Income Tax Law of the PRC*, provides that the measures to levy individual income tax on the gains realized on the sale of shares will be made in the future by the Ministry of Finance and subject to the approval of the State Council. However, the Ministry of Finance has not so far promulgated a specific taxation method to levy tax on the capital gains realized by individual holders of H Shares or ADSs from sale of shares. If in the future such specific taxation method is promulgated, an individual holder of H Shares or ADSs may be subject to a 20% tax on capital gains under the *Individual Income Tax Law of the PRC* as amended from time to time, unless exempted or reduced by an applicable double taxation treaty or relevant PRC law or regulation.

Under the *Enterprise Income Tax Law of the PRC*, capital gains realized by foreign enterprises which are non-resident enterprises in the PRC upon the sale of Overseas Shares by PRC companies are generally subject to a PRC withholding tax levied at a rate of 10%, unless exempted or reduced pursuant to an applicable double-taxation treaty or other exemptions.

***Shanghai-Hong Kong Stock Connect***

In April 2014, China launched the Shanghai-Hong Kong Stock Connect Program, which is a cross-boundary investment channel that connects the Shanghai Stock Exchange and the Hong Kong Stock Exchange. Under the program, investors in each market are able to trade shares on the other market using their local brokers and clearing agencies. In accordance with the current PRC tax policies, foreign investors are temporarily exempt from income tax on capital gains derived from the trading of A-shares under the program and will be subject to a 10% withholding tax on the dividends received under the program. For a shareholder whose home country has tax treaty with China prescribing a tax rate on dividends lower than 10%, such shareholder may by itself or through an agent or the withholding agent, apply to the competent taxation authority for the treatment under the applicable tax treaty and present the documents evidencing that such shareholder is qualified to be a beneficial owner as defined under the applicable tax treaty.

***Additional PRC Tax Considerations***

Under the Provisional Regulations of the People's Republic of China Concerning the Stamp Duty, a stamp duty is not imposed by the PRC on the transfer of shares, such as the H Shares or ADSs, of PRC publicly traded companies that take place outside of China.

**United States Federal Income Taxation**

The following is a general discussion of the material United States federal income tax consequences of purchasing, owning and disposing of the H Shares or ADSs if you are a U.S. holder, as defined below, and hold the H Shares or ADSs as capital assets within the meaning of Section 1221 of the Internal Revenue Code of 1986, as amended, or the Code. This discussion does not address all of the tax consequences relating to the

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purchase, ownership and disposition of the H Shares or ADSs, and does not take into account U.S. holders who may be subject to special rules including:

tax-exempt entities;

certain insurance companies;

broker-dealers;

traders in securities that elect to mark to market;

U.S. holders liable for alternative minimum tax;

U.S. holders that own 10% or more of our voting stock;

U.S. holders that hold the H Shares or ADSs as part of a straddle or a hedging or conversion transaction; or

U.S. holders whose functional currency is not the U.S. dollar.

This discussion is based on the Code, its legislative history, final, temporary and proposed United States Treasury regulations promulgated thereunder, published rulings and court decisions as in effect on the date hereof, all of which are subject to change, or changes in interpretation, possibly with retroactive effect. In addition, this discussion is based in part upon representations of the depository and the assumption that each obligation in the deposit agreement and any related agreements will be performed according to its terms.

You are a U.S. holder if you are:

a citizen or resident of the United States for United States federal income tax purposes;

a corporation, or other entity treated as a corporation for United States federal income tax purposes, created or organized under the laws of the United States, or any state thereof or the District of Columbia;

an estate the income of which is subject to United States federal income tax without regard to its source; or

a trust;

subject to the primary supervision of a United States court and the control of one or more United States persons; or

that has elected to be treated as a United States person under applicable United States Treasury regulations.

If a partnership (or other entity treated as a partnership for United States federal income tax purposes) holds the H Shares or ADSs, the tax treatment of a partner generally will depend on the status of the partner and the activities of the partnership. If you are a partner of a partnership that holds the H Shares or ADSs, we urge you to consult your tax advisors regarding the consequences of the purchase, ownership and disposition of the H Shares or ADSs.

This discussion does not address any aspects of United States taxation other than federal income taxation.

**We urge you to consult your tax advisors regarding the United States federal, state, local and non-United States tax consequences of the purchase, ownership and disposition of the H Shares or ADSs.**

In general, if you hold American depositary receipts evidencing ADSs, you will be treated as owner of the H Shares represented by the ADSs. The following discussion assumes that we are not a passive foreign investment company, or PFIC, as discussed under "PFIC Rules" below.

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***Distributions on the H Shares or ADSs***

The gross amount of any distribution (without reduction for any PRC tax withheld) we make on the H Shares or ADSs out of our current or accumulated earnings and profits (as determined for United States federal income tax purposes) will be includible in your gross income as dividend income when the distribution is actually or constructively received by you, in the case of the H Shares, or by the depositary in the case of ADSs. Subject to certain limitations, dividends paid to non-corporate U.S. holders, including individuals, currently are eligible for a reduced rate of taxation if we are deemed to be a qualified foreign corporation for United States federal income tax purposes. A qualified foreign corporation includes:

a foreign corporation that is eligible for the benefits of a comprehensive income tax treaty with the United States that includes an exchange of information program; or

a foreign corporation if its stock with respect to which a dividend is paid (or ADSs backed by such stock) is readily tradable on an established securities market within the United States (as determined for United States federal income tax purposes),

but does not include an otherwise qualified foreign corporation that is a PFIC in the taxable year that the dividend is paid or in the prior taxable year. We believe that we will be a qualified foreign corporation so long as we are not a PFIC and we are considered eligible for the benefits of the Agreement between the Government of the United States of America and the Government of the People's Republic of China for the Avoidance of Double Taxation and the Prevention of Tax Evasion with Respect to Taxes on Income, or the Treaty. Our status as a qualified foreign corporation, however, may change.

Distributions that exceed our current and accumulated earnings and profits will be treated as a return of capital to you to the extent of your tax basis in the H Shares or ADSs and thereafter as capital gain. Any dividend will not be eligible for the dividends-received deduction generally allowed to United States corporations with respect to dividends received from United States corporations. The amount of any distribution of property other than cash will be the fair market value of such property on the date of such distribution.

If we make a distribution paid in HK dollars, you will be considered to receive the U.S. dollar value of the distribution determined at the spot HK dollar/ U.S. dollar rate on the date such distribution is received by you or by the depositary, regardless of whether you or the depositary convert the distribution into U.S. dollars. Any gain or loss resulting from currency exchange fluctuations during the period from the date the dividend payment is includible in your income to the date you or the depositary convert the distribution into U.S. dollars will be treated as United States source ordinary income or loss for foreign tax credit limitation purposes.

Subject to various limitations, any PRC tax withheld from distributions in accordance with PRC law, as limited by the Treaty, will be deductible or creditable against your United States federal income tax liability. For foreign tax credit limitation purposes, dividends paid on the H Shares or ADSs will be foreign source income, and will be treated as passive category income or, in the case of some U.S. holders, general category income. You may not be able to claim a foreign tax credit (and instead may claim a deduction) for non-United States taxes imposed on dividends paid on the H Shares or ADSs if you (i) have held the H Shares or ADSs for less than a specified minimum period during which you are not protected from risk of loss with respect to such Shares, or (ii) are obligated to make payments related to the dividends (for example, pursuant to a short sale).



***Sale, Exchange or Other Disposition***

Upon a sale, exchange or other disposition of the H Shares or ADSs, you will recognize a capital gain or loss for United States federal income tax purposes in an amount equal to the difference between the U.S. dollar value of the amount realized and your tax basis, determined in U.S. dollars, in such H Shares or ADSs. Any gain or loss will generally be United States source gain or loss for foreign tax credit limitation purposes. Capital gain of certain non-corporate U.S. holders, including individuals, is generally taxed at a reduced rate where the

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property has been held more than one year. Your ability to deduct capital losses is subject to limitations. If any PRC tax is withheld from your gain on a sale, exchange or other disposition of H Shares or ADSs, such tax would only be creditable against your United States federal income tax liability to the extent that you have foreign source income. However, in the event that such PRC tax is withheld, a U.S. holder that is eligible for the benefits of the Treaty may be able to treat the gain as foreign source income for foreign tax credit satisfaction purposes. You are urged to consult your tax advisors regarding the United States federal income tax consequences if PRC tax is withheld from your gain on the sale or other disposition of H Shares or ADSs, including the availability of a foreign tax credit under your particular circumstances.

If you are paid in a currency other than U.S. dollars, any gain or loss resulting from currency exchange fluctuations during the period from the date of the payment resulting from sale, exchange or other disposition to the date you convert the payment into U.S. dollars will be treated as United States source ordinary income or loss for foreign tax credit limitation purposes.

***PFIC Rules***

In general, a foreign corporation is a PFIC for any taxable year in which, after applying relevant look-through rules with respect to the income and assets of subsidiaries:

75% or more of its gross income consists of passive income, such as dividends, interest, rents and royalties;  
or

50% or more of the average quarterly value of its assets consists of assets that produce, or are held for the production of, passive income.

We believe that we did not meet either of the PFIC tests in the taxable year that ended December 31, 2017 and believe that we will not meet either of the PFIC tests in the current or subsequent taxable years and therefore will not be treated as a PFIC for such periods. However, there can be no assurance that we will not be a PFIC in the current or subsequent taxable years.

If we were a PFIC in any taxable year that you held the H Shares or ADSs, you generally would be subject to special rules with respect to excess distributions made by us on the H Shares or ADSs and with respect to gain from your disposition of the H Shares or ADSs. An excess distribution generally is defined as the excess of the distributions you receive with respect to the H Shares or ADSs in any taxable year over 125% of the average annual distributions you have received from us during the shorter of the three preceding years or your holding period for the H Shares or ADSs. Generally, you would be required to allocate any excess distribution or gain from the disposition of the H Shares or ADSs ratably over your holding period for the H Shares or ADSs. The portion of the excess distribution or gain allocated to a prior taxable year, other than a year prior to the first year in which we became a PFIC, would be taxed at the highest United States federal income tax rate on ordinary income in effect for such taxable year, and you would be subject to an interest charge on the resulting tax liability, determined as if the tax liability had been due with respect to such particular taxable years. The portion of the excess distribution or gain that is not allocated to prior taxable years, together with the portion allocated to the years prior to the first year in which we became a PFIC, would be included in your gross income for the taxable year of the excess distribution or disposition and taxed as ordinary income.

The foregoing rules with respect to excess distributions and dispositions may be avoided or reduced if you are eligible for and timely make a valid mark-to-market election. If your H Shares or ADSs were treated as shares regularly traded on a qualified exchange for United States federal income tax purposes and a valid and timely mark-to-market election was made, in calculating your taxable income for each taxable year, you generally would be required to take into account as ordinary income or loss the difference, if any, between the fair market value and the adjusted tax basis of your H Shares or ADSs at the end of your taxable year. However, the amount of loss you would be allowed is limited to the extent of the net amount of previously included income as a result of the mark-to-market election. The New York Stock Exchange on which the ADSs are traded is a qualified exchange for United States federal income tax purposes.

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Alternatively, a timely election to treat us as a qualified electing fund under Section 1295 of the Code could be made to avoid the foregoing rules with respect to excess distributions and dispositions. You should be aware, however, that if we become a PFIC, we do not intend to satisfy record keeping requirements that would permit you to make a qualified electing fund election.

If you own the H Shares or ADSs during any year that we are a PFIC, you must annually file Internal Revenue Service, or IRS, Form 8621 (or any other form subsequently specified by the United States Treasury Department), subject to certain exceptions based on the value of PFIC stock held. We encourage you to consult your own tax advisor concerning the United States federal income tax consequences of holding the H Shares or ADSs that would arise if we were considered a PFIC.

## ***Backup Withholding and Information Reporting***

In general, information reporting requirements will apply to dividends with respect to the H Shares or ADSs or the proceeds of the sale, exchange or other disposition of the H Shares or ADSs paid within the United States, and in some cases, outside of the United States, other than to various exempt recipients, including corporations. In addition, you may, under some circumstances, be subject to backup withholding with respect to dividends paid on the H Shares or ADSs or the proceeds of any sale, exchange or other disposition of the H Shares or ADSs, unless you:

are a corporation or fall within various other exempt categories, and, when required, demonstrate this fact; or

provide a correct taxpayer identification number on a properly completed IRS Form W-9 or a substitute form, certify that you are exempt from backup withholding and otherwise comply with applicable requirements of the backup withholding rules.

Any amount withheld under the backup withholding rules generally will be creditable against your United States federal income tax liability provided that you furnish the required information to the IRS in a timely manner. If you do not provide a correct taxpayer identification number you may be subject to penalties imposed by the IRS.

Certain U.S. holders who are individuals that hold certain foreign financial assets (which may include the H Shares or ADSs) may be required to report information relating to such assets, subject to certain exceptions. You should consult your own tax advisors regarding the effect, if any, of this requirement on your ownership and disposition of the H Shares or ADSs.

## **Documents on Display**

You may read and copy documents referred to in this annual report on Form 20-F that have been filed with the U.S. Securities and Exchange Commission at the Commission's public reference room located at 100 F Street, N.E., Room 1580, Washington, D.C. 20549. Please call the Commission at 1-800-SEC-0330 for further information on the public reference rooms and their copy charges. You may also find our annual reports on Form 20-F and other documents filed with the SEC on its website [www.sec.gov](http://www.sec.gov).

The Commission allows us to incorporate by reference the information we file with the Commission. This means that we can disclose important information to you by referring you to another document filed separately with the Commission. The information incorporated by reference is considered to be part of this annual report on Form 20-F.



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**Item 11 *QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK***

In the normal course of business, we hold or issue various financial instruments which expose us to interest rate and foreign exchange rate risks. Additionally, our operations are affected by certain commodity price movements. We historically have not used derivative instruments for hedging or trading purposes. Such activities are subject to policies approved by our senior management. Substantially all of the financial instruments we hold are for purposes other than trading. We regard an effective market risk management system as an important element of our treasury function and are currently enhancing our systems. A primary objective of our market risk management is to implement certain methodologies to better measure and monitor risk exposures.

The following discussions and tables, which constitute forward-looking statements that involve risks and uncertainties, summarize our market-sensitive financial instruments including fair value, maturity and contract terms. Such discussions address market risk only and do not present other risks which we face in the normal course of business.

**Interest Rate Risk**

Our interest risk exposure arises from changing interest rates. The tables below provide information about our financial instruments including various debt obligations that are sensitive to changes in interest rates. The tables present principal cash flows and related weighted-average interest rates at expected maturity dates. Weighted-average variable rates are based on effective rates as of December 31, 2015, 2016 and 2017. The information is presented in Renminbi equivalents, our reporting currency.

**Foreign Exchange Rate Risk**

We conduct our business primarily in Renminbi. However, a portion of our RMB revenues are converted into other currencies to meet foreign currency financial instrument obligations and to pay for imported equipment and other materials. Foreign currency payments for imported equipment represented 1.9%, 1.1% and 3.2% of our total payments for equipment in 2015, 2016 and 2017, respectively. Foreign currency payments for other imported materials represented 0.05%, 0.02% and 0.01% of our total payments for materials in 2015, 2016 and 2017, respectively.

The Renminbi is not a freely convertible currency. Limitation in foreign exchange transactions imposed by the PRC government could cause future exchange rates to vary significantly from current or historical exchange rates.

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The tables below provide information about our financial instruments including foreign currency denominated debt instruments that are sensitive to foreign currency exchange rates. The tables below summarize such information by presenting principal cash flows and related weighted-average interest rates at expected maturity dates in RMB equivalents, using the exchange rates in effect as of December 31, 2015, 2016 and 2017, respectively.

**December 31, 2017**

	Expected Maturity Date						Total	Percentage to Total Long-Term Borrowings	Fair Value
	2018	2019	2020	2021	2022	Thereafter			
<b>Long term debt</b>									
Loans in RMB									
Fixed Rate Loan									
Amount	244	35,999	6,044	13,109	23,083	30,594	109,073	29.37%	92,939
Average interest rate	3.28%	4.33%	4.30%	3.51%	3.86%	4.56%			
Variable Rate Loan									
Amount	33,142	6,750	2,802	66	232	6,650	49,642	13.37%	49,642
Average interest rate	3.80%	4.03%	4.57%	4.55%	4.74%	3.98%			
Loans in Euro									
Fixed Rate Loan									
Amount	13	21	8			49	91	0.02%	113
Average interest rate						4.08%			
Variable Rate Loan									
Amount			2,341				2,341	0.63%	2,341
Average interest rate			2.35%						
Loans in United States Dollar									
Fixed Rate Loan									
Amount	36	36	36	36	18	106	268	0.07%	240
	1.11%	1.11%	1.11%	1.11%	0.68%	0.05%			

Average interest rate									
Variable Rate Loan									
Amount	12,084	13,140	38,577	218	14,522	115	78,656	21.18%	78,656
Average interest rate	3.53%	3.68%	3.78%	4.13%	3.62%	4.35%			
Loans in Japanese Yen									
Fixed Rate Loan									
Amount	17	4	3	3	3	7	37	0.01%	41
Average interest rate									
Variable Rate Loan									
Amount									
Average interest rate									
Loans in Hong Kong Dollar									
Variable Rate Loan									
Amount		620					620	0.17%	620
Average interest rate									
Debentures in Canadian Dollar									
Fixed Rate Loan									
Amount									
Average interest rate									
Variable Rate Loan									
Amount									
Average interest rate									
Debentures in United States Dollar									
Fixed Rate Loan									
Amount									
Average interest rate									
Debentures in RMB									



Fixed Rate Loan									
Amount	16,000	3,230	2,000	31,000	2,000	15,000	69,230	18.64%	62,631
Average interest rate	4.47%	1.61%	4.30%		4.90%	4.12%			
Medium term note in RMB									
Fixed Rate Loan									
Amount	20,000		20,000	15,000			55,000	14.81%	50,333
Average interest rate	4.03%		3.85%	3.45%					
Medium term note in United State Dollar									
Fixed Rate Loan									
Amount			3,218			3,218	6,436	1.73%	6,151
Average interest rate			2.89%			3.76%			
Total	81,536	59,800	75,029	59,432	39,858	55,739	371,394	100.00%	343,707

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December 31, 2016

	Expected Maturity Date						Total	Percentage to Total Long-Term Borrowings	Fair Value
	2017	2018	2019	2020	2021	Thereafter			
<b>Long term debt</b>									
Loans in RMB									
Fixed Rate									
Loan Amount	9,796	245	36,317	10,112	3,110	40,143	99,723	22.45%	97,691
Average interest rate	3.83%	3.27%	4.35%	3.96%	2.09%	4.61%			
Variable Rate									
Loan Amount	13,193	33,639	6,634	70	218	31,998	85,752	19.30%	85,752
Average interest rate	3.94%	3.81%	4.05%	4.86%	4.89%	3.93%			
Loans in Euro									
Fixed Rate									
Loan Amount	12	24	24	16	9	6	91	0.02%	106
Average interest rate	2.03%	2.67%	2.67%	2.96%	3.72%	3.56%			
Variable Rate									
Loan Amount				2,197			2,197	0.49%	2,197
Average interest rate				2.35%					
Loans in United States Dollar									
Fixed Rate									
Loan Amount	38	39	38	38	38	130	321	0.07%	297
Average interest rate	1.12%	1.09%	1.12%	1.12%	1.12%	0.14%			
Variable Rate									
Loan Amount	13,732	20,494	14,684	41,596	779	368	91,653	20.63%	91,653
Average interest rate	2.33%	3.13%	3.27%	3.22%	5.66%	3.99%			
Loans in Japanese Yen									
Fixed Rate									
Loan Amount	14	22	7	4	3	7	57	0.01%	60
Average interest rate	2.52%	2.38%	2.46%	2.00%	2.66%	2.26%			

Average interest rate									
Variable Rate									
Loan Amount									
Average interest rate									
Loans in Hong Kong Dollar									
Variable Rate									
Loan Amount			666			666	0.15%		666
Average interest rate			2.27%						
Debentures in Canadian Dollar									
Fixed Rate									
Loan Amount									
Average interest rate									
Variable Rate									
Loan Amount									
Average interest rate									
Debentures in United States Dollar									
Fixed Rate									
Loan Amount									
Average interest rate									
Debentures in RMB									
Fixed Rate									
Loan Amount	16,000	16,000	3,350		31,000	17,000	83,350	18.76%	81,637
Average interest rate	4.55%	4.47%	1.63%		3.09%	4.21%			
Medium term note in RMB									
Fixed Rate									
Loan Amount	18,630	20,000		20,000	15,000		73,630	16.57%	71,999
Average interest rate	4.21%	4.03%		3.85%	3.45%				
Medium term note in United State Dollar									
Fixed Rate									
Loan Amount				3,431		3,431	6,862	1.55%	6,747
Average interest rate				2.88%		3.75%			

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Total	71,415	90,463	61,720	77,464	50,157	93,083	444,302	100.00%	438,805
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December 31, 2015

	Expected Maturity Date						Total	Percentage to Total Long-Term Borrowings	Fair Value
	2016	2017	2018	2019	2020	Thereafter			
<b>Long term debt</b>									
Loans in RMB									
Fixed Rate Loan									
Amount	9,294	38,070	20,527	34,512	30,609	71,212	204,224	43.39%	198,074
Average interest rate	4.03%	3.79%	4.51%	4.31%	3.96%	4.27%			
Variable Rate Loan									
Amount	10,471	13,018	33,268	40	45	6,313	63,155	13.42%	63,155
Average interest rate	4.40%	3.94%	4.51%	4.90%	4.90%	4.73%			
Loans in Euro									
Fixed Rate Loan									
Amount	12	22	2,151	23	16	6	2,230	0.47%	2,318
Average interest rate	2.12%	2.76%	2.35%	2.64%	2.93%	3.49%			
Variable Rate Loan									
Amount									
Average interest rate									
Loans in United States Dollar									
Fixed Rate Loan									
Amount	36	488	36	36	36	154	786	0.17%	774
Average interest rate	1.10%	2.26%	1.10%	1.10%	1.10%	0.37%			
Variable Rate Loan									
Amount	15,841	12,845	21,500	11,048	32,136	1,300	94,670	20.12%	94,670

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Average interest rate	2.29%	2.00%	2.77%	3.11%	2.44%	3.41%		
Loans in Japanese Yen								
Fixed Rate Loan								
Amount	15	16	16	7	3	8	65	0.01%
Average interest rate	2.47%	2.46%	2.46%	2.40%	2.30%	2.30%		
Variable Rate Loan								
Amount								
Average interest rate								
Debentures in Canadian Dollar								
Fixed Rate Loan								
Amount								
Average interest rate								
Variable Rate Loan								
Amount								
Average interest rate								
Debentures in United States Dollar								
Fixed Rate Loan								
Amount								
Average interest rate								
Debentures in RMB								
Fixed Rate Loan								
Amount		16,000	16,000			8,000	40,000	8.50%
Average interest rate		4.55%	4.47%			4.93%		
Medium term note in RMB								
Fixed Rate Loan								
Amount	498	18,630	20,000		20,000		59,128	12.56%
	5.63%	4.21%	4.03%		3.85%			

Average interest rate									
Medium term note in United State Dollar									
Fixed Rate Loan									
Amount					3,192	3,192	6,384	1.36%	6,202
Average interest rate					2.88%	3.75%			
Total	36,167	99,089	113,498	45,666	86,037	90,185	470,642	100.00%	465,848

See Item 3 Key Information Risk Factors Risks Related to Pricing and Exchange Rate .

### Commodity Price Risk

We are engaged in a wide range of petroleum-related activities and purchase certain quantity of oil from the international market to meet our demands. The prices of crude oil and refined products in the international market are affected by various factors such as changes in global and regional politics and economy, the demand and supply of crude oil and refined products, as well as unexpected events and disputes with international repercussions. The domestic crude oil price is determined with reference to the international price of crude oil whereby the prices of domestic refined products were allowed to adjust more in line with the prices in the international crude oil market. Other than certain subsidiaries of our company, we generally do not use any

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derivative instruments to evade such price risks. See Item 3 Key Information Risk Factors Risks Related to Pricing and Exchange Rate .

**Item 12 DESCRIPTION OF SECURITIES OTHER THAN EQUITY SECURITIES****Fees paid by our ADS holders**

The Bank of New York Mellon, the depositary of our ADS program, collects its fees for delivery and surrender of ADSs directly from investors depositing shares or surrendering ADSs for the purpose of withdrawal or from intermediaries acting for them. The depositary collects fees for making distributions to investors by deducting those fees from the amounts distributed or by selling a portion of distributable property to pay the fees. The depositary may refuse to deliver ADSs or the deposited shares or provide any distributions until its fees for those services are paid.

**Persons Depositing or Withdrawing Shares Must Pay:****For:**

\$5.00 (or less) per 100 ADSs (or portion thereof)

Issuance of ADSs, including issuances resulting from a distribution of shares or rights or other property

Cancellation of ADSs for the purpose of withdrawal, including if the deposit agreement terminates

\$0.02 (or less) per ADS (or portion thereof)

Any cash distribution to ADS holders

A fee equivalent to the fee that would be payable if securities distributed to you had been shares and the shares had been deposited for issuance of ADSs

Distribution of securities distributed to holders of deposited securities which are distributed by the depositary to ADS holders

Registration or transfer fees

Transfer and registration of shares on our share register to or from the name of the depositary or its agent when you deposit or withdraw shares

Expenses of the depositary

Cable, telex and facsimile transmissions (when expressly provided in the deposit agreement)

Converting foreign currency to U.S. dollars

Taxes and other governmental charges the depositary or the custodian have to pay on any ADS or share underlying an ADS, for example, stock transfer taxes, stamp duty or withholding taxes

As necessary

Any charges incurred by the depositary or its agents for servicing the deposited securities

As necessary

**Fees and Payments from the Depositary to Us**

In the year ended December 31, 2017, we did not receive any fees and payments from our depositary.

**PART II****Item 13 DEFAULTS, DIVIDENDS ARREARAGES AND DELINQUENCIES**



None.

**Item 14 MATERIAL MODIFICATIONS TO THE RIGHTS TO SECURITY HOLDERS AND USE OF PROCEEDS**

None.

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**Item 15 CONTROLS AND PROCEDURES**

**Evaluation of the Management on Disclosure Controls and Procedures**

Our Chairman, who currently performs the function of Chief Executive Officer, and our Chief Financial Officer, after evaluating the effectiveness of our disclosure controls and procedures (as defined in the United States Exchange Act Rules 13a-15(e) and 15d(e)) as of the end of the period covered by this annual report, have concluded that, as of such date, our company's disclosure controls and procedures were effective to ensure that material information required to be disclosed in the reports that we file and furnish under the Exchange Act is recorded, processed, summarized and reported, within the time periods specified in the Securities and Exchange Commission's rules and regulations and that such information is accumulated and communicated to our company's management, including our principal executive and financial officers, as appropriate, to allow timely decisions regarding required disclosure.

**Management's Report on Internal Control over Financial Reporting**

Our company's management is responsible for establishing and maintaining adequate internal control over financial reporting, as defined in Exchange Act Rules 13a-15(f). Under the supervision and with the participation of our company's management, including our principal executive officer and principal financial officer, our company evaluated the effectiveness of its internal control over financial reporting based on criteria established in the framework in *Internal Control – Integrated Framework* (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on this evaluation, our company's management has concluded that our internal control over financial reporting was effective as of December 31, 2017.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies and procedures may deteriorate.

The effectiveness of our company's internal control over financial reporting as of December 31, 2017 has been audited by KPMG Huazhen LLP, our company's independent registered public accountants, as stated below.

**Report of Independent Registered Public Accounting Firm**

To the Stockholders and Board of Directors

PetroChina Company Limited:

*Opinion on Internal Control over Financial Reporting*

We have audited PetroChina Company Limited and subsidiaries (the Company) internal control over financial reporting as of December 31, 2017, based on criteria established in *Internal Control – Integrated Framework* (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission. In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2017, based on criteria established in *Internal Control – Integrated Framework* (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated statements of financial position of the Company as of December 31, 2017 and

2016, the related consolidated statements of comprehensive income, changes in equity, and cash flows for the years then ended, and the related notes (collectively, the consolidated financial statements), and our report dated April 27, 2018 expressed an unqualified opinion on those consolidated financial statements.

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### *Basis for Opinion*

The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audit also included performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

### *Definition and Limitations of Internal Control over Financial Reporting*

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

**/s/ KPMG Huazhen LLP**

Beijing, China

April 27, 2018

### *Changes in Internal Control over Financial Reporting*

During the year ended December 31, 2017, there were no changes in our internal control over financial reporting that have materially affected, or are reasonably likely to materially affect, our company's internal control over financial reporting. On May 14, 2013, the COSO published an updated Internal Control – Integrated Framework (2013) and related illustrative documents. We adopted the new framework in 2014.

**Item 16A *AUDIT COMMITTEE FINANCIAL EXPERT***

Our audit committee is composed of two non-executive independent directors, Mr. Lin Boqiang and Mr. Zhang Biyi, and one non-executive director, Mr. Liu Yuezhen. See Item 6 Directors, Senior Management and Employees Board Practices Audit Committee . Mr. Zhang Biyi, our non-executive independent director has been confirmed as a financial expert as defined in Item 16A of Form 20-F.

**Table of Contents****Item 16B CODE OF ETHICS**

We adopted our code of business conduct and ethics for senior management on March 23, 2004 and our code of business conduct and ethics for employees on March 2, 2005 and have disclosed the content of both codes on our website.

These two Codes of Ethics may be accessed as follows:

1. From our main web page, first click on [Investor Relations](#) .
2. Next, click on [Corporate Governance Structure](#) .
3. Finally, click on [Code of Ethics for Senior Management](#) or [Code of Ethics for Employees of PetroChina Company Limited](#) .

**Item 16C PRINCIPAL ACCOUNTANT FEES AND SERVICES**

KPMG Huazhen LLP served as our independent accountant for the fiscal years of 2016 and 2017. The office of KPMG Huazhen LLP is located at 8th Floor, KPMG Tower, Oriental Plaza, 1 East Chang An Avenue, Beijing.

The following table presents the aggregate fees paid by us (not including our subsidiaries) for professional audit services, tax and other services rendered by KPMG Huazhen LLP to us for each of the years ended December 31, 2016 and 2017, respectively.

	<b>2016</b>	<b>December 31,</b>
	<b>RMB</b>	<b>2017</b>
		<b>RMB</b>
		<b>(In millions)</b>
Audit fees	53	53
Audit-related fees		
Tax fees		
All other fees		
<b>Total</b>	<b>53</b>	<b>53</b>

The auditors' remuneration above represented the annual fees paid by us for the years indicated. The remuneration did not include fees of RMB52 million (2016: RMB66 million) paid by our subsidiaries to KPMG Huazhen LLP and its network firms which primarily included audit fees of RMB40 million (2016: RMB50 million), audit-related fees of RMB8 million (2016: RMB8 million) and tax fees of RMB3 million (2016: RMB7 million), and other service fees of RMB1 million (2016: RMB1 million), respectively. The decrease in our fees paid in 2017 compared to 2016 was primarily due to the decrease in the audit fees of certain subsidiaries, such as Kunlun Gas and its subsidiaries.

***Audit Committee Pre-approved Policies and Procedures***

Currently, all audit services to be provided by our independent registered public accountant, KPMG Huazhen LLP, must be approved by our audit committee.

During the year ended December 31, 2017, services relating to all non-audit related fees provided to us by KPMG Huazhen LLP were approved by our audit committee in accordance with the de minimis exception to the pre-approval requirement provided by paragraph (c)(7)(i)(C) of Rule 2-01 of Regulation S-X.

**Item 16D** *EXEMPTIONS FROM LISTING STANDARDS FOR AUDIT COMMITTEES*

We rely on an exemption contained in paragraph (b)(1)(iv)(D) of Rule 10A-3 under the Securities and Exchange Act of 1934, as amended, from the New York Stock Exchange listing requirement that each member of

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the audit committee of a listed issuer must be independent. Our single non-independent audit committee member, who is a representative of CNPC, has only observer status and is not entitled to take any action at the audit committee of our board of directors, which qualifies us for the exemption from the independence requirements available under paragraph (b)(1)(iv)(D) of Rule 10A-3. See Item 6 Directors, Senior Management and Employees Board Practice Audit Committee. We believe our reliance on this exemption does not have any adverse effect on the ability of our audit committee to act independently.

**Item 16E PURCHASES OF EQUITY SECURITIES BY THE ISSUER AND AFFILIATED PURCHASERS**

Not applicable.

**Item 16F CHANGE IN REGISTRANT S CERTIFYING ACCOUNTANT**

Not applicable.

**Item 16G CORPORATE GOVERNANCE**

We are incorporated under the laws of the PRC, with A Shares publicly traded on the Shanghai Stock Exchange, or the SSE, and H Shares publicly traded on the Hong Kong Stock Exchange, or the HKSE, and American Deposit Shares representing H Shares on the NYSE. As a result, our corporate governance framework is subject to the mandatory provisions of the PRC Company Law and the Corporate Governance Rules as well as the securities laws, regulations and the listing rules of Hong Kong and the United States.

The following discussion summarizes the significant differences between our corporate governance practices and those that would apply to a U.S. domestic issuer under the NYSE corporate governance rules.

**Director Independence**

Under the NYSE corporate governance rule 303A.01, a listed company must have a majority of independent directors on its board of directors. A company of which more than 50% of the voting power is held by an individual, a group or another company, or a controlled company, is not required to comply with this requirement. We are not required under the PRC Company Law and the HKSE Listing Rules to have a majority of independent directors on our board of directors. As of the date of this report, four of our 13 directors were independent non-executive directors.

Under the NYSE corporate governance rule 303A.03, the non-management directors of a listed company must meet at regularly scheduled executive sessions without management. There are no mandatory requirements under the PRC Company Law and the HKSE Listing Rules that a listed company should hold, and we currently do not hold, such executive sessions.

**Nominating/Corporate Governance Committee**

Under the NYSE corporate governance rule 303A.04, a listed company must have a nominating/corporate governance committee composed entirely of independent directors, with a written charter that covers certain minimum specified duties, but a controlled company is not required to comply with this requirement. The Corporate Governance Code as amended by the Stock Exchange of Hong Kong provides that issuers shall establish a nominating committee, and a majority of which should be independent non-executive directors and the chairman shall be served by an independent non-executive director or the board chairman. We are not required under the PRC Company Law to have a nominating/corporate governance committee. We set up a nominating committee in August 2015, which consists of



the chairman of our board of directors and two independent directors.

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### **Compensation Committee**

Under the NYSE corporate governance rule 303A.05, a listed company must have a compensation committee composed entirely of independent directors, with a written charter that covers certain minimum specified duties. A controlled company is not required to comply with this requirement. We are not required under the PRC Company Law to have a compensation committee. Under the Corporate Governance Code of the HKSE Listing Rules, a listed company must have a remuneration committee composed of a majority of independent non-executive directors, with a written term of references that covers certain minimum specified duties.

We currently do not have a compensation committee composed entirely of independent directors. However, we have an evaluation and remuneration committee including a majority of independent non-executive directors.

### **Corporate Governance Guidelines**

Under the NYSE corporate governance rule 303A.09, a listed company must adopt and disclose corporate governance guidelines that cover certain minimum specified subjects. We are not required under the PRC Company Law and the HKSE Listing Rules to have, and we do not currently have, formal corporate governance guidelines. However, we have the Articles of Association, the Rules and Procedures of Board of Directors and the Trial Implementation Rules for Compensation of Senior Management that address the following subjects:

director qualification standards and responsibilities;

key board committee responsibilities;

director compensation; and

director orientation and continuing education.

In addition, under the HKSE Listing Rules, we are expected to comply with, but may choose to deviate from, certain code provisions in the Corporate Governance Code of the Listing Rules which sets forth the principles and standards of corporate governance for listed companies. Pursuant to the HKSE Listing Rules, if we choose to deviate from any code provisions of the Corporate Governance Code, we must disclose such deviations in our annual report.

In 2009, we formulated the Administrative Measures on Independent Directors, the Administrative Rules on Holding of Company Shares by Directors, Supervisors and Senior Management, the Administrative Measures on Investor's Relationship and the rules and procedures of the Audit Committee, the Performance Review and Compensation Committee, the Investment and Development Committee, and the Safety and Environmental Protection Committee. All these policies have further enhanced our corporate governance system and can ensure the better performance of duties of directors, supervisors, senior managers and committee members. In 2015, we set up a nominating committee and formulated the Rules of Procedures of the Nominating Committee.

In 2017, we revised our articles of association according to relevant regulatory requirements. We added the cumulative voting provisions, and defined the role of the Party's core leadership in the articles of association. Our by-laws with respect to general meeting, board of directors and board of supervisors were also amended in line with

the amendment to the articles.

**Code of Business Conduct and Ethics**

Under the NYSE corporate governance rule 303A.10, a listed company must adopt and disclose its code of business conduct and ethics for directors, officers and employees, and promptly disclose any waivers of the code for directors or executive officers. See Item 16B Code of Ethics . We are not required under the PRC Company Law and the HKSE Listing Rules to have, and we do not currently have, a code of business conduct

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and ethics for directors. However, pursuant to the HKSE Listing Rules, all of our directors must comply with the Model Code for Securities Transactions by Directors of Listed Companies (the Model Code ) as set out in the Listing Rules. The Model Code sets forth required standards with which the directors of a listed company must comply in securities transactions of the listed company.

**CEO Certification Requirements**

Under the NYSE corporate governance rule 303A.12(a), each listed company's CEO must certify to the NYSE each year that he or she is not aware of any violation by the company of NYSE corporate governance listing standards. Our CEO is not required under the PRC Company Law and the HKSE Listing Rules to submit, and our CEO does not currently submit, such certification. Instead, our chairman, who performs the duties of the CEO, does the certification.

**Item 16H MINE SAFETY DISCLOSURE**

Not applicable.

**PART III****Item 17 FINANCIAL STATEMENTS**

We have elected to provide the financial statements and related information specified in Item 18 in lieu of Item 17.

**Item 18 FINANCIAL STATEMENTS**

See page F-1 to F-62 following Item 19.

**Item 19 EXHIBITS**

(a) See Item 18 for a list of the financial statements as part of this annual report.

(b) Exhibits to this annual report.

<b>Exhibit Number</b>	<b>Description of Exhibits</b>
1.1	<u>Articles of Association (as amended on October 26, 2017) (English translation)</u> <sup>(3)</sup>
4.1	Non-competition Agreement between CNPC and PetroChina (English translation) <sup>(1)</sup>
4.2	Trademark Licensing Contract between CNPC and PetroChina (English translation) <sup>(1)</sup>
4.3	Patent and Know-how Licensing Contract between CNPC and PetroChina (English translation) <sup>(1)</sup>
4.4	Computer Software Licensing Contract between CNPC and PetroChina (English translation) <sup>(1)</sup>
4.5	Contract for Transfer of Rights under Production Sharing Contracts between CNPC and PetroChina (English translation) <sup>(1)</sup>

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- 4.6 Contract for the Supervision of Certain Sales Enterprises between CNPC and PetroChina (English translation)<sup>(1)</sup>
- 4.7 Form of Agreement for the Transfer of Rights and Interests under the Retainer Contracts relating to Oil Exploration and Exploitation in Lengjiapu Area, Liaohe Oil Region and No. 9.1 9.5 Areas, Karamay Oil Field (English translation)<sup>(1)</sup>

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<b>Exhibit Number</b>	<b>Description of Exhibits</b>
4.8*	<u>Comprehensive Products and Services Agreement, dated August 24, 2017, between CNPC and PetroChina.</u>
4.9*	<u>Land Lease Agreement, dated August 24, 2017, between CNPC and PetroChina</u>
4.10*	<u>Building Lease Agreement, dated August 24, 2017, between CNPC and PetroChina</u>
4.11*	<u>Annual Crude Oil Mutual Supply Framework Agreement, dated January 1, 2018, between China Petroleum and Chemical Corporation and PetroChina (English translation)</u>
8.1*	<u>List of major subsidiaries</u>
11.1	<u>Code of Ethics for Senior Management <sup>(2)</sup></u>
11.2	<u>Code of Ethics for Employees <sup>(2)</sup></u>
12.1*	<u>Certification of Chief Executive Officer required by Section 302 of the Sarbanes-Oxley Act of 2002</u>
12.2*	<u>Certification of Chief Financial Officer required by Section 302 of the Sarbanes-Oxley Act of 2002</u>
13.1*	<u>Certification of Chief Executive Officer required by 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002</u>
13.2*	<u>Certification of Chief Financial Officer required by 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002</u>
15.1*	<u>Reserves Report for the year ended on December 31, 2017 prepared by DeGolyer and MacNaughton</u>
15.2*	<u>Reserves Report for the year ended on December 31, 2017 prepared by Ryder Scott</u>
15.3*	<u>Reserves Report for the year ended on December 31, 2017 prepared by GLJ Petroleum Consultants</u>
15.4*	<u>Reserves Report for the year ended on December 31, 2017 prepared by McDaniel &amp; Associates Consultants, Ltd.</u>
101.INS*	XBRL Instance Document
101.SCH*	XBRL Taxonomy Extension Schema Document
101.CAL*	XBRL Taxonomy Extension Calculation Linkbase Document
101.DEF*	XBRL Taxonomy Extension Definition Linkbase Document
101.LAB*	XBRL Taxonomy Extension Label Linkbase Document
101.PRE*	XBRL Taxonomy Extension Presentation Linkbase Document

\* To be filed as exhibits to this Form 20-F.

- (1) Paper filing; incorporated by reference to our Registration Statement on Form F-1 (File No. 333-11566) filed with the Commission, as declared effective on March 29, 2000.
- (2) Incorporated by reference to our annual report on Form 20-F for the fiscal year ended December 31, 2004 (File No. 1-15006) filed with the Commission.
- (3) Incorporated by reference to our report on Form 6-K (File No. 1-15006) filed with the Commission on October 26, 2017.



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**SIGNATURE**

The registrant hereby certifies that it meets all of the requirements for filing on Form 20-F and that it has duly caused and authorized the undersigned to sign this annual report on its behalf.

PETROCHINA COMPANY LIMITED

/s/Wu Enlai

Name: Wu Enlai

Title: Secretary to Board of Directors

Date: April 27, 2018



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**Report of Independent Registered Public Accounting Firm**

To the Stockholders and Board of Directors

PetroChina Company Limited:

*Opinion on the Consolidated Financial Statements*

We have audited the accompanying consolidated statements of financial position of PetroChina Company Limited and subsidiaries (the Company) as of December 31, 2017 and 2016, the related consolidated statements of comprehensive income, changes in equity, and cash flows for the years then ended, and the related notes (collectively, the consolidated financial statements). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2017 and 2016, and the results of its operations and its cash flows for the years then ended, in conformity with International Financial Reporting Standards as issued by International Accounting Standards Board.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of December 31, 2017, based on criteria established in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission, and our report dated April 27, 2018 expressed an unqualified opinion on the effectiveness of the Company's internal control over financial reporting.

*Basis for Opinion*

These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. We believe that our audits provide a reasonable basis for our opinion.

/s/ KPMG Huazhen LLP

We have served as the Company's auditor since 2013.

Beijing, China

April 27, 2018



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**Report of Independent Registered Public Accounting Firm**

The Board of Directors and Shareholders

PetroChina Company Limited:

We have audited the accompanying consolidated statements of comprehensive income, changes in equity, and cash flows of PetroChina Company Limited and subsidiaries (the Company) for the year ended December 31, 2015. These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated financial statements based on our audit.

We conducted our audit in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audit provides a reasonable basis for our opinion.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the results of the operations and the cash flows of the Company for the year ended December 31, 2015, in conformity with International Financial Reporting Standards as issued by the International Accounting Standards Board.

/s/ KPMG

Hong Kong, China

April 28, 2016

**Table of Contents****PETROCHINA COMPANY LIMITED****CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME****For the Years Ended December 31, 2017, 2016 and 2015****(Amounts in millions, except for the per share data)**

	Notes	2017 RMB	2016 RMB	2015 RMB
<b>REVENUE</b>	6	2,015,890	1,616,903	1,725,428
<b>OPERATING EXPENSES</b>				
Purchases, services and other		(1,285,716)	(959,640)	(1,056,795)
Employee compensation costs	8	(125,384)	(117,662)	(118,082)
Exploration expenses, including exploratory dry holes		(23,884)	(18,576)	(18,380)
Depreciation, depletion and amortization		(237,375)	(218,147)	(202,875)
Selling, general and administrative expenses		(77,042)	(74,255)	(71,270)
Taxes other than income taxes	9	(198,022)	(189,608)	(205,884)
Other (expenses) / income, net		(745)	21,620	27,110
<b>TOTAL OPERATING EXPENSES</b>		(1,948,168)	(1,556,268)	(1,646,176)
<b>PROFIT FROM OPERATIONS</b>		67,722	60,635	79,252
<b>FINANCE COSTS</b>				
Exchange gain		8,217	12,828	9,536
Exchange loss		(9,311)	(11,571)	(10,168)
Interest income		2,901	2,491	2,019
Interest expense	10	(22,408)	(23,348)	(24,328)
<b>TOTAL NET FINANCE COSTS</b>		(20,601)	(19,600)	(22,941)
<b>SHARE OF PROFIT OF ASSOCIATES AND JOINT VENTURES</b>	16	5,968	4,105	1,504
<b>PROFIT BEFORE INCOME TAX EXPENSE</b>	7	53,089	45,140	57,815
<b>INCOME TAX EXPENSE</b>	12	(16,296)	(15,768)	(15,726)
<b>PROFIT FOR THE YEAR</b>		36,793	29,372	42,089
<b>OTHER COMPREHENSIVE INCOME RECLASSIFIABLE TO PROFIT OR LOSS</b>				
Currency translation differences		(431)	9,404	(20,965)
Fair value (loss)/ gain from available-for-sale financial assets, net of tax		(608)	(128)	596

Share of the other comprehensive (loss) / income of associates and joint ventures accounted for using the equity method	(326)	313	130	
<b>OTHER COMPREHENSIVE (LOSS) / INCOME, NET OF TAX</b>	(1,365)	9,589	(20,239)	
<b>TOTAL COMPREHENSIVE INCOME FOR THE YEAR</b>	35,428	38,961	21,850	
<b>PROFIT FOR THE YEAR ATTRIBUTABLE TO:</b>				
Owners of the Company	22,798	7,857	35,517	
Non-controlling interests	13,995	21,515	6,572	
	36,793	29,372	42,089	
<b>TOTAL COMPREHENSIVE INCOME FOR THE YEAR ATTRIBUTABLE TO:</b>				
Owners of the Company	23,685	15,814	18,965	
Non-controlling interests	11,743	23,147	2,885	
	35,428	38,961	21,850	
<b>BASIC AND DILUTED EARNINGS PER SHARE ATTRIBUTABLE TO OWNERS OF THE COMPANY(RMB)</b>	13	0.12	0.04	0.19

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

Table of Contents**PETROCHINA COMPANY LIMITED****CONSOLIDATED STATEMENTS OF FINANCIAL POSITION**

As of December 31, 2017 and 2016

(Amounts in millions)

	Notes	2017 RMB	2016 RMB
<b>NON-CURRENT ASSETS</b>			
Property, plant and equipment	15	1,702,813	1,739,545
Investments in associates and joint ventures	16	81,159	78,967
Available-for-sale financial assets	17	1,917	2,011
Advance operating lease payments	19	73,896	71,353
Intangible and other non-current assets	20	92,941	102,750
Deferred tax assets	30	26,724	20,360
<b>TOTAL NON-CURRENT ASSETS</b>		1,979,450	2,014,986
<b>CURRENT ASSETS</b>			
Inventories	21	144,669	146,865
Accounts receivable	22	53,143	47,315
Prepayments and other current assets	23	72,014	77,583
Notes receivable	24	19,215	11,285
Time deposits with maturities over three months but within one year		13,344	686
Cash and cash equivalents	25	122,777	97,931
<b>TOTAL CURRENT ASSETS</b>		425,162	381,665
<b>CURRENT LIABILITIES</b>			
Accounts payable and accrued liabilities	26	343,819	310,680
Income taxes payable		9,533	8,743
Other taxes payable		47,898	36,456
Short-term borrowings	27	175,417	143,384
<b>TOTAL CURRENT LIABILITIES</b>		576,667	499,263
<b>NET CURRENT LIABILITIES</b>		(151,505)	(117,598)
<b>TOTAL ASSETS LESS CURRENT LIABILITIES</b>		1,827,945	1,897,388
<b>EQUITY</b>			
<b>EQUITY ATTRIBUTABLE TO OWNERS OF THE COMPANY:</b>			
Share capital	28	183,021	183,021
Retained earnings		712,437	711,197

Reserves	29	298,062	294,806
<b>TOTAL EQUITY ATTRIBUTABLE TO OWNERS OF THE COMPANY</b>		1,193,520	1,189,024
<b>NON-CONTROLLING INTERESTS</b>		187,799	183,711
<b>TOTAL EQUITY</b>		1,381,319	1,372,735
<b>NON-CURRENT LIABILITIES</b>			
Long-term borrowings	27	289,858	372,887
Asset retirement obligations	31	131,546	125,392
Deferred tax liabilities	30	12,660	13,640
Other long-term obligations		12,562	12,734
<b>TOTAL NON-CURRENT LIABILITIES</b>		446,626	524,653
<b>TOTAL EQUITY AND NON-CURRENT LIABILITIES</b>		1,827,945	1,897,388

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



Table of Contents**PETROCHINA COMPANY LIMITED****CONSOLIDATED STATEMENTS OF CASH FLOWS****For the Years Ended December 31, 2017, 2016 and 2015****(Amounts in millions)**

	<b>2017</b>	<b>2016</b>	<b>2015</b>
	<b>RMB</b>	<b>RMB</b>	<b>RMB</b>
<b>CASH FLOWS FROM OPERATING ACTIVITIES</b>			
<b>Profit for the year</b>	36,793	29,372	42,089
Adjustments for:			
Income tax expense	16,296	15,768	15,726
Depreciation, depletion and amortization	237,375	218,147	202,875
Capitalized exploratory costs charged to expense	9,455	9,689	9,608
Safety fund reserve	327	1,614	1,434
Share of profit of associates and joint ventures	(5,968)	(4,105)	(1,504)
Provision for impairment of receivables, net	3,254	1,609	74
Write down in inventories, net	1,069	2,634	3,335
Impairment of available-for-sale financial assets		(2)	74
Impairment of other non-current assets	3,784	115	
Loss on disposal of property, plant and equipment	4,939	7,972	4,661
Remeasurement to fair value of pre-existing interest in acquiree			(22,807)
Gain on disposal of other non-current assets	(108)	(37)	(1,476)
Gain on disposal of subsidiaries	(613)	(24,674)	(280)
Dividend income		(60)	(288)
Interest income	(2,901)	(2,491)	(2,019)
Interest expense	22,408	23,348	24,328
Changes in working capital:			
Accounts receivable, prepaid expenses and other current assets	(2,779)	5,281	5,581
Inventories	1,141	(22,638)	36,256
Accounts payable and accrued liabilities	65,229	16,825	(28,163)
<b>CASH FLOWS GENERATED FROM OPERATIONS</b>	<b>389,701</b>	<b>278,367</b>	<b>289,504</b>
Income taxes paid	(23,046)	(13,188)	(28,192)
<b>NET CASH FLOWS FROM OPERATING ACTIVITIES</b>	<b>366,655</b>	<b>265,179</b>	<b>261,312</b>

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

Table of Contents**PETROCHINA COMPANY LIMITED****CONSOLIDATED STATEMENTS OF CASH FLOWS (CONTINUED)****For the Years Ended December 31, 2017, 2016 and 2015****(Amounts in millions)**

	<b>2017</b>	<b>2016</b>	<b>2015</b>
	<b>RMB</b>	<b>RMB</b>	<b>RMB</b>
<b>CASH FLOWS FROM INVESTING ACTIVITIES</b>			
Capital expenditures	(229,239)	(181,054)	(217,750)
Acquisition of investments in associates and joint ventures	(3,901)	(2,008)	(1,637)
Acquisition of available-for-sale financial assets	(16)	(400)	(625)
Prepayments on long-term operating leases	(3,928)	(2,586)	(2,524)
Acquisition of intangible assets and other non-current assets	(3,837)	(5,781)	(3,586)
Payments for acquisition of joint venture and subsidiaries	(1,106)		(6,496)
Proceeds from disposal of property, plant and equipment	1,146	2,127	1,923
Acquisition of subsidiaries			(17,855)
Proceeds from disposal of other non-current assets	921	991	16,987
Interest received	2,227	2,079	1,585
Dividends received	7,181	10,505	9,617
(Increase) / decrease in time deposits with maturities over three months	(12,994)	240	4,482
<b>NET CASH FLOWS USED FOR INVESTING ACTIVITIES</b>	<b>(243,546)</b>	<b>(175,887)</b>	<b>(215,879)</b>
<b>CASH FLOWS FROM FINANCING ACTIVITIES</b>			
Repayments of short-term borrowings	(578,129)	(458,780)	(530,808)
Repayments of long-term borrowings	(195,984)	(285,519)	(250,745)
Interest paid	(19,590)	(19,276)	(20,777)
Dividends paid to non-controlling interests	(12,621)	(2,401)	(5,314)
Dividends paid to owners of the Company	(19,626)	(8,450)	(29,005)
Increase in short-term borrowings	601,862	460,478	481,762
Increase in long-term borrowings	128,390	247,429	311,809
Capital contribution from non-controlling interests	1,470	940	1,596
Decrease in other long-term obligations	(497)	(1,428)	(3,957)
<b>NET CASH FLOWS USED FOR FINANCING ACTIVITIES</b>	<b>(94,725)</b>	<b>(67,007)</b>	<b>(45,439)</b>
<b>TRANSLATION OF FOREIGN CURRENCY</b>	<b>(3,538)</b>	<b>2,873</b>	<b>(999)</b>
Increase / (decrease) in cash and cash equivalents	24,846	25,158	(1,005)
Cash and cash equivalents at beginning of the year	97,931	72,773	73,778
Cash and cash equivalents at end of the year	122,777	97,931	72,773

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

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Table of Contents**PETROCHINA COMPANY LIMITED****CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY****For the Years Ended December 31, 2017, 2016 and 2015****(Amounts in millions)**

	Attributable to Owners of the Company				Non-controlling Interests RMB	Total Equity RMB
	Share Capital RMB	Retained Earnings RMB	Reserves RMB	Subtotal RMB		
Balance at January 1, 2015	183,021	707,303	285,570	1,175,894	141,887	1,317,781
Profit for the year ended December 31, 2015		35,517		35,517	6,572	42,089
Other comprehensive loss for the year ended December 31, 2015			(16,552)	(16,552)	(3,687)	(20,239)
Special reserve-safety fund reserve			1,303	1,303	131	1,434
Transfer to reserves		(2,103)	2,103			
Dividends		(29,005)		(29,005)	(5,515)	(34,520)
Acquisition of subsidiaries			12,530	12,530	23,755	36,285
Capital contribution from non-controlling interests					2,040	2,040
Other		43	(14)	29	(865)	(836)
Balance at December 31, 2015	183,021	711,755	284,940	1,179,716	164,318	1,344,034
Profit for the year ended December 31, 2016		7,857		7,857	21,515	29,372
Other comprehensive income for the year ended December 31, 2016			7,957	7,957	1,632	9,589
Special reserve-safety fund reserve			1,540	1,540	74	1,614
Dividends		(8,450)		(8,450)	(4,282)	(12,732)
Transaction with non-controlling interests in subsidiaries			224	224	(2,061)	(1,837)
Capital contribution from non-controlling interests					1,087	1,087
Other		35	145	180	1,428	1,608
Balance at December 31, 2016	183,021	711,197	294,806	1,189,024	183,711	1,372,735
Profit for the year ended December 31, 2017		22,798		22,798	13,995	36,793
Other comprehensive income / (loss) for the year ended December 31, 2017			887	887	(2,252)	(1,365)

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Special reserve-safety fund reserve		178	178	149	327	
Transfer to reserves	(1,929)	1,929				
Dividends	(19,626)		(19,626)	(10,404)	(30,030)	
Transaction with non-controlling interests in subsidiaries		289	289	649	938	
Capital contribution from non-controlling interests				2,584	2,584	
Other	(3)	(27)	(30)	(633)	(663)	
Balance at December 31, 2017	183,021	712,437	298,062	1,193,520	187,799	1,381,319

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

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**PETROCHINA COMPANY LIMITED**

**NOTES TO THE FINANCIAL STATEMENTS**

**(All amounts in millions, except for the per share data and otherwise stated)**

**1 ORGANISATION AND PRINCIPAL ACTIVITIES**

PetroChina Company Limited (the Company) was established as a joint stock company with limited liability on November 5, 1999 by China National Petroleum Corporation as the sole proprietor in accordance with the approval Guo Jing Mao Qi Gai [1999] No. 1024 Reply on the approval of the establishment of PetroChina Company Limited from the former State Economic and Trade Commission of the People's Republic of China (China or PRC). CNPC restructured (the Restructuring) and injected its core business and the related assets and liabilities into the Company. was renamed (CNPC before and after the change of name) on December 19, 2017. CNPC is a wholly state-owned company registered in China. The Company and its subsidiaries are collectively referred to as the Group.

The Group is principally engaged in (i) the exploration, development and production and marketing of crude oil and natural gas; (ii) the refining of crude oil and petroleum products, production and marketing of primary petrochemical products, derivative petrochemical products and other chemical products; (iii) the marketing of refined products and trading business; and (iv) the transmission of natural gas, crude oil and refined products and the sale of natural gas (Note 37).

**2 BASIS OF PREPARATION**

The consolidated financial statements have been prepared in accordance with the International Financial Reporting Standards (IFRSs) as issued by the International Accounting Standards Board (IASB). The consolidated financial statements have been prepared under the historical cost convention except as disclosed in the accounting policies below.

The preparation of financial statements in conformity with IFRSs requires the use of estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the statement of financial position and the reported amounts of revenues and expenses during the reporting period. Although these estimates are based on management's best knowledge of current events and actions, actual results may ultimately differ from those estimates. The areas involving a higher degree of judgment or complexity, or areas where assumptions and estimates are significant to the consolidated financial statements are disclosed in Note 5.

**3 SUMMARY OF PRINCIPAL ACCOUNTING POLICIES**

***(a) Basis of consolidation***

Subsidiaries are entities controlled by the Group. The Group controls an entity when it is exposed to, or has right to, variable returns from its involvement with the entity and has the ability to affect those returns through its power over the entity.

A subsidiary is consolidated from the date on which control is transferred to the Group and is no longer consolidated from the date that control ceases. The acquisition method of accounting is used to account for the acquisition of subsidiaries except for business combinations under common control. The consideration transferred for the acquisition of a subsidiary is the fair values of the assets transferred, the liabilities incurred and the equity interests issued by the Group. The consideration transferred includes the fair value of any asset or liability resulting from a contingent consideration arrangement. Acquisition-related costs are expensed as incurred. Identifiable assets acquired and liabilities and contingent liabilities assumed in a business combination are measured initially at their fair values at the acquisition date. On an acquisition-by-acquisition basis, the Group recognizes any non-controlling interests in the acquiree either at fair value or at the non-controlling interests' proportionate share of the acquiree's net assets.

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**PETROCHINA COMPANY LIMITED**

**NOTES TO THE FINANCIAL STATEMENTS (Continued)**

**(All amounts in millions, except for the per share data and otherwise stated)**

The excess of the consideration transferred, the amount of any non-controlling interests in the acquiree and the acquisition-date fair value of any previous equity interest in the acquiree over the fair value of the identifiable net assets is recorded as goodwill. If this is less than the fair value of the net assets of the subsidiary acquired in the case of a bargain purchase, the difference is recognized directly in the statement of comprehensive income.

An acquisition of a business which is a business combination under common control is accounted for in a manner similar to a uniting of interests whereby the assets and liabilities acquired are accounted for at carryover predecessor values to the other party to the business combination with all periods presented as if the operations of the Group and the business acquired have always been combined. The difference between the consideration paid by the Group and the net assets or liabilities of the business acquired is adjusted against equity.

Intercompany transactions, balances and unrealized gains on transactions between group companies are eliminated. Unrealized losses are also eliminated. Where necessary, accounting policies of subsidiaries have been changed to ensure consistency with the policies adopted by the Group.

A listing of the Group's principal subsidiaries is set out in Note 18.

***(b) Investments in associates***

Associates are entities over which the Group has significant influence but not control, generally accompanying a shareholding of between 20% and 50% of the voting rights. Investments in associates are accounted for by the equity method of accounting in the consolidated financial statements of the Group and are initially recognized at cost.

Under this method of accounting, the Group's share of the post-acquisition profits or losses of associates is recognized in the consolidated profit or loss and its share of post-acquisition movements in other comprehensive income is recognized in other comprehensive income. The cumulative post-acquisition movements are adjusted against the carrying amounts of the investments. When the Group's share of losses in an associate equals or exceeds its interest in the associate, including any other unsecured receivables, the Group does not recognize further losses, unless it has incurred obligations or made payments on behalf of the associate.

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. The Group's investment in associates includes goodwill identified on acquisition, net of any accumulated loss and is tested for impairment as part of the overall balance. Goodwill represents the excess of the cost of an acquisition over the fair value of the Group's share of the net identifiable assets of the acquired associate at the date of acquisition. Accounting policies of associates have been changed where necessary to ensure consistency with the policies adopted by the Group.

A listing of the Group's principal associates is shown in Note 16.



*(c) Investments in joint ventures*

Ventures are arrangements in which the Group with one or more parties have joint control, whereby the Group has rights to the net assets of the arrangements, rather than rights to their assets and obligations for their liabilities. The Group's interests in joint ventures are accounted for by the equity method of accounting (Note 3(b)) in the consolidated financial statements.

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**PETROCHINA COMPANY LIMITED**

**NOTES TO THE FINANCIAL STATEMENTS (Continued)**

**(All amounts in millions, except for the per share data and otherwise stated)**

A listing of the Group's principal joint ventures is shown in Note 16.

***(d) Transactions with non-controlling interests***

Transactions with non-controlling interests are treated as transactions with owners in their capacity as owners of the Group. Gains and losses resulting from disposals to non-controlling interests are recorded in equity. The differences between any consideration paid and the relevant share of the carrying value of net assets of the subsidiary acquired resulting from the purchase of non-controlling interests, are recorded in equity.

When the Group ceases to have control or significant influence, any retained interest in the entity is remeasured to its fair value, with the change in carrying amount recognized in profit or loss. The fair value is the initial carrying amount for the purposes of subsequently accounting for the retained interest as an associate, joint venture or financial asset. In addition, any amounts previously recognized in other comprehensive income in respect of that entity are accounted for as if the Group had directly disposed of the related assets or liabilities. This may mean that amounts previously recognized in other comprehensive income are reclassified to profit or loss.

If the ownership interest in an associate is reduced but significant influence is retained, only a proportionate share of the amounts previously recognized in other comprehensive income are reclassified to profit or loss where appropriate.

***(e) Foreign currencies***

Items included in the financial statements of each entity in the Group are measured using the currency of the primary economic environment in which the entity operates (the functional currency). Most assets and operations of the Group are located in the PRC (Note 37), and the functional currency of the Company and most of the consolidated subsidiaries is the Renminbi (RMB). The consolidated financial statements are presented in the presentation currency of RMB.

Foreign currency transactions of the Group are accounted for at the exchange rates prevailing at the respective dates of the transactions; monetary assets and liabilities denominated in foreign currencies are translated at exchange rates at the date of the statement of financial position; gains and losses resulting from the settlement of such transactions and from the translation of monetary assets and liabilities are recognized in the consolidated profit or loss.

For the Group entities that have a functional currency different from the Group's presentation currency, assets and liabilities for each statement of financial position presented are translated at the closing rate at the date of the statement of financial position. Income and expenses for each statement of comprehensive income presented are translated at the average exchange rates for each period and the resulting exchange differences are recognized in other comprehensive income.

***(f) Property, plant and equipment***

Property, plant and equipment, including oil and gas properties (Note 3(g)), are initially recorded in the consolidated statement of financial position at cost where it is probable that they will generate future economic benefits. Cost represents the purchase price of the asset and other costs incurred to bring the asset into existing use. Subsequent to their initial recognition, property, plant and equipment are carried at cost less accumulated depreciation, depletion and amortization (including any impairment).

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Table of Contents**PETROCHINA COMPANY LIMITED****NOTES TO THE FINANCIAL STATEMENTS (Continued)****(All amounts in millions, except for the per share data and otherwise stated)**

Depreciation, to write off the cost of each asset, other than oil and gas properties (Note 3(g)), to their residual values over their estimated useful lives is calculated using the straight-line method.

The Group uses the following useful lives for depreciation purposes:

Buildings	8 - 40 years
Equipment and machinery	4 - 30 years
Motor vehicles	4 - 14 years
Other	5 - 12 years

No depreciation is provided on construction in progress until the assets are completed and ready for use.

The assets' residual values and useful lives are reviewed, and adjusted if appropriate, at the end of each reporting period.

Property, plant and equipment, including oil and gas properties (Note 3(g)), are reviewed for possible impairment when events or changes in circumstances indicate that the carrying amount may not be recoverable. An impairment loss is recognized for the amount by which the carrying amount of a cash generating unit exceeds the higher of its fair value less costs to sell and its value in use. Value in use is the estimated net present value of future cash flows to be derived from the cash generating unit.

Gains and losses on disposals of property, plant and equipment are determined by reference to their carrying amounts and are recorded in the consolidated profit or loss.

Interest and other costs on borrowings to finance the construction of property, plant and equipment are capitalized during the period of time that is required to complete and prepare the asset for its intended use. Costs for repairs and maintenance activities are expensed as incurred except for costs of components that result in improvements or betterments which are capitalized as part of property, plant and equipment and depreciated over their useful lives.

***(g) Oil and gas properties***

The successful efforts method of accounting is used for oil and gas exploration and production activities. Under this method, all costs for development wells, support equipment and facilities, and proved mineral interests in oil and gas properties are capitalized. Geological and geophysical costs are expensed when incurred. Costs of exploratory wells are capitalized pending determination of whether the wells find proved oil and gas reserves. Proved oil and gas reserves are the estimated quantities of crude oil and natural gas, which, by analysis of geoscience and engineering data, can be estimated with reasonable certainty to be economically producible from a given date forward, from known reservoirs, and under existing economic conditions, operating methods, and government regulation before the time at which contracts providing the right to operate expire, unless evidence indicates that renewal is reasonably

certain, regardless of whether the estimate is a deterministic estimate or probabilistic estimate. Existing economic conditions include prices and costs at which economic producibility from a reservoir is to be determined. The price shall be the average price during the 12-month period before the ending date of the period covered by the proved oil and gas reserve report, determined as an unweighted arithmetic average of the first-day-of-the-month price for each month within such period unless prices are defined by contractual arrangements, excluding escalations based upon future conditions. The costs shall be that prevailing at the end of the period.

Exploratory wells in areas not requiring major capital expenditures are evaluated for economic viability within one year of completion of drilling. The related well costs are expensed as dry holes if it is determined that

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such economic viability is not attained. Otherwise, the related well costs are reclassified to oil and gas properties and are subject to impairment review (Note 3(f)). For exploratory wells that are found to have economically viable reserves in areas where major capital expenditure will be required before production can commence, the related well costs remain capitalized only if additional drilling is underway or firmly planned. Otherwise the related well costs are expensed as dry holes. The Group does not have any significant costs of unproved properties capitalized in oil and gas properties.

The Ministry of Land and Resources (Renamed as Department of Natural Resources) in China issues production licenses to applicants on the basis of the reserve reports approved by relevant authorities.

The cost of oil and gas properties is amortized at the field level based on the units of production method. Units of production rates are based on oil and gas reserves estimated to be recoverable from existing facilities based on the current terms of the Group's production licenses.

***(h) Intangible assets and goodwill***

Expenditures on acquired patents, trademarks, technical know-how and licenses are capitalized at historical cost and amortized using the straight-line method over their estimated useful lives. Intangible assets are not subsequently revalued. The carrying amount of each intangible asset is reviewed annually and adjusted for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. An impairment loss is recognized whenever the carrying amount of an asset exceeds its recoverable amount and is recognized in the consolidated profit or loss. The recoverable amount is measured as the higher of fair value less costs to sell and value in use. Value in use is the estimated net present value of future cash flows to be derived from the asset.

Goodwill arises on the acquisition of subsidiaries and represents the excess of the consideration transferred over the interest in net fair value of the net identifiable assets, liabilities and contingent liabilities of the acquiree and the amount of any non-controlling interests in the acquiree.

Goodwill impairment reviews are undertaken annually or more frequently if events or changes in circumstances indicate a potential impairment. The carrying value of goodwill is compared to the recoverable amount, which is the higher of value in use and the fair value less costs to sell. Any impairment is recognized immediately as an expense and is not subsequently reversed.

***(i) Financial assets***

Financial assets are classified into the following categories: financial assets at fair value through profit or loss, held-to-maturity investments, loans and receivables and available-for-sale financial assets. The classification depends on the purpose for which the financial assets were acquired. Management determines the classification of its financial assets at initial recognition. The Group has principally loans and receivables and available-for-sale financial assets and limited financial assets at fair value through profit or loss. The detailed accounting policies for loans and receivables,

available-for-sale financial assets and financial assets at fair value through profit or loss held by the Group are set out below:

***Classification***

*(i) Loans and receivables*

Loans and receivables are non-derivative financial assets with fixed or determinable payments that are not quoted in an active market. They are included in current assets, except for those with maturities greater than 12

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**PETROCHINA COMPANY LIMITED**

**NOTES TO THE FINANCIAL STATEMENTS (Continued)**

**(All amounts in millions, except for the per share data and otherwise stated)**

months after the date of the statement of financial position, which are classified as non-current assets. The Group's loans and receivables comprise accounts receivable, notes receivable and other receivables. The recognition methods for loans and receivables are disclosed in the respective policy notes.

*(ii) Available-for-sale financial assets*

Available-for-sale financial assets are non-derivatives that are either designated in this category or not classified in any of the other categories; these are included in non-current assets unless management intends to dispose of the investment within 12 months of the date of the statement of financial position. The Group's available-for-sale financial assets primarily comprise unquoted equity instruments.

*(iii) Financial assets at fair value through profit or loss*

Financial assets at fair value through profit or loss are financial assets held for trading. A financial asset is classified in this category if acquired principally for the purpose of selling in the short term. Derivatives are also categorized as held for trading unless they are designated as hedges. Assets in this category are classified as current assets if expected to be settled within 12 months; otherwise, they are classified as non-current.

**Recognition and measurement**

Regular purchases and sales of financial assets are recognized on the trade-date, the date on which the Group commits to purchase or sell the asset. Investments are initially recognized at fair value plus transaction costs for all financial assets not carried at fair value through profit or loss. Financial assets carried at fair value through profit or loss are initially recognized at fair value, and transaction costs are expensed in profit or loss. Financial assets are derecognized when the rights to receive cash flows from the investments have expired or have been transferred and the Group has transferred substantially all risks and rewards of ownership.

Available-for-sale financial assets are measured at fair value except where there are no quoted market prices in active markets and the fair values cannot be reliably measured using valuation techniques. Available-for-sale financial assets that do not have quoted market prices in active markets and whose fair value cannot be reliably measured are carried at cost. Changes in the fair value of monetary and non-monetary securities classified as available for sale are recognized in other comprehensive income. Financial assets at fair value through profit or loss are subsequently carried at fair value. Gains or losses arising from changes in the fair value of the financial assets at fair value through profit or loss category are presented in the statement of comprehensive income within other income, net in the period in which they arise.

The Group assesses at the end of each reporting period whether there is objective evidence that a financial asset is impaired. The amount of the impairment loss is measured as the difference between the carrying amount of the available-for-sale financial asset and the present value of the estimated cash flows.



*(j) Leases*

Leases of property, plant and equipment where the Group assumes substantially all the benefits and risks of ownership are classified as finance leases. The Group has no significant finance leases.

Leases of assets under which a significant portion of the risks and benefits of ownership are effectively retained by the lessors are classified as operating leases. Payments made under operating leases (net of any

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**Table of Contents****PETROCHINA COMPANY LIMITED****NOTES TO THE FINANCIAL STATEMENTS (Continued)****(All amounts in millions, except for the per share data and otherwise stated)**

incentives received from the lessors) are expensed on a straight-line basis over the lease terms. Payments made to the Department of Natural Resources to secure land use rights (excluding mineral properties) are treated as operating leases. Land use rights are generally obtained through advance lump-sum payments and the terms of use range up to 50 years.

***(k) Inventories***

Inventories include oil products, chemical products and materials and supplies which are stated at the lower of cost and net realizable value. Cost is primarily determined by the weighted average cost method. The cost of finished goods comprises raw materials, direct labor, other direct costs and related production overheads, but excludes borrowing costs. Net realizable value is the estimated selling price in the ordinary course of business, less the cost of completion and selling expenses.

***(l) Accounts receivable***

Accounts receivable are recognized initially at fair value and subsequently measured at amortized cost using the effective interest method, less provision made for impairment of these receivables. Such provision for impairment is established if there is objective evidence that the Group will not be able to collect amounts due according to the original terms of the receivables. The factors the Group considers when assessing whether an account receivable is impaired include but are not limited to significant financial difficulties of the customer, probability that the debtor will enter bankruptcy or financial reorganization and default or delinquency in payments. The amount of the provision is the difference between the asset's carrying amount and the present value of estimated future cash flows, discounted at the original effective interest rate.

***(m) Cash and cash equivalents***

Cash and cash equivalents comprise cash in hand, deposits held with banks and highly liquid investments with original maturities of three months or less from the time of purchase.

***(n) Accounts payable***

Accounts payable are recognized initially at fair value and subsequently measured at amortized cost using the effective interest method.

***(o) Borrowings***

Borrowings are recognized initially at fair value, net of transaction costs incurred. In subsequent periods, borrowings are stated at amortized cost using the effective interest method. Any difference between proceeds (net of transaction costs) and the redemption value is recognized in the consolidated profit or loss over the period of the borrowings.

General and specific 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 such time as the assets are substantially ready for their intended use or sale.

All other borrowing costs are recognized in profit or loss in the period in which they are incurred.

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**PETROCHINA COMPANY LIMITED**

**NOTES TO THE FINANCIAL STATEMENTS (Continued)**

**(All amounts in millions, except for the per share data and otherwise stated)**

Borrowings are classified as current liabilities unless the Group has unconditional rights to defer settlements of the liabilities for at least 12 months after the reporting period.

***(p) Taxation***

Deferred tax is provided in full, using the liability method, for temporary differences arising between the tax bases of assets and liabilities and their carrying values in the financial statements. However, deferred tax is not accounted for if it arises from initial recognition of an asset or liability in a transaction other than a business combination that at the time of the transaction affects neither accounting nor taxable profit or loss. Deferred tax is determined using tax rates that have been enacted or substantively enacted by the date of the statement of financial position and are expected to apply to the period when the related deferred tax asset is realized or deferred tax liability is settled.

The principal temporary differences arise from depreciation on oil and gas properties and equipment and provision for impairment of receivables, inventories, investments and property, plant and equipment. Deferred tax assets relating to the carry forward of unused tax losses are recognized to the extent that it is probable that future taxable income will be available against which the unused tax losses can be utilized.

The Group also incurs various other taxes and levies that are not income taxes. Taxes other than income taxes, which form part of operating expenses, primarily comprise consumption tax (Note 9), resource tax (Note 9), crude oil special gain levy, urban construction tax, education surcharges and business tax.

***(q) Revenue recognition***

Sales are recognized upon delivery of products and customer acceptance or performance of services, net of value added taxes and discounts. Revenues are recognized only when the Group has transferred to the buyer the significant risks and rewards of ownership of the goods in the ordinary course of the Group's activities, and when the amount of revenue and the costs incurred or to be incurred in respect of the transaction can be measured reliably and collectability of the related receivables is reasonably assured.

The Group markets a portion of its natural gas under take-or-pay contracts. Customers under the take-or-pay contracts are required to take or pay for the minimum natural gas deliveries specified in the contract clauses. Revenue recognition for natural gas sales and transmission tariff under the take-or-pay contracts follows the accounting policies described in this note. Payments received from customers for natural gas not yet taken are recorded as deferred revenues until actual deliveries take place.

***(r) Provisions***

Provisions are recognized when the Group has present legal or constructive obligations as a result of past events, it is probable that an outflow of resources will be required to settle the obligations, and reliable estimates of the amounts can be made.

Provision for future decommissioning and restoration is recognized in full on the installation of oil and gas properties. The amount recognized is the present value of the estimated future expenditure determined in accordance with local conditions and requirements. A corresponding addition to the related oil and gas properties of an amount equivalent to the provision is also created. This is subsequently depreciated as part of the costs of the oil and gas properties. Any change in the present value of the estimated expenditure other than due to passage of time which is regarded as interest expense, is reflected as an adjustment to the provision and oil and gas properties.

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**PETROCHINA COMPANY LIMITED**

**NOTES TO THE FINANCIAL STATEMENTS (Continued)**

**(All amounts in millions, except for the per share data and otherwise stated)**

***(s) Research and development***

Research expenditure incurred is recognized as an expense. Costs incurred on development projects are recognized as intangible assets to the extent that such expenditure is expected to generate future economic benefits.

***(t) Retirement benefit plans***

The Group contributes to various employee retirement benefit plans organized by PRC municipal and provincial governments under which it is required to make monthly contributions to these plans at prescribed rates for its employees in China. The relevant PRC municipal and provincial governments undertake to assume the retirement benefit obligations of existing and future retired employees of the Group in China. The Group has similar retirement benefit plans for its employees in its overseas operations. Contributions to these PRC and overseas plans ( defined contribution plan ) are charged to expense as incurred. In addition, the Group joined the corporate annuity plan approved by relevant PRC authorities. Contribution to the annuity plan is charged to expense as incurred. The Group currently has no additional material obligations outstanding for the payment of retirement and other post-retirement benefits of employees in the PRC or overseas other than what described above.

***(u) Related Parties***

(a) A person, or a close member of that person's family, is related to the Group if that person:

- (i) has control or joint control over the Group;
- (ii) has significant influence over the Group; or
- (iii) is a member of the key management personnel of the Group or the Group's parent.

(b) An entity is related to the Group if any of the following conditions applies:

- (i) The entity and the Group are members of the same group (which means that each parent, subsidiary and fellow subsidiary is related to the others).

- (ii) One entity is an associate or joint venture of the other entity (or an associate or joint venture of a member of a group of which the other entity is a member).
- (iii) Both entities are joint ventures of the same third party.
- (iv) One entity is a joint venture of a third entity and the other entity is an associate of the third entity.
- (v) The entity is a post-employment benefit plan for the benefit of employees of either the Group or an entity related to the Group.
- (vi) The entity is controlled or jointly controlled by a person identified in (a).
- (vii) A person identified in (a) (i) has significant influence over the entity or is a member of the key management personnel of the entity (or of a parent of the entity).
- (viii) The entity, or any member of a group of which it is a part, provides key management personnel services to the Group or to the Group's parent.

Close members of the family of a person are those family members who may be expected to influence, or be influenced by, that person in their dealings with the entity.

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**PETROCHINA COMPANY LIMITED**

**NOTES TO THE FINANCIAL STATEMENTS (Continued)**

**(All amounts in millions, except for the per share data and otherwise stated)**

***(v) New accounting developments***

**(i) New and amended standards adopted by the Group**

There are no IFRSs or IFRIC interpretations that are effective for the first time for the financial year beginning on or after January 1, 2017 that would be expected to have a material impact on the Group.

(ii) Standards, amendments and interpretations to existing standards that are not yet effective and have not been early adopted by the Group.

IFRS 9 *Financial Instruments* ( IFRS 9 ) published in July 2014, replaces the existing guidance in IAS 39 *Financial Instruments: Recognition and Measurement* ( IAS 39 ). IFRS 9 includes revised guidance on the classification and measurement of financial instruments, a new expected credit loss model for calculating impairment on financial assets, and new general hedge accounting requirements. It also carries forward the guidance on recognition and derecognition of financial instruments from IAS 39.

IFRS 9 is effective for annual reporting periods beginning on or after January 1, 2018, on a retrospective basis. The Group plans to use the exemption from restating comparative information and will recognise any transition adjustments against the opening balance of equity at January 1, 2018. The adoption of this standard is expected to have an impact on the Group's financial assets, but no impact on the Group's financial liabilities. Under IFRS 9, the Group has designated equity investments classified as available-for-sale that are held for long-term strategic purpose as measured at fair value through other comprehensive income. Consequently, all fair value gains and losses will be recorded in other comprehensive income, no impairment losses will be recognised in profit or loss and no gains and losses will be reclassified to profit or loss on disposal.

The new impairment model in IFRS 9 replaces the incurred loss model in IAS 39 with an expected credit loss model. Under the expected credit loss model, it will no longer be necessary for a loss event to occur before an impairment loss is recognized. Instead, an entity is required to recognize and measure either a 12-month expected credit loss or a lifetime expected credit loss, depending on the asset and the facts and circumstances. The Group expects that the application of the expected credit loss model will result in earlier recognition of credit losses. Based on a preliminary assessment, the Group does not expect material change to the loss allowance for the Group's loans and receivables.

IFRS 15 *Revenue from contracts with customers* ( IFRS 15 ) establishes a comprehensive framework for determining whether, how much and when revenue is recognised and expands disclosure requirements relating to revenue recognition policies and how these relate to the revenue-generating contractual performance obligations. It replaces existing revenue recognition guidance, including IAS 18 *Revenue*, IAS 11 *Construction Contracts* and IFRIC 13 *Customer Loyalty Programmes*.

IFRS 15 is effective for annual reporting periods beginning on or after January 1, 2018, with early adoption permitted. The Group plans to adopt IFRS 15 using the cumulative effect method, with the effect of initially applying this



standard recognised at the date of initial application. As a result, the Group will not apply the requirements of IFRS 15 to the comparative period presented. Based on the assessment of existing contracts with customers, the Group does not expect the application of IFRS 15 to have a significant impact on its consolidated financial statements.

IFRS 16 *Lease* ( IFRS 16 ) introduces a single, on-balance lease sheet accounting model for lessees. A lessee recognizes a right-of-use asset representing its right to use the underlying asset and a lease liability

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**PETROCHINA COMPANY LIMITED**

**NOTES TO THE FINANCIAL STATEMENTS (Continued)**

**(All amounts in millions, except for the per share data and otherwise stated)**

representing its obligation to make lease payments. IFRS 16 replaces existing leases guidance including IAS 17 *Leases*, IFRIC 4 *Determining whether an Arrangement contains a Lease*, SIC-15 *Operating Leases Incentives* and SIC-27 *Evaluating the Substance of Transactions Involving the Legal Form of a Lease*.

IFRS 16 is effective for annual periods beginning on or after January 1, 2019, with early adoption permitted for entities that apply IFRS 15 completed at or before the date of initial application of IFRS 16. The Group has started an initial assessment of the potential impact on its consolidated financial statements. So far, the most significant impact identified is that the Group will recognize new assets and liabilities for its operating leases of oil and gas stations and land use rights. In addition, the nature of expenses related to the operating leases will change as IFRS 16 replaces the straight-line operating lease expense with a depreciation charge for right-of-use assets and interest expense on lease liabilities. No significant impact on the consolidated financial statements is expected for the Group's finance leases.

**4 FINANCIAL RISK AND CAPITAL MANAGEMENT**

***4.1 Financial risk factors***

The Group's activities expose it to a variety of financial risks, including market risk, credit risk and liquidity risk.

***(a) Market risk***

Market risk is the possibility that changes in foreign exchange rates, interest rates and the prices of oil and gas products will adversely affect the value of assets, liabilities and expected future cash flows.

***(i) Foreign exchange risk***

The Group conducts its domestic business primarily in RMB, but maintains a portion of its assets in other currencies to pay for imported crude oil, imported equipment and other materials and to meet foreign currency financial liabilities. The Group is exposed to currency risks arising from fluctuations in various foreign currency exchange rates against the RMB. The RMB is not a freely convertible currency and is regulated by the PRC government. Limitations on foreign exchange transactions imposed by the PRC government could cause future exchange rates to vary significantly from current or historical exchange rates.

Additionally, the Group operates internationally and foreign exchange risk arises from future acquisitions and commercial transactions, recognized assets and liabilities and net investments in foreign operations. Certain entities in the Group might use currency derivatives to manage such foreign exchange risk.

***(ii) Interest rate risk***

The Group has no significant interest rate risk on interest-bearing assets. The Group's exposure to interest rate risk arises from its borrowings. The Group's borrowings at floating rates expose the Group to cash flow interest rate risk and its borrowings at fixed rates expose the Group to fair value interest rate risk. However, the exposure to interest rate risk is not material to the Group. A detailed analysis of the Group's borrowings, together with their respective interest rates and maturity dates, is included in Note 27.

***(iii) Price risk***

The Group is engaged in a wide range of oil and gas products-related activities. Prices of oil and gas products are affected by a wide range of global and domestic factors which are beyond the control of the Group.

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**PETROCHINA COMPANY LIMITED**

**NOTES TO THE FINANCIAL STATEMENTS (Continued)**

**(All amounts in millions, except for the per share data and otherwise stated)**

The fluctuations in such prices may have favorable or unfavorable impacts on the Group. The Group did not enter into any material hedging of its price risk during the year.

***(b) Credit risk***

Credit risk arises from cash and cash equivalents, time deposits with banks and credit exposure to customers with outstanding receivable balances.

A substantial portion of the Group's cash at bank and time deposits are placed with the major state-owned banks and financial institutions in China and management believes that the credit risk is low.

The Group performs ongoing assessment of the credit quality of its customers and sets appropriate credit limits taking into account the financial position and past history of defaults of customers. The Group's accounts receivable balances over 3 years have been substantially provided for and accounts receivable balances within one year are generally neither past due nor impaired. The aging analysis of accounts receivable (net of impairment of accounts receivable) is presented in Note 22. The Group's accounts receivable balances that are neither past due nor impaired are with customers with no recent history of default.

The carrying amounts of cash and cash equivalents, time deposits placed with banks, accounts receivable, other receivables and notes receivable included in the consolidated statement of financial position represent the Group's maximum exposure to credit risk. No other financial assets carry a significant exposure to credit risk.

The Group has no significant concentration of credit risk.

***(c) Liquidity risk***

Liquidity risk is the risk that the Group will encounter difficulty in meeting obligations associated with financial liabilities.

In managing its liquidity risk, the Group has access to funding at market rates through equity and debt markets, including using undrawn committed borrowing facilities to meet foreseeable borrowing requirements.

Given the low level of gearing and continued access to funding, the Group believes that its liquidity risk is not material.

Analysis of the Group's financial liabilities based on the remaining period at the date of the statement of financial position to the contractual maturity dates is presented in Note 27.

***4.2 Capital management***

The Group's objectives when managing capital are to safeguard its ability to continue as a going concern, optimize returns for owners and to minimize its cost of capital. In meeting its objectives of managing capital, the Group may issue new shares, adjust its debt levels or the mix between short-term and long-term borrowings.

The Group monitors capital on the basis of the gearing ratio which is calculated as interest-bearing borrowings / (interest-bearing borrowings + total equity). The gearing ratio at December 31, 2017 is 25.2% (December 31, 2016: 27.3%).

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**NOTES TO THE FINANCIAL STATEMENTS (Continued)**

**(All amounts in millions, except for the per share data and otherwise stated)**

***4.3 Fair value estimation***

The methods and assumptions applied in determining the fair value of each class of financial assets and financial liabilities of the Group at December 31, 2017 and 2016 are disclosed in the respective accounting policies.

The carrying amounts of the following financial assets and financial liabilities approximate their fair value as all of them are short-term in nature: cash and cash equivalents, time deposits with maturities over three months but within one year, accounts receivable, other receivables, trade payables, other payables and short-term borrowings. The fair values of fixed rate long-term borrowings are likely to be different from their respective carrying amounts. Analysis of the fair values and carrying amounts of long-term borrowings is presented in Note 27.

**5 CRITICAL ACCOUNTING ESTIMATES AND JUDGEMENTS**

Estimates and judgments are regularly evaluated and are based on historical experience and other factors, including expectations of future events that are believed to be reasonable under the circumstances.

The matters described below are considered to be the most critical in understanding the estimates and judgments that are involved in preparing the Group's consolidated financial statements.

***(a) Estimation of oil and gas reserves***

Estimates of oil and natural gas reserves are key elements in the Group's investment decision-making process. They are also an important element in testing for impairment. Changes in proved oil and gas reserves, particularly proved developed reserves, will affect unit-of-production depreciation, depletion and amortization recorded in the Group's consolidated financial statements for property, plant and equipment related to oil and gas production activities. A reduction in proved developed reserves will increase depreciation, depletion and amortization charges. Proved oil and gas reserves estimates are subject to revision, either upward or downward, based on new information, such as from development drilling and production activities or from changes in economic factors, including product prices, contract terms, evolution of technology or development plans, etc.

***(b) Estimation of impairment of property, plant and equipment***

Property, plant and equipment, including oil and gas properties, are reviewed for possible impairments when events or changes in circumstances indicate that the carrying amount may not be recoverable. Determination as to whether and how much an asset is impaired involves management estimates and judgments such as the future price of crude oil, refined and chemical products, the operation costs, the product mix, production volumes and the oil and gas reserves. However, the impairment reviews and calculations are based on assumptions that are consistent with the Group's business plans taking into account current economic conditions. Favorable changes to some assumptions, or not updating assumptions previously made, may allow the Group to avoid the need to impair any assets or make it

necessary to reverse an impairment loss recognized in prior periods, whereas unfavourable changes may cause the assets to become impaired. For example, when the assumed future price and production volume of crude oil used for the expected future cash flows are different from the actual price and production volume of crude oil respectively experienced in future, the Group may either over or under recognize the impairment losses for certain assets.

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Provision is recognized for the future decommissioning and restoration of oil and gas properties. The amount of the provision recognized is the present values of the estimated future expenditures. The estimation of the future expenditures is based on current local conditions and requirements, including legal requirements, technology, price levels, etc. In addition to these factors, the present values of these estimated future expenditures are also impacted by the estimation of the economic lives of oil and gas properties and estimates of discount rates. Changes in any of these estimates will impact the operating results and the financial position of the Group over the remaining economic lives of the oil and gas properties.

***(d) Deferred tax assets***

According to the requirements of the competent tax authority, the Company paid income taxes of its branches in the eastern and western regions in aggregate. The tax losses recorded by the branches in the eastern region has given rise to deferred tax assets, which may be recoverable from future taxable profits generated by the branches in the eastern region. Any policy adjustments may increase or decrease the amount of tax expenses of the Company.

**6 REVENUE**

Revenue represents revenues from the sale of crude oil, natural gas, refined products and petrochemical products and from the transmission of crude oil, refined products and natural gas. Analysis of revenue by segment is shown in Note 37.

**7 PROFIT BEFORE INCOME TAX EXPENSE**

	<b>2017</b>	<b>2016</b>	<b>2015</b>
	<b>RMB</b>	<b>RMB</b>	<b>RMB</b>
Items credited and charged in arriving at the profit before income tax expense include:			
<u>Credited</u>			
Dividend income from available-for-sale financial assets	42	60	288
Reversal of provision for impairment of receivables	37	62	99
Reversal of write down in inventories	49	75	59
Government grants <sup>(i)</sup>	9,102	8,509	7,906
Remeasurement to fair value of pre-existing interest in acquiree			22,807



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Gain on disposal of investment in subsidiaries <sup>(ii)</sup>	613	24,674	280
<b><u>Charged</u></b>			
Amortization of intangible and other assets	4,495	4,896	4,141
Auditors remuneration <sup>(iii)</sup>	53	53	53
Cost of inventories recognized as expense	1,560,361	1,217,131	1,282,039
Provision for impairment of receivables	3,291	1,671	173
Loss on disposal of property, plant and equipment	4,939	7,972	4,661
Operating lease expenses	20,073	19,027	16,786
Research and development expenses	12,323	11,227	11,856
Write down in inventories	1,118	2,709	3,394

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**Table of Contents****PETROCHINA COMPANY LIMITED****NOTES TO THE FINANCIAL STATEMENTS (Continued)****(All amounts in millions, except for the per share data and otherwise stated)**

- (i) Comprises proportionate refund of import value-added tax relating to the import of natural gas (including liquefied natural gas) provided by the PRC government. This value-added tax refund is applicable from January 1, 2011 to December 31, 2020 and available when the import prices of the natural gas and liquefied natural gas imported under any State-sanctioned pipelines are higher than their prescribed selling prices.
- (ii) On November 24, 2015, the Board of Directors approved the sale by CNPC Exploration and Development Co., Ltd. ( CNPC E&D ), one of the Company's wholly-owned subsidiaries, of its 50% of equity interest in Trans-Asia Gas Pipeline Co., Ltd. ( Trans-Asia Pipeline ) to CNIC Corporation Limited. The transaction was completed in the second quarter of 2016 and CNPC E&D lost control over Trans-Asia Pipeline accordingly. The gain recorded as Other (expenses) / income, net of RMB 24,534 represents the difference between the sum of total consideration equivalent to RMB 14,671 received from the transaction and the fair value of the remaining equity investment of RMB 14,527, and the net assets of the former subsidiary of RMB 4,034, together with the amounts of RMB 630 recognized previously in other comprehensive loss in relation to Trans-Asia Pipeline reclassified to profit or loss.
- (iii) The auditors' remuneration above represents the annual audit fees paid by the Company. This remuneration does not include fees of RMB 52 (2016: RMB 66, 2015: RMB 36) paid by subsidiaries to the Company's current auditor and its network firms which primarily relates to audit fees of RMB 40 (2016: RMB 50, 2015: RMB 29), audit-related fees of RMB 8 (2016: RMB 8, 2015: RMB 6) and tax fees of RMB 3 (2016: RMB 7, 2015: RMB nil), and other service fees of RMB 1 (2016: RMB 1, 2015: RMB 1).

**8 EMPLOYEE COMPENSATION COSTS**

	<b>2017</b>	<b>2016</b>	<b>2015</b>
	<b>RMB</b>	<b>RMB</b>	<b>RMB</b>
Wages, salaries and allowances	82,639	75,461	75,651
Social security costs	42,745	42,201	42,431
	125,384	117,662	118,082

Social security costs mainly represent contributions to plans for staff welfare organized by the PRC municipal and provincial governments and others including contributions to the retirement benefit plans (Note 32).

**9 TAXES OTHER THAN INCOME TAXES**

<b>2017</b>	<b>2016</b>	<b>2015</b>
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	<b>RMB</b>	<b>RMB</b>	<b>RMB</b>
Consumption tax	142,708	140,268	149,323
Resource tax	18,000	14,472	18,584
Other	37,314	34,868	37,977
	198,022	189,608	205,884

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(All amounts in millions, except for the per share data and otherwise stated)

**10 INTEREST EXPENSE**

	<b>2017</b>	<b>2016</b>	<b>2015</b>
	<b>RMB</b>	<b>RMB</b>	<b>RMB</b>
Interest on			
Bank loans	1,569	891	1,259
Other loans	17,394	19,910	19,892
Accretion expense (Note 31)	5,453	5,126	5,950
Less: Amounts capitalized	(2,008)	(2,579)	(2,773)
	22,408	23,348	24,328

Amounts capitalized are borrowing costs that are attributable to the construction of a qualifying asset. The average interest rate used to capitalize such general borrowing cost was 4.28% per annum for the year ended December 31, 2017 (2016: 4.28% per annum, 2015: 4.28%-5.76 % per annum).

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(All amounts in millions, except for the per share data and otherwise stated)

**11 EMOLUMENTS OF DIRECTORS AND SUPERVISORS**

Details of the emoluments of directors and supervisors for the years ended December 31, 2017, 2016 and 2015 are as follows:

Name	2017			2016	2015
	Fee for directors and supervisors RMB 000	Salaries, allowances and other benefits RMB 000	Contribution to retirement benefit scheme RMB 000	Total RMB 000	Total RMB 000
<b>Chairmen:</b>					
Mr. Wang Yilin <sup>(i)</sup>					
Mr. Zhou Jiping <sup>(i)</sup>					
<b>Vice Chairmen:</b>					
Mr. Zhang Jianhua <sup>(ii)</sup>					
Mr. Wang Dongjin <sup>(iii)</sup>		696	127	823	734
<b>Executive directors:</b>					
Mr. Zhao Zhengzhang <sup>(iv)</sup>		118	41	159	671
Mr. Hou Qijun <sup>(iv)</sup>		572	76	648	
<b>Non-executive directors:</b>					
Mr. Yu Baocai					
Mr. Shen Diancheng <sup>(vi)</sup>					
Mr. Liu Yuezhen					
Mr. Liu Hongbin <sup>(v)</sup>				679	699
Mr. Duan Liangwei <sup>(vi)</sup>					
Mr. Qin Weizhong <sup>(vi)</sup>					
Mr. Chen Zhiwu <sup>(vii)</sup>				234	220
Mr. Richard H. Matzke <sup>(vii)</sup>				241	230
Mr. Lin Boqiang	250			250	249
Mr. Zhang Biyi	250			250	252
Ms. Elsie Leung Oi-sie <sup>(vii)</sup>	220			220	
Mr. Tokuchi Tatsuhito <sup>(vii)</sup>	226			226	
Mr. Simon Henry <sup>(vii)</sup>	213			213	
	1,159			1,159	1,650

**Supervisors:**

Mr. Xu Wenrong <sup>(viii)</sup>					
Mr. Guo Jinping <sup>(viii)</sup>					
Mr. Zhang Fengshan					
Mr. Li Qingyi <sup>(viii)</sup>					
Mr. Jia Yimin <sup>(viii)</sup>					
Mr. Jiang Lifu					
Mr. Lu Yaozhong <sup>(viii)</sup>					
Mr. Wang Liang <sup>(x)</sup>					
Mr. Yao Wei <sup>(ix)</sup>				469	796
Mr. Liu Hehe <sup>(ix)</sup>				352	724
Mr. Yang Hua <sup>(viii)</sup>	201	49	250	862	838
Mr. Fu Suotang <sup>(viii)</sup>	525	46	571		
Mr. Li Jiamin	745	65	810	707	771
Mr. Liu Xianhua <sup>(ix)</sup>	671	62	733	528	
Mr. Li Wendong <sup>(ix)</sup>	788	96	884	670	
	2,930	318	3,248	3,588	3,129
	1,159	4,316	562	6,037	6,834
					6,184

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**PETROCHINA COMPANY LIMITED**

**NOTES TO THE FINANCIAL STATEMENTS (Continued)**

**(All amounts in millions, except for the per share data and otherwise stated)**

- (i) Mr. Wang Yilin was elected as the chairman from June 23, 2015, and Mr. Zhou Jiping ceased being the chairman from June 23, 2015.
- (ii) Mr. Zhang Jianhua was elected as the vice chairman and non-executive director from October 28, 2016.
- (iii) Mr. Wang Dongjin also serves as the president and executive director.
- (iv) Mr. Hou Qijun was elected as the vice president and executive director. Besides, Mr. Zhao Zhengzhang was elected as an executive director from June 23, 2015 and ceased being the executive director from June 8, 2017.
- (v) Mr. Liu Hongbin ceased being the vice chairman and was transferred from the executive director to the non-executive director from October 28, 2016, besides, received no emoluments from the Company since the next day.
- (vi) Mr. Shen Diancheng ceased being the non-executive director, and Mr. Duan Liangwei and Mr. Qin Weizhong were elected as the non-executive director from June 8, 2017.
- (vii) Ms. Elsie Leung Oi-sie, Mr. Tokuchi Tatsuhito and Mr. Simon Henry were elected as the independent non-executive directors, besides, Mr. Chen Zhiwu and Mr. Richard H. Matzke ceased being the independent non-executive directors from June 8, 2017.
- (viii) Mr. Xu Wenrong was elected as a non-executive director from May 25, 2016 and ceased being the non-executive from June 8, 2017. Mr. Xu Wenrong was elected as the Chairman of the Supervisory Committee and Mr. Lu Yaozhong was elected as the supervisor, besides, Mr. Guo Jinping, Mr. Li Qingyi and Mr. Jia Yimin ceased being the supervisors from June 8, 2017. Mr. Fu Suotang were elected as the staff supervisor, besides, Mr. Yang Hua ceased being the staff supervisor from June 8, 2017.
- (ix) Mr. Li Wendong and Mr. Liu Xianhua were elected as the staff supervisors, besides, Mr. Yao Wei and Mr. Liu Hehe ceased being the staff supervisors from May 17, 2016.
- (x) Mr. Wang Liang was elected as the supervisor from October 26, 2017.
- (xi) The emoluments received by the following person are not reflected in the analysis shown above: Mr. Liao Yongyuan ceased being the non-executive director and vice chairman from March 17, 2015, and emoluments received from the Company during the year 2017, 2016 and 2015 were RMB nil, RMB nil, respectively.
- (xii) The deferred performance emoluments of RMB 1.64 which the company paid to the directors attributable to the year of 2013 to 2015 in accordance with the relevant regulations of the Chinese Government are not reflected in the 2016 annual remuneration shown above.
- (xiii) The emoluments above are all pre-tax amounts.

None of the directors and supervisors has waived their remuneration during the year ended December 31, 2017. (2016: None of the directors and supervisors has waived their remuneration during the year ended December 31, 2016. 2015: None of the directors and supervisors has waived their remuneration during the year ended December 31, 2015)

The five highest paid individuals in the Company for the year ended December 31, 2017 include two supervisors whose emoluments are reflected in the analysis shown above and the note; and three senior managements whose allowances and other benefits were RMB 0.823, RMB 0.823 and RMB 0.732, respectively, and whose contribution to retirement benefit scheme were RMB 0.127, RMB 0.127 and RMB 0.127 respectively.

The five highest paid individuals in the Company for the year ended December 31, 2016 include two supervisors whose emoluments are reflected in the analysis shown above and the note; and three senior managements whose allowances and other benefits were RMB 0.783, RMB 0.783 and RMB 0.775, respectively, and whose contribution to retirement benefit scheme were RMB 0.122, RMB 0.122 and RMB 0.108, respectively.



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The five highest paid individuals in the Company for the year ended December 31, 2015 include three supervisors whose emoluments are reflected in the analysis shown above and the note; and two senior managements whose allowances and other benefits were RMB 0.780 and RMB 0.768, respectively, and whose contribution to retirement benefit scheme were RMB 0.130 and RMB 0.132, respectively.

During 2017, 2016 and 2015, the Company did not incur any severance payment to any director for loss of office or any payment as inducement to any director to join the Company.

**12 INCOME TAX EXPENSE**

	<b>2017</b>	<b>2016</b>	<b>2015</b>
	<b>RMB</b>	<b>RMB</b>	<b>RMB</b>
Current taxes	23,835	19,762	18,998
Deferred taxes (Note 30)	(7,539)	(3,994)	(3,272)
	16,296	15,768	15,726

In accordance with the relevant PRC income tax rules and regulations, the PRC corporate income tax rate applicable to the Group is principally 25%. Operations of the Group in western regions in China qualified for certain tax incentives in the form of a preferential income tax rate of 15% through the year 2020.

The tax on the Group's profit before taxation differs from the theoretical amount that would arise using the corporate income tax rate in the PRC applicable to the Group is as follows:

	<b>2017</b>	<b>2016</b>	<b>2015</b>
	<b>RMB</b>	<b>RMB</b>	<b>RMB</b>
Profit before income tax expense	53,089	45,140	57,815
Tax calculated at a tax rate of 25%	13,272	11,285	14,454
Tax return true-up	1,275	1,887	2,008
Effect of income taxes from international operations in excess of taxes at the PRC statutory tax rate	693	1,797	910
Effect of preferential tax rate	(5,058)	(2,418)	(5,436)
Tax effect of income not subject to tax	(3,401)	(4,935)	(2,875)
Tax effect of expenses not deductible for tax purposes	9,515	8,152	6,665

Income tax expense	16,296	15,768	15,726
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### **13 BASIC AND DILUTED EARNINGS PER SHARE**

Basic and diluted earnings per share for the years ended December 31, 2017, 2016 and 2015 have been computed by dividing profit for the year attributable to owners of the Company of RMB 22,798, RMB 7,857 and RMB 35,517 respectively by 183,021 million shares issued and outstanding for the year.

There are no potentially dilutive ordinary shares.

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**Table of Contents****PETROCHINA COMPANY LIMITED****NOTES TO THE FINANCIAL STATEMENTS (Continued)****(All amounts in millions, except for the per share data and otherwise stated)****14 DIVIDENDS**

	<b>2017</b>	<b>2016</b>	<b>2015</b>
	<b>RMB</b>	<b>RMB</b>	<b>RMB</b>
Interim dividends attributable to owners of the Company for 2017 <sup>(a)</sup>	12,676		
Proposed final dividends attributable to owners of the Company for 2017 <sup>(b)</sup>	11,117		
Interim dividends attributable to owners of the Company for 2016 <sup>(c)</sup>		3,899	
Final dividends attributable to owners of the Company for 2016 <sup>(d)</sup>		6,957	
Interim dividends attributable to owners of the Company for 2015 <sup>(e)</sup>			11,433
Final dividends attributable to owners of the Company for 2015 <sup>(f)</sup>			4,550
	23,793	10,856	15,983

- (a) Interim dividends attributable to owners of the Company in respect of 2017 of RMB 0.06926 yuan per share amounting to a total of RMB 12,676 were paid on September 15, 2017 (A shares) and October 27, 2017 (H shares).
- (b) At the 1st meeting of the Board in 2018, the Board of Directors proposed final dividends attributable to owners of the Company in respect of 2017 of RMB 0.06074 yuan per share amounting to a total of RMB 11,117. These consolidated financial statements do not reflect this dividend payable as the final dividends were proposed after the reporting period and will be accounted for in equity as an appropriation of retained earnings for the year ended December 31, 2018 when approved at the forthcoming Annual General Meeting.
- (c) Interim dividends attributable to owners of the Company in respect of 2016 of RMB 0.02131 yuan per share amounting to a total of RMB 3,899 were paid on September 21, 2016 (A shares) and October 28, 2016 (H shares).
- (d) Final dividends attributable to owners of the Company in respect of 2016 of RMB 0.03801 yuan per share amounting to a total of RMB 6,957 were paid on June 22, 2017 (A shares) and July 27, 2017 (H shares).
- (e) Interim dividends attributable to owners of the Company in respect of 2015 of RMB 0.06247 yuan per share amounting to a total of RMB 11,433 were paid on September 18, 2015 (A shares) and October 27, 2015 (H shares).
- (f) Final dividends attributable to owners of the Company in respect of 2015 of RMB 0.02486 yuan per share amounting to a total of RMB 4,550 were paid on June 8, 2016 (A shares) and July 14, 2016 (H shares).

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## PETROCHINA COMPANY LIMITED

## NOTES TO THE FINANCIAL STATEMENTS (Continued)

(All amounts in millions, except for the per share data and otherwise stated)

## 15 PROPERTY, PLANT AND EQUIPMENT

Year Ended December 31, 2017	Buildings RMB	Oil and Gas Properties RMB	Equipment and Machinery RMB	Motor Vehicles RMB	Other RMB	Construction in Progress RMB	Total RMB
<b>Cost</b>							
At beginning of the year	214,710	1,909,213	990,832	29,227	22,268	229,371	3,395,621
Additions	1,042	9,193	3,995	824	528	204,159	219,741
Transfers	13,913	124,257	75,284		10,506	(223,960)	
Disposals or write offs	(3,280)	(21,746)	(11,061)	(1,032)	(441)	(9,455)	(47,015)
Currency translation differences	(278)	(9,588)	(1,039)	(29)	(230)	(242)	(11,406)
At end of the year	226,107	2,011,329	1,058,011	28,990	32,631	199,873	3,556,941
<b>Accumulated depreciation and impairment</b>							
At beginning of the year	(85,323)	(1,063,500)	(469,475)	(19,467)	(11,971)	(6,340)	(1,656,076)
Charge for the year and others	(9,968)	(150,178)	(49,509)	(1,754)	(1,857)		(213,266)
Impairment charge	(659)	(3,961)	(10,300)	(3)	(2,715)	(309)	(17,947)
Disposals or write offs or transfers	2,075	11,426	9,663	921	(1,699)	3,664	26,050
Currency translation differences	110	6,472	532	7	12	(22)	7,111
At end of the year	(93,765)	(1,199,741)	(519,089)	(20,296)	(18,230)	(3,007)	(1,854,128)
<b>Net book value</b>							
At end of the year	132,342	811,588	538,922	8,694	14,401	196,866	1,702,813

Year Ended December 31, 2016	Buildings RMB	Oil and Gas Properties RMB	Equipment and Machinery RMB	Motor Vehicles RMB	Other RMB	Construction in Progress RMB	Total RMB
<b>Cost</b>							
At beginning of the year	205,204	1,799,887	953,331	29,586	21,018	236,804	3,245,830
Additions	979	7,995	3,202	624	416	161,336	174,552
Transfers	10,644	109,171	40,216		965	(160,996)	

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Disposals or write offs	(2,573)	(23,047)	(6,781)	(1,027)	(267)	(9,689)	(43,384)
Currency translation differences	456	15,207	864	44	136	1,916	18,623
At end of the year	214,710	1,909,213	990,832	29,227	22,268	229,371	3,395,621

**Accumulated depreciation and impairment**

At beginning of the year	(76,904)	(929,554)	(421,315)	(18,619)	(10,740)	(3,793)	(1,460,925)
Charge for the year and others	(9,677)	(141,530)	(47,750)	(1,753)	(1,297)		(202,007)
Impairment charge	(63)	(711)	(5,494)	(1)	(15)	(2,218)	(8,502)
Disposals or write offs or transfers	1,469	15,536	5,501	930	219	6	23,661
Currency translation differences	(148)	(7,241)	(417)	(24)	(138)	(335)	(8,303)
At end of the year	(85,323)	(1,063,500)	(469,475)	(19,467)	(11,971)	(6,340)	(1,656,076)

**Net book value**

At end of the year	129,387	845,713	521,357	9,760	10,297	223,031	1,739,545
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The impairment charge of the Group for the year ended December 31, 2017 amounted to RMB 17,947 (2016: RMB 8,502 primarily related to certain petrochemical and liquefied natural gas production facilities, 2015: RMB 25,022 primarily related to oil and gas properties) primarily related to certain oil and gas properties and petrochemical production facilities. The impairment of these properties is mainly due to the higher production costs and operating costs and the crude oil price fluctuating at a low level. The carrying amount of these assets has been reduced to the recoverable amount.

When determining whether there are indications of impairment for oil and gas properties, the Group considers factors, mainly including the decline of production and reserve volumes at the late development stage of certain oil blocks and the significant drop in economic benefits of certain oil blocks resulted from the higher production cost. The Group's subsidiaries or branches under the exploration and production segment will determine whether there are any indications of impairment for their own oil blocks according to the Group's guidance of indications of impairment for oil and gas properties, and perform the impairment tests on those oil blocks with indications of impairment, and report the results to the Group's internal professional team (including operation and finance team) for further overall assessment and evaluation. The final results of the impairment tests will be submitted to the Group's management for review and approval. The Group recorded impairment losses in 2017 related to oil and gas properties and construction in progress under the exploration and production segment due to the significant drop in economic benefits of certain oil blocks resulted from the higher production cost, and recorded impairment loss in 2016 and 2015 related to oil and gas properties and construction in progress under the exploration and production segment due to the fact that the international prices of crude oil significantly dropped as a result of the global economic downturn. In addition, the oil reserves of certain oil blocks decreased and the production costs of some super heavy oil blocks and ultra-low permeability oil blocks were high. The above factors jointly led to lower economic benefits of those oil blocks and the impairment losses for the oil and gas properties. The carrying amount of those impaired oil and gas properties was written down to their respective recoverable amounts, which were determined based on the present values of the expected future cash flows of the assets. The Group referred to the weighted average cost of capital of the oil and gas industry when determining discount rate, and made relevant adjustments according to specific risks in different countries or regions. In 2017, the after-tax discount rates adopted by most oil blocks of the Group ranged from 7.6% to 11.0% (2016: 7.1% to 10.3%, 2015: 7.0% to 10.0%).

The Group performs an impairment review to identify whether there is any indication that an asset may be impaired. When such an indication exists on those oil and gas properties identified, the Group follows the above procedure to estimate the recoverable amount of the assets. If the carrying amount of the oil and gas properties exceeds their recoverable amount, the carrying amount of the oil and gas properties will be written down to its recoverable amount.

The following table indicates the changes to the Group's exploratory well costs, which are included in construction in progress, for the years ended December 31, 2017, 2016 and 2015.

2017	2016	2015
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	<b>RMB</b>	<b>RMB</b>	<b>RMB</b>
At beginning of the year	21,421	20,177	20,878
Additions to capitalized exploratory well costs pending the determination of proved reserves	25,165	21,847	21,698
Reclassified to wells, facilities, and equipment based on the determination of proved reserves	(14,288)	(10,914)	(12,791)
Capitalized exploratory well costs charged to expense	(9,455)	(9,689)	(9,608)
At end of the year	22,843	21,421	20,177

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The following table provides an aging of capitalized exploratory well costs based on the date the drilling was completed.

	<b>December 31, 2017 RMB</b>	<b>December 31, 2016 RMB</b>
One year or less	15,231	13,202
Over one year	7,612	8,219
<b>Balance at December 31</b>	<b>22,843</b>	<b>21,421</b>

RMB 7,612 at December 31, 2017 (December 31, 2016: RMB 8,219) of capitalized exploratory well costs over one year are principally related to wells that are under further evaluation of drilling results or pending completion of development planning to ascertain economic viability.

**16 INVESTMENTS IN ASSOCIATES AND JOINT VENTURES**

The summarized financial information of the Group's principal associates and joint ventures, including the aggregated amounts of assets, liabilities, revenue, profit or loss and the interest held by the Group were as follows:

<b>Name</b>	<b>Country of Incorporation</b>	<b>Registered Capital</b>	<b>Principal Activities</b>	<b>Interest Held</b>	
				<b>Direct%</b>	<b>Indirect%</b>
Dalian West Pacific Petrochemical Co., Ltd.	PRC	USD 258 million	Production and sale of petroleum and petrochemical products	28.44	
China Petroleum Finance Co., Ltd. <sup>(i)</sup>	PRC	8,331	Deposits, loans, settlement, lending, bills acceptance discounting, guarantee and other banking business	32.00	
CNPC Captive Insurance Co., Ltd.	PRC	5,000	Property loss insurance, liability insurance, credit insurance and deposit insurance; as well as the	49.00	



			application of the above insurance reinsurance and insurance capital business	
China Marine Bunker (PetroChina) Co., Ltd.	PRC	1,000	Oil import and export trade and transportation, sale and storage	50.00
Arrow Energy Holdings Pty Ltd.	Australia	AUD 2	Exploration, development and sale of coal seam gas	50.00
Trans-Asia Gas Pipeline Co., Ltd. <sup>(ii)</sup>	PRC	5,000	Main contractor, investment holding, investment management, investment consulting, enterprise management advisory, technology development, promotion and technology consulting	50.00

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**Table of Contents****PETROCHINA COMPANY LIMITED****NOTES TO THE FINANCIAL STATEMENTS (Continued)****(All amounts in millions, except for the per share data and otherwise stated)**

- (i) In August 2016, China National Petroleum Corporation injected RMB 19,471 cash into China Petroleum Finance Co., Ltd. (the CP Finance ), of which RMB 2,890 and RMB 16,581 were recorded as Registered Capital and Capital Reserve , respectively. The registered capital of CP Finance was increased from RMB 5,441 to RMB 8,331. The Company s share was diluted from 49% to 32%, and the Company s share of net assets was increased RMB 307.
- (ii) On November 24, 2015, the board of directors of the Company approved the sale by CNPC Exploration and Development Co., Ltd. ( CNPC E&D ), one of the Company s subsidiaries, of its 50% equity interest in Trans-Asia Pipeline to CNIC Corporation Limited for a consideration equivalent to RMB 14,671. The transaction closed in the second quarter of 2016.

Dividends received and receivable from associates and joint ventures were RMB 7,034 in 2017 (2016: RMB 10,172, 2015: RMB 9,489).

In 2017, investments in associates and joint ventures of RMB 96 (2016: RMB 101, 2015: RMB 55) were disposed of, resulting in a gain of RMB 6 (2016: a loss of RMB 40, 2015: a gain of RMB 1,258).

In 2017, the share of profit and other comprehensive loss in all individually immaterial associates and joint ventures accounted for using equity method in aggregate was profit of RMB 3,235 (2016: profit of RMB 2,738, 2015: profit of RMB 3,846) and loss of RMB 845 (2016: loss of RMB 204, 2015: income of RMB 1,042), respectively.

**Interest in Associates**

Summarized financial information in respect of the Group s principal associates and reconciliation to carrying amount is as follows:

	<b>Dalian West Pacific Petrochemical Co., Ltd.</b>		<b>China Petroleum Finance Co., Ltd.</b>		<b>CNPC Captive Insurance Co., Ltd.</b>	
	<b>December 31, 2017</b>	<b>December 31, 2016</b>	<b>December 31, 2017</b>	<b>December 31, 2016</b>	<b>December 31, 2017</b>	<b>December 31, 2016</b>
	<b>RMB</b>	<b>RMB</b>	<b>RMB</b>	<b>RMB</b>	<b>RMB</b>	<b>RMB</b>
Percentage ownership interest (%)	28.44	28.44	32.00	32.00	49.00	49.00
Current assets	5,326	3,597	169,389	148,916	9,386	9,192
Non-current assets	4,141	4,373	309,481	270,507	2,764	2,166
Current liabilities	12,108	8,329	394,064	332,923	6,097	5,594
Non-current liabilities	333	5,217	24,977	29,998	1	1

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Net (liabilities) / assets	(2,974)	(5,576)	59,829	56,502	6,052	5,763
Group's share of net assets			19,145	18,080	2,965	2,824
Goodwill			349	349		
Carrying amount of interest in associates			19,494	18,429	2,965	2,824

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Table of Contents**PETROCHINA COMPANY LIMITED****NOTES TO THE FINANCIAL STATEMENTS (Continued)**

(All amounts in millions, except for the per share data and otherwise stated)

Summarized statement of comprehensive income is as follows:

	Dalian West Pacific Petrochemical Co., Ltd.			China Petroleum Finance Co., Ltd.			CNPC Captive Insurance Co., Ltd.		
	2017 RMB	2016 RMB	2015 RMB	2017 RMB	2016 RMB	2015 RMB	2017 RMB	2016 RMB	2015 RMB
Revenue	27,716	19,029	18,170	8,520	8,555	10,335	654	563	480
Profit for the year	2,602	1,475	(984)	7,286	7,524	5,839	364	302	286
Other comprehensive (loss) / income				(1,395)	655	294	1	2	1
Total comprehensive income / (loss)	2,602	1,475	(984)	5,891	8,179	6,133	365	304	287
Group's share of total comprehensive income				1,885	3,628	3,005	179	149	141
Dividends received by the Group				815	7,203	631	27		

**Interest in Joint Ventures**

Summarized balance sheet in respect of the Group's principal joint ventures and reconciliation to carrying amount is as follows:

	China Marine Bunker (PetroChina) Co., Ltd.		Arrow Energy Holdings Pty Ltd.		Trans-Asia Gas Pipeline Co., Ltd.	
	December 31, 2017 RMB	December 31, 2016 RMB	December 31, 2017 RMB	December 31, 2016 RMB	December 31, 2017 RMB	December 31, 2016 RMB
Percentage ownership interest (%)	50.00	50.00	50.00	50.00	50.00	50.00
Non-current assets	1,942	1,974	25,429	32,733	31,527	27,009
Current assets	6,449	6,453	540	708	3,957	4,045

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Including: cash and cash equivalents	1,277	1,461	91	368	3,955	4,025
Non-current liabilities	232	749	21,569	25,308	2,100	2,100
Including: Non-current financial liabilities excluding trade and other payables and provisions		500	17,890	16,304	2,100	2,100
Current liabilities	5,309	4,902	583	690	343	414
Including: Current financial liabilities excluding trade and other payables and provisions	1,894	1,188	192	316		
Net assets	2,850	2,776	3,817	7,443	33,041	28,540
Net assets attributable to owners of the Company	2,630	2,528	3,817	7,443	33,041	28,540
Group's share of net assets	1,315	1,264	1,909	3,722	16,521	14,270
Elimination of unrealized profit						
Elimination of transactions with the Group			(52)	(45)		
Carrying amount of interest in joint ventures	1,315	1,264	1,857	3,677	16,521	14,270

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(All amounts in millions, except for the per share data and otherwise stated)

Summarized statement of comprehensive income and dividends received by the Group is as follows:

	China Marine Bunker (PetroChina) Co., Ltd.			Arrow Energy Holdings Pty Ltd.			Trans-Asia Gas Pipeline Co., Ltd. From the closing 2017 late to Dec 31, 2016	
	2017 RMB	2016 RMB	2015 RMB	2017 RMB	2016 RMB	2015 RMB	2017 RMB	2016 RMB
Revenue	31,770	23,336	27,587	1,449	1,135	971	16	84
Depreciation, depletion and amortization	(93)	(92)	(88)	(883)	(624)	(484)	(3)	(3)
Interest income	12	9	35	2	5	6	65	55
Interest expense	(39)	(45)	(56)	(1,300)	(1,307)	(1,189)	(43)	(32)
Income tax expense	(44)	(47)	(33)					(1)
Net profit / (loss)	116	101	93	(5,518)	(3,718)	(10,753)	5,846	88
Total comprehensive income / (loss)	87	171	176	(3,445)	(3,402)	(12,934)	5,736	194
Total comprehensive income / (loss) by share	43	68	67	(1,723)	(1,701)	(6,467)	2,868	97
Elimination of unrealized profit							(617)	(354)
Group's share of total comprehensive income / (loss)	43	68	67	(1,723)	(1,701)	(6,467)	2,251	(257)
Dividends received by the Group		9	18					

**17 AVAILABLE-FOR-SALE FINANCIAL ASSETS**

	December 31, 2017 RMB	December 31, 2016 RMB
Available-for-sale financial assets	2,251	2,348
Less: Impairment losses	(334)	(337)

1,917

2,011

Available-for-sale financial assets comprise principally unlisted equity securities and bonds.

In 2017, available-for-sale financial assets of RMB 12 (2016: RMB 176, 2015: RMB 381) were disposed of, resulting in the realization of a gain of RMB 11 (2016: a gain of RMB 184, 2015: a gain of RMB 177).

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(All amounts in millions, except for the per share data and otherwise stated)

**18 SUBSIDIARIES**

The principal subsidiaries of the Group are:

<b>Company Name</b>	<b>Country of Incorporation</b>	<b>Issued Capital RMB</b>	<b>Type of Legal Entity</b>	<b>Attributable Equity Interest %</b>	<b>Voting Rights %</b>	<b>Principal Activities</b>
Daqing Oilfield Company Limited	PRC	47,500	Limited liability company	100.00	100.00	Exploration, production and sale of crude oil and natural gas
CNPC Exploration and Development Company Limited <sup>(i)</sup>	PRC	16,100	Limited liability company	50.00	57.14	Exploration, production and sale of crude oil and natural gas in and outside the PRC
PetroChina Hong Kong Limited	Hong Kong	HKD 7,592 million	Limited liability company	100.00	100.00	Investment holding. The principal activities of its subsidiaries, associates and joint ventures are the exploration, production and sale of crude oil in and outside the PRC as well as natural gas sale and transmission in the PRC
PetroChina International Investment Company Limited	PRC	31,314	Limited liability company	100.00	100.00	Investment holding. The principal activities of its



						subsidiaries and joint ventures are the exploration, development and production of crude oil, natural gas, oil sands and coalbed methane outside the PRC
PetroChina International Company Limited	PRC	18,096	Limited liability company	100.00	100.00	Marketing of refined products and trading of crude oil and petrochemical products, storage, investment in refining, chemical engineering, storage facilities, service station, and transportation facilities and related business in and outside the PRC

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(All amounts in millions, except for the per share data and otherwise stated)

<b>Company Name</b>	<b>Country of Incorporation</b>	<b>Issued Capital RMB</b>	<b>Type of Legal Entity</b>	<b>Attributable Equity Interest %</b>	<b>Voting Rights %</b>	<b>Principal Activities</b>
PetroChina Pipelines Co., Ltd.	PRC	80,000	Limited liability company	72.26	72.26	Oil and gas pipeline transportation, investment holding, import and export of goods, agency of import and export, import and export of technology, technology promotion service, professional contractor, main contractor

- (i) The Company consolidated the financial statements of the entity because it is exposed to, or has rights to, variable returns from its involvement with the entity and has the ability to affect those returns through its power over the entity.

Summarized financial information in respect of the Group's principal subsidiaries with significant non-controlling interests is as follows:

	<b>CNPC Exploration and Development Company Limited</b>		<b>PetroChina Pipelines Co., Ltd.</b>	
	<b>December 31, 2017</b>	<b>December 31, 2016</b>	<b>December 31, 2017</b>	<b>December 31, 2016</b>
	<b>RMB</b>	<b>RMB</b>	<b>RMB</b>	<b>RMB</b>
Percentage ownership interest (%)	50.00	50.00	72.26	72.26
Current assets	24,722	26,489	2,882	19,193
Non-current assets	133,328	134,510	232,842	235,023
Current liabilities	13,273	15,504	6,059	26,186
Non-current liabilities	13,211	11,648	8,408	12,344

Net assets	131,566	133,847	221,257	215,686
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Summarized statement of comprehensive income is as follows:

	<b>CNPC Exploration and Development Company Limited</b>			<b>PetroChina Pipelines Co., Ltd. (note)</b>		
	<b>2017</b>	<b>2016</b>	<b>2015</b>	<b>2017</b>	<b>2016</b>	<b>2015</b>
	<b>RMB</b>	<b>RMB</b>	<b>RMB</b>	<b>RMB</b>	<b>RMB</b>	<b>RMB</b>
Revenue	37,304	28,196	33,541	43,627	41,794	2,796
Profit from continuing operations	3,696	24,153	2,448	17,891	20,420	1,015
Total comprehensive (loss) / income	(1,050)	30,391	(7,889)	17,891	20,420	1,015
Profit attributable to non-controlling interests	2,390	12,414	1,292	4,963	5,664	282
Dividends paid to non-controlling interests	1,420	444	775	3,569		720

Note: PetroChina Pipelines Co., Ltd. was established in November 2015.

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(All amounts in millions, except for the per share data and otherwise stated)

Summarized statement of cash flows is as follows:

	CNPC Exploration and Development Company Limited			PetroChina Pipelines Co., Ltd. (note)		
	2017 RMB	2016 RMB	2015 RMB	2017 RMB	2016 RMB	2015 RMB
Net cash inflow from operating activities	18,545	9,053	8,293	31,160	30,270	2,554
Net cash (outflow) / inflow from investing activities	(12,304)	(18,036)	(2,762)	2,869	14,799	(19,434)
Net cash (outflow) / inflow from financing activities	(4,296)	(2,248)	(4,284)	(36,190)	(47,624)	21,744
Effect of foreign exchange rate changes on cash and cash equivalents	(2,183)	748	586			
Net (decrease) / increase in cash and cash equivalents	(238)	(10,483)	1,833	(2,161)	(2,555)	4,864
Cash and cash equivalents at the beginning of the year	18,220	28,703	26,870	2,309	4,864	
Cash and cash equivalents at the end of the year	17,982	18,220	28,703	148	2,309	4,864

Note: PetroChina Pipelines Co., Ltd. was established in November 2015.

**19 ADVANCE OPERATING LEASE PAYMENTS**

	December 31, 2017 RMB	December 31, 2016 RMB
Land use rights	55,095	53,653
Advance lease payments	18,801	17,700
	73,896	71,353

Advance operating lease payments are amortized over the related lease terms using the straight-line method.

**20 INTANGIBLE AND OTHER NON-CURRENT ASSETS**

	December 31, 2017			December 31, 2016		
	Cost RMB	Accumulated amortization RMB	Net RMB	Cost RMB	Accumulated amortization RMB	Net RMB
Patents and technical know-how	7,476	(5,620)	1,856	7,237	(5,219)	2,018
Computer software	10,638	(7,749)	2,889	9,614	(6,790)	2,824
Goodwill <sup>(i)</sup>	45,643	(3,709)	41,934	46,097		46,097
Other	20,128	(7,207)	12,921	19,134	(6,294)	12,840
<b>Intangible assets</b>	<b>83,885</b>	<b>(24,285)</b>	<b>59,600</b>	<b>82,082</b>	<b>(18,303)</b>	<b>63,779</b>
Other assets			33,341			38,971
			<b>92,941</b>			<b>102,750</b>

- (i) Goodwill primarily relates to the acquisition of Singapore Petroleum Company, Petroineos Trading Limited and PetroChina United Pipelines Co., Ltd., completed in 2009, 2011 and 2015, respectively. The

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recoverable amount of all cash-generating units has been determined based on value-in-use calculations. These calculations use post-tax cash flow projections based on financial budgets approved by management. The post-tax discount rates range from 8.9% to 10.5%, and reflect specific risks relating to the cash-generating unit. Based on the estimated recoverable amount, the impairment charge of the Group for the year ended December 31, 2017 amounted to RMB 3,709(2016: RMB Nil) primarily related to goodwill of PetroChina United Pipelines Co., Ltd..

**21 INVENTORIES**

	<b>December 31, 2017 RMB</b>	<b>December 31, 2016 RMB</b>
Crude oil and other raw materials	48,936	55,371
Work in progress	12,811	10,336
Finished goods	83,908	84,473
Spare parts and consumables	170	51
	145,825	150,231
Less: Write down in inventories	(1,156)	(3,366)
	144,669	146,865

**22 ACCOUNTS RECEIVABLE**

	<b>December 31, 2017 RMB</b>	<b>December 31, 2016 RMB</b>
Accounts receivable	57,914	49,338
Less: Provision for impairment of receivables	(4,771)	(2,023)
	53,143	47,315

The aging analysis of accounts receivable (net of impairment of accounts receivable) based on the invoice date (or date of revenue recognition, if earlier), at December 31, 2017 and 2016 is as follows:

	<b>December 31, 2017 RMB</b>	<b>December 31, 2016 RMB</b>
Within 1 year	51,051	43,686
Between 1 and 2 years	1,203	2,744
Between 2 and 3 years	379	437
Over 3 years	510	448
	<b>53,143</b>	<b>47,315</b>

The Group offers its customers credit terms up to 180 days.

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Movements in the provision for impairment of accounts receivable are as follows:

	<b>2017</b>	<b>2016</b>	<b>2015</b>
	<b>RMB</b>	<b>RMB</b>	<b>RMB</b>
At beginning of the year	2,023	523	516
Provision for impairment of accounts receivable	2,813	1,633	32
Receivables written off as uncollectible	(58)	(97)	(12)
Reversal of provision for impairment of accounts receivable	(7)	(36)	(13)
At end of the year	4,771	2,023	523

**23 PREPAYMENTS AND OTHER CURRENT ASSETS**

	<b>December 31,</b>	<b>December 31,</b>
	<b>2017</b>	<b>2016</b>
	<b>RMB</b>	<b>RMB</b>
Other receivables	16,535	13,206
Advances to suppliers	10,384	16,505
	26,919	29,711
Less: Provision for impairment	(2,824)	(2,386)
	24,095	27,325
Value-added tax to be deducted	39,203	36,010
Prepaid expenses	951	954
Prepaid income taxes		5,406
Other current assets	7,765	7,888
	72,014	77,583

**24 NOTES RECEIVABLE**

Notes receivable represent mainly bills of acceptance issued by banks for the sale of goods and performance of services. All notes receivable are due within one year.



**25 CASH AND CASH EQUIVALENTS**

The weighted average effective interest rate on bank deposits was 2.18% per annum for the year ended December 31, 2017 (2016: 1.36% per annum, 2015: 1.31% per annum).

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**Table of Contents****PETROCHINA COMPANY LIMITED****NOTES TO THE FINANCIAL STATEMENTS (Continued)**

(All amounts in millions, except for the per share data and otherwise stated)

**26 ACCOUNTS PAYABLE AND ACCRUED LIABILITIES**

	<b>December 31, 2017 RMB</b>	<b>December 31, 2016 RMB</b>
Trade payables	103,201	80,606
Advances from customers	67,176	60,590
Salaries and welfare payable	6,955	5,396
Accrued expenses	213	123
Dividends payable by subsidiaries to non-controlling shareholders	139	2,356
Interest payable	3,910	4,536
Construction fee and equipment cost payables	121,313	118,011
Loans borrowed from related parties		1,432
Other	40,912	37,630
	343,819	310,680

Other consists primarily of customer deposits.

The aging analysis of trade payables at December 31, 2017 and 2016 is as follows:

	<b>December 31, 2017 RMB</b>	<b>December 31, 2016 RMB</b>
Within 1 year	94,996	74,450
Between 1 and 2 years	4,241	3,293
Between 2 and 3 years	1,894	944
Over 3 years	2,070	1,919
	103,201	80,606

**27 BORROWINGS**

	<b>December 31, 2017 RMB</b>	<b>December 31, 2016 RMB</b>
Short-term borrowings excluding current portion of long-term borrowings	93,881	71,969
Current portion of long-term borrowings	81,536	71,415
	175,417	143,384
Long-term borrowings	289,858	372,887
	465,275	516,271

Borrowings of the Group of RMB 45,463 were guaranteed by CNPC, its fellow subsidiaries and a third party at December 31, 2017 (December 31, 2016: RMB 65,692).

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The Group's borrowings include secured liabilities totaling RMB 2,829 at December 31, 2017 (December 31, 2016: RMB 251).

	<b>December 31, 2017 RMB</b>	<b>December 31, 2016 RMB</b>
Total borrowings:		
interest free	130	145
at fixed rates	253,369	282,822
at floating rates	211,776	233,304
	<b>465,275</b>	<b>516,271</b>
Weighted average effective interest rates:		
bank loans	2.42%	1.86%
corporate debentures	3.62%	3.81%
medium-term notes	3.81%	3.86%
other loans	3.87%	3.77%

The borrowings by major currency at December 31, 2017 and December 31, 2016 are as follows:

	<b>December 31, 2017 RMB</b>	<b>December 31, 2016 RMB</b>
RMB	332,383	372,111
US Dollar	124,312	136,829
Other currency	8,580	7,331
	<b>465,275</b>	<b>516,271</b>

The fair values of the Group's long-term borrowings including the current portion of long-term borrowings are RMB 343,707 (December 31, 2016: RMB 438,805) at December 31, 2017. The carrying amounts of short-term borrowings approximate their fair values.

The fair values are based on discounted cash flows using applicable discount rates based upon the prevailing market rates of interest available to the Group for financial instruments with substantially the same terms and characteristics at the dates of the statement of financial position. Such discount rates ranged from -0.24% to 6.04% per annum as of

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December 31, 2017 (December 31, 2016: -0.09% to 4.90% per annum) depending on the type of the borrowings.

The following table sets out the borrowings remaining contractual maturities at the date of the statement of financial position, which are based on contractual undiscounted cash flows including principal and interest, and the earliest contractual maturity date:

	<b>December 31, 2017 RMB</b>	<b>December 31, 2016 RMB</b>
Within 1 year	189,050	160,572
Between 1 and 2 years	69,159	102,096
Between 2 and 5 years	191,879	209,653
After 5 years	70,179	106,879
	520,267	579,200

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Table of Contents**PETROCHINA COMPANY LIMITED****NOTES TO THE FINANCIAL STATEMENTS (Continued)**

(All amounts in millions, except for the per share data and otherwise stated)

Reconciliation of movements of borrowings to cash flows arising from financing activities:

	<b>Borrowings RMB</b>
<b>At 1 January 2017</b>	516,271
<b>Changes from financing cash flows:</b>	
Increase in borrowings	730,252
Repayments of borrowings	(773,940)
Other borrowing costs paid	(173)
Total changes from financing cash flows	(43,861)
<b>Exchange adjustments</b>	<b>(7,135)</b>
<b>At 31 December 2017</b>	<b>465,275</b>

**28 SHARE CAPITAL**

	<b>December 31, 2017 RMB</b>	<b>December 31, 2016 RMB</b>
Registered, issued and fully paid:		
A shares	161,922	161,922
H shares	21,099	21,099
	183,021	183,021

In accordance with the Restructuring Agreement between CNPC and the Company effective as of November 5, 1999, the Company issued 160 billion state-owned shares in exchange for the assets and liabilities transferred to the Company by CNPC. The 160 billion state-owned shares were the initial registered capital of the Company with a par value of RMB 1.00 yuan per share.

On April 7, 2000, the Company issued 17,582,418,000 shares, represented by 13,447,897,000 H shares and 41,345,210 ADSs (each representing 100 H shares) in a global initial public offering ( Global Offering ) and the trading of the H shares and the ADSs on the Stock Exchange of Hong Kong Limited and the New York Stock Exchange

commenced on April 7, 2000 and April 6, 2000, respectively. The H shares and ADSs were issued at prices of HK\$ 1.28 per H share and US\$ 16.44 per ADS respectively for which the net proceeds to the Company were approximately RMB 20 billion. The shares issued pursuant to the Global Offering rank equally with existing shares.

Pursuant to the approval of the China Securities Regulatory Commission, 1,758,242,000 state-owned shares of the Company owned by CNPC were converted into H shares for sale in the Global Offering.

On September 1, 2005, the Company issued an additional 3,196,801,818 new H shares at HK\$ 6.00 per share and net proceeds to the Company amounted to approximately RMB 19,692. CNPC also sold 319,680,182 state-owned shares it held concurrently with PetroChina's sale of new H shares in September 2005.

On October 31, 2007, the Company issued 4,000,000,000 new A shares at RMB 16.70 yuan per share and net proceeds to the Company amounted to approximately RMB 66,243 and the listing and trading of the A shares on the Shanghai Stock Exchange commenced on November 5, 2007.

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Following the issuance of the A shares, all the existing state-owned shares issued before November 5, 2007 held by CNPC have been registered with the China Securities Depository and Clearing Corporation Limited as A shares.

Shareholders' rights are governed by the Company Law of the PRC that requires an increase in registered capital to be approved by the shareholders in shareholders' general meetings and the relevant PRC regulatory authorities.

**29 RESERVES**

	<b>2017</b>	<b>2016</b>
	<b>RMB</b>	<b>RMB</b>
<b>Capital Reserve</b>		
Beginning balance	133,308	133,308
Ending balance	133,308	133,308
<b>Statutory Common Reserve Fund <sup>(a)</sup></b>		
Beginning balance	186,840	186,840
Transfer from retained earnings	1,929	
Ending balance	188,769	186,840
<b>Special Reserve-Safety Fund Reserve</b>		
Beginning balance	13,188	11,648
Safety fund reserve	178	1,540
Ending balance	13,366	13,188
<b>Currency Translation Differences</b>		
Beginning balance	(29,294)	(37,066)
Currency translation differences	1,249	7,772
Ending balance	(28,045)	(29,294)
<b>Other Reserves</b>		
Beginning balance	(9,236)	(9,790)
Equity transaction with non-controlling interests	289	224
Acquisition of subsidiaries	(1)	(259)
Fair value loss on available-for-sale financial assets	(36)	(128)
	(326)	313



Share of the other comprehensive (loss) / income of associates and joint ventures accounted for using the equity method		
Other	(26)	404
Ending balance	(9,336)	(9,236)
	298,062	294,806

- (a) Pursuant to the PRC regulations and the Company's Articles of Association, the Company is required to transfer 10% of its net profit, as determined under the PRC accounting regulations, to a Statutory Common Reserve Fund ( Reserve Fund ). Appropriation to the Reserve Fund may cease when the fund aggregates to 50% of the Company's registered capital. The transfer to this reserve must be made before distribution of dividends to shareholders.

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Table of Contents**PETROCHINA COMPANY LIMITED****NOTES TO THE FINANCIAL STATEMENTS (Continued)****(All amounts in millions, except for the per share data and otherwise stated)**

The Reserve Fund shall only be used to make good previous years' losses, to expand the Company's production operations, or to increase the capital of the Company. Upon approval of a resolution of shareholders' in a general meeting, the Company may convert its Reserve Fund into share capital and issue bonus shares to existing shareholders in proportion to their original shareholdings or to increase the nominal value of each share currently held by them, provided that the balance of the Reserve Fund after such issuance is not less than 25% of the Company's registered capital.

- (b) According to the relevant PRC regulations, the distributable reserve is the lower of the retained earnings computed under PRC accounting regulations and IFRS. As of December 31, 2017, the Company's distributable reserve amounted to RMB 572,252 (December 31, 2016: RMB 574,536).

**30 DEFERRED TAXATION**

Deferred taxation is calculated on temporary differences under the liability method using a principal tax rate of 25%.

The movements in the deferred taxation account are as follows:

	<b>Year Ended December 31,</b>		
	<b>2017</b>	<b>2016</b>	<b>2015</b>
	<b>RMB</b>	<b>RMB</b>	<b>RMB</b>
At beginning of the year	(6,720)	(3,807)	905
Transfer to profit and loss (Note 12)	(7,539)	(3,994)	(3,272)
Credit to other comprehensive income	195	1,081	(1,449)
Acquisition of subsidiaries			9
At end of the year	(14,064)	(6,720)	(3,807)

Deferred tax balances before offset are attributable to the following items:

	<b>December 31,</b>	<b>December 31,</b>
	<b>2017</b>	<b>2016</b>
	<b>RMB</b>	<b>RMB</b>
Deferred tax assets:		
Receivables and inventories	10,387	7,786

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Tax losses	27,911	30,438
Impairment of long-term assets	9,712	7,551
Other	7,613	7,184
Total deferred tax assets	55,623	52,959
Deferred tax liabilities:		
Accelerated tax depreciation	27,539	32,639
Other	14,020	13,600
Total deferred tax liabilities	41,559	46,239
Net deferred tax assets	14,064	6,720

Tax losses that can be carried forward to future years include deferred tax assets arising from the losses of the branches in the eastern region. The tax expenses of its branches in the eastern and western regions were paid in aggregate according to the requirements of the competent tax authority.

Table of Contents**PETROCHINA COMPANY LIMITED****NOTES TO THE FINANCIAL STATEMENTS (Continued)**

(All amounts in millions, except for the per share data and otherwise stated)

Deferred tax balances after offset are listed as follows:

	<b>December 31, 2017 RMB</b>	<b>December 31, 2016 RMB</b>
Deferred tax assets	26,724	20,360
Deferred tax liabilities	12,660	13,640

**31 ASSET RETIREMENT OBLIGATIONS**

	<b>2017 RMB</b>	<b>2016 RMB</b>	<b>2015 RMB</b>
At beginning of the year	125,392	117,996	109,154
Liabilities incurred	2,981	2,942	4,266
Liabilities settled	(2,012)	(843)	(677)
Accretion expense (Note 10)	5,453	5,126	5,950
Currency translation differences	(268)	171	(697)
At end of the year	131,546	125,392	117,996

Asset retirement obligations relate to oil and gas properties (Note 15).

**32 PENSIONS**

The Group participates in various employee retirement benefit plans (Note 3(t)). Expenses incurred by the Group in connection with the retirement benefit plans for the year ended December 31, 2017 amounted to RMB 16,010 (2016: RMB 16,184, 2015: RMB 16,357).

**33 CONTINGENT LIABILITIES****(a) Bank and other guarantees**

At December 31, 2017 and 2016, the Group did not guarantee related parties or third parties any significant borrowings or others.

***(b) Environmental liabilities***

China has adopted extensive environmental laws and regulations that affect the operation of the oil and gas industry. Under existing legislation, however, management believes that there are no probable liabilities, except for the amounts which have already been reflected in the consolidated financial statements, which may have a material adverse effect on the financial position of the Group.

***(c) Legal contingencies***

During the reporting period, the Group has complied with domestic and overseas significant laws and regulatory requirements. Notwithstanding certain insignificant lawsuits as well as other proceedings outstanding, management believes that any resulting liabilities will not have a material adverse effect on the financial position of the Group.

**Table of Contents****PETROCHINA COMPANY LIMITED****NOTES TO THE FINANCIAL STATEMENTS (Continued)****(All amounts in millions, except for the per share data and otherwise stated)*****(d) Group insurance***

The Group has insurance coverage for vehicles and certain assets that are subject to significant operating risks, third-party liability insurance against claims relating to personal injury, property and environmental damages that result from accidents and also employer liabilities insurance. The potential effect on the financial position of the Group of any liabilities resulting from future uninsured incidents cannot be estimated by the Group at present.

**34 COMMITMENTS*****(a) Operating lease commitments***

Operating lease commitments of the Group are mainly for leasing of land, buildings and equipment. Leases range from 1 to 50 years and usually do not contain renewal options. Future minimum lease payments as of December 31, 2017 and 2016 under non-cancellable operating leases are as follows:

	<b>December 31, 2017 RMB</b>	<b>December 31, 2016 RMB</b>
No later than 1 year	11,519	10,108
Later than 1 year and no later than 5 years	37,033	30,757
Later than 5 years	180,833	148,961
	229,385	189,826

***(b) Capital commitments***

At December 31, 2017, the Group's capital commitments contracted but not provided for mainly relating to property, plant and equipment were RMB 70,563 (December 31, 2016: RMB 59,664).

The operating lease and capital commitments above are transactions mainly with CNPC and its fellow subsidiaries.

***(c) Exploration and production licenses***

The Company is obligated to make annual payments with respect to its exploration and production licenses to the Department of Natural Resources. Payments incurred were RMB 609 for the year ended December 31, 2017 (2016: RMB 639, 2015: RMB 643).

According to the current policy, estimated annual payments for the next five years are as follows:

	<b>December 31, 2017 RMB</b>	<b>December 31, 2016 RMB</b>
Within one year	800	800
Between one and two years	800	800
Between two and three years	800	800
Between three and four years	800	800
Between four and five years	800	800

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**35 MAJOR CUSTOMERS**

The Group's major customers are as follows:

	2017		2016		2015	
	Revenue	Percentage	Revenue	Percentage	Revenue	Percentage
	RMB	of Total	RMB	of Total	RMB	of Total
		revenue		revenue		revenue
		%		%		%
China Petroleum & Chemical Corporation	65,767	3	39,481	2	33,482	2
CNPC and its fellow subsidiaries	92,173	5	91,094	6	80,045	5
	157,940	8	130,575	8	113,527	7

**36 RELATED PARTY TRANSACTIONS**

CNPC, the controlling shareholder of the Company, is a limited liability company directly controlled by the PRC government.

Related parties include CNPC and its fellow subsidiaries, their associates and joint ventures, other state-owned enterprises and their subsidiaries which the PRC government has control, joint control or significant influence over and enterprises which the Group is able to control, jointly control or exercise significant influence over, key management personnel of the Company and CNPC and their close family members.

**(a) Transactions with CNPC and its fellow subsidiaries, associates and joint ventures of the Group**

The Group has extensive transactions with other companies in CNPC and its fellow subsidiaries. Due to these relationships, it is possible that the terms of the transactions between the Group and other members of CNPC and its fellow subsidiaries are not the same as those that would result from transactions with other related parties or wholly unrelated parties.

The principal related party transactions with CNPC and its fellow subsidiaries, associates and joint ventures of the Group which were carried out in the ordinary course of business, are as follows:

On August 25, 2011, based on the terms of the Comprehensive Products and Services Agreement amended in 2008, the Company and CNPC entered into a new Comprehensive Products and Services Agreement (the Comprehensive



Products and Services Agreement ) for a period of three years which took effect on January 1, 2012. The Comprehensive Products and Services Agreement provides for a range of products and services which may be required and requested by either party. The products and services to be provided by CNPC and its fellow subsidiaries to the Group under the Comprehensive Products and Services Agreement include construction and technical services, production services, supply of material services, social services, ancillary services and financial services. The products and services required and requested by either party are provided in accordance with (1) government-prescribed prices; or (2) where there is no government-prescribed price, with reference to relevant market prices; or (3) where neither (1) nor (2) is applicable, the actual cost incurred or the agreed contractual price. On the basis of the existing Comprehensive Products and Services Agreement, the Company and CNPC entered into a new Comprehensive Products and Services Agreement on August 28, 2014 for a period of three years which took effect on January 1, 2015. The new Comprehensive Products and Services Agreement

**Table of Contents****PETROCHINA COMPANY LIMITED****NOTES TO THE FINANCIAL STATEMENTS (Continued)****(All amounts in millions, except for the per share data and otherwise stated)**

has already incorporated the terms of the current Comprehensive Products and Services Agreement which was amended in 2011. On the basis of the existing Comprehensive Products and Services Agreement, the Company and CNPC entered into a new Comprehensive Products and Services Agreement on August 24, 2017 for a period of three years which took effect on January 1, 2018. The new Comprehensive Products and Services Agreement has already incorporated the terms of the current Comprehensive Products and Services Agreement which was amended in 2014.

Sales of goods represent the sale of crude oil, refined products, chemical products and natural gas, etc. The total amount of these transactions amounted to RMB 113,306 for the year ended December 31, 2017 (2016: RMB 104,034, 2015: RMB 106,304).

Sales of services principally represent the provision of services in connection with the transportation of crude oil and natural gas, etc. The total amount of these transactions amounted to RMB 6,160 for the year ended December 31, 2017 (2016: RMB 5,053, 2015: RMB 6,919).

Purchases of goods and services principally represent construction and technical services, production services, social services, ancillary services and material supply services, etc. The total amount of these transactions amounted to RMB 338,178 for the year ended December 31, 2017 (2016: RMB 292,168, 2015: RMB 322,028).

Purchases of assets principally represent the purchases of manufacturing equipment, office equipment and transportation equipment, etc. The total amount of these transactions amounted to RMB 1,643 for the year ended December 31, 2017 (2016: RMB 1,058, 2015: RMB 1,141).

Amounts due from and to CNPC and its fellow subsidiaries, associates and joint ventures of the Group included in the following accounts captions are summarized as follows:

	<b>December 31, 2017 RMB</b>	<b>December 31, 2016 RMB</b>
Accounts receivable	10,219	6,657
Prepayments and other receivables	8,987	9,123
Other current assets	5,794	4,486
Other non-current assets	14,848	11,084

Accounts payable and accrued liabilities	66,001	64,772
Other non-current liabilities	3,053	3,755

Interest income represents interest from deposits placed with CNPC and its fellow subsidiaries. The total interest income amounted to RMB 424 for the year ended December 31, 2017 (2016: RMB 224, 2015: RMB 304). The balance of deposits at December 31, 2017 was RMB 25,903 (December 31, 2016: RMB 32,626).

Purchases of financial service principally represents interest charged on the loans from CNPC and its fellow subsidiaries, insurance fee, etc. The total amount of these transactions amounted to RMB 11,021 for the year ended December 31, 2017 (2016: RMB 12,139, 2015: RMB 14,739).

The borrowings from CNPC and its fellow subsidiaries at December 31, 2017 were RMB 208,395 (December 31, 2016: RMB 255,285).

Rents and other payments made under financial leasing represent the payable by the Group (including all rents, leasing service fees and prices for exercising purchase options) for the period according to the financial leasing agreements entered into by the Group and CNPC and its fellow subsidiaries. The total

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**Table of Contents****PETROCHINA COMPANY LIMITED****NOTES TO THE FINANCIAL STATEMENTS (Continued)****(All amounts in millions, except for the per share data and otherwise stated)**

rents and other payments made under financial leasing amounted to RMB 835 for the year ended December 31, 2017 (2016: RMB 819, 2015: RMB 238).

On August 25, 2011, based on the Land Use Rights Leasing Contract signed in 2000, the Company and CNPC entered into a Supplemental Land Use Rights Leasing Contract which took effect on January 1, 2012. The Supplemental Land Use Rights Leasing Contract provides for the lease of land covering an aggregate area of approximately 1,783 million square meters located throughout the PRC at a maximal annual fee (exclusive of tax and government charges) of RMB 3,892. The Supplemental Land Use Rights Leasing Contract will expire at the same time as the Land Use Rights Leasing Contract. The area and total fee payable for the lease of all such property may be adjusted with the Company's operating needs and by reference to market price every three years. The Company and CNPC each issued a confirmation letter to the Land Use Rights Leasing Contract on August 28, 2014, which adjusted the rental payable and the area for the leased land parcels. The Company agreed to rent from CNPC parcels of land with an aggregate area of approximately 1,777 million square meters with rental payable (exclusive of tax and government charges) adjusted to no more than RMB 4,831 in accordance with the area of leased land parcels and the current situation of the property market. The Land Use Rights Leasing Contract shall remain unchanged, apart from the rental payable and the leased area. The confirmation letter shall be effective from January 1, 2015. The Company and CNPC each issued a confirmation letter to the Land Use Rights Leasing Contract on August 24, 2017, which adjusted the rental payable and the area for the leased land parcels. The Company agreed to rent from CNPC parcels of land with an aggregate area of approximately 1,773 million square meters with annual rental payable (exclusive of tax and government charges) adjusted to no more than RMB 5,783 in accordance with the area of leased land parcels and the current situation of the property market. The Land Use Rights Leasing Contract shall remain unchanged, apart from the rental payable and the leased area. The confirmation letter shall be effective from January 1, 2018.

On August 25, 2011, based on the Buildings Leasing Contract and Supplemental Building Leasing Agreement, the Company and CNPC entered into a Revised Buildings Leasing Contract which took effect thereafter. Under this contract, buildings covering an aggregate area of 734,316 square meters were leased at an average annual fee of RMB 1,049 yuan per square meter. The Revised Building Leasing Contract will expire at the same time as the Building Leasing Agreement. The area and total fee payable for the lease of all such property may, every three years, be adjusted with the Company's operating needs and by reference to market price which the adjusted prices will not exceed. The Company and CNPC each issued a confirmation letter to the Building Leasing Contract on August 28, 2014, which adjusted the rental payable and the gross floor area for the buildings leased. The Company agreed to lease from CNPC buildings with an aggregate gross floor area of approximately 1,179,586 square meters with rental payable adjusted to approximately RMB 708 in accordance with the gross floor area leased and the current situation of the market. The Building Leasing Contract shall remain unchanged apart from the rental payable and the gross floor area leased. The confirmation letter shall be effective from January 1, 2015. On August 24, 2017, based on the Buildings Leasing Contract and Supplemental Building Leasing Agreement, the Company and CNPC entered into a Revised Buildings Leasing Contract which took effect on January 1, 2018. Under this contract, buildings covering an aggregate area of 1,152,968 square meters were leased at annual rental payable approximately RMB 730. The Revised Building Leasing Contract will expire at Dec 31, 2037. The area and total fee payable for the lease of all such property may, every three years, be adjusted with the Company's operating needs and by reference to market price which the adjusted prices will not exceed.



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	Year End December 31,		
	2017	2016	2015
	RMB 000	RMB 000	RMB 000
Emoluments and other benefits	11,779	12,549	11,256
Contribution to retirement benefit scheme	1,645	1,712	1,915
	13,424	14,261	13,171

Note: Emoluments set out above for the year ended December 31, 2017 exclude RMB nil paid to key management of the Company of the deferred merit pay in accordance with relevant requirements by the PRC government (2016: RMB 1.64, 2015: RMB nil) .

***(c) Transactions with other state-controlled entities in the PRC***

Apart from transactions with CNPC and its fellow subsidiaries, associates and joint ventures of the Group, the Group's transactions with other state-controlled entities include but is not limited to the following:

Sales and purchases of goods and services,

Purchases of assets,

Lease of assets; and

Bank deposits and borrowings

These transactions are conducted in the ordinary course of the Group's business.

**37 SEGMENT INFORMATION**

The Group is principally engaged in a broad range of petroleum related products, services and activities. The Group's operating segments comprise: Exploration and Production, Refining and Chemicals, Marketing, and Natural Gas and Pipeline. On the basis of these operating segments, the management of the Company assesses the segmental operating results and allocates resources. Sales between operating segments are conducted principally at market prices. Additionally, the Group presents geographical information based on entities located in regions with a similar risk profile.

The Exploration and Production segment is engaged in the exploration, development, production and marketing of crude oil and natural gas.

The Refining and Chemicals segment is engaged in the refining of crude oil and petroleum products, production and marketing of primary petrochemical products, derivative petrochemical products and other chemical products.

The Marketing segment is engaged in the marketing of refined products and the trading business.

The Natural Gas and Pipeline segment is engaged in the transmission of natural gas, crude oil and refined products and the sale of natural gas.

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The Head Office and Other segment relates to cash management and financing activities, the corporate center, research and development, and other business services supporting the operating business segments of the Group.

The accounting policies of the operating segments are the same as those described in Note 3 Summary of Principal Accounting Policies .

The segment information for the operating segments for the years ended December 31, 2017, 2016 and 2015 are as follows:

	<b>Year Ended December 31, 2017</b>					
	<b>Exploration and Production RMB</b>	<b>Refining and Chemicals RMB</b>	<b>Marketing RMB</b>	<b>Natural Gas and Pipeline RMB</b>	<b>Head Office and Other RMB</b>	<b>Total RMB</b>
Revenue	505,430	707,804	1,660,456	295,786	2,057	3,171,533
Less: intersegment sales	(409,303)	(535,515)	(179,692)	(30,476)	(657)	(1,155,643)
Revenue from external customers	96,127	172,289	1,480,764	265,310	1,400	2,015,890
Depreciation, depletion and amortization	(169,484)	(32,319)	(12,734)	(21,146)	(1,692)	(237,375)
Including: Impairment losses						
of property, plant and equipment	(6,565)	(10,223)	(7)	(1,150)	(2)	(17,947)
Profit / (loss) from operations	15,475	39,961	8,279	15,688	(11,681)	67,722
Finance costs:						
Exchange gain						8,217
Exchange loss						(9,311)
Interest income						2,901
Interest expense						(22,408)
Total net finance costs						(20,601)
Share of profit / (loss) of associates and joint ventures	1,716	(89)	1,501	279	2,561	5,968
Profit before income tax expense						53,089



Income tax expense						(16,296)
Profit for the year						36,793
Segment assets	1,211,912	318,299	397,813	519,249	1,357,803	3,805,076
Other assets						26,724
Investments in associates and joint ventures	39,517	1,375	11,938	5,534	22,795	81,159
Elimination of intersegment balances <sup>(a)</sup>						(1,508,347)
Total assets						2,404,612
Capital expenditures	161,997	17,705	10,982	24,529	1,014	216,227
Segment liabilities	525,085	79,989	199,340	120,244	589,460	1,514,118
Other liabilities						70,091
Elimination of intersegment balances <sup>(a)</sup>						(560,916)
Total liabilities						1,023,293

**Table of Contents****PETROCHINA COMPANY LIMITED****NOTES TO THE FINANCIAL STATEMENTS (Continued)**

(All amounts in millions, except for the per share data and otherwise stated)

**Year Ended December 31, 2016**

	<b>Exploration and Production RMB</b>	<b>Refining and Chemicals RMB</b>	<b>Marketing RMB</b>	<b>Natural Gas and Pipeline RMB</b>	<b>Head Office and Other RMB</b>	<b>Total RMB</b>
Revenue	412,484	582,510	1,301,616	247,477	2,197	2,546,284
Less: intersegment sales	(335,716)	(438,853)	(126,344)	(27,784)	(684)	(929,381)
Revenue from external customers	76,768	143,657	1,175,272	219,693	1,513	1,616,903
Depreciation, depletion and amortization	(155,192)	(25,475)	(12,891)	(22,743)	(1,846)	(218,147)
Including: Impairment losses of property, plant and equipment	(882)	(3,413)	(2)	(4,205)		(8,502)
Profit / (loss) from operations	3,148	39,026	11,048	17,885	(10,472)	60,635
Finance costs:						
Exchange gain						12,828
Exchange loss						(11,571)
Interest income						2,491
Interest expense						(23,348)
Total net finance costs						(19,600)
Share of (loss) / profit of associates and joint ventures	(158)	13	552	204	3,494	4,105
Profit before income tax expense						45,140
Income tax expense						(15,768)
Profit for the year						29,372
Segment assets	1,260,009	324,357	384,123	546,485	1,434,141	3,949,115
Other assets						25,766
Investments in associates and joint ventures	42,398	1,262	10,455	3,305	21,547	78,967
Elimination of intersegment balances <sup>(a)</sup>						(1,657,197)
Total assets						2,396,651

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Capital expenditures	130,248	12,847	7,983	20,340	968	172,386
Segment liabilities	536,284	124,076	183,159	150,855	668,353	1,662,727
Other liabilities						58,839
Elimination of intersegment balances <sup>(a)</sup>						(697,650)
Total liabilities						1,023,916

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**Table of Contents****PETROCHINA COMPANY LIMITED****NOTES TO THE FINANCIAL STATEMENTS (Continued)**

(All amounts in millions, except for the per share data and otherwise stated)

**Year Ended December 31, 2015**

	<b>Exploration and Production RMB</b>	<b>Refining and Chemicals RMB</b>	<b>Marketing RMB</b>	<b>Natural Gas and Pipeline RMB</b>	<b>Head Office and Other RMB</b>	<b>Total RMB</b>
Revenue	475,412	642,428	1,383,426	281,778	2,507	2,785,551
Less: intersegment sales	(384,423)	(502,007)	(146,719)	(26,259)	(715)	(1,060,123)
Revenue from external customers	90,989	140,421	1,236,707	255,519	1,792	1,725,428
Depreciation, depletion and amortization	(148,958)	(24,400)	(12,974)	(14,489)	(2,054)	(202,875)
Including: Impairment losses of property, plant and equipment	(22,922)	(1,843)	(191)	(66)		(25,022)
Profit/ (loss) from operations	33,961	4,883	(500)	51,231	(10,323)	79,252
Finance costs:						
Exchange gain						9,536
Exchange loss						(10,168)
Interest income						2,019
Interest expense						(24,328)
Total net finance costs						(22,941)
Share of (loss) / profit of associates and joint ventures	(5,599)	66	(156)	4,206	2,987	1,504
Profit before income tax expense						57,815
Income tax expense						(15,726)
Profit for the year						42,089
Segment assets	1,221,942	311,149	343,721	597,240	1,518,486	3,992,538
Other assets						28,043
Investments in associates and joint ventures	32,413	1,249	9,517	3,424	24,373	70,976
Elimination of intersegment balances <sup>(a)</sup>						(1,697,713)
Total assets						2,393,844

Capital expenditures	157,822	15,725	7,061	20,360	1,270	202,238
Segment liabilities	511,098	114,888	148,556	206,920	727,579	1,709,041
Other liabilities						47,261
Elimination of intersegment balances <sup>(a)</sup>						(706,492)
Total liabilities						1,049,810

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**Table of Contents****PETROCHINA COMPANY LIMITED****NOTES TO THE FINANCIAL STATEMENTS (Continued)****(All amounts in millions, except for the per share data and otherwise stated)****Geographical information**

Year Ended December 31,	Revenue			Non-current assets <sup>(b)</sup>		
	2017 RMB	2016 RMB	2015 RMB	2017 RMB	2016 RMB	2015 RMB
Mainland China	1,294,516	1,101,055	1,185,189	1,711,605	1,739,351	1,796,288
Other	721,374	515,848	540,239	239,204	253,264	228,416
	2,015,890	1,616,903	1,725,428	1,950,809	1,992,615	2,024,704

(a) Elimination of intersegment balances represents elimination of intersegment accounts and investments.

(b) Non-current assets mainly include non-current assets other than financial instruments and deferred tax assets.

**38 APPROVAL OF FINANCIAL STATEMENTS**

The financial statements were approved by the Board of Directors on April 27, 2018.

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**PETROCHINA COMPANY LIMITED**  
**SUPPLEMENTARY INFORMATION ON OIL AND GAS EXPLORATION**  
**AND PRODUCTION ACTIVITIES (UNAUDITED)**

**(All amounts in millions, except for the per share data and otherwise stated)**

In accordance with the Accounting Standards Update 2010-03 Extractive Activities – Oil and Gas (Topic 932): Oil and Gas Reserve Estimation and Disclosures (an update of Accounting Standards Codification Topic 932 Extractive Activities – Oil and Gas or ASC 932 ) issued by the Financial Accounting Standards Board and corresponding disclosure requirements of the U.S. Securities and Exchange Commission, this section provides supplemental information on oil and gas exploration and development; and results of operation related to oil and gas producing activities of the Company and its subsidiaries (the Group ) and also the Group's investments that are accounted for using the equity method of accounting.

The supplemental information presented below covers the Group's proved oil and gas reserves estimates, historical cost information pertaining to capitalized costs, costs incurred for property acquisitions, exploration and development activities, result of operations for oil and gas producing activities, standardized measure of estimated discounted future net cash flows and changes in estimated discounted future net cash flows.

The Other geographic area includes oil and gas producing activities principally in countries such as Kazakhstan, Venezuela and Indonesia. As the Group does not have significant reserves held through its investments accounted for using the equity method, information presented in relation to these equity method investments is presented in the aggregate.

**Proved Oil and Gas Reserve Estimates**

Proved oil and gas reserves cannot be measured exactly. Reserve estimates are based on many factors related to reservoir performance that require evaluation by the engineers interpreting the available data, as well as price and other economic factors. The reliability of these estimates at any point in time depends on both the quality and quantity of the technical and economic data, and the production performance of the reservoirs as well as engineering judgment. Consequently, reserve estimates are subject to revision as additional data become available during the producing life of a reservoir. When a commercial reservoir is discovered, proved reserves are initially determined based on limited data from the first well or wells. Subsequent data may better define the extent of the reservoir and additional production performance, well tests and engineering studies will likely improve the reliability of the reserve estimate. The evolution of technology may also result in the application of improved recovery techniques such as supplemental or enhanced recovery projects, or both, which have the potential to increase reserves.

Proved oil and gas reserves are the estimated quantities of crude oil and natural gas, which, by analysis of geoscience and engineering data, can be estimated with reasonable certainty to be economically producible from a given date forward, from known reservoirs, and under existing economic conditions, operating methods, and government regulation before the time at which contracts providing the right to operate expire, unless evidence indicates that renewal is reasonably certain, regardless of whether the estimate is a deterministic estimate or probabilistic estimate.

Existing economic conditions include prices and costs at which economic producibility from a reservoir is to be determined. The price shall be the average price during the 12-month period before the ending date of the period covered by this report, determined as an unweighted arithmetic average of the first-day-of-the-month price for each

month within such period, unless prices are defined by contractual arrangements, excluding escalations based upon future conditions. The costs shall be that prevailing at the end of the period.

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**PETROCHINA COMPANY LIMITED**

**SUPPLEMENTARY INFORMATION ON OIL AND GAS EXPLORATION**

**AND PRODUCTION ACTIVITIES (UNAUDITED) (Continued)**

**(All amounts in millions, except for the per share data and otherwise stated)**

Proved developed oil and gas reserves are proved reserves that can be expected to be recovered:

- a. Through existing wells with existing equipment and operating methods or in which the cost of the required equipment is relatively minor compared with the cost of a new well.
- b. Through installed extraction equipment and infrastructure operational at the time of the reserves estimate if the extraction is by means not involving a well.

Proved undeveloped oil and gas reserves are proved reserves that are expected to be recovered from new wells on undrilled acreage, or from existing wells where a relatively major expenditure is required for recompletion.

The taxes, fees and royalty in China are domestic tax schemes and are paid in cash to PRC authorities. The proved reserves includes quantities that are ultimately produced and sold to pay these taxes, fees and royalty.

Proved reserve estimates as of December 31, 2017, 2016 and 2015 were based on reports prepared by DeGolyer and MacNaughton, McDaniel & Associates, Ryder Scott and GLJ independent engineering consultants.

Estimated quantities of net proved crude oil and condensate and natural gas reserves and of changes in net quantities of proved developed and undeveloped reserves for each of the periods indicated are as follows:

	<b>Crude Oil and Condensate (million barrels)</b>	<b>Natural Gas (billion cubic feet)</b>	<b>Total All products (million barrels of oil equivalent)</b>
Proved developed and undeveloped reserves			
The Group			
Reserves at December 31, 2014	10,593	71,098	22,443
Changes resulting from:			
Revisions of previous estimates	(1,663)	(206)	(1,697)
Improved recovery	106		106
Extensions and discoveries	457	9,764	2,084
Production	(972)	(3,131)	(1,494)
Reserves at December 31, 2015	8,521	77,525	21,442
Changes resulting from:			

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Revisions of previous estimates	(747)	(308)	(799)
Improved recovery	93		93
Extensions and discoveries	492	4,770	1,287
Production	(921)	(3,275)	(1,467)
Reserves at December 31, 2016	7,438	78,712	20,556
Changes resulting from:			
Revisions of previous estimates	486	(1,751)	195
Improved recovery	98		98
Extensions and discoveries	346	3,350	905
Production	(887)	(3,423)	(1,458)
Reserves at December 31, 2017	7,481	76,888	20,296

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Table of Contents**PETROCHINA COMPANY LIMITED****SUPPLEMENTARY INFORMATION ON OIL AND GAS EXPLORATION****AND PRODUCTION ACTIVITIES (UNAUDITED) (Continued)****(All amounts in millions, except for the per share data and otherwise stated)**

	<b>Crude Oil and Condensate (million barrels)</b>	<b>Natural Gas (billion cubic feet)</b>	<b>Total All products (million barrels of oil equivalent)</b>
Proved developed reserves at:			
December 31, 2015	6,196	40,406	12,930
December 31, 2016	5,176	40,664	11,953
December 31, 2017	5,593	39,243	12,133
Proved undeveloped reserves at:			
December 31, 2015	2,325	37,119	8,512
December 31, 2016	2,262	38,048	8,603
December 31, 2017	1,888	37,645	8,163
Equity method investments			
Share of proved developed and undeveloped reserves of associates and joint ventures			
December 31, 2015	504	354	563
December 31, 2016	504	348	562
December 31, 2017	395	372	457

At December 31, 2017, total proved developed and undeveloped reserves of the Group and equity method investments is 20,753 million barrels of oil equivalent (December 31, 2016: 21,118 million barrels of oil equivalent, December 31, 2015: 22,005 million barrels of oil equivalent), comprising 7,876 million barrels of crude oil and condensate (December 31, 2016: 7,942 million barrels, December 31, 2015: 9,025 million barrels) and 77,260 billion cubic feet of natural gas (December 31, 2016: 79,060 billion cubic feet, December 31, 2015: 77,879 billion cubic feet).

At December 31, 2017, 6,622 million barrels (December 31, 2016: 6,341 million barrels, December 31, 2015: 7,650 million barrels) of crude oil and condensate and 74,702 billion cubic feet (December 31, 2016: 76,245 billion cubic feet, December 31, 2015: 75,858 billion cubic feet) of natural gas proved developed and undeveloped reserves of the Group are located within Mainland China, and 859 million barrels (December 31, 2016: 1,097 million barrels, December 31, 2015: 871 million barrels) of crude oil and condensate and 2,186 billion cubic feet (December 31, 2016: 2,467 billion cubic feet, December 31, 2015: 1,667 billion cubic feet) of natural gas proved developed and undeveloped reserves of the Group are located overseas.

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**PETROCHINA COMPANY LIMITED**

**SUPPLEMENTARY INFORMATION ON OIL AND GAS EXPLORATION**

**AND PRODUCTION ACTIVITIES (UNAUDITED) (Continued)**

**(All amounts in millions, except for the per share data and otherwise stated)**

**Capitalized Costs**

	<b>December 31, 2017 RMB</b>	<b>December 31, 2016 RMB</b>
The Group		
Property costs and producing assets	1,604,141	1,519,124
Support facilities	407,188	390,089
Construction-in-progress	101,067	100,114
Total capitalized costs	2,112,396	2,009,327
Accumulated depreciation, depletion and amortization	(1,199,741)	(1,063,500)
Net capitalized costs	912,655	945,827
Equity method investments		
Share of net capitalized costs of associates and joint ventures	25,837	28,999

**Costs Incurred for Property Acquisitions, Exploration and Development Activities**

	<b>2017</b>		
	<b>Mainland</b>		
	<b>China</b>	<b>Other</b>	<b>Total</b>
	<b>RMB</b>	<b>RMB</b>	<b>RMB</b>
The Group			
Exploration costs	31,585	984	32,569
Development costs	110,104	18,596	128,700
Total	141,689	19,580	161,269
Equity method investments			
Share of costs of property acquisition, exploration and development of associates and joint ventures		2,503	2,503

	<b>2016</b>		
	<b>Mainland China RMB</b>	<b>Other RMB</b>	<b>Total RMB</b>
<b>The Group</b>			
Exploration costs	28,413	685	29,098
Development costs	83,785	13,870	97,655
<b>Total</b>	<b>112,198</b>	<b>14,555</b>	<b>126,753</b>
<b>Equity method investments</b>			
Share of costs of property acquisition, exploration and development of associates and joint ventures		1,990	1,990

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**Table of Contents****PETROCHINA COMPANY LIMITED****SUPPLEMENTARY INFORMATION ON OIL AND GAS EXPLORATION****AND PRODUCTION ACTIVITIES (UNAUDITED) (Continued)****(All amounts in millions, except for the per share data and otherwise stated)**

	<b>2015</b>		<b>Total RMB</b>
	<b>Mainland China RMB</b>	<b>Other RMB</b>	
The Group			
Property acquisition costs		456	456
Exploration costs	28,542	1,011	29,553
Development costs	100,328	18,611	118,939
<b>Total</b>	<b>128,870</b>	<b>20,078</b>	<b>148,948</b>
Equity method investments			
Share of costs of property acquisition, exploration and development of associates and joint ventures		2,798	2,798

**Results of Operations for Oil and Gas Producing Activities**

The results of operations for oil and gas producing activities for the years ended December 31, 2017, 2016 and 2015 are presented below. Revenue includes sales to third parties and inter-segment sales (at arm's-length prices), net of value-added taxes. Resource tax, crude oil special gain levy and other taxes are included in taxes other than income taxes. Income taxes are computed using the applicable statutory tax rate, reflecting tax deductions and tax credits for the respective years ended.

	<b>2017</b>		<b>Total RMB</b>
	<b>Mainland China RMB</b>	<b>Other RMB</b>	
The Group			
Revenue			
Sales to third parties	39,588	39,330	78,918
Inter-segment sales	305,336	5,082	310,418
	344,924	44,412	389,336
Production costs excluding taxes	(112,182)	(7,830)	(120,012)
Exploration expenses	(16,732)	(7,152)	(23,884)
Depreciation, depletion and amortization	(135,703)	(18,436)	(154,139)
Taxes other than income taxes	(20,624)	(3,534)	(24,158)

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Accretion expense	(5,212)	(241)	(5,453)
Income taxes	(12,098)	(3,667)	(15,765)
Results of operations from producing activities	42,373	3,552	45,925
Equity method investments			
Share of profit for producing activities of associates and joint ventures		2,050	2,050
Total of the Group and equity method investments results of operations for producing activities	42,373	5,602	47,975

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Exploration expenses	(17,045)	(1,335)	(18,380)
Depreciation, depletion and amortization	(112,566)	(22,753)	(135,319)
Taxes other than income taxes	(23,727)	(5,050)	(28,777)
Accretion expense	(5,720)	(230)	(5,950)
Income taxes	(15,629)	(1,290)	(16,919)
Results of operations from producing activities	45,101	844	45,945
Equity method investments			
Share of profit for producing activities of associates and joint ventures		(4,188)	(4,188)
Total of the Group and equity method investments results of operations for producing activities	45,101	(3,344)	41,757

### Standardized Measure of Discounted Future Net Cash Flows

The standardized measure of discounted future net cash flows related to proved oil and gas reserves at December 31, 2017, 2016 and 2015 is based on the prices used in estimating the Group's proved oil and gas reserves, year-end costs, currently enacted tax rates related to existing proved oil and gas reserves and a 10% annual discount factor. Future cash inflows are net of value-added taxes. Corporate income taxes are included in future income tax expense. Other taxes are included in future production costs as production taxes.

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**PETROCHINA COMPANY LIMITED**

**SUPPLEMENTARY INFORMATION ON OIL AND GAS EXPLORATION**

**AND PRODUCTION ACTIVITIES (UNAUDITED) (Continued)**

**(All amounts in millions, except for the per share data and otherwise stated)**

The standardized measure of discounted future net cash flows related to proved oil and gas reserves at December 31, 2017, 2016 and 2015 is as follows:

	<b>RMB</b>
The Group	
At December 31, 2017	
Future cash inflows	5,287,272
Future production costs	(1,909,890)
Future development costs	(571,125)
Future income tax expense	(594,085)
Future net cash flows	2,212,172
Discount at 10% for estimated timing of cash flows	(1,187,646)
Standardized measure of discounted future net cash flows	1,024,526

	<b>RMB</b>
The Group	
At December 31, 2016	
Future cash inflows	4,585,822
Future production costs	(1,896,044)
Future development costs	(553,558)
Future income tax expense	(447,997)
Future net cash flows	1,688,223
Discount at 10% for estimated timing of cash flows	(931,412)
Standardized measure of discounted future net cash flows	756,811

	<b>RMB</b>
The Group	
At December 31, 2015	

Future cash inflows	5,443,534
Future production costs	(2,181,423)
Future development costs	(444,553)
Future income tax expense	(567,946)
Future net cash flows	2,249,612
Discount at 10% for estimated timing of cash flows	(1,188,237)
Standardized measure of discounted future net cash flows	1,061,375

At December 31, 2017, RMB 979,330 (December 31, 2016: RMB 731,206, December 31, 2015: RMB 1,023,933) of standardized measure of discounted future net cash flows related to proved oil and gas reserves located within mainland China and RMB 45,196 (December 31, 2016: RMB 25,605, December 31, 2015: RMB 37,442) of standardized measure of discounted future net cash flows related to proved oil and gas reserves located overseas.

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**PETROCHINA COMPANY LIMITED**

**SUPPLEMENTARY INFORMATION ON OIL AND GAS EXPLORATION**

**AND PRODUCTION ACTIVITIES (UNAUDITED) (Continued)**

**(All amounts in millions, except for the per share data and otherwise stated)**

Share of standardized measure of discounted future net cash flows of associates and joint ventures:

December 31, 2017	17,345
December 31, 2016	13,550
December 31, 2015	19,712

**Changes in Standardized Measure of Discounted Future Net Cash Flows**

Changes in the standardized measure of discounted net cash flows for the Group for each of the years ended December 31, 2017, 2016 and 2015 are as follows:

	<b>Year Ended December 31,</b>		
	<b>2017</b>	<b>2016</b>	<b>2015</b>
	<b>RMB</b>	<b>RMB</b>	<b>RMB</b>
The Group			
Beginning of the year	756,811	1,061,375	1,595,704
Sales and transfers of oil and gas produced, net of production costs	(232,387)	(167,108)	(209,600)
Net changes in prices and production costs and other	367,132	(370,257)	(716,150)
Extensions, discoveries and improved recovery	77,249	81,248	157,220
Development costs incurred	38,613	32,918	49,064
Revisions of previous quantity estimates	14,555	(61,816)	(121,809)
Accretion of discount	76,860	113,324	172,090
Net change in income taxes	(74,307)	67,127	134,856
End of the year	1,024,526	756,811	1,061,375