

**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, 2016.  
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

**中国石油天然气股份有限公司**

(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)

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Dongcheng District, Beijing 100007  
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(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.

Title of Each Class

Name of Each Exchange on Which Registered

American Depositary Shares, each representing 100 H Shares, par value RMB1.00 per share\*

New York Stock Exchange, Inc.  
New York Stock Exchange, Inc.\*\*

H Shares, par value RMB1.00 per share

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 157,409,693,528 A Shares held by CNPC and 4,512,384,290 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 ☐

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 ☐

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<sup>†</sup> provided pursuant to Section 13(a) of the Exchange Act. ☐

<sup>†</sup> 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

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 786,564,700 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 stock 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”	<p>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:</p> <p>(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</p> <p>(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.</p>

“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”	<p>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.</p> <p>(i) The area of the reservoir considered as proved includes:</p> <p>(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.</p> <p>(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.</p>

(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.

(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.



## 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” and similar 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;

- 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.

## 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 2016 .....	6.7819	6.6685
November 2016 .....	6.9195	6.7534
December 2016 .....	6.9580	6.8771
January 2017 .....	6.9575	6.8360
February 2017 .....	6.8821	6.8517
March 2017 .....	6.9132	6.8687
April 2017 (ending through April 14) .....	6.8988	6.8832

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

#### 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 2012, 2013, 2014, 2015 and 2016, 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\$)
2012 .....	6.2990
2013 .....	6.1412
2014 .....	6.1701
2015 .....	6.2869
2016 .....	6.6549

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

## 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, 2014, 2015 and 2016 and the selected consolidated statement of financial position data as of December 31, 2015 and 2016 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, 2012 and 2013 and the selected consolidated statement of financial position data as of December 31, 2012, 2013 and 2014 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.

	As of or for the Year Ended December 31, <sup>(1)</sup>				
	2012	2013	2014	2015	2016
	RMB	RMB	RMB	RMB	RMB
	(In millions, except for per share and per ADS data)				
<b>Consolidated Statement of Comprehensive Income Data</b>					
Revenue . . . . .	2,195,296	2,258,124	2,282,962	1,725,428	1,616,903
Total operating expenses . . . . .	(2,020,777)	(2,069,482)	(2,113,129)	(1,646,176)	(1,556,268)
Profit from operations . . . . .	174,519	188,642	169,833	79,252	60,635
Profit before income tax expense . . . . .	166,811	178,063	156,759	57,815	45,140
Income tax expense . . . . .	(36,191)	(35,789)	(37,731)	(15,726)	(15,768)
Profit for the year . . . . .	130,620	142,274	119,028	42,089	29,372
Profit for the year attributable to owners of the Company . . . . .	115,326	129,599	107,172	35,517	7,857
Non-controlling interests . . . . .	15,294	12,675	11,856	6,572	21,515
Basic and diluted earnings per share attributable to owners of the Company <sup>(1)</sup> . . . . .	0.63	0.71	0.59	0.19	0.04
Basic and diluted net earnings per ADS <sup>(2)</sup> . . . . .	63.01	70.81	58.56	19.41	4.29
<b>Consolidated Statement of Financial Position Data</b>					
Total current assets . . . . .	392,805	430,953	391,308	349,344	381,665
Total non-current assets . . . . .	1,776,091	1,911,157	2,014,165	2,044,500	2,014,986
Total assets . . . . .	2,168,896	2,342,110	2,405,473	2,393,844	2,396,651
Total current liabilities . . . . .	574,748	645,489	579,829	471,407	499,263
Total non-current liabilities . . . . .	413,400	426,686	507,863	578,403	524,653
Total liabilities . . . . .	988,148	1,072,175	1,087,692	1,049,810	1,023,916
Equity attributable to owners of the Company . . . . .	1,064,010	1,132,735	1,175,894	1,179,716	1,189,024
Non-controlling interests . . . . .	116,738	137,200	141,887	164,318	183,711
Total equity . . . . .	1,180,748	1,269,935	1,317,781	1,344,034	1,372,735
<b>Other Financial Data</b>					
Dividend declared and proposed per share . . . . .	0.28	0.32	0.26	0.09	0.06
Dividend declared and proposed per ADS . . . . .	28.36	31.87	26.35	8.73	5.93
Capital expenditures . . . . .	352,516	318,696	291,729	202,238	172,386
Return on net assets (%) <sup>(3)</sup> . . . . .	10.8	11.4	9.1	3.0	0.7
<b>Consolidated Statement of Cash Flow Data</b>					
Net cash flows from operating activities . . . . .	239,288	288,529	356,477	261,312	265,179
Net cash flows used for investing activities . . . . .	(332,226)	(266,510)	(290,838)	(215,879)	(175,887)
Net cash flows from/(used for) financing activities . . . . .	75,356	(12,239)	(44,312)	(45,439)	(67,007)

(1) As of December 31, 2012, 2013, 2014, 2015 and 2016, 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.

- (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”.

## **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 2016, a weak domestic economy continued to affect 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

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 exploration and production of oil and gas, refining and transportation, import of crude oil and natural gas, operation of liquefied natural gas, or LNG projects, or other business activities. CNPC's overseas asset portfolio includes oil and gas development and pipeline projects in certain countries that are subject to U.S. sanctions, including Iran, Sudan, Cuba, Syria, Myanmar and Russia.

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.

We closely monitor the possible impacts of U.S. sanctions against these Russian entities which have trading or investment relationships with CNPC or us. We do not believe that our activities, nor those of CNPC, with these sanctioned Russian 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, 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, 2016, CNPC beneficially owned approximately 86.166% 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 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.

Since the second half of 2014, international prices for crude oil have declined substantially and fluctuated at a low level in response to changes in global and regional economy, politics and supply and demand for crude oil. 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**

Compliance with changes in laws, regulations and obligations relating to climate change or environmental protection could result in substantial expenditures and reduced profitability from increases in operating costs.

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.

In 2014, the PRC Environmental Protection Law and the PRC Safety Production Law were amended. The amended laws imposed stricter requirements on the sectors in which we operate or participate and as a result our operation costs have increased. Since 2015, China has promulgated relevant policies to accelerate the process of gasoline and diesel fuel quality upgrading in China. Since January 2017, the China V Standards have been effective across the country for vehicle-use gasoline and diesel; and as of January 2018, ordinary diesel of China V Standards will be generally supplied across the country. China is expected to implement more strict standards for gasoline, diesel and other products in the future. New governmental requirements to improve oil quality will continue to pose challenges to our refining and chemicals segment and could increase our costs for oil refining.

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 and plans to roll out the national carbon quota trading system in 2017. As a result, a majority of our subsidiaries operating in China may be subject to mandatory requirement with respect to carbon emission quota and trading, which could adversely affect our business and results 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 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 undergoing projects construction in response to the growth in our oil and gas 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, 2016 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, 2016, 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.

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 works and audit quality control procedures of our independent registered public accounting firm.

### **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. 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.

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

### **Introduction**

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

Our legal name is “中国石油天然气股份有限公司” 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 2016, we imported approximately 486.1 million barrels of crude oil, compared to 435.6 million barrels and 488.6 million barrels of crude oil in 2014 and 2015, 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.

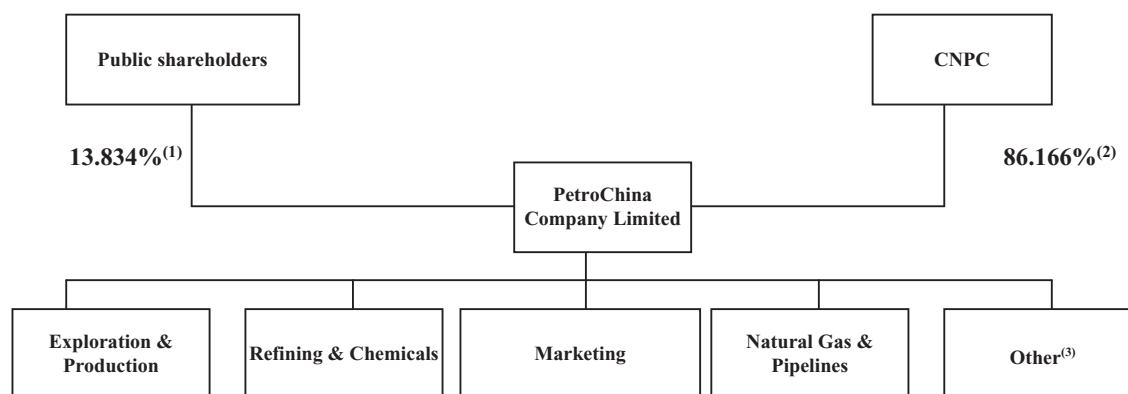
On April 7, 2000, we completed a global offering of H Shares and ADSs. In September 2005, we completed a follow-on offering of over 3 billion H Shares at the price of HK\$6.00 per share. In October 2007, we issued 4 billion A Shares at an issue price of RMB 16.7 per share. The A Shares were listed on the Shanghai Stock Exchange on November 5, 2007. As of December 31, 2016, CNPC beneficially owned 157,701,211,528 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 86.166% 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.

### ***Our Corporate Organization Structure***

The following chart illustrates our corporate organization structure as of December 31, 2016.



- (1) Indicates approximate shareholding.
- (2) Indicates approximate shareholding, including the 291,518,000 H Shares indirectly held by CNPC as of December 31, 2016 through Fairy King Investments Limited, a wholly owned overseas subsidiary of 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***

On November 24, 2015, our board of directors approved the sale by CNPC Exploration and Development Co., Ltd., one of our 50%-owned subsidiaries, of its 50% of equity interest in CNPC Trans-Asia Gas Pipeline Co., Ltd. to a wholly-owned subsidiary of Guoxin International Investment Corporation Ltd. for a consideration of US\$2.327 billion. This transaction was closed in the second quarter of 2016.

For other material asset disposal, please see “Item 7-Major Shareholders and Related Party Transactions-Related Party Transactions”.

# OUR EXPLORATION AND PRODUCTION SEGMENT





## 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, 2016, the crude oil and natural gas produced by us at overseas regions accounted for 17.0% and 8.1% of our total production of crude oil and natural gas expressed in BOE, respectively.

We currently hold exploration and exploitation licenses for oil and gas (including coal seam gas) covering a total area of approximately 340.2 million acres, including the exploration licenses covering a total area of approximately 311.3 million acres and the exploitation licenses covering a total area of approximately 28.9 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, 2014, 2015 and 2016:

	Year Ended December 31,		
	2014	2015	2016
Revenue (RMB in millions) . . . . .	777,574	475,412	412,484
Profit from operations (RMB in millions) . . . . .	186,897	33,961	3,148
Proved developed and undeveloped reserves			
Crude oil (million barrels) . . . . .	10,593.4	8,521.1	7,437.8
Natural gas (Bcf) . . . . .	71,097.5	77,524.7	78,711.8
Production			
Crude oil (million barrels) . . . . .	945.5	971.9	920.7
Natural gas for sale (Bcf) . . . . .	3,028.8	3,131.0	3,274.5

### Reserves

Our estimated proved reserves as of December 31, 2016 totaled approximately 7,437.8 million barrels of crude oil and approximately 78,711.8 Bcf of natural gas. As of December 31, 2016, proved developed reserves for crude oil and natural gas accounted for 69.6% and 51.7% of our total proved crude oil and natural gas reserves, respectively. Total proved hydrocarbon reserves, including our overseas crude oil reserves of 1,096.7 million BOE and overseas natural gas reserves of 2,467.4 Bcf, totaling 1,507.9 million BOE, decreased by 4.1% from approximately 21,441.9 million BOE as of December 31, 2015 to approximately 20,556.4 million BOE as of December 31, 2016. Natural gas as a percentage of total proved hydrocarbon reserves increased from 60.3% as of December 31, 2015 to 63.8% as of December 31, 2016.

We prepared our reserves estimates as of December 31, 2014, 2015 and 2016 on the basis of 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 2014, 2015 and 2016 were prepared in accordance with the SEC’s final rules on “Modernization of Oil and Gas Reporting”.



### ***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 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. Many 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 assessments of 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, 2014, 2015 and 2016. 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 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, Kazakhstan and Peru as of December 31, 2014, 2015 and 2016. Mr. Daniel R. Olds, a director and a senior vice president of Ryder Scott, was primarily responsible for overseeing the estimate of the reserves, future production and income as stated in the reserves report. Mr. Olds is a licensed professional engineer in the State of Texas, a member of the Society of Petroleum Evaluation Engineers and a member of the Society of Petroleum Engineers. Mr. Olds has 35 years of practical experience in the estimation and evaluation of petroleum reserves.

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, 2014, 2015 and 2016. 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.

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 and 2016. Mr. Paul Taylor, the senior vice president of McDaniel & Associates Consultants Ltd., was responsible for supervising the preparation of our reserves report. Mr. Paul Taylor is a member of the Society of Petroleum Evaluation Engineers and the Society of Petroleum Engineers. He has over 30 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, 2014, 2015 and 2016.

	<b>Crude Oil</b> <b>(Million barrels)</b>	<b>Natural Gas<sup>(1)</sup></b> <b>(Bcf)</b>	<b>Combined</b> <b>(BOE, in millions)</b>
<b>Proved developed and undeveloped reserves</b>			
Reserves as of December 31, 2013 .....	10,820.3	69,322.6	22,374.1
Revisions of previous estimates .....	(16.1)	(2,707.4)	(467.2)
Extensions and discoveries .....	645.6	7,511.1	1,897.4
Improved recovery .....	94.0	—	94.0
Sold .....	(4.9)	—	(4.9)
Production for the year .....	(945.5)	(3,028.8)	(1,450.4)
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
<b>Proved developed reserves</b>			
As of December 31, 2014 .....	7,253.5	35,823.9	13,224.2
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
<b>Proved undeveloped reserves</b>			
As of December 31, 2014 .....	3,339.9	35,273.6	9,218.8
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

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

Our proved undeveloped reserves were 8,602.9 million BOE in 2016. The main changes in our proved undeveloped reserves in 2016 included (i) an increase of 1,286.8 million BOE through extensions and discoveries; (ii) an increase of 93.0 million BOE through improved recovery; (iii) a decrease of 146.8 million BOE through revisions due to our adjustment in exploration plans in response to the decline of crude oil price; and (iv) the conversion of 1,141.8 million BOE of proved undeveloped reserves into proved developed reserves. In 2016, we spent RMB82,485 million on developing proved undeveloped reserves. The overwhelming majority of our 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, 2014, 2015 and 2016.

	As of December 31,					
	2014		2015		2016	
	Proved Developed and Undeveloped	Proved Developed	Proved Developed and Undeveloped	Proved Developed	Proved Developed and Undeveloped	Proved Developed
	(Million barrels)					
Crude oil reserves						
Daqing . . . . .	2,267.1	1,710.8	1,804.7	1,483.0	1,504.7	1,226.3
Changqing . . . . .	2,553.5	1,913.6	2,186.0	1,600.6	1,917.8	1,319.1
Xinjiang . . . . .	1,535.1	1,028.9	1,040.0	875.6	795.1	730.5
Other regions <sup>(1)</sup> . . . . .	4,237.7	2,600.2	3,490.4	2,236.6	3,220.2	1,900.4
Total . . . . .	10,593.4	7,253.5	8,521.1	6,195.8	7,437.8	5,176.3

	As of December 31,					
	2014		2015		2016	
	Proved Developed and Undeveloped	Proved Developed	Proved Developed and Undeveloped	Proved Developed	Proved Developed and Undeveloped	Proved Developed
	(Bcf)					
Natural gas reserves <sup>(2)</sup>						
Changqing . . . . .	23,030.1	10,796.6	25,808.0	10,826.0	25,697.9	9,920.8
Tarim . . . . .	22,434.2	12,495.5	24,270.6	14,303.3	24,019.2	14,336.1
Chuanyu . . . . .	12,841.8	3,781.2	13,399.5	5,833.1	13,905.1	6,982.4
Other regions <sup>(1)</sup> . . . . .	12,791.4	8,750.6	14,046.6	9,443.7	15,089.6	9,424.5
Total . . . . .	71,097.5	35,823.9	77,524.7	40,406.1	78,711.8	40,663.8

(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.

Since the second half of 2014, international prices for crude oil have declined substantially and fluctuated at a low level. We performed an analysis with respect to the sensitivity of our domestic proved oil reserves as of December 31, 2016 to crude oil prices pursuant to relevant SEC reserves rules. For the sensitivity analysis, we used the price scenarios of US\$70 per barrel and the 12-month average domestic oil price of the Company in 2016, i.e., US\$37.72 per barrel, while the lifting cost and other relevant factors in 2016 remained unchanged. The costs used for the sensitivity analysis were the average domestic costs for 2016, taking into account the differences in the applicable production taxes and the reserves projects eligible to be included into proved reserves under each of the price scenarios.

The following table sets forth our domestic proved crude oil reserves as of December 31, 2016 under the different price scenarios.

<u>Price Scenario</u>	<u>Proved Reserves</u>	
	<u>Cost</u>	<u>Total Domestic Proved Reserves</u>
	<u>(US\$ per barrel)</u>	<u>(million BOE)</u>
(US\$ per barrel)		
70 .....	25.20	8,772.2
37.72 (the 12-month average domestic oil price in 2016) .....	19.41	6,341.1

### **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.

<u>Year</u>	<u>Daqing</u>	<u>Xinjiang</u>	<u>Changqing</u>	<u>Others<sup>(1)</sup></u>	<u>Total</u>
2014					
<b>Net exploratory wells drilled<sup>(2)</sup></b>	98	132	995	557	1,782
Crude oil	76	68	615	309	1,068
Natural gas	14	1	137	97	249
Dry <sup>(3)</sup>	8	63	243	151	465
<b>Net development wells drilled<sup>(2)</sup></b>	5,134	1,559	5,611	3,832	16,136
Crude oil	5,106	1,537	4,983	3,076	14,702
Natural gas	16	22	525	731	1,294
Dry <sup>(3)</sup>	12	—	103	25	140
2015					
<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
2016					
<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

(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 436 wells in the process of being drilled and 7,133 wells with multiple completions as of December 31, 2016.

### ***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, 2016.

<u>Oil Region</u>	<u>Productive Wells<sup>(1)</sup></u>		<u>Acreage<sup>(1)</sup></u>			
			<u>Developed</u>		<u>Undeveloped</u>	
	<u>Crude Oil</u>	<u>Natural Gas</u>	<u>Crude Oil</u>	<u>Natural Gas</u>	<u>Crude Oil</u>	<u>Natural Gas</u>
	<u>(Thousand acres)</u>					
Daqing	73,321	302	1,149.97	102.18	766.44	98.48
Changqing	58,390	11,496	1,316.04	5,236.28	738.09	2,897.78
Xinjiang	33,059	265	388.02	58.10	216.15	17.10
Other regions <sup>(2)</sup>	72,730	5,786	1,593.59	1,054.16	1,078.06	1,476.43
Total	237,500	17,849	4,447.61	6,450.72	2,798.75	4,489.79

- (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, 2014, 2015 and 2016.

	For the Year Ended December 31,			% of
	2014	2015	2016	2016 Total
<b>Crude oil production<sup>(1)</sup></b>				
(thousand barrels per day, except percentages or otherwise indicated)				
Daqing . . . . .	792.3	755.8	717.2	28.5
Changqing . . . . .	506.8	502.0	482.7	19.2
Xinjiang . . . . .	238.9	238.9	224.7	8.9
Other <sup>(2)</sup> . . . . .	1,052.3	1,166.1	1,090.9	43.4
Total . . . . .	2,590.3	2,662.8	2,515.5	100
Annual production (million barrels) . . . . .	945.5	971.9	920.7	
Average sales price (US\$ per barrel) . . . . .	94.83	48.35	37.99	
<b>Natural gas production<sup>(1)(3)</sup></b>				
(million cubic feet per day, except percentages or otherwise indicated)				
Changqing . . . . .	3,186.3	3,181.2	3,103.5	34.7
Tarim . . . . .	2,099.4	2,083.0	2,093.1	23.4
Chuanyu . . . . .	1,252.6	1,412.5	1,696.1	19.0
Other <sup>(4)</sup> . . . . .	1,759.7	1,901.4	2,054.1	22.9
Total . . . . .	8,298.0	8,578.1	8,946.8	100
Annual production (Bcf) . . . . .	3,028.8	3,131.0	3,274.5	
Average realized price (US\$ per Mcf) <sup>(5)</sup> . . . . .	6.30	6.23	4.67	

- (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”.

In 2016, we supplied a substantial majority of our total crude oil sales to our refineries. In addition, we entered into a crude oil mutual supply framework agreement with Sinopec in January 2017 for the supply of crude oil to each other’s refineries. Under this agreement, we agreed in principle to supply 1.13 million tons of crude oil to Sinopec in 2017.

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 2014, 2015 and 2016.

	Crude Oil Average Realized Prices (RMB/ton)	Natural Gas Average Realized Prices (RMB/Kilostere)	Average Lifting Cost (US\$/BOE)
2014			
Overall .....	4,304	1,366	13.76
— China .....	4,282	1,407	14.51
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

## 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 2014, 2015 and 2016, our crude oil production volume in the Daqing oil region was 792.3 thousand barrels, 755.8 thousand barrels and 717.2 thousand barrels per day, respectively. As of December 31, 2016, we produced crude oil from 40 fields in the Daqing oil region.

As of December 31, 2016, our proved crude oil reserves in the Daqing oil region were 1,504.7 million barrels, representing 20.2% of our total proved crude oil reserves. As of December 31, 2014 and 2015, the proved crude oil reserves in our Daqing oil region were 2,267.1 million barrels and 1,804.7 million barrels, respectively. In 2016, the crude oil reserve-to-production ratio of the Daqing oil region was 5.6 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, 2016, our proved crude oil reserves in the Changqing oil region were 1,917.8 million barrels, representing 25.8% of our total proved crude oil reserves. In 2016, our crude oil production in the Changqing oil region averaged 482.7 thousand barrels per day, representing approximately 19.2% of our total daily crude oil production. In 2016, the crude oil reserve-to-production ratio at the Changqing oil region was 10.9 years.

In the early 1990s, we discovered the Changqing oil and gas region, which had total proved natural gas reserves of 25,697.9 Bcf as of December 31, 2016, representing 32.6% 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 14,525.7 Bcf as of December 31, 2016. Sulige gas field is currently the largest gas field in China. In 2016, the Changqing oil and gas region produced 1,135.9 Bcf of natural gas for sale, representing a decrease of 2.2% from 1,161.1 Bcf in 2015.



### ***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, 2016, our proved crude oil reserves in the Xinjiang oil region were 795.1 million barrels, representing 10.7% of our total proved crude oil reserves. In 2016, our oil fields in the Xinjiang oil region produced an average of 224.7 thousand barrels of crude oil per day, representing approximately 8.9% of our total daily crude oil production. In 2016, the crude oil reserve-to-production ratio at the Xinjiang oil region was 9.7 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, 2016, the proved natural gas reserves in the Tarim oil and gas region reached 24,019.2 Bcf, representing 30.5% of our total proved natural gas reserves.

In 2016, we produced 766.1 Bcf of natural gas for sale in the Tarim oil and gas region. In 2016, we confirmed five natural gas blocks with large-scale mono-block natural gas reserves in our oil and gas regions, mainly 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.

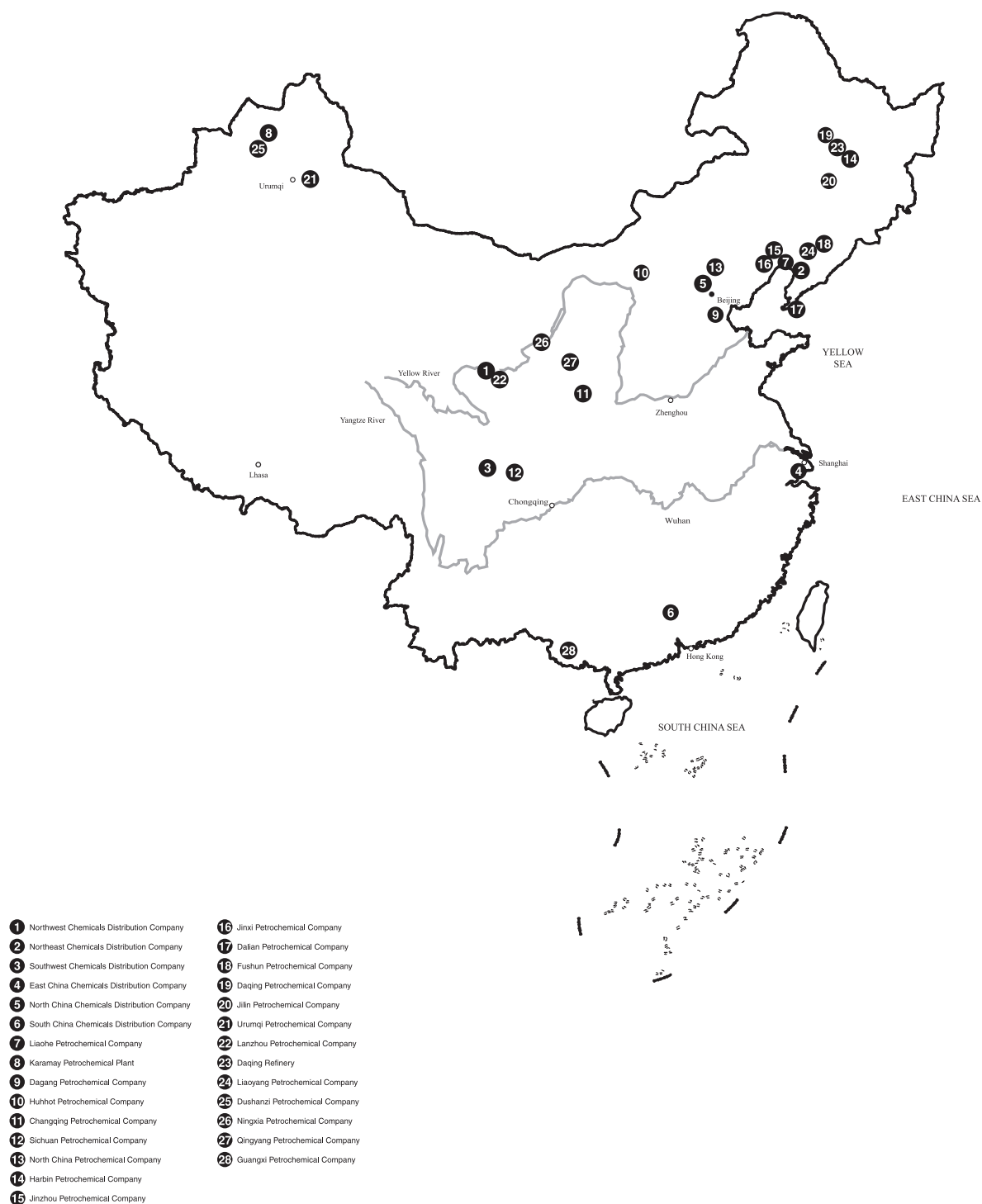
### ***Chuanyu Gas Region***

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 22.4 years in 2016. As of December 31, 2016, we had 116 natural gas fields under development in the Chuanyu gas region.

As of December 31, 2016, our proved natural gas reserves in the Chuanyu gas region were 13,905.1 Bcf, representing 17.7% of our total proved natural gas reserves and an increase of 3.8% from 13,399.5 Bcf as of December 31, 2015. In 2016, our natural gas production for sale in the Chuanyu gas region reached 620.8 Bcf, representing 19.0% of our total natural gas production for sale. In October 2015, the gas facility with an annual production capacity of 11 billion cubic meters became operational in the Anyue monomer marine uncompartimentalized carbonate gas reservoir in Chuanyu gas region. In 2016, we completed the construction of the production facilities in the Changning — Weiyuan national model shale gas area in the Chuanyu gas region.



# OUR REFINING AND CHEMICALS SEGMENT



## Refining and Chemicals

We now operate 28 enterprises located in eight 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, 2014, 2015 and 2016:

	Year Ended December 31,		
	2014	2015	2016
Revenue (RMB in millions) . . . . .	846,082	642,428	582,510
(Loss) /Profit from operations (RMB in millions) . . . . .	(23,560)	4,883	39,026
Crude oil processed (million barrels) . . . . .	1,010.6	998.1	953.3
Crude oil primary distillation capacity (million barrels/year) . . . . .	1,248.0	1,252.4	1,257.6
Production of refined oil products (thousand tons) . . . . .	92,671	91,933	86,022

### 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, 2014, 2015 and 2016.

<u>Principal Product</u>	Year Ended December 31,		
	2014	2015	2016
	(In thousand tons)		
Diesel . . . . .	57,627	54,182	46,689
Gasoline . . . . .	30,688	32,258	33,275
Kerosene . . . . .	4,356	5,493	6,058
Lubricants . . . . .	1,581	1,210	1,164
Fuel oil . . . . .	3,423	2,700	2,222
Naphtha . . . . .	9,966	9,748	9,919

#### *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 2016, 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 1.68 in 2015 to 1.40 in 2016. In 2016, we completed the construction of the projects on schedule for upgrading our gasoline and diesel quality to ensure compliance with China V standards across China (other than Beijing) and China VI standards in Beijing. In each of the years ended December 31, 2014, 2015 and 2016, our exploration and production operations supplied approximately 68.7%, 69.9% and 71.8%, respectively, of the crude oil processed in our refineries.

The table below sets forth certain operating statistics regarding our refineries as of December 31, 2014, 2015 and 2016.

	As of December 31,		
	2014	2015	2016
<b>Primary distillation capacity<sup>(1)</sup> (thousand barrels per day)</b>			
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
Other refineries	1,763.2	1,775.4	1,789.6
Total	3,419.2	3,431.3	3,445.5
<b>Refining throughput (thousand barrels per day)</b>			
Lanzhou Petrochemical	185.4	195.8	166.6
Dalian Petrochemical	259.1	280.7	263.5
Fushun Petrochemical	170.5	164.0	170.5
Dushanzi Petrochemical	181.2	139.8	151.2
Guangxi Petrochemical	143.8	130.3	90.9
Jilin Petrochemical	168.7	162.0	184.3
Sichuan Petrochemical	125.4	152.0	141.0
Other refineries	1,534.6	1,509.9	1,443.9
Total	2,768.7	2,734.5	2,611.8

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

In each of the years ended December 31, 2014, 2015 and 2016, the average utilization rate of the primary distillation capacity at our refineries was 86.1%, 84.2% and 80.3%, respectively, and the average yield for our four principal refined products (gasoline, kerosene, diesel and lubricants) at our refineries was 68.9%, 69.0% and 67.6%, 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, 2014, 2015 and 2016, the overall refining yield at our refineries was 93.8%, 93.8% and 93.5%, respectively.

Dalian Petrochemical, Lanzhou Petrochemical, Dushanzi Petrochemical, Guangxi Petrochemical, Sichuan Petrochemical, Fushun Petrochemical and Jilin Petrochemical were our leading refineries in terms of both primary distillation capacity and refining throughput in 2016.

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 2016, we purchased crude oil sourced from Rosneft, a Russian company which is subject to U.S. economic sanctions, and from Sudan, which is on the U.S. sanction list, for use in our refining operations. The revenue generated from our refinery from the crude oil sourced from Rosneft and Sudan accounted for 2.27% and 0.03% of our total revenue in 2016, 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.

### ***Our Chemical Products***

The table below sets forth the production volumes of our principal chemical products for each of the years ended December 31, 2014, 2015 and 2016.

	<b>Year Ended December 31,</b>		
	<b>2014</b>	<b>2015</b>	<b>2016</b>
	<b>(In thousand tons)</b>		
<b>Basic petrochemicals</b>			
Propylene .....	4,600	4,848	5,120
Ethylene .....	4,976	5,032	5,589
Benzene .....	1,771	1,896	1,918
<b>Derivative petrochemicals</b>			
Synthetic resin .....	7,951	8,215	9,078
Other synthetic fiber raw materials and polymer .....	1,293	1,348	1,410
Synthetic rubber .....	745	713	760
<b>Other chemicals</b>			
Urea .....	2,663	2,566	1,900

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, 2016, 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, 2016, our annual production capacities for polyethylene, polypropylene and ABS were 5,060 thousand tons, 4,140 thousand tons and 710 thousand tons, respectively.

### ***Marketing of Chemicals***

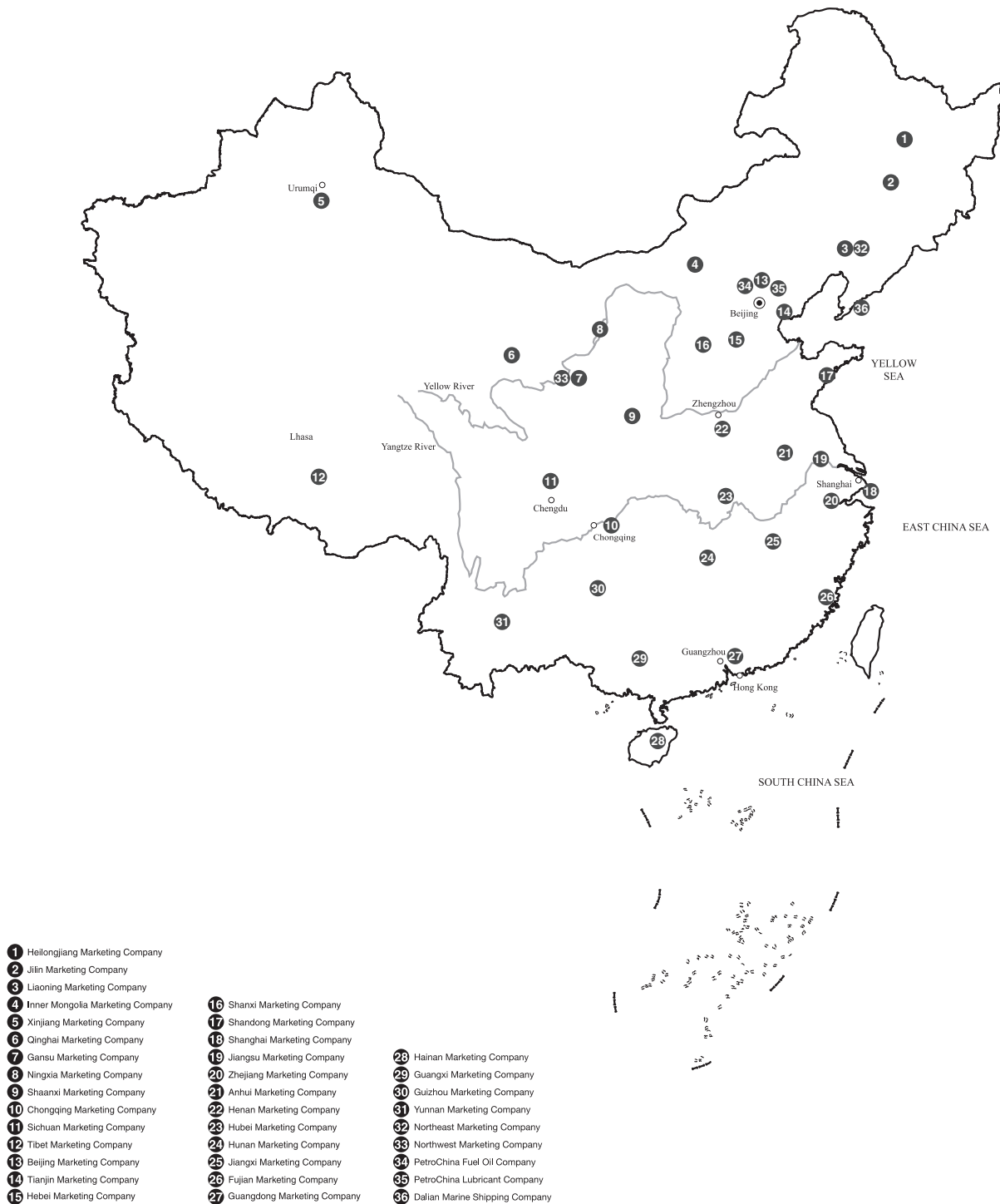
Our chemical products are distributed to a number of industries including the automotive, construction, electronics, medical manufacturing, printing, electrical appliances, household products, insulation, packaging, paper, textile, paint, footwear, agriculture and furniture industries.

The following table sets forth the sales volumes of our chemical products by principal product category for each of the years ended December 31, 2014, 2015 and 2016.

<b>Product</b>	<b>Year Ended December 31,</b>		
	<b>2014</b>	<b>2015</b>	<b>2016</b>
	<b>(In thousand tons)</b>		
<b>Derivative petrochemicals</b>			
Synthetic resin .....	7,718.9	8,222.3	8,998.4
Synthetic fiber .....	86.4	83.7	83.6
Synthetic rubber .....	793.7	764.5	793.7
Intermediates .....	8,149.6	8,838.3	9,262.4
<b>Other chemicals</b>			
Urea .....	2,681.8	2,106.1	2,181.8

In each of the years ended December 31, 2014, 2015 and 2016, our capital expenditures for our refining and chemicals segment were approximately RMB30,965 million, RMB15,725 million and RMB12,847 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.

# OUR MARKETING SEGMENT



## Marketing

We engage in the marketing of refined products through 36 regional sales companies including three distribution branch companies, one lubricants branch company and one fuel oil company. 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 growing 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, 2014, 2015 and 2016:

	Year Ended December 31,		
	2014	2015	2016
Revenue (RMB in millions) . . . . .	1,938,501	1,383,426	1,301,616
Profit/(loss) from operations (RMB in millions) . . . . .	5,421	(500)	11,048
External sales volume of refined oil products (thousand tons) . . . . .	160,878	160,097	159,107

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, 2016, 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
- 20,895 service stations, consisting of 20,101 service stations owned and operated by us and 794 franchised service stations owned and operated by third parties.

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 and lubricants, and carrying out various promotion activities. We launched an application called Zhong You Hao Ke E station for mobile phones to promote mobile payments and enhance 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, 2014, 2015 and 2016.

Product	Year Ended December 31,		
	2014	2015	2016
	(In thousand tons)		
Diesel . . . . .	87,041	84,763	80,168
Gasoline . . . . .	59,821	60,651	62,406
Kerosene . . . . .	14,016	14,683	16,533
Lubricants . . . . .	1,498	1,150	1,122

### **Wholesale Marketing**

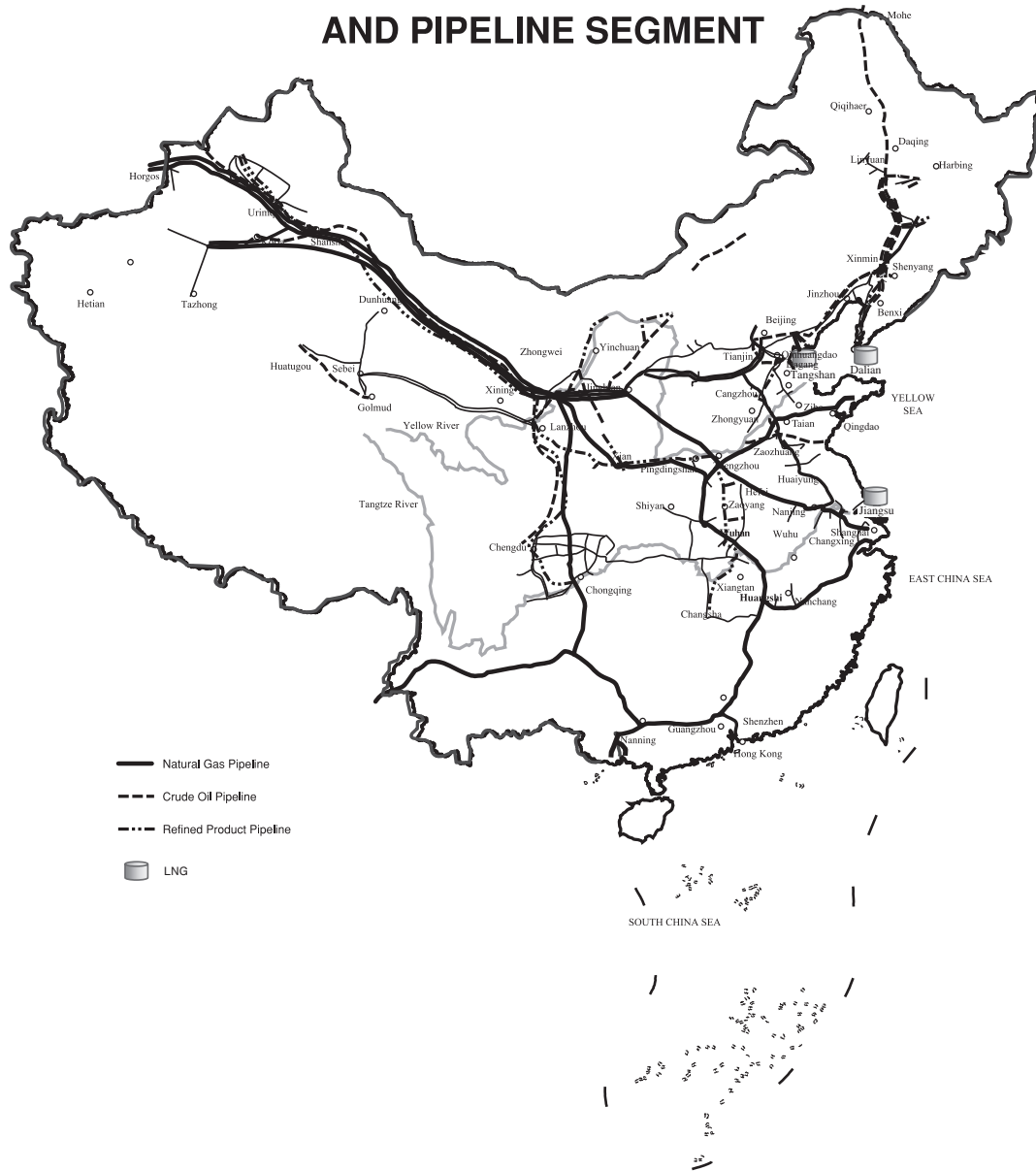
We sell refined products both directly and through independent distributors into various wholesale markets, as well as to utility, commercial, petrochemical, aviation, agricultural, fishery and transportation companies in China. Our gasoline and diesel sales also include the amount we transferred to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

***Retail Marketing***

The weighted average sales volume of gasoline and diesel per business day at our service station network was 10.8 tons, 10.6 tons and 10.5 tons per service station in 2014, 2015 and 2016, respectively.

Capital expenditures for the marketing segment for the years ended December 31, 2014, 2015 and 2016 amounted to RMB5,616 million, RMB7,061 million and RMB7,983 million, respectively, which were used mainly for the construction of sales network facilities including service stations and oil storage tanks.

## OUR NATURAL GAS AND PIPELINE SEGMENT





## 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, 2014, 2015 and 2016:

	As of December 31 or Year Ended December 31,		
	2014	2015	2016
Revenue (RMB in millions) . . . . .	284,262	281,778	247,477
Profit from operations (RMB in millions) . . . . .	13,126	51,231	17,885
Total length of natural gas pipelines (km) . . . . .	48,602	48,629	49,420
Total length of crude oil pipeline (km) . . . . .	18,107	18,892	18,872
Total length of refined oil products pipeline (km) . . . . .	10,086	10,091	10,560
Total volume of natural gas sold <sup>(1)</sup> (Bcf) . . . . .	4,424.2	5,583.6	6,469.8

(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 natural gas sales to the Bohai Rim account for the highest sales volume in our total natural gas sales, which makes Bohai Rim 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 South Western regions 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 committed to provide approximately 4,944 Bcf of natural gas in 2017. 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 a preferential value-added tax rate of 13% for natural gas production as compared to a 17% value-added tax rate for crude oil production.

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, 2016, we owned and operated approximately 49,420 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 main line of the Third West-East Gas Pipeline extends from Horgos to Fuzhou via Zhongwei. It consists of the Yining-Horgos Line, three main branch lines connecting Changsha, Xinye and Dengzhou, the Zhongwei-Jinbian Line and numerous accessory branch lines, with a total length of 6,840 kilometers and a designed annual throughput capacity of 1,059.4 Bcf. By the end of 2014, the western section of the Third West-East Gas Pipeline that extends from Horgos to Zhongwei was completed, with a length of 2,445 kilometers. The eastern section which extends from Ji'an to Fuzhou is 817 kilometers long and was completed and put into operation in 2016.

In addition, we also operate other natural gas pipelines, such as the Zhong County-to-Wuhan natural gas pipeline, the first, the second and the third Shaanxi-to-Beijing natural gas pipelines and Sebei-to-Lanzhou natural gas pipelines. The construction of the fourth Shaanxi-Beijing Natural Gas Pipeline commenced in 2016 and is scheduled to be completed in October 2017.

## **Crude Oil Transportation Infrastructure**

We have an extensive network for the transportation, storage and distribution of crude oil, which covers many regions of China. As of December 31, 2016, we had crude oil pipelines of 18,872 kilometers.

### ***Russia to China Crude Oil Pipeline***

In May 2009, we commenced the construction of the Russia to China crude oil transmission pipeline (the Mohe-to-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, and 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-to-China oil pipeline from Mohe to Daqing was approved by the NDRC, the construction of which commenced in July 2016 and is expected to be completed by October 2017 with a length of 941 kilometers and 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 Lancheng crude oil pipeline.

### **Refined Product Transportation Infrastructure**

As of December 31, 2016, we had refined product pipelines of 10,560 kilometers.

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

We received approval from the NDRC for and commenced construction of the Lanzhou-to-Zhengzhou-to-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 line 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-to-Chengdu-to-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 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 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. 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 tariff and non-tariff barriers for imported refined products and chemical products are being lifted over time. For example, sales of chemical products imported from the Middle East have had 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 government to the development of electric car batteries and electric car technologies and the focus given by the local governments 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.

### **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 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 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 southeastern China where we may face competition from CNOOC and Sinopec. We believe that our dominant natural gas resources base, our relatively advanced technologies 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 RMB385 million, RMB347 million and RMB388 million in 2014, 2015 and 2016, respectively.

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

- 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 2014, 2015 and 2016 were approximately RMB4.00 billion, RMB4.14 billion and RMB3.10 billion, respectively.

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**

In September 2013, two class action complaints were filed with the United States District Court for the Southern District of New York (the “District Court”) against us and certain of our former and current directors and senior management on the grounds of PRC authorities’ investigation into certain of our former directors and senior management. The two suits were subsequently consolidated into one as ordered by the District Court. In June 2014, the plaintiff submitted a revised complaint whereby the plaintiff removed the current senior management from the individual defendants initially named and only included certain of our former directors and senior management. In August 2015, the District Court made a judgment directing termination of the motion of the plaintiff and the closing of the case. In response to that, the plaintiff filed an appeal to the United States Court of Appeals for the Second Circuit (the “Second Circuit”). In March 2016, the Second Circuit ruled to affirm the judgment of the District Court, thus supporting the dismissal by the District Court of the plaintiff’s complaint. After that, the plaintiff did not continue to pursue the appeal within the time limit allowed for appeal and thus, pursuant to the U.S. federal court procedure rules, all the allegations submitted to the District Court and the Second Circuit have been fully dismissed.


Our normal course of business had not been affected by the complaints. We have proactively and vigorously contested the complaints with our best efforts to protect our legitimate rights and interests.

In addition to the foregoing, 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, several of our applications have been approved and 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 121 International Trademark Registration Certificates for our logo covering more than 50 jurisdictions.

As of December 31, 2016, we owned approximately 11,500 patents in China and other jurisdictions. We were granted 2,315 patents in China in 2016.



## 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 Land and Resources, or the MLR, 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;
  - issues import and export licenses for crude oil and refined products to oil and gas companies that have obtained import and export quotas; and
  - examines and approves production sharing contracts in relation to oil and coal seam gas and Sino-foreign equity and cooperative joint venture contracts.
- 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 exceeding certain capital amounts.

### Exploration Licenses and Production Licenses

The *Mineral Resources Law* authorizes the MLR 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 MLR 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 MLR 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 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 MLR 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 MLR 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.

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 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.

### ***Pipeline Transmission Tariff***

Pipeline transmission tariffs for crude oil, refined oil and natural gas are set by NDRC. For those pipelines constructed by the state prior to 1984, the transmission tariff is uniform flat tariff determined based on the principle of minimum profit margin. For those constructed after 1984, the proposed tariffs must be submitted to NDRC for examination and approval based on the capital investment made in the pipeline, the depreciation period for the pipeline and 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.

### ***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 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:

- overall development plans for oil and gas projects in China to be conducted in cooperation with foreign parties;
- facilities for taking delivery of, storing or transporting imported liquefied natural 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; and
- new coal-to-olefins projects, new coal to p-Xylene 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.

<u>Tax Item</u>	<u>Tax Base</u>	<u>Tax Rate</u>
<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	13% for liquefied natural gas, natural gas, liquefied petroleum gas, agricultural film and fertilizers and 17% for other products.  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. The value added tax rates are 17%, 13%, 11% and 6%, as applicable.
<i>Business tax</i>		Since May 1, 2016, business tax has been replaced by value-added tax nationwide on a trial basis.
<i>Consumption tax</i>	Aggregate volume sold or self-consumed	Effective from January 13, 2015, consumption tax was increased from RMB1.4 to RMB1.52 per liter for gasoline, naphtha, solvent naphtha and lubricant and from RMB1.1 to RMB1.2 per liter for diesel, aviation kerosene and fuel oil.  Collection of taxes on aviation kerosene continues to be suspended.

<b>Tax Item</b>	<b>Tax Base</b>	<b>Tax Rate</b>
<i>Resource tax</i>	Value sold	Effective from December 1, 2014, for production of crude oil and natural gas in China, the resource tax rate was increased from 5% to 6%. Exemption or deduction may apply if qualified.
<i>Compensatory fee for mineral resources</i>	Revenue	None, since December 1, 2014.
<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</i>	Area	RMB100 to RMB500 per square kilometer per year
<i>Production license fee</i>	Area	RMB1,000 per square kilometer per year
<i>Royalty fee<sup>(1)</sup></i>	Production volume	Progressive rate of 0-12.5% for crude oil and 0-3% for natural gas

- (1) 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.

## **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 2016, we produced approximately 920.7 million barrels of crude oil and approximately 3,274.5 Bcf of natural gas for sale. Our refineries processed approximately 953.3 million barrels of crude oil in 2016. In 2016, we had revenue of RMB1,616,903 million and profit attributable to owners of the Company of RMB7,857 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 2014, 2015 and 2016.

	<u>2014</u>	<u>2015</u>	<u>2016</u>
Crude oil (US\$/barrel) . . . . .	94.83	48.35	37.99
Natural gas (US\$/thousand cubic feet) <sup>(1)</sup> . . . . .	7.84	7.42	5.68
Gasoline (US\$/barrel) . . . . .	140.85	112.80	101.41
Kerosene (US\$/barrel) . . . . .	116.45	67.77	54.67
Diesel (US\$/barrel) . . . . .	139.72	96.39	82.84

(1) Natural gas citygate price



### ***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 controls by the PRC government, including the issuance of exploration and production licenses, the imposition of industry-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

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 Land and 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.



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 oil blocks 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 oil blocks.

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, 2015, the after-tax discount rates adopted by most of our oil and gas regions were between 7.0% and 10.0%. In the year ended December 31, 2016, the after-tax discount rates adopted by most of our oil and gas regions were between 7.1% and 10.3%.

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. 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 the future, the Company may either over or under recognize the impairment losses for certain 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.

Our statement of comprehensive income for each of the years ended December 31, 2014, 2015 and 2016 is summarized in the table below.

	<b>Year Ended December 31,</b>		
	<b>2014</b>	<b>2015</b>	<b>2016</b>
	<b>(RMB in millions)</b>		
Revenue .....	2,282,962	1,725,428	1,616,903
Operating expenses .....	(2,113,129)	(1,646,176)	(1,556,268)
Profit from operations .....	169,833	79,252	60,635
Exchange gain /(loss), net .....	(2,313)	(632)	1,257
Interest expense, net .....	(21,723)	(22,309)	(20,857)
Share of profit of affiliates and joint ventures .....	10,962	1,504	4,105
Profit before income tax expense .....	156,759	57,815	45,140
Income tax expense .....	(37,731)	(15,726)	(15,768)
Profit for the year attributable to non-controlling interests .....	11,856	6,572	21,515
Profit for the year attributable to owners of the Company .....	<u>107,172</u>	<u>35,517</u>	<u>7,857</u>

The table below sets forth our revenue by business segment for each of the years ended December 31, 2014, 2015 and 2016 as well as the percentage changes in revenue for the periods shown.

	<u>2014</u>	<u>2015</u>	<u>2015 vs. 2014</u>	<u>2016</u>	<u>2016 vs. 2015</u>
	(RMB in millions, except percentages)				
<b>Revenue</b>					
Exploration and production . . . . .	777,574	475,412	(38.9)%	412,484	(13.2)%
Refining and chemicals . . . . .	846,082	642,428	(24.1)%	582,510	(9.3)%
Marketing . . . . .	1,938,501	1,383,426	(28.6)%	1,301,616	(5.9)%
Natural gas and pipeline . . . . .	284,262	281,778	(0.9)%	247,477	(12.2)%
Headquarters and others . . . . .	3,027	2,507	(17.2)%	2,197	(12.4)%
Total . . . . .	3,849,446	2,785,551	(27.6)%	2,546,284	(8.6)%
Less intersegment sales . . . . .	(1,566,484)	(1,060,123)	(32.3)%	(929,381)	(12.3)%
Consolidated net sales from operations . . . . .	<u>2,282,962</u>	<u>1,725,428</u>	(24.4)%	<u>1,616,903</u>	(6.3)%

The table below sets forth our operating income by business segment for each of the years ended December 31, 2014, 2015 and 2016, 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.

	<u>2014</u>	<u>2015</u>	<u>2015 vs. 2014</u>	<u>2016</u>	<u>2016 vs. 2015</u>
	(RMB in millions, except percentages)				
<b>Profit/(loss) from operations</b>					
Exploration and production . . . . .	186,897	33,961	(81.8)%	3,148	(90.7)%
Refining and chemicals . . . . .	(23,560)	4,883	—	39,026	699.2%
Marketing . . . . .	5,421	(500)	—	11,048	—
Natural gas and pipeline . . . . .	13,126	51,231	290.3%	17,885	(65.1)%
Headquarters and others . . . . .	(12,051)	(10,323)	—	(10,472)	—
Total . . . . .	<u>169,833</u>	<u>79,252</u>	(53.3)%	<u>60,635</u>	(23.5)%

## 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% 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 major products in 2015 and 2016, respectively:

	Sales Volume ('000 ton)			Average Realized Price (RMB/ton)		
	2015	2016	Percentage of Change (%)	2015	2016	Percentage of Change (%)
Crude oil <sup>(1)</sup> . . . . .	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)

(1) The sales volume of crude oil listed in the table above represents all of our external sales volume of crude oil.

**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 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 proceeds we received from the equity disposals of some subsidiaries; (iii) the disposal of certain equity interests in Trans-Asia Gas Pipeline Co., Ltd., with proceeds 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 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 proceeds 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.

#### ***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. The net loss consisted of a loss of RMB4,063 million for the sales of 34.173 billion cubic meters of natural gas imported from Central Asia, a loss of RMB7,340 million for the sales of 6.757 billion cubic meters of imported LNG, and a loss of RMB5,591 million for the sales of 4.175 billion cubic meters of natural gas imported from Myanmar.

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.

## Year Ended December 31, 2015 Compared to Year Ended December 31, 2014

### Consolidated Results of Operations

#### Overview

In 2015, our revenue was RMB1,725,428 million, representing a decrease of 24.4% compared with the preceding year. Profit attributable to our owners was RMB35,517 million, representing a decrease of 66.9% compared with the preceding year. Basic and diluted earnings per share were RMB0.19, representing a decrease of RMB0.40 compared with the preceding year.

**Revenue.** Revenue decreased by 24.4% from RMB2,282,962 million in 2014 to RMB1,725,428 million in 2015. This decrease was primarily due to a combined effect of the decreasing selling prices of crude oil and refined oil, and 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 major products in 2015 and 2014, respectively:

	Sales Volume ('000 ton)			Average Realized Price (RMB/ton)		
	2014	2015	Percentage of Change (%)	2014	2015	Percentage of Change (%)
Crude oil <sup>(1)</sup> . . . . .	91,772	101,620	10.7	3,939	2,134	(45.8)
Natural gas (hundred million cubic meter, RMB/'000 cubic meter) . . . . .	1,252.78	1,581.10	26.2	1,366	1,371	0.4
Gasoline . . . . .	59,821	60,651	1.4	7,354	5,972	(18.8)
Diesel . . . . .	87,041	84,763	(2.6)	6,437	4,503	(30.0)
Kerosene . . . . .	14,016	14,683	4.8	5,651	3,334	(41.0)
Heavy oil . . . . .	14,003	15,635	11.7	4,316	2,439	(43.5)
Polyethylene . . . . .	4,159	4,270	2.7	9,724	8,202	(15.7)
Lubricant . . . . .	1,498	1,150	(23.2)	9,202	8,234	(10.5)

(1) The sales volume of crude oil listed in the table above represents all of our external sales volume of crude oil.

**Operating Expenses** Operating expenses decreased by 22.1% from RMB2,113,129 million in 2014 to RMB1,646,176 million in 2015, of which:

**Purchases, Services and Other Expenses** Purchases, services and other expenses decreased by 28.9% from RMB1,486,225 million in 2014 to RMB1,056,795 million in 2015. This decrease was primarily due to the facts that (i) our expenses for purchasing oil products reduced as a result of the decrease in oil prices, (ii) our expenses for imported gas reduced because the quantity and price of imported LNG were both reduced, and (iii) the optimization of production and operation resulted in the reduction of certain purchase costs.

**Employee Compensation Costs** Employee compensation costs (including salaries and additional costs such as insurances, housing funds and training fees) were RMB118,082 million in 2015, representing a decrease of 2.3% from RMB120,822 million in 2014. This decrease was primarily due to the fact that we improved our efficiency-based remuneration system and implemented stricter control over the total number of employees and labor costs.

**Exploration Expenses** Exploration expenses amounted to RMB18,380 million in 2015, representing a decrease of 16.7% from RMB22,064 million in 2014. This decrease was primarily due to the fact that we optimized our exploration deployment, reduced exploration workload and costs appropriately.

**Depreciation, Depletion and Amortization Expenses** Depreciation, depletion and amortization expenses increased by 14.3% from RMB177,463 million in 2014 to RMB202,875 million in 2015, mainly due to the assets



impairment provision of RMB25,022 million in accordance with the accounting standards, which increased by 2.3% compared with 2014. We strictly controlled capital investment and devoted major efforts to optimize our assets structure, thus effectively restrained the trend of substantial increase in depreciation, depletion and amortization expenses.

***Selling, General and Administrative Expenses*** Selling, general and administrative expenses decreased by 2.9% from RMB73,413 million in 2014 to RMB71,270 million in 2015. This decrease was primarily due to the fact that we proactively implemented measures for broadening sources of income, reducing expenditures, cutting costs and enhancing efficiency to strengthen control over costs and expenses.

***Taxes other than Income Taxes*** Taxes other than income taxes decreased by 13.5% from RMB237,997 million in 2014 to RMB205,884 million in 2015. As a result of the decline in the price of crude oil and the rise in the threshold for the special oil gain levy, no special oil gain levy applied to us in 2015, while we paid such levy in an amount of RMB64,376 million in 2014. The resource tax decreased by RMB7,721 million from RMB26,305 million in 2014 to RMB18,584 million in 2015. As a result of the adjustment to the refined products consumption tax policy, our consumption tax increased by RMB45,061 million from RMB104,262 million in 2014 to RMB149,323 million in 2015.

***Other Income, net*** Other net income in 2015 was RMB27,110 million, representing an increase by RMB22,255 million from RMB4,855 million in 2014. This increase was primarily because we recognized an investment gain of RMB22,807 million in 2015 derived from the integration of certain pipeline assets.

***Profit from Operations*** The profit from operations in 2015 was RMB79,252 million, representing a decrease of 53.3% from RMB169,833 million in 2014.

***Net Exchange Loss*** Net exchange loss in 2015 was RMB632 million, representing a decrease of 72.7% as compared with RMB2,313 million in 2014. This decrease was primarily due to the appreciation of the US dollar.

***Net Interest Expenses*** Net interest expenses increased by 2.7% from RMB21,723 million in 2014 to RMB22,309 million in 2015, primarily due to a slight increase in the average balance of interest-bearing debts to finance our production, operation and capital expenditures.

***Profit Before Income Tax Expense*** Profit before income tax expense decreased by 63.1% from RMB156,759 million in 2014 to RMB57,815 million in 2015.

***Income Tax Expense*** Income tax expense decreased by 58.3% from RMB37,731 million in 2014 to RMB15,726 million in 2015, which was primarily due to the decrease in taxable income.

***Profit for the Year*** As a result of the foregoing, our profit for the year decreased by 64.6% from RMB119,028 million in 2014 to RMB 42,089 million in 2015.

***Profit Attributable to Non-controlling Interests*** Net profit attributable to non-controlling interests decreased by 44.6%, from RMB11,856 million in 2014 to RMB6,572 million in 2015, primarily due to the decrease in the profits of certain overseas subsidiaries as a result of the crude oil price drop.

***Profit Attributable to Owners of the Company*** The net profit attributable to owners of the Company decreased by 66.9% from RMB107,172 million in 2014 to RMB35,517 million in 2015.

## ***Segment Results***

### ***Exploration and Production Segment***

***Revenue*** The realized revenue of the exploration and production segment was RMB 475,412 million in 2015, representing a decrease of 38.9% from RMB 777,574 million in 2014, primarily due to a combined effect

of the drop in the crude oil and condensate oil price and an increase in the sales volume of crude oil. The average realized crude oil price was US\$48.35 per barrel in 2015, representing a decrease of 49.0% from US\$94.83 per barrel in 2014.

**Operating Expenses** Operating expenses of the exploration and production segment decreased by 25.3% from RMB590,677 million in 2014 to RMB441,451 million in 2015, primarily due to a combined effect of the decrease in the crude oil special gain levy, resource tax and other relevant taxes and levies and the provisions for impairment of oil and gas assets in 2015.

The oil and gas lifting cost was US\$12.98 per barrel in 2015, representing a decrease of 5.7% from US\$13.76 per barrel in 2014.

**Profit from Operations** We adhered to the low-cost strategy, optimized the production and continued to save energy and tap the potential synergies through innovation and refined management in the exploration and production segment, but as a result of the substantial drop in the crude oil price, our realized profit from operations of the exploration and production segment was RMB33,961 million in 2015, representing a decrease of 81.8% from RMB186,897 million in 2014.

### ***Refining and Chemicals Segment***

**Revenue** Revenue of the refining and chemicals segment decreased by 24.1% from RMB846,082 million in 2014 to RMB642,428 million in 2015, primarily due to a combined effect of the drop in refined and chemicals products price and optimization of the allocation of resources and structure of products as well as the increase in the sales volume of primary products in the refining and chemicals segment.

**Operating Expenses** Operating expenses of the refining and chemicals segment decreased by 26.7% from RMB869,642 million in 2014 to RMB637,545 million in 2015, primarily due to a decrease in the expenses associated with the purchase of crude oil and feedstock oil from external suppliers, partially offset by the increase in consumption tax.

In 2015, we enhanced both quality and efficiency under the cost pressure of the upgrading of oil quality in the refining and chemicals segment. The cash processing cost of refineries was RMB177.80 per ton in 2015, representing a decrease of RMB0.05 per ton from RMB177.85 per ton in 2014.

**Profit from Operations** In 2015, we adjusted our production and operation arrangements in a timely manner, strengthened benchmarking and compliance, and enhanced cost controls in the refining and chemical segment, and thus realized an overall operation profit for the first time since 2011. In 2015, we realized profit from operation of RMB 4,883 million in the refining and chemicals segment, as compared with the operating loss of RMB23,560 million in 2014. Within this segment, our refining operations recorded operating profit of RMB4,690 million in 2015, as compared with the operating loss of RMB7,155 million in 2014, primarily due to the optimization of operation and an increase in gross profit. Despite the downward trend of the chemical market demands, we optimized the structure of products and controlled costs, and realized an operation profit of RMB193 million from our chemicals business, compared with the operating loss of RMB16,405 million in 2014.

### ***Marketing Segment***

**Revenue** Revenue of the marketing segment decreased by 28.6% from RMB1,938,501 million in 2014 to RMB1,383,426 million in 2015, primarily due to continuous downward adjustments in the refined oil price and a decrease in the sales volume of diesel.

**Operating Expenses** Operating expenses of the marketing segment decreased by 28.4% from RMB1,933,080 million in 2014 to RMB1,383,926 million in 2015, primarily due to the decrease in the expenses in purchase of refined oil from external suppliers.

**Loss from Operations** In 2015, we optimized production and sales and inventory management, strengthened cost and expense control and increased the profit from non-oil businesses. However, due to the slowdown of domestic economy growth and the mild demand from the market, the marketing segment recorded an operating loss of RMB500 million in 2015, as compared to the operation profit of RMB 5,421 million in 2014.

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

**Revenue** Revenue of the natural gas and pipeline segment amounted to RMB281,778 million in 2015, compared to RMB284,262 million in 2014, primarily due to a combined effect of the increase in the sales volume of natural gas and the decrease in the sales income of city gas and liquefied petroleum gas.

**Operating Expenses** Operating expenses of the natural gas and pipeline segment amounted to RMB230,547 million in 2015, representing a decrease of 15.0% compared to RMB271,136 million in 2014, primarily due to the decrease in the expenses of imported natural gas.

**Profit from Operations** In 2015, we strengthened the development of high-profitability market, continued to improve the marketing capability and profitability, realized an increase in both volume and profit of sales of natural gas, and achieved an operation profit of RMB51,231 million in the natural gas and pipeline segment in 2015, representing an increase of RMB38,105 million as compared to RMB13,126 million in 2014. Excluding the effect of the investment income of RMB22,807 million generated from the integration of certain pipeline assets in 2015, the profit from operations increased by RMB15,298 million as compared with 2014. In 2015, the natural gas and pipeline segment recorded a net loss of RMB16,299 million from sales of imported gas, representing a decrease of loss of RMB18,721 million as compared with 2014. The net loss consisted of a loss of RMB6,216 million from the sales of 30.552 billion cubic meters of natural gas imported from Central Asia, a loss of RMB8,519 million from the sales of 5.702 billion cubic meters of imported LNG, and a loss from RMB4,073 million for the sales of 4.623 billion cubic meters of natural gas imported from Myanmar.

In 2015, our international operations realized a revenue of RMB540,239 million, representing 31.3% of our total revenue. Loss before income tax expense amounted to RMB8,349 million, primarily due to the provision for impairment for oil and gas assets of certain overseas subsidiaries in 2015.

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 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, 2016, we distributed as dividends 45% of our reported income for the year attributable to our shareholders and 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, 2016 was RMB265,179 million. As of December 31, 2016, we had cash and cash equivalents of RMB97,931 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 continues to decline 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, 2016, 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, 2014, 2015 and 2016 and our cash equivalents at the end of each year.

	Year Ended December 31,		
	2014	2015	2016
	(RMB in millions)		
Net cash flows from operating activities	356,477	261,312	265,179
Net cash flows used for investing activities	(290,838)	(215,879)	(175,887)
Net cash flows used for financing activities	(44,312)	(45,439)	(67,007)
Currency translation difference	1,044	(999)	2,873
Cash and cash equivalents at year end	73,778	72,773	97,931

Our cash and cash equivalents increased by 34.6% from RMB72,773 million as of December 31, 2015 to RMB97,931 million as of December 31, 2016.

### Net Cash Flows from Operating Activities

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 mainly denominated in US Dollars (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 mainly denominated in Renminbi (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).

Our net cash flows from operating activities for the year ended December 31, 2014 was RMB356,477 million, representing an increase of 23.5% from RMB288,529 million for the year ended December 31, 2013. This increase was mainly due to our efforts to enhance the management of the use of funds and inventory and an increase in operating funds. As of December 31, 2014, we had cash and cash equivalents of RMB73,778 million. The cash and cash equivalents were mainly denominated in Renminbi (approximately 73.9% were denominated in Renminbi, approximately 20.0% were denominated in US dollars, approximately 4.8% were denominated in HK dollars and approximately 1.3% were denominated in other currencies).

#### **Net Cash Flows Used for Investing Activities**

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.

Our net cash flows used for investing activities for the year ended December 31, 2014 amounted to RMB290,838 million, representing an increase of 9.1% from RMB266,510 million for the year ended December 31, 2013. The increase was primarily due to the increase of capital from our investment in a joint venture with certain pipeline assets and operations in 2013.

#### **Net Cash Flows Used for Financing Activities**

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 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 cash used for financing activities was RMB44,312 million for the year ended December 31, 2014, representing an increase of RMB32,073 million compared to the net cash outflows of RMB12,239 million used for financing activities for the year ended December 31, 2013. This was primarily due to our efforts to strengthen the management of our interest-bearing borrowings and to optimize our debt structure.

Our net borrowings as of December 31, 2014, 2015 and 2016 were as follows:

	As of December 31,		
	2014	2015	2016
	(RMB in millions)		
Short-term borrowings (including current portion of long-term borrowings) . . . . .	169,128	106,226	143,384
Long-term borrowings . . . . .	370,301	434,475	372,887
Total borrowings . . . . .	539,429	540,701	516,271
Less:			
Cash and cash equivalents . . . . .	73,778	72,773	97,931
Net borrowings . . . . .	465,651	467,928	418,340

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 total borrowings as of December 31, 2014 consisted of approximately 63.2% fixed-rate loans and approximately 36.8% floating-rate loans. Of our borrowing as of December 31, 2014, approximately 74.6% were denominated in Renminbi, approximately 24.8% were denominated in US Dollars and approximately 0.6% 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, 2014, 2015 and 2016 was 29.0%, 28.7% and 27.3%.

As of December 31, 2016, the outstanding amount of our debts secured by CNPC and its subsidiaries and other third parties was RMB65,692 million.

### Capital Expenditures and Investments

In 2016, we focused on the principles of quality and profitability for capital expenditures, continued to optimize our investment structure, controlled our overall capital expenditures, while continued to increase the investment in upstream oil and gas projects in order to enhance our sustainable development capability. In 2016, our capital expenditures were RMB172,386 million, representing a decrease of 14.8% from RMB202,238 million in 2015.



The table below sets forth our capital expenditures and investments by business segment for each of the years ended December 31, 2014, 2015 and 2016 as well as those anticipated for the year ending December 31, 2017. Actual capital expenditures and investments for periods after January 1, 2017 may differ from the amounts indicated below.

	2014		2015		2016		2017 Anticipated	
	(RMB in millions)	%	(RMB in millions)	%	(RMB in millions)	%	(RMB in millions)	%
Exploration and production <sup>(1)</sup> . . .	221,479	75.92	157,822	78.04	130,248	75.56	143,600	75.07
Refining and chemicals . . . . .	30,965	10.61	15,725	7.78	12,847	7.45	13,600	7.11
Marketing . . . . .	5,616	1.93	7,061	3.49	7,983	4.63	10,800	5.65
Natural gas and pipeline . . . . .	32,919	11.28	20,360	10.07	20,340	11.80	22,200	11.60
Headquarters and others . . . . .	750	0.26	1,270	0.62	968	0.56	1,100	0.57
Total . . . . .	<u>291,729</u>	<u>100.00</u>	<u>202,238</u>	<u>100.00</u>	<u>172,386</u>	<u>100.00</u>	<u>191,300</u>	<u>100.00</u>

(1) If investments related to geological and geophysical exploration costs are included, the capital expenditures and investments for the exploration and production segment in 2014, 2015, 2016 and the estimates for the same in 2017 would be RMB231,480 million, RMB166,594 million, RMB139,135 million and RMB153,100 million, respectively.

As of December 31, 2016, the capital commitments contracted but not provided for were approximately RMB59,664 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, 2014, 2015 and 2016, capital expenditures in relation to the exploration and production segment amounted to RMB221,479 million, RMB157,822 million and RMB130,248 million, respectively. In 2016, 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 for 2017 would amount to RMB143,600 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 growth in the output of natural gas by developing oil and gas fields in Daqing, Changqing, Liaohe, Xinjiang, Tarim and the Southwest region and continue to develop unconventional resources such as coalbed methane and shale gas. Overseas operations will be aimed at continued cooperation with our current partners in oil and gas exploration and development 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, 2014, 2015 and 2016 were RMB30,965 million, RMB15,725 million and RMB12,847 million, respectively. In 2016, our capital expenditures were mainly spent on the construction of large-scale refining and chemicals facilities, including the Yunnan petrochemical project and other oil product quality upgrading projects.

We anticipate that capital expenditures for the refining and chemicals segment in 2017 would amount to RMB13,600 million, which are expected to be used primarily for construction of large-scale refining and

chemical projects, such as the Yunnan petrochemical project, the optimization project of the Liaoyang petrochemical refinery, the quality, safety and environmental upgrading project of the Huabei petrochemical refinery, and other refined oil quality upgrading projects.

### ***Marketing***

Our capital expenditures for our marketing segment for each of the years ended December 31, 2014, 2015 and 2016 were RMB5,616 million, RMB7,061 million and RMB7,983 million, respectively. Our capital expenditures for the marketing segment in 2016 were mainly used for the construction of service stations, storage facilities and other facilities for our sales network.

We anticipate that capital expenditures for our marketing segment for the year of 2017 will amount to RMB10,800 million, which are expected to be used primarily for the construction and expansion of high-efficiency sales networks in China as well as the construction of oil and gas operating centers abroad.

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

Our capital expenditures for the natural gas and pipeline segment for each of the three years ended December 31, 2014, 2015 and 2016 were RMB32,919 million, RMB20,360 million and RMB20,340 million, respectively. Our capital expenditures for the natural gas and pipeline segment in 2016 were mainly used for construction projects including the Third West-East Gas Pipeline and the Jinzhou-Zhengzhou Refined Oil Pipeline.

We anticipate that our capital expenditures for the natural gas and pipeline segment in 2017 will amount to approximately RMB22,200 million, which are expected to be used primarily for the construction of key oil and gas transmission projects such as the Fourth Shaanxi-Beijing Gas Pipeline, the East section of Sino-Russia Natural Gas Pipeline, and the second Sino-Russia Crude Oil Pipeline, as well as the construction of natural gas branch lines and sales terminals.

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

Our non-segment-specific capital expenditures and investments for each of the years ended December 31, 2014, 2015 and 2016 were RMB750 million, RMB1,270 million and RMB968 million, respectively, which were primarily used for research activities and development of the IT system.

Our anticipated capital expenditures for the headquarters and others for 2017 amount to RMB1,100 million. These planned capital expenditures and investments mainly include capital expenditures for scientific research activities and the construction of the IT system.

## **Off-Balance Sheet Arrangements**

As of December 31, 2016, 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.



The tables below set forth our long-term contractual obligations outstanding as of December 31, 2016.

<u>Contractual Obligations</u>	<u>Payment Due by Period</u>				
	<u>Total</u>	<u>Less Than 1 Year</u>	<u>1-3 Years</u>	<u>3-5 Years</u>	<u>After 5 Years</u>
	(RMB in millions)				
Long-term debt .....	444,302	71,415	152,183	127,621	93,083
Capital lease obligations .....	2,048	258	493	233	1,064
Operating leases .....	189,826	10,108	16,506	14,251	148,961
Capital commitments .....	59,664	20,822	38,693	114	35
Other long-term obligations .....	—	—	—	—	—
Debt-related interest .....	61,334	15,593	20,575	11,370	13,796
Total .....	<u>757,174</u>	<u>118,196</u>	<u>228,450</u>	<u>153,589</u>	<u>256,939</u>

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

<u>Year</u>	<u>Annual Payment</u> (RMB in millions)
2017 .....	800
2018 .....	800
2019 .....	800
2020 .....	800
2021 .....	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, 2016, the balance of assets retirement obligation was RMB125,392 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, 2016, we had 40,262 employees in our research and development departments and institutions.

In each of the years ended December 31, 2014, 2015 and 2016, our total expenditures for research and development were approximately RMB19,807 million, RMB19,300 million and RMB17,565 million, respectively.

## **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 2017, the global economy is expected to continue to recover moderately. As the global oil market gradually tends to reach a balance, the international oil price is likely to rebound although still subject to great uncertainty. China's economy is expected to keep growing in a moderately stable manner. The consumption demand for oil and gas in China remains a growth momentum as a whole. Profound changes have taken place in the oil and gas market. Growth drivers are generated from the expedient implementation of such major strategies as the "Belt and Road" initiative, reforms in energy pricing and the reorganization in the oil and gas industry. All these will pose opportunities for us to optimize production, develop market and create a good environment for our long-term business 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 focus on the development of oil and gas business and further optimize our business deployment and asset structure so as to improve operation efficiency and profitability of our oil and gas business chains. We will vigorously broaden our sources of income, reduce expenditures and improve efficiency in an effort to maintain a steady and positive improvement of our production and operations, and continuously improve our market competitiveness.

With respect to the exploration and production segment, we will continue to prioritize the resource-oriented strategy and make efforts to increase reserves and maintain stable production. With respect to oil and gas exploration, we will focus on major basins, key blocks and areas, make efforts to raise the exploration investment efficiency, confirm large-scale high-quality reserves, and thus solidify our resource base. With respect to oil and gas production, we will optimize our plan and organization of production and operations, cut down resource acquisition costs, and continue to enhance the cost-effectiveness of our production. We will further the

development of the unconventional oil and gas business such as coalbed methane and shale gas, in an orderly manner and continue to maintain the stability of production and profit. In 2017, we expect that our crude oil output would reach 879.0 million barrels and gas output would reach 3,276.2 Bcf, equivalent to 1,425.2 million barrels in total.

With respect to the refining and chemicals segment, we will orchestrate our activities to achieve a consistency between profitability, market condition and resources. To that end, we will make arrangements for processing load, effectively optimize the structuring of raw materials, facility operation and product mix, reasonably reduce the diesel-gasoline ratio, and increase the output of products with high profitability and high added-value. We will pay close attention to the chemical product 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 construction of key projects in a well-paced and orderly way, improve oil product quality upgrade, and continuously improve our sustainable development capability and profitability. In 2017, we expect our crude oil processing output to be 1,016.7 million barrels.

With respect to the marketing segment, we will focus on market conditions, strengthen the interaction between production and marketing, and enhance overall profitability. We will deepen the integrated marketing of refined oil, fuel cards, non-oil business, lubricating oil and natural gas, emphasize high-profitability and high-end markets, promote the use of fuel cards, stimulate the non-oil business development by developing value-added services based on convenient stores, increase revenue and profit from such high-added-value products as lubricating oil, and develop natural gas filling terminals in an orderly manner. We will accelerate the construction of our sales networks in a multi-channel and diversified manner, promote quality upgrade of service stations, realize targeted sales through improvement in our information technology, and continuously enhance our profitability and market competitiveness.

With respect to the natural gas and pipeline segment, we will devote efforts to creating a strategic and value-oriented natural gas business chain, continue to optimize the pipeline operation management, carry out integrated operations of production, import, storage, transportation and marketing links, effectively develop the business of consignment storage and sale, and develop a pipeline network system featuring effective operations, flexible scheduling and constant safety. We will optimize our resource structure and customer structure, develop customer-oriented and flexible marketing strategies and commercialization modes, make advance preparation for the development of markets along the newly-built pipelines, and reinforce the interaction between resources and market. We will continue to implement the construction of key pipelines, make more efforts to the construction of gas transmission branch pipelines and terminal facilities, and actively participate in the online trading via Shanghai Oil and Gas Exchange as a way to further diversification of natural gas trading modes.

With respect to the international operations, we will continue to improve the strategic deployment 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 by further integrating their resources and adjusting their structures and increasing their scale, strength and profit contribution. We will streamline our selection of cooperation projects, innovate assets and capital operation modes, maintain our efforts to exploration and development of existing key projects and high-profitability projects, and endeavor to increase reserves, output and profit. We will leverage the synergy and coordination between international trading and production, make overall arrangements for import and export activities as well as domestic and foreign resources, optimize the trading structure and networking deployment, and improve the business operation expertise 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.

## **Other Information**

### **Inflation**

Inflation or deflation did not have a significant impact on our results of operations for the year ended December 31, 2016.

### **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, four 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.

Nine of the directors are affiliated with CNPC or its subsidiaries.

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 upon the expiration of his/her term of office. 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.

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:

<u>Name<sup>(1)</sup></u>	<u>Age</u>	<u>Position</u>	<u>Time of Election<sup>(2)</sup></u>
Wang Yilin .....	60	Chairman of the Board of Directors	June 2015
Zhang Jianhua .....	52	Vice-Chairman and Non-executive Director	October 2016
Wang Dongjin .....	54	Vice-Chairman, Executive Director and President	May 2011
Xu Wenrong .....	55	Non-executive Director	May 2016
Yu Baocai .....	51	Non-executive Director	May 2011
Shen Diancheng .....	57	Non-executive Director	May 2014
Liu Yuezhen .....	55	Non-executive Director	May 2014
Liu Hongbin .....	53	Non-executive Director	May 2014
Zhao Zhengzhang .....	60	Executive Director and Vice President	June 2015
Chen Zhiwu .....	54	Independent Non-executive Director	May 2011
Richard H. Matzke .....	79	Independent Non-executive Director	May 2014
Lin Boqiang .....	59	Independent Non-executive Director	May 2014
Zhang Biyi .....	63	Independent Non-executive Director	October 2014
Guo Jinping .....	59	Chairman of the Board of Supervisors	
Zhang Fengshan .....	54	Supervisor	
Li Qingyi .....	56	Supervisor	
Jia Yimin .....	56	Supervisor	
Jiang Lifu .....	53	Supervisor	
Yang Hua .....	53	Supervisor appointed by employees' representatives	
Li Jiamin .....	53	Supervisor appointed by employees' representatives	
Li Wendong .....	52	Supervisor appointed by employees' representatives	
Liu Xianhua .....	53	Supervisor appointed by employees' representatives	
Sun Longde .....	54	Vice President	
Huang Weihe .....	59	Vice President	
Xu Fugui .....	59	Vice President	
Lin Aiguo .....	58	Chief Engineer	
Wang Lihua .....	60	Vice President	
Wu Enlai .....	56	Secretary to the Board of Directors	
Lv Gongxun .....	59	Vice President	
Tian Jinghui .....	54	Vice President	
Chai Shouping .....	55	Chief Financial Officer	

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

In May 2016, Mr. Xu Wenrong was appointed a director of our company;

In October 2016, Mr. Zhang Jianhua was appointed a director and the vice chairman of the board of directors of our company;

In October 2016, Mr. Liu Hongbin resigned from the position of vice president and became a non-executive director;

In May 2016, Mr. Yao Wei resigned from the position of a supervisor appointed by the employees' representatives due to age;

In May 2016, Mr. Liu Hehe resigned from the position of a supervisor appointed by the employees' representatives due to change of work;

In May 2016, Mr. Li Wendong and Mr. Liu Xianhua were elected supervisors by the employee representatives of our company;

In December 2016, Mr. Zhao Dong resigned from the position of chief financial officer due to change of work;

In January 2017, Mr. Chai Shouping was appointed chief financial officer of our company.

(2) For directors only.

## **Directors**

**Wang, Yilin**, age 60, is the chairman of our board of directors and the chairman of CNPC. Mr. Wang is a professor-level senior engineer and holds a doctorate degree. He has nearly 35 years of working experience in China's oil and gas industry. Mr. Wang was appointed the deputy director and chief exploration geologist of Xinjiang Petroleum Administration Bureau in June 1996, and the general manager of our Xinjiang Oilfield Company in September 1999. He served as the assistant general manager of CNPC since July 2003. Mr. Wang was appointed a deputy general manager 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 and CNOOC Limited. He was appointed chairman of CNPC in April 2015 and chairman of the board of directors of our company in June 2015.

**Zhang, Jianhua**, age 52, is the vice chairman of our board of directors and a director and the general manager 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 petroleum and chemical industry. He was appointed 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 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 a senior vice president of Sinopec Corp in March 2005. He was appointed a director of the board of directors of Sinopec Corp in May 2006, and concurrently served as the chairman of the board of Sinopec (Hong Kong) Limited from June 2007, and concurrently served as the chairman of the board of directors of Sinopec Engineering (Group) Co., Ltd. from October 2014. He was appointed a director of the board and the general manager of CNPC in July 2016. In October 2016, Mr. Zhang was appointed a director and the vice chairman of our company.

**Wang, Dongjin**, age 54, is the vice-chairman of the board of directors and president of our company and the deputy general manager of CNPC. Mr. Wang is a professor-level senior engineer, holds a doctorate degree and has over 30 years of work experience in China's oil and gas industry. In July 1995, he was appointed deputy director of the Jiangsu Oil Exploration Bureau, and in December 1997, he was appointed deputy general manager of China National Oil & Gas Exploration and Development Corporation. From December 2000, Mr. Wang was concurrently the general manager of CNPC International (Kazakhstan) Ltd. and Aktobe Oil and Gas Co., Ltd. In October 2002, Mr. Wang was appointed general manager of China National Oil and Gas Exploration and Development Corporation, and in January 2004, he became the assistant to the general manager of CNPC and deputy chairman and general manager of China National Oil & Gas Exploration and Development Corporation. In September 2008, he was appointed deputy general manager of CNPC. He was elected director of our company



in May 2011, and in July 2013, he was appointed the president of our company. In May 2014, he was appointed vice-chairman of our board of directors.

**Xu, Wenrong**, age 55, is a non-executive director of our board of directors and a 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 of Bureau of Geophysical Prospecting of CNPC from December 1999, and the vice chairman and general manager of BGP Inc., from December 2002. He was appointed an assistant president of CNPC in January 2004, and from September 2005 Mr. Xu concurrently served as the director general of development and research department of CNPC, and the chairman of CNPC Services & Engineering Ltd from July 2006. He served as a director of the board, the chief of discipline & inspection group and the chairman of the labor union of China Shipping (Group) Company, and the president of China Shipping Management Cadre College from June 2011. He was appointed a deputy general manager and the chief of discipline & inspection group of China Shipping (Group) Company in February 2014, and the chief of discipline & inspection group of China Shipping (Group) Company in July 2015. He has been served as a deputy general manager of CNPC since January 2016. Mr. Xu was appointed a non-executive director of our board of directors in May 2016.

**Yu, Baocai**, age 51, is a director of our company and deputy general manager of CNPC. Mr. Yu is a senior engineer, holds a master's degree and has nearly 30 years of work experience in China's oil and petrochemical industry. He was appointed deputy general manager of PetroChina Daqing Petrochemical Company in September 1999 and was promoted to general manager in December 2001. In September 2003, Mr. Yu was appointed general manager of PetroChina Lanzhou Petrochemical Company, and in September 2008, he was appointed the deputy general manager of CNPC. Mr. Yu was elected 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.

**Shen, Diancheng**, age 57, is a director of our company and a deputy general manager and safety director of CNPC. Mr. Shen is a professor-level senior engineer, holds a doctorate degree, and has over 30 years of work experience in China's oil and petrochemical industry. Mr. Shen was appointed standing deputy general manager of Daqing Refining & Chemical Company in October 2000, general manager of Liaoyang Petrochemical Company in April 2002 and general manager of Jilin Petrochemical Company in November 2005. In June 2007, he was appointed vice president of our company, concurrently serving as general manager of PetroChina Refining & Marketing Company. Mr. Shen served as general manager of PetroChina Refining & Chemical Company from November 2007, and he was appointed deputy general manager of CNPC in April 2011. Mr. Shen serves as safety director of CNPC since February 2012. Mr. Shen was elected director of our company in May 2014.

**Liu, Yuezheng**, age 55, is a director of our company and the chief accountant of CNPC. Mr. Liu is a researcher-level senior accountant, holds a master's degree and has over 35 years of work experience in the financial and accounting industries. 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 director of 610 Research Institute. Mr. Liu served as chairman of the board and general manager of AVIC Beijing Qingyun Aviation Instruments Co., Ltd., since May 2003 and as chief accountant of CASIC (Group) Company since November 2006. He has served as the chief accountant of CNPC since December 2013. He was elected a director of our board of directors in May 2014.

**Liu, Hongbin**, age 53, is a director of our company and deputy general manager 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 chief engineer of Tuha Petroleum Exploration & Development Headquarters in June 1995, deputy general manager of PetroChina Tuha Oilfield Company in July 1999, commander of Tuha

Petroleum Exploration & Development Headquarters in July 2000, the general manager of the planning department of our company in March 2002 and director of the planning department of CNPC in September 2005. Mr. Liu was appointed vice president of our company in June 2007 and general manager of PetroChina Marketing Company in November 2007. In July 2013, he was appointed deputy general manager of CNPC. Mr. Liu was appointed executive director and general manager of Daqing Oilfield Company Ltd. in August 2013, and he was elected to our board of directors in May 2014.

**Zhao, Zhengzhang**, age 60, is an executive director and vice president of our company, the general manager of our Exploration and Production Company and a deputy general manager of CNPC. Mr. Zhao is a professor-level senior engineer, holds a master's degree and has nearly 30 years of work experience in China's oil and gas industry. He was appointed deputy director of the New Zone Exploration Department of CNPC in June 1996, and in November 1996, deputy director of the Exploration Bureau of CNPC and director of the New Zone Exploration Department. In October 1998, Mr. Zhao was appointed deputy director of the CNPC Exploration and Production Company. Mr. Zhao was appointed a member of the Preparatory Group of CNPC Exploration and Production Company in September 1999 and deputy general manager of CNPC Exploration and Production Company in December 1999. He was appointed senior executive and deputy general manager of CNPC Exploration and Production Company in January 2005 and general manager of CNPC Exploration and Production Company in January 2006. In May 2008, he was appointed vice president of our company and general manager of our Exploration and Production Company. In August 2013, Mr. Zhao was appointed general manager of Changqing Oilfield Company and director of the Changqing Petroleum Exploration Bureau. He has also served as deputy general manager of CNPC since July 2014. In June 2015, Mr. Zhao Zhengzhang was appointed an executive director of our company.

#### **Independent Non-executive Directors**

**Chen, Zhiwu**, age 54, is an independent non-executive director of our company. Mr. Chen is a tenured professor of financial economics at Yale University School of Management and a distinguished professor of the Chang Jiang Scholar Program at Tsinghua University School of Humanities and Social Sciences. He received a bachelor's degree in science from Central South University of Technology in China (now named Central South University), a master's degree in engineering from National University of Defense Technology in China and a doctorate degree in finance from Yale University. Starting his teaching career in June 1990, Mr. Chen taught at University of Wisconsin, Madison. Since July 1995, he worked at Ohio State University, where he was promoted to associate professor of finance in 1997. Since July 1999, he has been a tenured professor of finance at Yale University School of Management. Mr. Chen was elected as an independent non-executive director of our company in May 2011.

**Richard H. Matzke**, age 79, is an independent non-executive director of our company. He is concurrently a member of the human resources and compensation committee to the board of directors of OAO Lukoil and a director on the board of PHI Inc. in the United States. Mr. Matzke has a bachelor's degree from Iowa State University, a master's degree in geology from Pennsylvania State University and a master's degree in business administration from St. Mary's College. Since 1961, he worked in the exploration, planning, economic analysis and research departments of Chevron Oil Company. Mr. Matzke was elected vice president of Chevron Chemical Company in 1979, director of Caltex Pacific Indonesia in 1982, president of Chevron Canada Resources Ltd. in 1986, president of Chevron Overseas Petroleum Inc. and he was also elected to the board of directors of Chevron Chemical Company in 1997. Since his retirement from the board of directors of Chevron Oil Company in 2002, Mr. Matzke has been served a director and chairman of the Strategy and Investment Committee of Lukoil, chairman of the US-Kazakhstan Business Association, chairman of the US-Azerbaijan Business Association, member of the Council on Foreign Relations and US-Russia Business Council, board member of the National Committee on US-China Relations, board member of the African-America Institute, member of the Advisory Board of the Center for Strategic and International Studies and counsel for the US International Commerce Chamber. Mr. Matzke was elected as an independent non-executive director of our company in May 2014.

**Lin, Boqiang**, age 59, is an independent non-executive director of our company. Mr. Lin holds a doctorate degree in economics from the University of California. He was a senior energy economist at the Asian Development Bank, and he currently serves as a vice principal of New Huadu Business School, director of Research Institute for China's Energy Policy at Xiamen University, director of 2011 Collaborative Innovation Centre for Energy Economics and Energy Policy and director of China Centre for Energy Economics Research. He is a doctoral tutor at Xiamen University. He was awarded a "Changjiang Scholar" distinguished professor by the Ministry of Education in 2008. Mr. Lin is vice-chairman of China Energy Society, a member of the National Energy Consultation Committee under the National Energy Commission, member of the Energy Price Consultation Committee under the National Development and Reform Commission, member of the Energy Advisory Council and vice-chairman of the Global Agenda Council on Energy Security 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 63, is an independent non-executive director of our company. Mr. Zhang is a senior accountant and holds a bachelor's degree in finance and banking from Xiamen University. He served as 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 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 an independent non-executive director of our company in October 2014.

### **Supervisors**

**Guo, Jinping**, age 59, is the chairman of our board of supervisors, general manager of our Legal Department, the assistant to the general manager of CNPC and general counsel and director of the Legal Department of CNPC. Mr. Guo is a professor-level senior economist, holds an executive post-graduate qualification and has over 30 years of work experience in China's oil and gas industry. In November 1996, he was appointed chief economist of the Bureau of Policy and Regulations of CNPC, and in October 1998, deputy director of the Development and Research Department of CNPC. Mr. Guo was appointed general manager of our Legal Department in September 1999 and director of the Legal Department of CNPC in September 2005. In November 2007, he was appointed the general counsel of CNPC. Mr. Guo was elected as a supervisor of our company in May 2011, and he's also been serving as the assistant to the general manager of CNPC since April 2014. In May 2014, Mr. Guo was appointed chairman of our board of supervisors.

**Zhang, Fengshan**, age 54, is a supervisor and the chief safety officer of our company and the general manager of our Quality, Security and Environmental Protection Department. In addition, he is the vice chief 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 deputy director of Liaohe Oil Exploration Bureau in July 2000, safety director of Liaohe Oil Exploration Bureau in May 2002, director of Liaohe Petroleum Exploration Bureau in August 2004 and in February 2008, general manager of Great Wall Drilling and Exploration Company Ltd., where he also served as executive director since 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 the chief safety officer of our company and the vice chief safety officer of CNPC. In December 2015, Mr. Zhang was appointed the director of the Security, Environmental Protection Supervision Center of CNPC. In December 2016, Mr. Zhang was appointed 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.

**Li, Qingyi**, age 56, is a supervisor and general manager of the Audit Department of our company. He is also the general manager of the Audit Department and director of the Auditing Services Centre of CNPC. Mr. Li is a

professor-level senior accountant, holds a master's degree in economics and has nearly 35 years of work experience in China's oil and gas industry. Mr. Li was appointed chief accountant of Jinxi Oil Refinery in June 1999, deputy general manager and chief accountant of Jinxi Petrochemical in October 1999, director of the Capital Operation Department of CNPC in November 2000, general manager of Equipment & Supplies (Group) Company in April 2007 and general manager of CNPC Equipment Manufacturing Branch Company in December 2007. He was appointed director of CNPC Auditing Services Centre in September 2010 and appointed deputy general manager of our Audit Department and the director of the CNPC Auditing Services Centre in August 2011. In September 2012, Mr. Li was promoted to general manager of our Audit Department, the general manager of the Audit Department of CNPC and the director of CNPC Auditing Services Centre. In May 2013, Mr. Li was elected a supervisor of our company.

**Jia, Yimin**, age 56, is a supervisor and general manager of the Capital Operation Department of our company. He is also serving as general manager of the Capital Operation Department of CNPC. Mr. Jia is a professor-level senior accountant, holds a master's degree, and has over 35 years of work experience in China's oil and gas industry. He was appointed the deputy general manager of the Finance Department of our company in February 2000, director of the Budget Planning Offices of our company and of CNPC in July 2007 and general manager of the Budget Planning Offices of our company and of CNPC in May 2011. He became the general manager of the Capital Operation Departments of our company and of CNPC in November 2013. Mr. Jia was appointed a supervisor of our company in May 2014.

**Jiang, Lifu**, age 53, 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 deputy general manager of our Capital Operation Department in August 2003, deputy director of CNPC's Planning Department in May 2005, deputy general manager of our Planning Department in June 2007 and 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 a supervisor of our company in October 2014. In April 2015, Mr. Jiang was appointed the general manager of our Reform and Enterprise Management Department and the general manager of the Reform and Enterprise Management Department of CNPC.

**Yang, Hua**, age 53, is a supervisor of our company appointed by the employees' representatives. He is also serving as general manager of PetroChina Changqing Oilfield Company as well as director of the Changqing Petroleum Exploration Bureau. Mr. Yang is a professor-level senior engineer, holds a doctorate degree, and has over 30 years of work experience in China's oil and gas industry. He was appointed deputy general manager of Changqing Oilfield Company in October 2002, standing deputy general manager in February 2008, principal in January 2014, and general manager in July 2014. Mr. Yang was appointed director of the Changqing Oil Exploration Bureau in July 2014. He was appointed a supervisor of our company in October 2014.

**Li, Jiamin**, age 53, is a supervisor of our company appointed by the employees' representatives. He is also the general manager of PetroChina Lanzhou Petrochemical Company and the general manager of Lanzhou Petroleum & Chemical Company. Mr. Li is a professor-level senior engineer, holds a master's degree and has nearly 30 years of work experience in China's oil and petrochemical industry. He was appointed deputy general manager and chief security officer of PetroChina Lanzhou Petrochemical Company in August 2004. He was promoted to general manager of PetroChina Lanzhou Petrochemical Company and Lanzhou Petroleum & Chemical Company in March 2012. Mr. Li was appointed a supervisor of our company in May 2014.

**Li, Wendong**, age 52, is a supervisor of our company appointed by the employees' representatives. He is also the general manager of PetroChina West-East Natural Gas Transmission Pipelines Company and general manager of PetroChina West-East Natural Gas Sales 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 deputy director of China Petroleum Pipeline Bureau. In August 2011, he was appointed head of PetroChina West Pipelines Company. In November 2013, he was appointed general manager of PetroChina West Pipeline Company. In March 2016, he was appointed general manager of PetroChina West-East Natural Gas Transmission Pipelines Company and general manager of PetroChina West-East Natural Gas Sales Company. Mr. Li was appointed a supervisor of our company in May 2016.

**Liu, Xianhua**, age 53, is a supervisor of our company appointed by the employees' representatives. He is also the general manager 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 over 30 years of work experience in China's oil and petrochemical industry. In May 2005, he was appointed general manager of PetroChina Shandong Marketing Company. In March 2012, he was appointed general manager of PetroChina Northeast Marketing Company. In December 2015, he was appointed general manager of PetroChina Liaoning Marketing Company and general manager of Liaoning Petroleum Corporation. Mr. Liu was appointed a supervisor of our company in May 2016.

### **Other Senior Management**

**Sun, Longde**, age 54, is a vice president of our company. He is also an executive director of the board and the general manager of Daqing Oilfield Company Ltd. and the director of Daqing Petroleum Administration Bureau. Mr. Sun is a professor-level senior engineer, holding a doctorate degree and has over 30 years of work experience in China's oil and geological industry. He was appointed manager of Exploration & Development Company of the Shengli Petroleum Administration Bureau in September 1997, chief geologist of Tarim Petroleum Exploration & Development Headquarters in November 1997, deputy general manager of PetroChina Tarim Oilfield Company in September 1999, and general manager 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 director of the consultancy center of CNPC. In July 2015, Mr. Sun was appointed general manager of our Science and Technology Management Company and the general manager of the Science and Technology Department of CNPC. He was appointed an executive director of the board and the general manager of Daqing Oilfield Company Ltd. and the director of Daqing Petroleum Administration Bureau in March 2016.

**Huang, Weihe**, age 59, is a vice president of our company and the general manager of PetroChina Natural Gas and Pipelines Company. He is also an executive director and the chairman of the board of Kunlun Energy Co., Ltd., and the chairman of the board of PetroChina Pipelines Co., Ltd. Mr. Huang is a professor-level senior engineer, holding a doctorate degree and has over 35 years of work experience in China's oil and gas industry. He was appointed deputy director of the Petroleum and Pipelines Bureau in December 1998. In November 1999, he was appointed deputy director of the Petroleum and Pipelines Bureau and concurrently the chief engineer. Mr. Huang was appointed general manager of PetroChina Pipelines Company in October 2000 and concurrently held the position of general manager of PetroChina West-East Natural Gas Transmission Pipelines Company beginning in May 2002. In December 2002, Mr. Huang became the general manager of PetroChina Natural Gas and Pipelines Company and concurrently the general manager of PetroChina West-East Natural Gas Transmission Pipeline Company. In May 2008, he was appointed chief engineer of our company and in October 2011, he became a vice president of our company. In December 2013, Mr. Huang was elected to the Chinese Academy of Engineering. Since February 2016, he has concurrently served as an executive director of the board and the general manager of CNPC Hong Kong (Holding) Ltd. and a director and the chairman of the board of Kunlun Energy Co., Ltd. He was appointed chairman of the board of PetroChina Pipelines Co., Ltd. in September 2016.

**Xu, Fugui**, age 59, is a vice president of our company and general manager of PetroChina Refining & Chemical Company. He is a professor-level senior engineer, holding a doctorate degree and has over 30 years of work experience in China's oil and petrochemical industry. Mr. Xu was appointed deputy manager of Dushanzi Petrochemical Planter of Refining Plant of the Xinjiang Petroleum Administration Bureau in November 1995,

general manager of Dushanzi Petrochemical Plant of the Xinjiang Petroleum Administration Bureau in July 1999, and general manager of Dushanzi Petrochemical Company in September 1999. In September 2011, he was appointed general manager of PetroChina Refining & Chemical Company. Mr. Xu was appointed a vice president of our company in October 2011.

**Lin, Aiguo**, age 58, is the chief engineer of our company and the president of the PetroChina Petrochemical Research Institute. He is a professor-level senior engineer, holding a bachelor's degree and has nearly 35 years of work experience in China's oil and petrochemical industry. Mr. Lin was appointed deputy manager and standing deputy manager of the Shengli Refinery of Qilu Petrochemical Company in July 1993, deputy general manager of Dalian West Pacific Petrochemical Co. Ltd. in May 1996, general manager of Dalian West Pacific Petrochemical Co. Ltd. in August 1998, and general manager of our Refining & Marketing Company in December 2002. Mr. Lin has served as our chief engineer since June 2007 and has also been serving as the director of the Petrochemical Research Institute since February 2011.

**Wang, Lihua**, age 60, is a vice president of our company, an executive director of the board and senior executive of PetroChina International Company Ltd. and the chairman of the board of China National United Oil Corporation. Ms. Wang is a professor-level senior economist, holding a master's degree and has nearly 35 years of work experience in China's oil and gas industry. She was appointed deputy general manager of China National United Oil Corporation in September 1997 and general manager in October 1998. She was appointed general manager of PetroChina International Company Ltd. in February 2002 and chief security officer of PetroChina International Company Ltd. and China National United Oil Corporation in July 2006. Ms. Wang was appointed vice chief economist of CNPC in November 2007. She was the general manager and chief security officer of PetroChina International Company Ltd. and China National United Oil Corporation from November 2007. Ms. Wang was appointed executive director of the board of PetroChina International Company Ltd. in January 2009. In June 2014, she was appointed a vice president of our company. And also in June 2014, she was appointed an executive director of the board of China National United Oil Corporation. In July 2014, Ms. Wang was appointed an executive director of the board and a senior executive of PetroChina International Company Ltd.

**Lv, Gongxun**, age 59, is a vice president of our company, general manager of PetroChina International Exploration & Development Company and general manager of China National Oil and Gas Exploration and Development Corporation. He is a professor-level senior engineer with nearly 40 years of work experience in China's oil and gas industry. Mr. Lv was appointed deputy general manager and chief security officer of China National Oil and Gas Exploration and Development Corporation in October 2006, general manager of Turkmenistan Amu Darya River Gas Company in September 2007, and general manager of CNPC (Turkmenistan) Amu Darya River Gas Company in December 2008. He has been serving as general manager of PetroChina International (Kazakhstan) Co. Ltd., general manager of Trans-Asia Gas Pipeline Company Ltd., and director of Enterprises Coordination Group (Central Asia) since December 2012. Mr. Lv was appointed general manager of PetroChina International Exploration & Development Company and general manager of China National Oil and Gas Exploration and Development Corporation in May 2014. He was appointed a vice president of our company in June 2014.

**Tian, Jinghui**, age 54, is a vice president of our company and the general manager of our Marketing Company. Mr. Tian is a professor-level senior economist and holds a master's degree. He has over 30 years of experience in China's oil and gas industry. In May 1998, he was appointed leader of the Preparatory Group of PetroChina Northwest Marketing Company. He was appointed a deputy general manager of our Refining & Marketing Company from December 1999, deputy general manager and chief safety officer of our Marketing Company from November 2007. In June 2009, he was appointed principal officer of PetroChina Marketing Company. Since August 2013, he has been the general manager of our Marketing Company. In November 2015, Mr. Tian was appointed vice president of our company.

**Chai Shouping**, age 55, is the chief financial officer of our company. Mr. Chai is a professor-level senior accountant and holds a master's degree. He has 25 years of working experience in financial operations and management in China's oil and petrochemical industry. In April 2002, he was appointed a deputy general manager of the finance department of our company. In September 2012, he was appointed the chief accountant of China National Oil and Gas Exploration and Development Corporation (overseas exploration and development branch), the deputy general manager and 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 the general manager of the finance department of our company. Mr. Chai was appointed our chief financial officer in January 2017.

### **Secretary to the Board of Directors**

**Wu, Enlai**, age 56, is the secretary to the board of directors of our company. He is a professor-level senior engineer, holds a master's degree and has nearly 35 years of work experience in China's oil and petrochemical industry. Mr. Wu was appointed deputy director general of Tarim Petrochemical Engineering Construction Headquarters in August 1997, deputy director general of the Capital Operation Department of CNPC in August 2002 and deputy general manager of China National Oil and Gas Exploration and Development Corporation in January 2004. He was appointed head of the Preparatory Work Team for PetroChina Guangxi Petrochemical Company in May 2005, general manager in October 2005 and head of the Enterprise Coordination Team of our company in Guangxi in September 2012. In December 2013, Mr. Wu was appointed an executive director and the general manager of CNPC Hong Kong (Holding) Ltd. and the chairman of the board of directors of Kunlun Energy Company Ltd. He was appointed the secretary to our board of directors in November 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, 2016 was RMB3,836,683. We paid RMB528,336 as our contribution to the pension plans with respect to these individuals in the year ended December 31, 2016.

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, 2016 was RMB1,867,129 which does not include the fees totaling RMB1,034,128 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, 2016 was RMB3,289,882. 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, 2016 was RMB6,357,730.

In 2016, we paid RMB1,711,566 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.



Save as disclosed, no other payments have been paid or are payable, with respect to the year ended December 31, 2016, 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**

Our nominating committee was established in 2015. 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 (including skills, knowledge and experience) 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; and
- reviewing and making assessment on the independence of independent non-executive 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 according with the applicable PRC and international rules;

- 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. Wang Dongjin, the chairman of the committee, Mr. Liu Hongbin and Mr. Chen Zhiwu. 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 Mr. Richard H. Matzke, the chairman of the committee, Mr. Lin Boqiang and Mr. Yu Baocai. 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. Xu Wenrong, Mr. Yu Baocai, Mr. Shen Diancheng and Mr. Zhao Zhengzhang. 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;
- 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, 2014, 2015 and 2016, we had 534,652, 521,566 and 508,757 employees (not including the temporary employees), respectively. During 2016, we employed 335,357 temporary employees on an average. As of December 31, 2016, we had 331,214 temporary employees. The table below sets forth the number of our employees by business segment as of December 31, 2016.

	<u>Employees</u>	<u>% of Total</u>
Exploration and production .....	286,280	56.27
Refining and chemicals .....	146,336	28.76
Marketing .....	54,300	10.67
Natural gas and pipeline .....	15,946	3.14
Headquarters and others <sup>(1)</sup> .....	<u>5,895</u>	<u>1.16</u>
Total .....	<u>508,757</u>	<u>100.00</u>

(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 RMB15,674 million, RMB16,357 million and RMB16,184 million respectively, for the years ended December 31, 2014, 2015 and 2016, respectively.

In 2016, 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, 2016 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, 2017, CNPC beneficially owned 157,701,211,528 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 86.166% of the share capital of us, and, accordingly, CNPC is our controlling shareholder.

The following table sets forth the major shareholders of our A shares as of March 31, 2017:

<u>Name of Shareholders</u>	<u>Class of Shares</u>	<u>Number of Shares Held</u>	<u>Percentage of the Issued Share Capital of the Same Class of Shares (%)</u>	<u>Percentage of the Total Share Capital (%)</u>
CNPC	A shares	157,409,693,528	97.213	86.006

The following table sets forth the major shareholders of our H shares as of March 31, 2017:

<u>Name of Shareholders</u>	<u>Number of Shares Held</u>	<u>Percentage of Such Share in That Class of the Issued Shares Capital (%)</u>	<u>Percentage of the Total Share Capital (%)</u>
CNPC	291,518,000 (Long Position ) <sup>(1)</sup>	1.38	0.16
Black Rock, Inc. <sup>(2)</sup>	1,454,633,675 (Long Position)	6.89	0.79
	7,669,600 (Short Position)	0.04	0.004
JP Morgan Chase & Co <sup>(3)</sup>	1,377,654,364 (Long Position)	6.52	0.75
	144,027,016 (Short Position)	0.68	0.08
	773,135,295 (Lending Pool)	3.66	0.42

- (1) Held by Fairy King Investments Limited, an overseas wholly-owned subsidiary of CNPC.
- (2) Blackrock, Inc., through various subsidiaries, has an interest in the H shares of the Company, of which 1,454,633,675 H shares (long position) and 7,669,600 H shares (short position) are held in its capacity as interest of corporation controlled by the substantial shareholder.
- (3) JPMorgan Chase & Co., through various subsidiaries, has an interest in the H shares of the Company, of which 603,532,969 H shares (long position) and 144,027,016 H shares (short position) are held in its capacity as beneficial owner, 961,000 H shares (long position) are held in its capacity as investment manager, 25,100 H shares (long position) are held in its capacity as trustee (other than bare trustee), and 773,135,295 H shares (long position) are held in its capacity as custodian corporation/approved lending agent. These 1,377,654,364 H shares (long position) include the interests held in its capacity as beneficial owner, investment manager, trustee (other than bare trustee) and custodian corporation/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 continue to carry out existing continuing transactions with other related parties in the year ended December 31, 2016.

#### *Continuing Related Party Transactions*

Since 2000, our company has engaged in a variety of continuing related party transactions with CNPC, who provides a number of services to us. These transactions are governed by several agreements between CNPC and

us, including the comprehensive products and services agreement and its supplemental agreements, product and service implementation agreements, land use rights leasing contract, buildings leasing contract and buildings supplementary leasing agreement, intellectual property licensing contracts and contract for the transfer of rights under production sharing contracts. A detailed discussion of these agreements is set forth in Note 36 to our consolidated financial statements included elsewhere in this annual report and under the heading “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.

On August 28, 2014, with the existing comprehensive products and services agreement expiring on December 31, 2014, we and CNPC entered into a new comprehensive agreement, which took effect from January 1, 2015 and will be valid for a term of three years. On the same day, under the framework of the existing land use rights leasing contract and the buildings leasing contract, we and CNPC signed a confirmation letter with respect to the change in the areas of land parcels and leased buildings, pursuant to which the area of land parcels leased by us from CNPC was adjusted to 1,777.21 million square meters and the estimated annual rental fees were confirmed to be RMB 4,831.21 million in aggregate. The area of buildings leased by us from CNPC was adjusted to 1,179,586 square meters for an estimated rental fee of RMB 707.7 million per year in aggregate. These new agreements were approved at the extraordinary general meeting of the company held on October 29, 2014. For a detailed discussion of the comprehensive products and services agreement and the confirmation letter under the land use right lease agreement and building lease agreement, please refer to our Form 6-K filed with the SEC on August 28, 2014.

As of December 31, 2016, the outstanding amount of our debts secured by CNPC and its subsidiaries was RMB64,855 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.

### **Loans from Related Parties**

As of December 31, 2016, we had unsecured short-term and long-term loans from CNPC and its affiliates in an aggregate amount of RMB230,479 million with an average annual interest rate of 3.96%.

### **One-off Related Party Transactions**

#### **1. Integration of Kunlun Energy and Kunlun Gas**

On December 28, 2015, we, our controlled subsidiary, Kunlun Energy Company Limited (“Kunlun Energy”), and our wholly-owned subsidiary, PetroChina Kunlun Gas Co., Ltd. (“Kunlun Gas”), entered into an agreement. Pursuant to the agreement, we transferred our 100% equity interest in Kunlun Gas to Kunlun Energy for a consideration of approximately RMB14,827 million. This transaction was completed by the end of 2016. As a result, Kunlun Gas became a wholly-owned subsidiary of Kunlun Energy.

#### **2. Waiver of the right to participate in a capital increase of China Petroleum Finance Co., Ltd.**

In July 2016, CNPC paid additional capital contribution of RMB19,470,709,600 to China Petroleum Finance Co., Ltd. (“CP Finance”), of which an amount equal to RMB2,890,250,000 was allocated to the registered capital of CP Finance, and the remaining amount equal to RMB16,580,459,600 was allocated to the capital reserve of CP Finance (the “Capital Increase”). The Capital Increase is intended to reinforce CP Finance’s

financial strength and facilitate CP Finance's provision of better services to the member companies of CNPC, including us. Considering that our profitability weakened during the first half of 2016 as a result of the impact of low oil price, we waived our right to participate in this Capital Increase in order to concentrate our efforts on core oil and gas business, optimize business deployment and asset structuring, and endeavor to broaden sources of income, reduce expenditures and increase profit. Prior to the completion of this Capital Increase, CNPC held 51% of the equity interest in CP Finance, and we held 49%. As a result of this Capital Increase and our waiver of the right to participate therein, our equity interest in CP Finance reduced to 32%. This Capital Increase has not had and will not have any adverse effect on the normal operations or financial conditions of us or any of our subsidiaries.

### **Interests of Experts and Counsel**

Not applicable.

## **Item 8 — FINANCIAL INFORMATION**

### **Financial Statements**

See pages F-1 to F-61 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.

A dividend of RMB0.02131 per share (inclusive of applicable taxes) for the six months ended June 30, 2016 was paid to our shareholders on September 21, 2016 with respect to our A Shares and October 28, 2016 with respect to our H Shares. The board of directors recommended that a final dividend of RMB0.01801 per share (which is 45% of the net profit of the Company for the second half of 2016) and an additional special final dividend of RMB0.02 per share, totaling RMB0.03801 (inclusive of applicable taxes) should be paid. The final dividend for the year ended December 31, 2016 is subject to the approval by the annual general meeting to be held on June 8, 2017, and shall be paid to our shareholders listed on our shareholder register as of the close of business on June 21, 2017.

### **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, 2016, there were 21,098,900,000 H Shares and 161,922,077,818 A Shares issued and outstanding. As of December 31, 2016, there were 223 registered holders of American depositary receipts evidencing 39,288 ADSs and the total ADSs outstanding was 7,865,647. The depository of the ADSs is the Bank of New York.



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 2012 through 2016, for each quarter from 2015 to 2017 (up to the end of the first quarter of 2017), and for each month from October 2016 to April 2017 (through April 21, 2017) are set forth below.

	Price Per H Share		Price Per ADS		Price Per A Share	
	HK\$		US\$		RMB	
	High	Low	High	Low	High	Low
<b>Annual Data</b>						
2012 .....	11.86	9.08	153.23	117.11	10.60	8.47
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
<b>Quarterly Data</b>						
<b>2015</b>						
First quarter .....	9.02	8.13	116.37	103.74	13.09	10.71
Second quarter .....	10.64	8.56	136.37	109.86	14.65	10.53
Third quarter .....	8.67	5.19	110.62	67.69	13.73	8.23
Fourth quarter .....	6.50	5.02	83.97	63.90	9.26	8.30
<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
<b>Monthly Data</b>						
<b>2016</b>						
October .....	5.69	5.09	73.22	66.46	7.43	7.22
November .....	5.40	5.13	70.54	65.67	7.77	7.26
December .....	6.02	5.44	76.15	70.10	8.16	7.57
<b>2017</b>						
January .....	6.32	5.73	81.36	73.70	8.76	7.95
February .....	6.21	5.91	79.59	75.96	8.65	8.21
March .....	5.92	5.66	76.07	72.34	8.25	7.85
April(through April 21, 2017) .....	5.78	5.52	73.90	70.45	8.10	7.69

The closing prices per A Share, per H Share and per ADS on April 21, 2017 were RMB7.79, HK\$5.52 and US\$70.59, respectively.

## Item 10 — ADDITIONAL INFORMATION

### Memorandum and Articles of Association

#### Our Articles of Association Currently in Effect

On May 23, 2013, our annual general meeting approved the amendment to our Articles of Association which became effective as of the same day. The changes include, among others, (i) an expansion of our scope of business and (ii) an addition of a requirement to distribute cash dividends of no less than 30% of the net profits attributable to the parent company under certain circumstances. The amended and restated Articles of Association was filed with the SEC on Form 6-K on May 23, 2013.

## **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.

### **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;
- 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. Currently pursuant to the *Circular of the State Administration of Taxation on Printing and Issuing the Interim Measures for Administration of Withholding at Source of Income Tax of Non-resident Enterprises* promulgated on January 9, 2009, where both parties to the transaction of equity transfer are non-resident enterprises and such transaction is conducted outside the territory of PRC, the non-resident enterprise that receives incomes shall, by itself or through its agent, declare and pay tax to the competent tax authority in the place where the Chinese enterprise whose equities have been transferred is located.

### ***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

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 depositary 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.

### ***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



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, 2016 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.



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.

## **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, 2014, 2015 and 2016. 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 3.9%, 1.9% and 1.1% of our total payments for equipment in 2014, 2015 and 2016, respectively. Foreign currency payments for other imported materials represented 0.03%, 0.05% and 0.02% of our total payments for materials in 2014, 2015 and 2016, 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.

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, 2014, 2015 and 2016, respectively.

December 31, 2016

	Expected Maturity Date							Percentage to Total Long-Term Borrowings	Fair Value	
	2017	2018	2019	2020	2021	Thereafter	Total			
(RMB equivalent in millions, except percentages)										
Long term debt										
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%	—	—	—	
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%	—	—	—	
Total . . . . .	71,415	90,463	61,720	77,464	50,157	93,083	444,302	100.00%	438,805	

December 31, 2015

	Expected Maturity Date							Percentage to Total Long-Term Borrowings	Fair Value
	2016	2017	2018	2019	2020	Thereafter	Total		
(RMB equivalent in millions, except percentages)									
Long term debt									
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
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%	68
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%	41,430
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%	59,157
Average interest rate . . . . .	5.63%	4.21%	4.03%	—	3.85%	—	—	—	—
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

December 31, 2014

	Expected Maturity Date							Percentage to Total Long-Term Borrowings	Fair Value
	2015	2016	2017	2018	2019	Thereafter	Total		
(RMB equivalent in millions, except percentages)									
Long term debt									
Loans in RMB									
Fixed Rate Loan Amount	20,806	39,609	22,320	20,219	30,107	88,318	221,379	52.20%	210,259
Average interest rate	4.06%	4.56%	4.19%	4.52%	4.65%	4.82%	—	—	—
Variable Rate Loan Amount	4,761	10,056	15,607	245	151	6,033	36,853	8.69%	36,852
Average interest rate	5.49%	4.92%	4.58%	5.56%	5.40%	5.24%	—	—	—
Loans in Euro									
Fixed Rate Loan Amount	21	21	21	21	31	14	129	0.03%	148
Average interest rate	2.79%	2.79%	2.79%	2.79%	2.57%	2.60%	—	—	—
Variable Rate Loan Amount	—	—	—	—	—	—	—	—	—
Average interest rate	—	—	—	—	—	—	—	—	—
Loans in United States Dollar									
Fixed Rate Loan Amount	185	34	34	34	34	177	498	0.12%	533
Average interest rate	6.75%	1.11%	1.11%	1.11%	1.11%	0.51%	—	—	—
Variable Rate Loan Amount	8,010	12,920	20,426	14,141	11,661	6,505	73,663	17.37%	73,663
Average interest rate	2.05%	2.15%	2.38%	3.00%	3.14%	1.81%	—	—	—
Loans in Japanese Yen									
Fixed Rate Loan Amount	12	12	12	37	3	—	76	0.02%	81
Average interest rate	2.50%	2.50%	2.50%	2.37%	2.50%	—	—	—	—
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	9.43%	43,180
Average interest rate	—	—	4.55%	4.47%	—	4.93%	—	—	—
Medium term note in RMB									
Fixed Rate Loan Amount	20,000	498	31,000	—	—	—	51,498	12.14%	51,301
Average interest rate	3.97%	5.63%	4.19%	—	—	—	—	—	—
Total	53,795	63,150	105,420	50,697	41,987	109,047	424,096	100.00%	416,017

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 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 generally refuse to provide fee-attracting services until its fees for those services are paid.

<b>Persons Depositing or Withdrawing Shares Must Pay:</b>	<b>For:</b>
\$5.00 (or less) per 100 ADSs (or portion of 100 ADSs)	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	Any cash distribution to ADS registered 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 registered 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, 2016, we received from the depositary a reimbursement of US\$61,213.41, net of withholding tax, for our continuing annual stock exchange listing fees and our expenses incurred in connection with investor relationship programs. In addition, the depositary has agreed to reimburse us certain amount per year of the facility, including but not limited to, investor relations expenses or any other American depositary receipts program related expenses. The amount of such reimbursements is subject to certain limits.

**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.

## **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 the 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, 2016.

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, 2016 has been audited by KPMG Huazhen LLP, our company's independent registered public accountants, as stated below.

### **Report of the Registered Public Accounting Firm**

The Board of Directors and Shareholders  
PetroChina Company Limited:

We have audited PetroChina Company Limited's internal control over financial reporting as of December 31, 2016, based on criteria established in *Internal Control — Integrated Framework* (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). PetroChina Company Limited'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 PetroChina Company Limited's internal control over financial reporting 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 effective internal control over financial reporting was maintained in all material respects. Our audit 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.



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 (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (ii) 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 (iii) 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.

In our opinion, PetroChina Company Limited maintained, in all material respects, effective internal control over financial reporting as of December 31, 2016, based on criteria established in *Internal Control — Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the consolidated statement of financial position of PetroChina Company Limited and subsidiaries as of December 31, 2016, and the related consolidated statements of comprehensive income, changes in equity, and cash flows for the year then ended, and our report dated April 27, 2017 expressed an unqualified opinion on those consolidated financial statements.

/s/ KPMG Huazhen LLP  
Beijing, China  
April 27, 2017

#### ***Changes in Internal Control over Financial Reporting***

During the year ended December 31, 2016, 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.

#### **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 served as our independent accountant for the fiscal year of 2015. KPMG Huazhen LLP served as our independent accountant for the fiscal year of 2016. The offices of KPMG and KPMG Huazhen LLP are located at 8th Floor, Prince’s Building, 10 Chater Road, Central, Hong Kong and 8th Floor, KPMG Tower, Oriental Plaza, 1 East Chang An Avenue, Beijing, respectively.

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 and KPMG Huazhen LLP to us for each of the years ended December 31, 2015 and 2016, respectively.

	December 31,	
	2015	2016
	RMB	RMB
	(In millions)	
Audit fees .....	53	53
Audit-related fees .....	—	—
Tax fees .....	—	—
All other fees .....	—	—
Total .....	<u>53</u>	<u>53</u>

The auditors’ remuneration above represented the annual fees paid by us for the years indicated. The remuneration did not include fees of RMB66 million (2015: RMB36 million) paid by our subsidiaries to KPMG Huazhen LLP and its network firms which primarily included audit fees of RMB50 million (2015: RMB29 million), audit-related fees of RMB8 million (2015: RMB6 million) and tax fees of RMB7 million (2015: RMB nil million), and other service fees of RMB1 million (2015: RMB1 million), respectively. The increase in our fees paid in 2016 compared to 2015 was primarily due to the increase of audit fees with respect to certain of our subsidiaries, such as the subsidiaries of Kunlun Energy.

#### ***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, 2016, services relating to all non audit related fees provided to us by KPMG and 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 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**

As of and for the fiscal years ended December 31, 2014 and 2015, KPMG was our principal accountants. On September 9, 2016, our principal accountants resigned and KPMG Huazhen LLP was appointed as our principal accountants for the fiscal year ended December 31, 2016. This change in principal accountants was approved by our audit committee of the board of directors.

KPMG’s audit reports on our consolidated financial statements as of and for the two fiscal years ended December 31, 2014 and 2015 did not contain an adverse opinion or a disclaimer of opinion, nor were such reports qualified or modified as to uncertainty, audit scope, or accounting principles.

During each of the two fiscal years ended December 31, 2014 and 2015 and through September 9, 2016, there were no (i) disagreements with KPMG on any matter of accounting principles or practices, financial statement disclosure, or auditing scope or procedures, which disagreements if not resolved to their satisfaction would have caused them to make reference in connection with their opinion to the subject matter of the disagreement, or (ii) reportable events.

We provided a copy of the foregoing disclosure to KPMG and requested that KPMG furnish a letter addressed to the SEC stating whether or not KPMG agrees with such disclosure, and if not, stating the respects in which they do not agree. A copy of the letter from KPMG addressed to the SEC, dated April 27, 2017, was filed as Exhibit 15.5 to this annual report on Form 20-F.

**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.

## **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 2010, we adopted the revised Regulations of PetroChina Company Limited on Disclosure of Information and formulated the Rules and Regulations of PetroChina Company Limited on the Registration of Holders of Insider Information.

In 2013, we formulated an Independent Director Observation and Inquiry Policy to provide an assurance that independent directors will be better informed of the status of the daily operation, finance management and compliance matters of our company so as for them to better perform their duties.

In 2014, we formulated the Policy for Internal Regulations, Audit Project Regulation, and Enterprise Pension Regulation.

In 2015, we set up a nominating committee and formulated the Rules of Procedures of the Nominating Committee.

#### **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 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-61 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	Articles of Association (as amended on May 23, 2013) (English translation) <sup>(5)</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>
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>
4.8	Supplemental Agreement to the Land Use Rights Leasing Contract, dated August 25, 2011, between CNPC and PetroChina (English translation) <sup>(3)</sup>
4.9	Amended Buildings Leasing Contract, dated August 25, 2011, between CNPC and PetroChina (English translation) <sup>(3)</sup>
4.10	Finance Lease Agreement, dated August 23, 2012, between Sichuan Petrochemical and Kunlun Finance Leasing (English translation) <sup>(4)</sup>
4.11*	Annual Crude Oil Mutual Supply Framework Agreement, dated January 1, 2017, between China Petroleum and Chemical Corporation and PetroChina (English translation)
8.1*	List of major subsidiaries
11.1	Code of Ethics for Senior Management <sup>(2)</sup>
11.2	Code of Ethics for Employees <sup>(2)</sup>
12.1*	Certification of Chief Executive Officer required by Section 302 of the Sarbanes-Oxley Act of 2002
12.2*	Certification of Chief Financial Officer required by Section 302 of the Sarbanes-Oxley Act of 2002
13.1*	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
13.2*	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
15.1*	Reserves Report for the year ended on December 31, 2016 prepared by DeGolyer and MacNaughton
15.2*	Reserves Report for the year ended on December 31, 2016 prepared by Ryder Scott
15.3*	Reserves Report for the year ended on December 31, 2016 prepared by GLJ Petroleum Consultants

<b>Exhibit Number</b>	<b>Description of Exhibits</b>
15.4*	Reserves Report for the year ended on December 31, 2016 prepared by McDaniel & Associates Consultants, Ltd.
15.5*	Letter of KPMG

\* To be filed as exhibits to this Form 20-F.

- (1) 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 annual report on Form 20-F for the fiscal year ended December 31, 2011 (File No. 1-15006) filed with the Commission.
- (4) Incorporated by reference to our annual report on Form 20-F for the fiscal year ended December 31, 2012 (File No. 1-15006) filed with the Commission.
- (5) Incorporated by reference to our report on Form 6-K (File No. 1-15006) filed with the Commission on May 23, 2013.



## **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, 2017

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## INDEX OF CONSOLIDATED FINANCIAL STATEMENTS

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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 statement of financial position of PetroChina Company Limited and subsidiaries as of December 31, 2016, and the related consolidated statements of comprehensive income, changes in equity, and cash flows for the year then ended. 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 financial position of PetroChina Company Limited and its subsidiaries as of December 31, 2016, and the results of their operations and their cash flows for the year then ended, in conformity with International Financial Reporting Standards as issued by the International Accounting Standards Board.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), PetroChina Company Limited's internal control over financial reporting as of December 31, 2016, based on criteria established in *Internal Control—Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO), and our report dated April 27, 2017 expressed an unqualified opinion on the effectiveness of the Company's internal control over financial reporting.

/s/ KPMG Huazhen LLP

Beijing, China  
April 27, 2017

## **REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

The Board of Directors and Shareholders  
PetroChina Company Limited:

We have audited the accompanying consolidated statement of financial position of PetroChina Company Limited and subsidiaries as of December 31, 2015, and the related consolidated statements of comprehensive income, changes in equity, and cash flows for the years ended December 31, 2014 and 2015. These consolidated financial statements are the responsibility of the PetroChina Company Limited's management. Our responsibility is to express an opinion on these consolidated financial statements based on our audits.

We conducted our audits 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 audits provide a reasonable basis for our opinion.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of PetroChina Company Limited and subsidiaries as of December 31, 2015, and the results of their operations and their cash flows for the years ended December 31, 2014 and 2015, in conformity with International Financial Reporting Standards as issued by the International Accounting Standards Board.

/s/ KPMG

Hong Kong, China  
April 28, 2016

**PETROCHINA COMPANY LIMITED**  
**CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME**  
**For the Years Ended December 31, 2016, 2015 and 2014**  
**(Amounts in millions, except for the per share data)**

	Notes	2016 RMB	2015 RMB	2014 RMB
<b>REVENUE</b>	6	1,616,903	1,725,428	2,282,962
<b>OPERATING EXPENSES</b>				
Purchases, services and other		(959,640)	(1,056,795)	(1,486,225)
Employee compensation costs	8	(117,662)	(118,082)	(120,822)
Exploration expenses, including exploratory dry holes		(18,576)	(18,380)	(22,064)
Depreciation, depletion and amortization		(218,147)	(202,875)	(177,463)
Selling, general and administrative expenses		(74,255)	(71,270)	(73,413)
Taxes other than income taxes	9	(189,608)	(205,884)	(237,997)
Other income, net		21,620	27,110	4,855
<b>TOTAL OPERATING EXPENSES</b>		<u>(1,556,268)</u>	<u>(1,646,176)</u>	<u>(2,113,129)</u>
<b>PROFIT FROM OPERATIONS</b>		<u>60,635</u>	<u>79,252</u>	<u>169,833</u>
<b>FINANCE COSTS</b>				
Exchange gain		12,828	9,536	5,020
Exchange loss		(11,571)	(10,168)	(7,333)
Interest income		2,491	2,019	1,596
Interest expense	10	(23,348)	(24,328)	(23,319)
<b>TOTAL NET FINANCE COSTS</b>		<u>(19,600)</u>	<u>(22,941)</u>	<u>(24,036)</u>
<b>SHARE OF PROFIT OF ASSOCIATES AND JOINT VENTURES</b>	16	4,105	1,504	10,962
<b>PROFIT BEFORE INCOME TAX EXPENSE</b>	7	45,140	57,815	156,759
<b>INCOME TAX EXPENSE</b>	12	(15,768)	(15,726)	(37,731)
<b>PROFIT FOR THE YEAR</b>		<u>29,372</u>	<u>42,089</u>	<u>119,028</u>
<b>OTHER COMPREHENSIVE INCOME RECLASSIFIABLE TO PROFIT OR LOSS</b>				
Currency translation differences		9,404	(20,965)	(7,557)
Fair value (loss)/ gain from available-for-sale financial assets, net of tax		(128)	596	91
Share of the other comprehensive income of associates and joint ventures accounted for using the equity method		313	130	159
<b>OTHER COMPREHENSIVE INCOME/(LOSS), NET OF TAX</b>		<u>9,589</u>	<u>(20,239)</u>	<u>(7,307)</u>
<b>TOTAL COMPREHENSIVE INCOME FOR THE YEAR</b>		<u>38,961</u>	<u>21,850</u>	<u>111,721</u>
<b>PROFIT FOR THE YEAR ATTRIBUTABLE TO:</b>				
Owners of the Company		7,857	35,517	107,172
Non-controlling interests		21,515	6,572	11,856
		<u>29,372</u>	<u>42,089</u>	<u>119,028</u>
<b>TOTAL COMPREHENSIVE INCOME FOR THE YEAR ATTRIBUTABLE TO:</b>				
Owners of the Company		15,814	18,965	101,279
Non-controlling interests		23,147	2,885	10,442
		<u>38,961</u>	<u>21,850</u>	<u>111,721</u>
<b>BASIC AND DILUTED EARNINGS PER SHARE ATTRIBUTABLE TO OWNERS OF THE COMPANY(RMB)</b>	13	<u>0.04</u>	<u>0.19</u>	<u>0.59</u>

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

**PETROCHINA COMPANY LIMITED**  
**CONSOLIDATED STATEMENTS OF FINANCIAL POSITION**  
**As of December 31, 2016 and 2015**

	<u>Notes</u>	<u>2016</u> <u>RMB</u> <u>(Amounts in millions)</u>	<u>2015</u> <u>RMB</u>
<b>NON-CURRENT ASSETS</b>			
Property, plant and equipment	15	1,739,545	1,784,905
Investments in associates and joint ventures	16	78,967	70,976
Available-for-sale financial assets	17	2,011	2,869
Advance operating lease payments	19	71,353	70,551
Intangible and other non-current assets	20	102,750	98,272
Deferred tax assets	30	20,360	16,927
<b>TOTAL NON-CURRENT ASSETS</b>		<u>2,014,986</u>	<u>2,044,500</u>
<b>CURRENT ASSETS</b>			
Inventories	21	146,865	126,877
Accounts receivable	22	47,315	52,262
Prepayments and other current assets	23	77,583	88,280
Notes receivable	24	11,285	8,233
Time deposits with maturities over three months but within one year		686	919
Cash and cash equivalents	25	97,931	72,773
<b>TOTAL CURRENT ASSETS</b>		<u>381,665</u>	<u>349,344</u>
<b>CURRENT LIABILITIES</b>			
Accounts payable and accrued liabilities	26	310,680	331,040
Income taxes payable		8,743	7,879
Other taxes payable		36,456	26,262
Short-term borrowings	27	143,384	106,226
<b>TOTAL CURRENT LIABILITIES</b>		<u>499,263</u>	<u>471,407</u>
<b>NET CURRENT LIABILITIES</b>		<u>(117,598)</u>	<u>(122,063)</u>
<b>TOTAL ASSETS LESS CURRENT LIABILITIES</b>		<u>1,897,388</u>	<u>1,922,437</u>
<b>EQUITY</b>			
<b>EQUITY ATTRIBUTABLE TO OWNERS OF THE COMPANY:</b>			
Share capital	28	183,021	183,021
Retained earnings		711,197	711,755
Reserves	29	294,806	284,940
<b>TOTAL EQUITY ATTRIBUTABLE TO OWNERS OF THE COMPANY</b>		1,189,024	1,179,716
<b>NON-CONTROLLING INTERESTS</b>		183,711	164,318
<b>TOTAL EQUITY</b>		<u>1,372,735</u>	<u>1,344,034</u>
<b>NON-CURRENT LIABILITIES</b>			
Long-term borrowings	27	372,887	434,475
Asset retirement obligations	31	125,392	117,996
Deferred tax liabilities	30	13,640	13,120
Other long-term obligations		12,734	12,812
<b>TOTAL NON-CURRENT LIABILITIES</b>		<u>524,653</u>	<u>578,403</u>
<b>TOTAL EQUITY AND NON-CURRENT LIABILITIES</b>		<u>1,897,388</u>	<u>1,922,437</u>

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



**PETROCHINA COMPANY LIMITED**  
**CONSOLIDATED STATEMENTS OF CASH FLOWS**  
**For the Years Ended December 31, 2016, 2015 and 2014**

	<u>2016</u>	<u>2015</u>	<u>2014</u>
	<u>RMB</u>	<u>RMB</u>	<u>RMB</u>
	(Amounts in millions)		
<b>CASH FLOWS FROM OPERATING ACTIVITIES</b>			
<b>Profit for the year</b>	29,372	42,089	119,028
Adjustments for:			
Income tax expense	15,768	15,726	37,731
Depreciation, depletion and amortization	218,147	202,875	177,463
Capitalized exploratory costs charged to expense	9,689	9,608	12,063
Safety fund reserve	1,614	1,434	1,451
Share of profit of associates and joint ventures	(4,105)	(1,504)	(10,962)
Provision for impairment of receivables, net	1,609	74	30
Write down in inventories, net	2,634	3,335	1,850
Impairment of available-for-sale financial assets	(2)	74	5
Impairment of other non-current assets	115	—	—
Loss on disposal of property, plant and equipment	7,972	4,661	3,721
Remeasurement to fair value of pre-existing interest in acquiree	—	(22,807)	—
Gain on disposal of other non-current assets	(37)	(1,476)	(117)
Gain on disposal of subsidiaries	(24,674)	(280)	(972)
Dividend income	(60)	(288)	(374)
Interest income	(2,491)	(2,019)	(1,596)
Interest expense	23,348	24,328	23,319
Changes in working capital:			
Accounts receivable, prepaid expenses and other current assets	5,281	5,581	2,651
Inventories	(22,638)	36,256	59,215
Accounts payable and accrued liabilities	16,825	(28,163)	(16,966)
<b>CASH FLOWS GENERATED FROM OPERATIONS</b>	278,367	289,504	407,540
Income taxes paid	(13,188)	(28,192)	(51,063)
<b>NET CASH FLOWS FROM OPERATING ACTIVITIES</b>	<u>265,179</u>	<u>261,312</u>	<u>356,477</u>

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

**PETROCHINA COMPANY LIMITED**  
**CONSOLIDATED STATEMENTS OF CASH FLOWS (CONTINUED)**  
**For the Years Ended December 31, 2016, 2015 and 2014**

	<u>2016</u>	<u>2015</u>	<u>2014</u>
	<u>RMB</u>	<u>RMB</u>	<u>RMB</u>
	(Amounts in millions)		
<b>CASH FLOWS FROM INVESTING ACTIVITIES</b>			
Capital expenditures	(181,054)	(217,750)	(306,551)
Acquisition of investments in associates and joint ventures	(2,008)	(1,637)	(2,587)
Acquisition of available-for-sale financial assets	(400)	(625)	(219)
Prepayments on long-term operating leases	(2,586)	(2,524)	(2,735)
Acquisition of intangible assets and other non-current assets	(5,781)	(3,586)	(3,071)
Payments for acquisition of joint venture and subsidiaries	—	(6,496)	(13)
Proceeds from disposal of property, plant and equipment	2,127	1,923	7,250
Acquisition of subsidiaries	—	(17,855)	—
Proceeds from disposal of other non-current assets	991	16,987	377
Interest received	2,079	1,585	777
Dividends received	10,505	9,617	12,319
Decrease in time deposits with maturities over three months	240	4,482	3,615
<b>NET CASH FLOWS USED FOR INVESTING ACTIVITIES</b>	<u>(175,887)</u>	<u>(215,879)</u>	<u>(290,838)</u>
<b>CASH FLOWS FROM FINANCING ACTIVITIES</b>			
Repayments of short-term borrowings	(458,780)	(530,808)	(524,137)
Repayments of long-term borrowings	(285,519)	(250,745)	(175,297)
Interest paid	(19,276)	(20,777)	(21,039)
Dividends paid to non-controlling interests	(2,401)	(5,314)	(8,172)
Dividends paid to owners of the Company	(8,450)	(29,005)	(59,475)
Increase in short-term borrowings	460,478	481,762	528,907
Increase in long-term borrowings	247,429	311,809	214,695
Capital contribution from non-controlling interests	940	1,596	1,587
Payments to non-controlling interests due to capital reduction of subsidiaries	(1)	(299)	(17)
Decrease in other long-term obligations	(1,427)	(3,658)	(1,364)
<b>NET CASH FLOWS USED FOR FINANCING ACTIVITIES</b>	<u>(67,007)</u>	<u>(45,439)</u>	<u>(44,312)</u>
<b>TRANSLATION OF FOREIGN CURRENCY</b>	<u>2,873</u>	<u>(999)</u>	<u>1,044</u>
Increase / (decrease) in cash and cash equivalents	25,158	(1,005)	22,371
Cash and cash equivalents at beginning of the year	72,773	73,778	51,407
Cash and cash equivalents at end of the year	<u>97,931</u>	<u>72,773</u>	<u>73,778</u>

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

**PETROCHINA COMPANY LIMITED**  
**CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY**  
**For the Years Ended December 31, 2016, 2015 and 2014**

	Attributable to Owners of the Company				Non-controlling Interests	Total Equity
	Share Capital	Retained Earnings	Reserves	Subtotal		
	RMB	RMB	RMB	RMB	RMB	RMB
	(Amounts in millions)					
Balance at January 1, 2014	183,021	669,300	280,414	1,132,735	137,200	1,269,935
Profit for the year ended December 31, 2014	—	107,172	—	107,172	11,856	119,028
Other comprehensive loss for the year ended December 31, 2014	—	—	(5,893)	(5,893)	(1,414)	(7,307)
Special reserve-safety fund reserve	—	—	1,423	1,423	28	1,451
Transfer to reserves	—	(9,686)	9,686	—	—	—
Dividends	—	(59,475)	—	(59,475)	(7,429)	(66,904)
Acquisition of subsidiaries	—	—	(48)	(48)	53	5
Capital contribution from non-controlling interests	—	—	(9)	(9)	1,695	1,686
Other	—	(8)	(3)	(11)	(102)	(113)
Balance at December 31, 2014	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
Transfer to reserves	—	—	—	—	—	—
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

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

## **PETROCHINA COMPANY LIMITED**

### **NOTES TO THE FINANCIAL STATEMENTS**

**(All amounts in millions, except for the per share data and otherwise stated)**

#### **1 ORGANIZATION 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 (“CNPC”) 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. 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 IFRS 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.

**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.

A listing of the Group's principal joint ventures is shown in Note 16.

**PETROCHINA COMPANY LIMITED**

**NOTES TO THE FINANCIAL STATEMENTS — (Continued)**

**(All amounts in millions, except for the per share data and otherwise stated)**

***(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).

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.

**PETROCHINA COMPANY LIMITED**

**NOTES TO THE FINANCIAL STATEMENTS — (Continued)**

**(All amounts in millions, except for the per share data and otherwise stated)**

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 such economic viability is not attained. Otherwise, the related well costs are reclassified to oil and gas properties



**PETROCHINA COMPANY LIMITED**

**NOTES TO THE FINANCIAL STATEMENTS — (Continued)**

**(All amounts in millions, except for the per share data and otherwise stated)**

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 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, associates and joint ventures 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

**PETROCHINA COMPANY LIMITED**

**NOTES TO THE FINANCIAL STATEMENTS — (Continued)**

**(All amounts in millions, except for the per share data and otherwise stated)**

12 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 the income statement. 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 income statement 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

**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 PRC's land authorities 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.

**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 a crude oil special gain levy (Note 9), consumption tax (Note 9), resource tax (Note 9), 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.

**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.

## 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, 2016 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*. 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, with early adoption permitted. 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.

IFRS 15 *Revenue from contracts with customers* (“IFRS 15”) establishes a comprehensive framework for determining whether, how much and when revenue is recognized. It replaces existing revenue recognition guidance, including IAS 18 *Revenue*, IAS 11 *Construction Contracts* and IFRIC 13 *Customer Loyalty Programs*.

IFRS 15 is effective for annual reporting periods beginning on or after January 1, 2018, with early adoption permitted. The Group is assessing the potential 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 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 *Revenue from Contracts with Customers* 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 station and land use rights. In addition, the nature of expenses related to those leases will now 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 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.

**PETROCHINA COMPANY LIMITED**

**NOTES TO THE FINANCIAL STATEMENTS — (Continued)**

**(All amounts in millions, except for the per share data and otherwise stated)**

***(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. 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.



## PETROCHINA COMPANY LIMITED

### NOTES TO THE FINANCIAL STATEMENTS — (Continued)

(All amounts in millions, except for the per share data and otherwise stated)

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 are 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, 2016 is 27.3% (December 31, 2015: 28.7% ).

#### **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, 2016 and 2015 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 are presented in Note 27.

## **5 CRITICAL ACCOUNTING ESTIMATES AND JUDGMENTS**

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.

**PETROCHINA COMPANY LIMITED**

**NOTES TO THE FINANCIAL STATEMENTS — (Continued)**

**(All amounts in millions, except for the per share data and otherwise stated)**

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 natural 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 natural 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 reserve 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 unfavorable 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.

***(c) Estimation of asset retirement obligations***

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.

**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.

PETROCHINA COMPANY LIMITED

NOTES TO THE FINANCIAL STATEMENTS — (Continued)

(All amounts in millions, except for the per share data and otherwise stated)

7 PROFIT BEFORE INCOME TAX EXPENSE

	2016 RMB	2015 RMB	2014 RMB
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	60	288	275
Reversal of provision for impairment of receivables	62	99	56
Reversal of write down in inventories	75	59	74
Government grants <sup>(i)</sup>	8,509	7,906	10,931
Remeasurement to fair value of pre-existing interest in acquiree	—	22,807	—
Gain on disposal of investment in subsidiaries <sup>(ii)</sup>	24,674	280	972
<u>Charged</u>			
Amortization of intangible and other assets	4,896	4,141	4,531
Auditors' remuneration <sup>(iii)</sup>	53	53	53
Cost of inventories recognized as expense	1,217,131	1,282,039	1,713,290
Provision for impairment of receivables	1,671	173	86
Loss on disposal of property, plant and equipment	7,972	4,661	3,721
Operating lease expenses	19,027	16,786	12,582
Research and development expenses	11,227	11,856	13,088
Write down in inventories	2,709	3,394	1,924

- (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 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 66 (2015: RMB 36, 2014: RMB 34) paid by subsidiaries to the Company's current auditor and its network firms which primarily relates to audit fees of RMB 50 (2015: RMB 29, 2014: RMB 24), audit-related fees of RMB 8 (2015: RMB 6, 2014: RMB 7) and tax fees of RMB 7 (2015: RMB nil, 2014 RMB nil), and other service fees of RMB 1 (2015: RMB 1, 2014: RMB 3).

**PETROCHINA COMPANY LIMITED**

**NOTES TO THE FINANCIAL STATEMENTS — (Continued)**

(All amounts in millions, except for the per share data and otherwise stated)

**8 EMPLOYEE COMPENSATION COSTS**

	<u>2016</u>	<u>2015</u>	<u>2014</u>
	<u>RMB</u>	<u>RMB</u>	<u>RMB</u>
Wages, salaries and allowances	75,461	75,651	78,329
Social security costs	42,201	42,431	42,493
	<u>117,662</u>	<u>118,082</u>	<u>120,822</u>

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**

	<u>2016</u>	<u>2015</u>	<u>2014</u>
	<u>RMB</u>	<u>RMB</u>	<u>RMB</u>
Crude oil special gain levy	—	—	64,376
Consumption tax	140,268	149,323	104,262
Resource tax	14,472	18,584	26,305
Other	34,868	37,977	43,054
	<u>189,608</u>	<u>205,884</u>	<u>237,997</u>

In accordance with PRC new tax rules and regulations, the threshold above which crude oil special gain levy will be imposed (with the five-level progressive tax rates varying from 20% to 40% remaining) was raised from US\$ 40 per barrel to US\$ 55 per barrel, and was effective from November 1, 2011. The threshold was raised from US\$ 55 to US\$ 65 per barrel, and the change was effective from January 1, 2015.

Resource tax on domestic sales of crude oil and natural gas, assessed based on value instead of volume (with rates from 5% to 10% and the resource tax rate applicable to the Group up to 5%), was implemented nationally, and was effective from November 1, 2011. Resource tax on domestic sales of crude oil and natural gas, assessed based on value instead of volume (with rates from 5% to 10% and the resource tax rate applicable to the Group up to 6%), was implemented nationally, and the change was effective from December 1, 2014.

**10 INTEREST EXPENSE**

	<u>2016</u>	<u>2015</u>	<u>2014</u>
	<u>RMB</u>	<u>RMB</u>	<u>RMB</u>
Interest on			
Bank loans	891	1,259	1,926
Other loans	19,910	19,892	19,336
Accretion expense (Note 31)	5,126	5,950	5,406
Less: Amounts capitalized	<u>(2,579)</u>	<u>(2,773)</u>	<u>(3,349)</u>
	<u>23,348</u>	<u>24,328</u>	<u>23,319</u>

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, 2016 (2015: 4.28%-5.76%, 2014: 5.76%).

PETROCHINA COMPANY LIMITED

NOTES TO THE FINANCIAL STATEMENTS — (Continued)

(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, 2016, 2015 and 2014 are as follows:

Name	2016				2015	2014
	Fee for directors and supervisors	Salaries, allowances and other benefits	Contribution to retirement benefit scheme	Total	Total	Total
	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000
<b>Chairman:</b>						
Mr. Wang Yilin <sup>(i)</sup>	—	—	—	—	—	—
Mr. Zhou Jiping <sup>(i)</sup>	—	—	—	—	—	—
<b>Vice Chairman:</b>						
Mr. Zhang Jianhua <sup>(ii)</sup>	—	—	—	—	—	—
Mr. Wang Dongjin <sup>(iii)</sup>	—	652	122	774	734	1,137
<b>Executive director:</b>						
Mr. Zhao Zhengzhang <sup>(iv)</sup>	—	637	122	759	671	892
<b>Non-executive directors:</b>						
Mr. Xu Wenrong <sup>(v)</sup>	—	—	—	—	—	—
Mr. Li Xinhua <sup>(vi)</sup>	—	—	—	—	—	—
Mr. Wang Guoliang <sup>(vi)</sup>	—	—	—	—	—	—
Mr. Yu Bocai	—	—	—	—	—	—
Mr. Shen Diancheng <sup>(vi)</sup>	—	—	—	—	—	—
Mr. Liu Yuezhen <sup>(vi)</sup>	—	—	—	—	—	—
Mr. Liu Hongru <sup>(vi)</sup>	—	—	—	—	—	153
Mr. Franco Bernabè <sup>(vi)</sup>	—	—	—	—	—	111
Mr. Li Yongwu <sup>(vi)</sup>	—	—	—	—	—	161
Mr. Cui Junhui <sup>(vi)</sup>	—	—	—	—	—	—
Mr. Liu Hongbin <sup>(vii)</sup>	—	578	101	679	699	1,001
Mr. Chen Zhiwu	234	—	—	234	220	228
Mr. Richard H. Matzke <sup>(vi)</sup>	241	—	—	241	230	116
Mr. Lin Boqiang <sup>(vi)</sup>	281	—	—	281	249	172
Mr. Zhang Biyi <sup>(vi)</sup>	278	—	—	278	252	153
	<u>1,034</u>	<u>578</u>	<u>101</u>	<u>1,713</u>	<u>1,650</u>	<u>2,095</u>
<b>Supervisors:</b>						
Mr. Guo Jinping	—	—	—	—	—	—
Mr. Zhang Fengshan <sup>(viii)</sup>	—	—	—	—	—	—
Mr. Li Qingyi	—	—	—	—	—	—
Mr. Jia Yimin <sup>(viii)</sup>	—	—	—	—	—	—
Mr. Jiang Lifu <sup>(viii)</sup>	—	—	—	—	—	—
Mr. Wang Guangjun <sup>(viii)</sup>	—	—	—	—	—	483
Mr. Li Luguang <sup>(viii)</sup>	—	—	—	—	—	529
Mr. Wang Daocheng <sup>(viii)</sup>	—	—	—	—	—	112
Mr. Fan Fuchun <sup>(viii)</sup>	—	—	—	—	—	106
Mr. Yao Wei <sup>(ix)</sup>	—	432	37	469	796	793
Mr. Liu Hehe <sup>(ix)</sup>	—	316	36	352	724	615
Mr. Yang Hua <sup>(viii)</sup>	—	793	69	862	838	454
Mr. Li Jiamin <sup>(viii)</sup>	—	646	61	707	771	630
Mr. Li Wendong <sup>(ix)</sup>	—	611	59	670	—	—
Mr. Liu Xianhua <sup>(ix)</sup>	—	491	37	528	—	—
	<u>—</u>	<u>3,289</u>	<u>299</u>	<u>3,588</u>	<u>3,129</u>	<u>3,722</u>
	<u>1,034</u>	<u>5,156</u>	<u>644</u>	<u>6,834</u>	<u>6,184</u>	<u>7,846</u>

**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 Chief Executive.
- (iv) Mr. Zhao Zhengzhang was elected as an executive director from June 23, 2015.
- (v) Mr. Xu Wenrong was elected as an non-executive director from May 25, 2016.
- (vi) Mr. Li Xinhua, Mr. Wang Guoliang, Mr. Liu Hongru, Mr. Franco Bernabè, Mr. Li Yongwu and Mr. Cui Junhui ceased being directors from May 22, 2014; Mr. Shen Diancheng, Mr. Liu Yuezhen, Mr. Richard H. Matzke and Mr. Lin Boqiang were elected as directors from May 22, 2014; Mr. Zhang Biyi was elected as a director from October 29, 2014.
- (vii) Mr. Liu Hongbin was elected as the executive director from May 22, 2014.  
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.
- (viii) Mr. Wang Guangjun, Mr. Wang Daocheng and Mr. Fan Fuchun ceased being supervisors from May 22, 2014; Mr. Zhang Fengshan, Mr. Jia Yimin, Mr. Li Luguang, Mr. Li Jiamin were elected as supervisors from May 22, 2014.  
Mr. Li Luguang ceased being supervisors from August 26, 2014.  
Mr. Jiang Lifu and Mr. Yang Hua were elected as supervisors from October 29, 2014.
- (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) The emoluments received by the following persons 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 2016, 2015 and 2014 were RMB nil, RMB nil and RMB nil, respectively; Mr. Wang Lixin ceased being the supervisor from August 26, 2014, and received no emoluments from the Company during the year 2016, 2015 and 2014.
- (xi) 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.

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. 2014: None of the directors and supervisors has waived their remuneration during the year ended December 31, 2014 except for Mr. Cui Junhui)

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.

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.

**PETROCHINA COMPANY LIMITED**

**NOTES TO THE FINANCIAL STATEMENTS — (Continued)**

**(All amounts in millions, except for the per share data and otherwise stated)**

The five highest paid individuals in the Company for the year ended December 31, 2014 include five directors whose emoluments are reflected in the analysis shown above and the note.

During 2016, 2015 and 2014, 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**

	<u>2016</u>	<u>2015</u>	<u>2014</u>
	<u>RMB</u>	<u>RMB</u>	<u>RMB</u>
Current taxes	19,762	18,998	41,007
Deferred taxes (Note 30)	(3,994)	(3,272)	(3,276)
	<u>15,768</u>	<u>15,726</u>	<u>37,731</u>

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:

	<u>2016</u>	<u>2015</u>	<u>2014</u>
	<u>RMB</u>	<u>RMB</u>	<u>RMB</u>
Profit before income tax expense	45,140	57,815	156,759
Tax calculated at a tax rate of 25%	11,285	14,454	39,190
Tax return true-up	1,887	2,008	1,900
Effect of income taxes from international operations in excess of taxes at the PRC statutory tax rate	1,797	910	2,302
Effect of preferential tax rate	(2,418)	(5,436)	(6,948)
Tax effect of income not subject to tax	(4,935)	(2,875)	(4,953)
Tax effect of expenses not deductible for tax purposes	8,152	6,665	6,240
Income tax expense	<u>15,768</u>	<u>15,726</u>	<u>37,731</u>

**13 BASIC AND DILUTED EARNINGS PER SHARE**

Basic and diluted earnings per share for the years ended December 31, 2016, 2015 and 2014 have been computed by dividing profit for the year attributable to owners of the Company of RMB 7,857, RMB 35,517 and RMB 107,172 respectively by 183,021 million shares issued and outstanding for the year.

There are no potentially dilutive ordinary shares.



PETROCHINA COMPANY LIMITED

NOTES TO THE FINANCIAL STATEMENTS — (Continued)

(All amounts in millions, except for the per share data and otherwise stated)

14 DIVIDENDS

	2016	2015	2014
	RMB	RMB	RMB
Interim dividends attributable to owners of the Company for 2016 <sup>(a)</sup>	3,899	—	—
Proposed final dividends attributable to owners of the Company for 2016 <sup>(b)</sup>	6,957	—	—
Interim dividends attributable to owners of the Company for 2015 <sup>(c)</sup>	—	11,433	—
Final dividends attributable to owners of the Company for 2015 <sup>(d)</sup>	—	4,550	—
Interim dividends attributable to owners of the Company for 2014 <sup>(e)</sup>	—	—	30,656
Final dividends attributable to owners of the Company for 2014 <sup>(f)</sup>	—	—	17,572
	<u>10,856</u>	<u>15,983</u>	<u>48,228</u>

- (a) 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).
- (b) At the 2nd meeting of the Board in 2017, the Board of Directors proposed 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. 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, 2017 when approved at the forthcoming Annual General Meeting.
- (c) 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).
- (d) 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).
- (e) Interim dividends attributable to owners of the Company in respect of 2014 of RMB 0.16750 yuan per share amounting to a total of RMB 30,656 were paid on September 19, 2014 (A share) and September 29, 2014 (H shares).
- (f) Final dividends attributable to owners of the Company in respect of 2014 of RMB 0.09601 yuan per share amounting to a total of RMB 17,572 were paid on July 9, 2015 (A share) and August 13, 2015 (H shares).

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

<u>Year Ended December 31, 2016</u>	<u>Buildings</u>	<u>Oil and Gas Properties</u>	<u>Equipment and Machinery</u>	<u>Motor Vehicles</u>	<u>Other</u>	<u>Construction in Progress</u>	<u>Total</u>
	<u>RMB</u>	<u>RMB</u>	<u>RMB</u>	<u>RMB</u>	<u>RMB</u>	<u>RMB</u>	<u>RMB</u>
<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)	—
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	<u>214,710</u>	<u>1,909,213</u>	<u>990,832</u>	<u>29,227</u>	<u>22,268</u>	<u>229,371</u>	<u>3,395,621</u>
<b>Accumulated depreciation and impairment</b>							
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 charges	(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	<u>(85,323)</u>	<u>(1,063,500)</u>	<u>(469,475)</u>	<u>(19,467)</u>	<u>(11,971)</u>	<u>(6,340)</u>	<u>(1,656,076)</u>
<b>Net book value</b>							
At end of the year	<u>129,387</u>	<u>845,713</u>	<u>521,357</u>	<u>9,760</u>	<u>10,297</u>	<u>223,031</u>	<u>1,739,545</u>
<u>Year Ended December 31, 2015</u>	<u>Buildings</u>	<u>Oil and Gas Properties</u>	<u>Equipment and Machinery</u>	<u>Motor Vehicles</u>	<u>Other</u>	<u>Construction in Progress</u>	<u>Total</u>
	<u>RMB</u>	<u>RMB</u>	<u>RMB</u>	<u>RMB</u>	<u>RMB</u>	<u>RMB</u>	<u>RMB</u>
<b>Cost</b>							
At beginning of the year	192,026	1,688,154	850,075	28,217	19,345	246,094	3,023,911
Additions	4,421	6,745	70,253	2,403	944	191,466	276,232
Transfers	12,675	133,708	39,084	—	1,405	(186,872)	—
Disposals or write offs	(2,354)	(14,961)	(5,563)	(867)	(280)	(9,608)	(33,633)
Currency translation differences	(1,564)	(13,759)	(518)	(167)	(396)	(4,276)	(20,680)
At end of the year	<u>205,204</u>	<u>1,799,887</u>	<u>953,331</u>	<u>29,586</u>	<u>21,018</u>	<u>236,804</u>	<u>3,245,830</u>
<b>Accumulated depreciation and impairment</b>							
At beginning of the year	(68,649)	(807,712)	(373,401)	(17,381)	(8,968)	(109)	(1,276,220)
Charge for the year and others	(10,182)	(115,996)	(51,410)	(2,153)	(2,367)	—	(182,108)
Impairment charges	(81)	(19,893)	(1,489)	(2)	(3)	(3,554)	(25,022)
Disposals or write offs or transfers	1,296	10,039	4,434	771	191	3	16,734
Currency translation differences	712	4,008	551	146	407	(133)	5,691
At end of the year	<u>(76,904)</u>	<u>(929,554)</u>	<u>(421,315)</u>	<u>(18,619)</u>	<u>(10,740)</u>	<u>(3,793)</u>	<u>(1,460,925)</u>
<b>Net book value</b>							
At end of the year	<u>128,300</u>	<u>870,333</u>	<u>532,016</u>	<u>10,967</u>	<u>10,278</u>	<u>233,011</u>	<u>1,784,905</u>

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**NOTES TO THE FINANCIAL STATEMENTS — (Continued)**

**(All amounts in millions, except for the per share data and otherwise stated)**

The impairment charge of the Group for the year ended December 31, 2016 amounted to RMB 8,502 (2015: RMB 25,022 primarily related to oil and gas properties, 2014: RMB 3,685, primarily related to certain of the Group's chemical production facilities under the Refining and Chemicals segment) primarily related to certain chemical and liquefied natural gas production facilities. The impairment of these properties is mainly due to the higher production costs and operating costs and lower price of certain chemical products and Liquefied Natural Gas. 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 internal 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 lower price of crude oil, and external factors, mainly including a significant drop in international prices of crude oil resulted from the imbalance of supply and demand of global crude oil. 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 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 2016, the after-tax discount rates adopted by most oil blocks of the Group ranged from 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, 2016, 2015 and 2014.

	<u>2016</u>	<u>2015</u>	<u>2014</u>
	<u>RMB</u>	<u>RMB</u>	<u>RMB</u>
At beginning of the year	20,177	20,878	24,507
Additions to capitalized exploratory well costs pending the determination of proved reserves	21,847	21,698	26,504
Reclassified to wells, facilities, and equipment based on the determination of proved reserves	(10,914)	(12,791)	(18,070)
Capitalized exploratory well costs charged to expense	(9,689)	(9,608)	(12,063)
At end of the year	<u>21,421</u>	<u>20,177</u>	<u>20,878</u>

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**NOTES TO THE FINANCIAL STATEMENTS — (Continued)**

**(All amounts in millions, except for the per share data and otherwise stated)**

The following table provides an aging of capitalized exploratory well costs based on the date the drilling was completed.

	<b>December 31, 2016</b>	<b>December 31, 2015</b>
	<b>RMB</b>	<b>RMB</b>
One year or less	13,202	13,330
Over one year	8,219	6,847
Balance at December 31	<u>21,421</u>	<u>20,177</u>

RMB 8,219 at December 31, 2016 (December 31, 2015: RMB 6,847) 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 application of the above insurance reinsurance and insurance capital business	49.00	—
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

**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 10,172 in 2016 (2015: RMB 9,489, 2014: RMB 11,815).

In 2016, investments in associates and joint ventures of RMB 101 (2015: RMB 55, 2014: RMB 71) were disposed of, resulting in a loss of RMB 40 (2015: a gain of RMB 1,258, 2014: a gain of RMB 41).

In 2016, the share of profit and other comprehensive income in all individually immaterial associates and joint ventures accounted for using equity method in aggregate was profit of RMB 2,738 (2015: profit of RMB 3,846, 2014: profit of RMB 5,661) and loss of RMB 204 (2015: income of RMB 1,042, 2014: income of RMB 113), 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, 2016</b>	<b>December 31, 2015</b>	<b>December 31, 2016</b>	<b>December 31, 2015</b>	<b>December 31, 2016</b>	<b>December 31, 2015</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	49.00	49.00	49.00
Current assets	3,597	4,214	148,916	351,516	996	2,272
Non-current assets	4,373	4,180	270,507	288,537	10,362	8,095
Current liabilities	8,329	8,248	332,923	544,674	5,594	4,907
Non-current liabilities	5,217	7,000	29,998	51,809	1	—
Net (liabilities) / assets	<u>(5,576)</u>	<u>(6,854)</u>	<u>56,502</u>	<u>43,570</u>	<u>5,763</u>	<u>5,460</u>
Group’s share of net assets	—	—	18,080	21,349	2,824	2,675
Goodwill	—	—	349	349	—	—
Carrying amount of interest in associates	<u>—</u>	<u>—</u>	<u>18,429</u>	<u>21,698</u>	<u>2,824</u>	<u>2,675</u>

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**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:

	<b>Dalian West Pacific Petrochemical Co., Ltd.</b>			<b>China Petroleum Finance Co., Ltd.</b>			<b>CNPC Captive Insurance Co., Ltd.</b>		
	<b>2016</b>	<b>2015</b>	<b>2014</b>	<b>2016</b>	<b>2015</b>	<b>2014</b>	<b>2016</b>	<b>2015</b>	<b>2014</b>
	<b>RMB</b>	<b>RMB</b>	<b>RMB</b>	<b>RMB</b>	<b>RMB</b>	<b>RMB</b>	<b>RMB</b>	<b>RMB</b>	<b>RMB</b>
Revenue	19,029	18,170	38,983	8,555	10,335	9,703	563	480	376
Profit / (loss) for the year	1,475	(984)	(1,465)	7,524	5,839	5,432	302	286	173
Other comprehensive income	—	—	—	655	294	561	2	1	—
Total comprehensive income / (loss)	<u>1,475</u>	<u>(984)</u>	<u>(1,465)</u>	<u>8,179</u>	<u>6,133</u>	<u>5,993</u>	<u>304</u>	<u>287</u>	<u>173</u>
Group's share of total comprehensive income	<u>—</u>	<u>—</u>	<u>—</u>	<u>3,628</u>	<u>3,005</u>	<u>2,937</u>	<u>149</u>	<u>141</u>	<u>85</u>
Dividends received by the Group	—	—	—	7,203	631	1,248	—	—	—

**Interest in Joint Ventures**

Summarized balance sheet in respect of the Group's principal joint ventures and reconciliation to carrying amount is as follows:

	<b>China Marine Bunker (PetroChina) Co., Ltd.</b>		<b>Arrow Energy Holdings Pty Ltd.</b>		<b>Trans-Asia Gas Pipeline Co., Ltd.</b>
	<b>December 31, 2016</b>	<b>December 31, 2015</b>	<b>December 31, 2016</b>	<b>December 31, 2015</b>	<b>December 31, 2016</b>
	<b>RMB</b>	<b>RMB</b>	<b>RMB</b>	<b>RMB</b>	<b>RMB</b>
Percentage ownership interest (%)	50.00	50.00	50.00	50.00	50.00
Non-current assets	1,974	2,076	32,733	34,902	27,009
Current assets	6,453	4,653	708	597	4,045
Including: cash and cash equivalents	1,461	1,703	368	355	4,025
Non-current liabilities	749	691	25,308	23,595	2,100
Including: Non-current financial liabilities excluding trade and other payables and provisions	500	504	16,304	14,919	2,100
Current liabilities	4,902	3,399	690	1,365	414
Including: Current financial liabilities excluding trade and other payables and provisions	<u>1,188</u>	<u>1,308</u>	<u>316</u>	<u>269</u>	<u>—</u>
Net assets	<u>2,776</u>	<u>2,639</u>	<u>7,443</u>	<u>10,539</u>	<u>28,540</u>
Net assets attributable to owners	2,528	2,416	7,443	10,539	28,540
Group's share of net assets	1,264	1,208	3,722	5,270	14,270
Elimination of unrealized profit	—	—	—	—	—
Elimination of transactions with the Group	<u>—</u>	<u>—</u>	<u>(45)</u>	<u>(41)</u>	<u>—</u>
Carrying amount of interest in joint ventures	<u>1,264</u>	<u>1,208</u>	<u>3,677</u>	<u>5,229</u>	<u>14,270</u>

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**NOTES TO THE FINANCIAL STATEMENTS — (Continued)**  
**(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:

	<b>China Marine Bunker (PetroChina) Co., Ltd.</b>			<b>Arrow Energy Holdings Pty Ltd.</b>			<b>Trans-Asia Gas Pipeline Co., Ltd.</b>
	<b>2016</b>	<b>2015</b>	<b>2014</b>	<b>2016</b>	<b>2015</b>	<b>2014</b>	<b>From the closing date to Dec 31, 2016</b>
	<b>RMB</b>	<b>RMB</b>	<b>RMB</b>	<b>RMB</b>	<b>RMB</b>	<b>RMB</b>	<b>RMB</b>
Revenue	23,336	27,587	53,552	1,135	971	1,120	84
Depreciation, depletion and amortization	92	(88)	(86)	(624)	(484)	(553)	(3)
Interest income	9	35	48	5	6	11	55
Interest expense	(45)	(56)	(71)	(1,307)	(1,189)	(1,052)	(32)
Income tax expense	(47)	(33)	(20)	—	—	—	(1)
Net profit / (loss)	101	93	101	(3,718)	(10,753)	(4,439)	88
Total comprehensive income / (loss)	171	176	(9)	(3,402)	(12,934)	(4,684)	194
Total comprehensive income / (loss) by share	68	67	(14)	(1,701)	(6,467)	(2,342)	97
Elimination of unrealized profit	—	—	—	—	—	—	(354)
Group's share of total comprehensive income / (loss)	<u>68</u>	<u>67</u>	<u>(14)</u>	<u>(1,701)</u>	<u>(6,467)</u>	<u>(2,342)</u>	<u>(257)</u>
Dividends received by the Group	9	18	11	—	—	—	—

**17 AVAILABLE-FOR-SALE FINANCIAL ASSETS**

	<b>December 31, 2016</b>	<b>December 31, 2015</b>
	<b>RMB</b>	<b>RMB</b>
Available-for-sale financial assets	2,348	3,198
Less: Impairment losses	<u>(337)</u>	<u>(329)</u>
	<u>2,011</u>	<u>2,869</u>

Available-for-sale financial assets comprise principally unlisted equity securities and bonds.

In 2016, available-for-sale financial assets of RMB 176 (2015: RMB 381, 2014: RMB 67) were disposed of, resulting in the realization of a gain of RMB 184 (2015: RMB 177, 2014: RMB 100).



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**NOTES TO THE FINANCIAL STATEMENTS — (Continued)**

(All amounts in millions, except for the per share data and otherwise stated)

**18 SUBSIDIARIES**

The principal subsidiaries of the Group are:

<u>Company Name</u>	<u>Country of Incorporation</u>	<u>Issued Capital RMB</u>	<u>Type of Legal Entity</u>	<u>Attributable Equity Interest %</u>	<u>Voting Rights%</u>	<u>Principal Activities</u>
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 <sup>(ii)</sup>	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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**NOTES TO THE FINANCIAL STATEMENTS — (Continued)**

(All amounts in millions, except for the per share data and otherwise stated)

<u>Company Name</u>	<u>Country of Incorporation</u>	<u>Issued Capital RMB</u>	<u>Type of Legal Entity</u>	<u>Attributable Equity Interest %</u>	<u>Voting Rights%</u>	<u>Principal Activities</u>
PetroChina Pipelines Co., Ltd. <sup>(iii)</sup>	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.
- (ii) The registered capital of PetroChina International Company Limited was increased from RMB 14,000 to RMB 18,096 in June 2016.
- (iii) The registered capital of PetroChina Pipelines Co., Ltd. was increased from RMB 50 to RMB 80,000 in February 2016.

Summarized financial information in respect of the Group's principal subsidiaries with significant non-controlling interests is as follows:

	<u>CNPC Exploration and Development Company Limited</u>		<u>PetroChina Pipelines Co., Ltd.</u>	
	<u>December 31, 2016</u>	<u>December 31, 2015</u>	<u>December 31, 2016</u>	<u>December 31, 2015</u>
	<u>RMB</u>	<u>RMB</u>	<u>RMB</u>	<u>RMB</u>
Percentage ownership interest (%)	50	50	72.26	72.26
Current assets	26,489	36,052	19,193	16,268
Non-current assets	134,510	111,753	235,023	263,268
Current liabilities	15,504	28,551	26,186	54,297
Non-current liabilities	11,648	15,420	12,344	30,492
Net assets	<u>133,847</u>	<u>103,834</u>	<u>215,686</u>	<u>194,747</u>

Summarized statement of comprehensive income is as follows:

	<u>CNPC Exploration and Development Company Limited</u>			<u>PetroChina Pipelines Co., Ltd.<sup>(note)</sup></u>	
	<u>2016</u>	<u>2015</u>	<u>2014</u>	<u>2016</u>	<u>2015</u>
	<u>RMB</u>	<u>RMB</u>	<u>RMB</u>	<u>RMB</u>	<u>RMB</u>
Revenue	28,196	33,541	52,258	41,794	2,796
Profit from continuing operations	24,153	2,448	12,473	20,420	1,015
Total comprehensive income	30,391	(7,889)	9,549	20,420	1,015
Profit attributable to non-controlling interests	12,414	1,292	7,535	5,664	282
Dividends paid to non-controlling interests	444	775	3,268	—	720

Note: PetroChina Pipelines Co., Ltd. was established in November 2015.

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**NOTES TO THE FINANCIAL STATEMENTS — (Continued)**

(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. <small>(note)</small>	
	2016	2015	2014	2016	2015
	RMB	RMB	RMB	RMB	RMB
Net cash inflow from operating activities	9,053	8,293	13,792	30,270	2,554
Net cash (outflow) / inflow from investing activities	(18,036)	(2,762)	18,060	14,799	(19,434)
Net cash (outflow) / inflow from financing activities	(2,248)	(4,284)	(7,731)	(47,624)	21,744
Effect of foreign exchange rate changes on cash and cash equivalents	748	586	(44)	—	—
Net (decrease) / increase in cash and cash equivalents	(10,483)	1,833	24,077	(2,555)	4,864
Cash and cash equivalents at the beginning of the year	28,703	26,870	2,793	4,864	—
Cash and cash equivalents at the end of the year	18,220	28,703	26,870	2,309	4,864

Note: PetroChina Pipelines Co., Ltd. was established in November 2015.

**19 ADVANCE OPERATING LEASE PAYMENTS**

	December 31, 2016	December 31, 2015
	RMB	RMB
Land use rights	53,653	52,710
Advance lease payments	17,700	17,841
	<u>71,353</u>	<u>70,551</u>

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, 2016			December 31, 2015		
	Cost	Accumulated amortization	Net	Cost	Accumulated amortization	Net
	RMB	RMB	RMB	RMB	RMB	RMB
Patents and technical know-how	7,237	(5,219)	2,018	7,119	(4,765)	2,354
Computer software	9,614	(6,790)	2,824	8,983	(5,870)	3,113
Goodwill <sup>(i)</sup>	46,097	—	46,097	45,589	—	45,589
Other	19,134	(6,294)	12,840	18,181	(5,469)	12,712
Intangible assets	<u>82,082</u>	<u>(18,303)</u>	63,779	<u>79,872</u>	<u>(16,104)</u>	63,768
Other assets			38,971			34,504
			<u>102,750</u>			<u>98,272</u>

- (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 recoverable amount of all cash-generating units has been determined based on value-in-use calculations. These calculations use pre-tax cash flow projections based on financial budgets approved by management. The discount rates used are pre-tax and reflect specific risks relating to the cash-generating unit. Based on the estimated recoverable amount, no impairment was identified.

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**NOTES TO THE FINANCIAL STATEMENTS — (Continued)**  
(All amounts in millions, except for the per share data and otherwise stated)

**21 INVENTORIES**

	December 31, 2016	December 31, 2015
	<u>RMB</u>	<u>RMB</u>
Crude oil and other raw materials	55,371	42,605
Work in progress	10,336	8,426
Finished goods	84,473	79,502
Spare parts and consumables	<u>51</u>	<u>45</u>
	150,231	130,578
Less: Write down in inventories	<u>(3,366)</u>	<u>(3,701)</u>
	<u>146,865</u>	<u>126,877</u>

**22 ACCOUNTS RECEIVABLE**

	December 31, 2016	December 31, 2015
	<u>RMB</u>	<u>RMB</u>
Accounts receivable	49,338	52,785
Less: Provision for impairment of receivables	<u>(2,023)</u>	<u>(523)</u>
	<u>47,315</u>	<u>52,262</u>

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, 2016 and 2015 is as follows:

	December 31, 2016	December 31, 2015
	<u>RMB</u>	<u>RMB</u>
Within 1 year	43,686	49,493
Between 1 and 2 years	2,744	2,231
Between 2 and 3 years	437	239
Over 3 years	<u>448</u>	<u>299</u>
	<u>47,315</u>	<u>52,262</u>

The Group offers its customers credit terms up to 180 days.

Movements in the provision for impairment of accounts receivable are as follows:

	<u>2016</u>	<u>2015</u>	<u>2014</u>
	<u>RMB</u>	<u>RMB</u>	<u>RMB</u>
At beginning of the year	523	516	496
Provision for impairment of accounts receivable	1,633	32	74
Receivables written off as uncollectible	(97)	(12)	(16)
Reversal of provision for impairment of accounts receivable	<u>(36)</u>	<u>(13)</u>	<u>(38)</u>
At end of the year	<u>2,023</u>	<u>523</u>	<u>516</u>

**PETROCHINA COMPANY LIMITED**

**NOTES TO THE FINANCIAL STATEMENTS — (Continued)**

(All amounts in millions, except for the per share data and otherwise stated)

**23 PREPAYMENTS AND OTHER CURRENT ASSETS**

	<b>December 31, 2016</b>	<b>December 31, 2015</b>
	<b>RMB</b>	<b>RMB</b>
Other receivables	13,206	17,124
Advances to suppliers	16,505	19,334
	<u>29,711</u>	<u>36,458</u>
Less: Provision for impairment	(2,386)	(2,432)
	<u>27,325</u>	<u>34,026</u>
Value-added tax to be deducted	36,010	37,600
Prepaid expenses	954	956
Prepaid income taxes	5,406	11,116
Other current assets	7,888	4,582
	<u><u>77,583</u></u>	<u><u>88,280</u></u>

**24 NOTES RECEIVABLE**

Notes receivable represent mainly bills of acceptance issued by banks for the sale of goods and products. All notes receivable are due within one year.

**25 CASH AND CASH EQUIVALENTS**

The weighted average effective interest rate on bank deposits was 1.36% per annum for the year ended December 31, 2016 (2015: 1.31% per annum, 2014: 2.23% per annum).

**26 ACCOUNTS PAYABLE AND ACCRUED LIABILITIES**

	<b>December 31, 2016</b>	<b>December 31, 2015</b>
	<b>RMB</b>	<b>RMB</b>
Trade payables	80,606	69,496
Advances from customers	60,590	50,930
Salaries and welfare payable	5,396	5,900
Accrued expenses	123	104
Dividends payable by subsidiaries to non-controlling shareholders	2,356	475
Interest payable	4,536	2,995
Construction fee and equipment cost payables	118,011	133,389
Loans borrowed from related parties	1,432	11,055
Other	37,630	56,696
	<u><u>310,680</u></u>	<u><u>331,040</u></u>

Other consists primarily of customer deposits.

**PETROCHINA COMPANY LIMITED**

**NOTES TO THE FINANCIAL STATEMENTS — (Continued)**  
**(All amounts in millions, except for the per share data and otherwise stated)**

The aging analysis of trade payables at December 31, 2016 and 2015 is as follows:

	<u>December 31, 2016</u>	<u>December 31, 2015</u>
	<u>RMB</u>	<u>RMB</u>
Within 1 year	74,450	64,830
Between 1 and 2 years	3,293	1,987
Between 2 and 3 years	944	1,106
Over 3 years	1,919	1,573
	<u>80,606</u>	<u>69,496</u>

**27 BORROWINGS**

	<u>December 31, 2016</u>	<u>December 31, 2015</u>
	<u>RMB</u>	<u>RMB</u>
Short-term borrowings excluding current portion of long-term borrowings	71,969	70,059
Current portion of long-term borrowings	71,415	36,167
	<u>143,384</u>	<u>106,226</u>
Long-term borrowings	372,887	434,475
	<u>516,271</u>	<u>540,701</u>

Borrowings of the Group of RMB 65,692 were guaranteed by CNPC, its fellow subsidiaries and a third party at December 31, 2016 (December 31, 2015: RMB 72,625).

The Group's borrowings include secured liabilities totaling RMB 251 at December 31, 2016 (December 31, 2015: RMB 104).

	<u>December 31, 2016</u>	<u>December 31, 2015</u>
	<u>RMB</u>	<u>RMB</u>
Total borrowings:		
— interest free	145	199
— at fixed rates	282,822	358,289
— at floating rates	233,304	182,213
	<u>516,271</u>	<u>540,701</u>
Weighted average effective interest rates:		
— bank loans	1.86%	2.15%
— corporate debentures	3.81%	4.59%
— medium-term notes	3.86%	3.97%
— other loans	3.77%	3.69%

**PETROCHINA COMPANY LIMITED**

**NOTES TO THE FINANCIAL STATEMENTS — (Continued)**

(All amounts in millions, except for the per share data and otherwise stated)

The borrowings by major currency at December 31, 2016 and December 31, 2015 are as follows:

	<u>December 31, 2016</u>	<u>December 31, 2015</u>
	<u>RMB</u>	<u>RMB</u>
RMB	372,111	413,023
US Dollar	136,829	120,180
Other currency	<u>7,331</u>	<u>7,498</u>
	<u>516,271</u>	<u>540,701</u>

The fair values of the Group's long-term borrowings including the current portion of long-term borrowings are RMB 438,805 (December 31, 2015: RMB 465,848) at December 31, 2016. 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 -0.09% to 4.90% per annum as of December 31, 2016 (December 31, 2015: 0.06% to 5.60%) 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:

	<u>December 31, 2016</u>	<u>December 31, 2015</u>
	<u>RMB</u>	<u>RMB</u>
Within 1 year	160,572	125,377
Between 1 and 2 years	102,096	114,772
Between 2 and 5 years	209,653	267,560
After 5 years	<u>106,879</u>	<u>107,439</u>
	<u>579,200</u>	<u>615,148</u>

## 28 SHARE CAPITAL

	<u>December 31, 2016</u>	<u>December 31, 2015</u>
	<u>RMB</u>	<u>RMB</u>
Registered, issued and fully paid:		
A shares	161,922	161,922
H shares	<u>21,099</u>	<u>21,099</u>
	<u>183,021</u>	<u>183,021</u>

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.



**PETROCHINA COMPANY LIMITED**

**NOTES TO THE FINANCIAL STATEMENTS — (Continued)**

**(All amounts in millions, except for the per share data and otherwise stated)**

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.

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.

PETROCHINA COMPANY LIMITED

NOTES TO THE FINANCIAL STATEMENTS — (Continued)

(All amounts in millions, except for the per share data and otherwise stated)

29 RESERVES

	2016 RMB	2015 RMB
<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	184,737
Transfer from retained earnings	—	2,103
Ending balance	186,840	186,840
<b>Special Reserve-Safety Fund Reserve</b>		
Beginning balance	11,648	10,345
Safety fund reserve	1,540	1,303
Ending balance	13,188	11,648
<b>Currency Translation Differences</b>		
Beginning balance	(37,066)	(20,114)
Currency translation differences	7,772	(16,952)
Ending balance	(29,294)	(37,066)
<b>Other Reserves</b>		
Beginning balance	(9,790)	(22,706)
Equity transaction with non-controlling interests	224	—
Acquisition of subsidiaries	(259)	12,530
Fair value (loss) / gain on available-for-sale financial assets	(128)	270
Share of the other comprehensive income of associates and joint ventures accounted for using the equity method	313	130
Other	404	(14)
Ending balance	(9,236)	(9,790)
	<u>294,806</u>	<u>284,940</u>

- (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.

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, 2016, the Company's distributable reserve amounted to RMB 574,536 (December 31, 2015: RMB 598,337).

**PETROCHINA COMPANY LIMITED**

**NOTES TO THE FINANCIAL STATEMENTS — (Continued)**

**(All amounts in millions, except for the per share data and otherwise stated)**

**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>2016</b>	<b>2015</b>	<b>2014</b>
	<b>RMB</b>	<b>RMB</b>	<b>RMB</b>
At beginning of the year	(3,807)	905	3,940
Transfer to profit and loss (Note 12)	(3,994)	(3,272)	(3,276)
Credit to other comprehensive income	1,081	(1,449)	(172)
Acquisition of subsidiaries	—	9	413
At end of the year	<u>(6,720)</u>	<u>(3,807)</u>	<u>905</u>

Deferred tax balances before offset are attributable to the following items:

	<b>December 31, 2016</b>	<b>December 31, 2015</b>
	<b>RMB</b>	<b>RMB</b>
Deferred tax assets:		
Receivables and inventories	7,786	9,447
Tax losses	30,438	29,712
Impairment of long-term assets	7,551	7,045
Other	<u>7,184</u>	<u>7,809</u>
Total deferred tax assets	<u>52,959</u>	<u>54,013</u>
Deferred tax liabilities:		
Accelerated tax depreciation	32,639	37,039
Other	<u>13,600</u>	<u>13,167</u>
Total deferred tax liabilities	<u>46,239</u>	<u>50,206</u>
Net deferred tax assets	<u><u>6,720</u></u>	<u><u>3,807</u></u>

Deferred tax balances after offset are listed as follows:

	<b>December 31, 2016</b>	<b>December 31, 2015</b>
	<b>RMB</b>	<b>RMB</b>
Deferred tax assets	20,360	16,927
Deferred tax liabilities	13,640	13,120

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**NOTES TO THE FINANCIAL STATEMENTS — (Continued)**  
**(All amounts in millions, except for the per share data and otherwise stated)**

**31 ASSET RETIREMENT OBLIGATIONS**

	<u>2016</u>	<u>2015</u>	<u>2014</u>
	<u>RMB</u>	<u>RMB</u>	<u>RMB</u>
At beginning of the year	117,996	109,154	94,531
Liabilities incurred	2,942	4,266	9,992
Liabilities settled	(843)	(677)	(418)
Accretion expense (Note 10)	5,126	5,950	5,406
Currency translation differences	171	(697)	(357)
At end of the year	<u>125,392</u>	<u>117,996</u>	<u>109,154</u>

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, 2016 amounted to RMB 16,184 (2015: RMB 16,357, 2014: RMB 15,674).

**33 CONTINGENT LIABILITIES**

***(a) Bank and other guarantees***

At December 31, 2016 and 2015, the Group did not guarantee related parties or third parties any 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.

***(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.

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**NOTES TO THE FINANCIAL STATEMENTS — (Continued)**

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**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, 2016 and 2015 under non-cancellable operating leases are as follows:

	<u>December 31, 2016</u>	<u>December 31, 2015</u>
	<u>RMB</u>	<u>RMB</u>
No later than 1 year	10,108	9,859
Later than 1 year and no later than 5 years	30,757	30,425
Later than 5 years	148,961	152,053
	<u>189,826</u>	<u>192,337</u>

*(b) Capital commitments*

At December 31, 2016, the Group's capital commitments contracted but not provided for mainly relating to property, plant and equipment were RMB 59,664 (December 31, 2015: RMB 56,310).

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 Ministry of Land and Resources. Payments incurred were RMB 639 for the year ended December 31, 2016 (2015: RMB 643, 2014: RMB 719).

Estimated annual payments for the next five years are as follows:

	<u>December 31, 2016</u>	<u>December 31, 2015</u>
	<u>RMB</u>	<u>RMB</u>
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

**PETROCHINA COMPANY LIMITED**

**NOTES TO THE FINANCIAL STATEMENTS — (Continued)**

(All amounts in millions, except for the per share data and otherwise stated)

**35 MAJOR CUSTOMERS**

The Group's major customers are as follows:

	2016		2015		2014	
	Revenue	Percentage of Total revenue	Revenue	Percentage of Total revenue	Revenue	Percentage of Total revenue
	RMB	%	RMB	%	RMB	%
China Petroleum & Chemical Corporation	39,481	2	33,482	2	101,364	5
CNPC and its fellow subsidiaries	91,094	6	80,045	5	95,670	4
	<u>130,575</u>	<u>8</u>	<u>113,527</u>	<u>7</u>	<u>197,034</u>	<u>9</u>

**36 RELATED PARTY TRANSACTIONS**

CNPC, the controlling shareholder of the Company, is a state-controlled enterprise 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

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of three years which took effect on January 1, 2015. The new Comprehensive Products and Services Agreement has already incorporated the terms of the current Comprehensive Products and Services Agreement which was amended in 2011.

- 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 104,034 for the year ended December 31, 2016 (2015: RMB 106,304, 2014: RMB 148,712).
- 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 5,053 for the year ended December 31, 2016 (2015: RMB 6,919, 2014: RMB 9,413).
- 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 292,168 for the year ended December 31, 2016 (2015: RMB 322,028, 2014: RMB 409,397).
- 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 1,058 for the year ended December 31, 2016 (2015: RMB 1,141, 2014: RMB 1,498).
- 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, 2016</b>	<b>December 31, 2015</b>
	<b>RMB</b>	<b>RMB</b>
Accounts receivable	6,657	6,658
Prepayments and other receivables	9,123	7,253
Other current assets	4,486	—
Other non-current assets	11,084	11,619
Accounts payable and accrued liabilities	64,772	78,802
Other non-current liabilities	3,755	3,406

- Interest income represents interest from deposits placed with CNPC and its fellow subsidiaries. The total interest income amounted to RMB 224 for the year ended December 31, 2016 (2015: RMB 304, 2014: RMB 665). The balance of deposits at December 31, 2016 was RMB 32,626 (December 31, 2015: RMB 19,961).
- 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 12,139 for the year ended December 31, 2016 (2015: RMB 14,739, 2014: RMB 15,089).
- The borrowings from CNPC and its fellow subsidiaries at December 31, 2016 were RMB 255,285 (December 31, 2015: RMB 326,671).
- 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 rents and other payments made under financial leasing amounted to RMB 819 for the year ended December 31, 2016 (2015: RMB 238, 2014: RMB 201).



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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 adjusted to approximately 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.

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.

***(b) Key management compensation***

	Year End December 31,		
	2016	2015	2014
	RMB'000	RMB'000	RMB'000
Emoluments and other benefits	12,549	11,256	13,381
Contribution to retirement benefit scheme	1,712	1,915	751
	<u>14,261</u>	<u>13,171</u>	<u>14,132</u>

Note: Emoluments set out above for the year ended December 31, 2016 exclude RMB 1.64 paid to key management of the Company for the year of 2013, 2014 and 2015 of the deferred merit pay in accordance with relevant requirements by the PRC government (2015: RMB nil, 2014: 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,

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**NOTES TO THE FINANCIAL STATEMENTS — (Continued)**

**(All amounts in millions, except for the per share data and otherwise stated)**

- 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.

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".

PETROCHINA COMPANY LIMITED

NOTES TO THE FINANCIAL STATEMENTS — (Continued)  
(All amounts in millions, except for the per share data and otherwise stated)

The segment information for the operating segments for the years ended December 31, 2016, 2015 and 2014 is as follows:

	Year Ended December 31, 2016					
	Exploration and Production	Refining and Chemicals	Marketing	Natural Gas and Pipeline	Head Office and Other	Total
	RMB	RMB	RMB	RMB	RMB	RMB
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	<u>76,768</u>	<u>143,657</u>	<u>1,175,272</u>	<u>219,693</u>	<u>1,513</u>	<u>1,616,903</u>
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						<u>(19,600)</u>
Share of 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						<u>29,372</u>
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						<u>2,396,651</u>
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						<u>1,023,916</u>

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					
	Exploration and Production	Refining and Chemicals	Marketing	Natural Gas and Pipeline	Head Office and Other	Total
	RMB	RMB	RMB	RMB	RMB	RMB
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	<u>90,989</u>	<u>140,421</u>	<u>1,236,707</u>	<u>255,519</u>	<u>1,792</u>	<u>1,725,428</u>
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						<u>(22,941)</u>
Share of profit of associates and joint ventures	(5,599)	66	(156)	4,206	2,987	<u>1,504</u>
Profit before income tax expense						57,815
Income tax expense						<u>(15,726)</u>
Profit for the year						<u>42,089</u>
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>						<u>(1,697,713)</u>
Total assets						<u>2,393,844</u>
Capital expenditure	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>						<u>(706,492)</u>
Total liabilities						<u>1,049,810</u>

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, 2014					
	Exploration and Production	Refining and Chemicals	Marketing	Natural Gas and Pipeline	Head Office and Other	Total
	RMB	RMB	RMB	RMB	RMB	RMB
Revenue	777,574	846,082	1,938,501	284,262	3,027	3,849,446
Less: intersegment sales	(629,186)	(668,002)	(244,226)	(24,398)	(672)	(1,566,484)
Revenue from external customers	<u>148,388</u>	<u>178,080</u>	<u>1,694,275</u>	<u>259,864</u>	<u>2,355</u>	<u>2,282,962</u>
Depreciation, depletion and amortization	(129,221)	(21,533)	(11,709)	(12,804)	(2,196)	(177,463)
Including: Impairment losses of property, plant and equipment	(3,684)	—	—	(1)	—	(3,685)
Profit / (loss) from operations	186,897	(23,560)	5,421	13,126	(12,051)	169,833
Finance costs:						
Exchange gain						5,020
Exchange loss						(7,333)
Interest income						1,596
Interest expense						(23,319)
Total net finance costs						<u>(24,036)</u>
Share of profit of associates and joint ventures	3,476	36	31	4,692	2,727	<u>10,962</u>
Profit before income tax expense						156,759
Income tax expense						<u>(37,731)</u>
Profit for the year						<u>119,028</u>
Segment assets	1,216,424	339,374	365,433	491,079	1,515,043	3,927,353
Other assets						15,955
Investments in associates and joint ventures	42,283	1,118	10,249	41,439	21,858	116,947
Elimination of intersegment balances <sup>(a)</sup>						<u>(1,654,782)</u>
Total assets						<u>2,405,473</u>
Capital expenditure	221,479	30,965	5,616	32,919	750	291,729
Segment liabilities	505,029	136,492	169,804	172,402	688,203	1,671,930
Other liabilities						62,541
Elimination of intersegment balances <sup>(a)</sup>						<u>(646,779)</u>
Total liabilities						<u>1,087,692</u>

**PETROCHINA COMPANY LIMITED**

**NOTES TO THE FINANCIAL STATEMENTS — (Continued)**

(All amounts in millions, except for the per share data and otherwise stated)

**Geographical information**

<u>Year Ended December 31,</u>	<u>Revenue</u>			<u>Non-current assets<sup>(b)</sup></u>		
	<u>2016</u>	<u>2015</u>	<u>2014</u>	<u>2016</u>	<u>2015</u>	<u>2014</u>
	<u>RMB</u>	<u>RMB</u>	<u>RMB</u>	<u>RMB</u>	<u>RMB</u>	<u>RMB</u>
Mainland China	1,101,055	1,185,189	1,479,183	1,739,351	1,796,288	1,738,389
Other	515,848	540,239	803,779	253,264	228,416	255,552
	<u>1,616,903</u>	<u>1,725,428</u>	<u>2,282,962</u>	<u>1,992,615</u>	<u>2,024,704</u>	<u>1,993,941</u>

(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, 2017.

**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.



**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 include quantities that are ultimately produced and sold to pay these taxes, fees and royalty.

Proved reserve estimates as of December 31, 2016, 2015 and 2014 were based on reports prepared by DeGolyer and MacNaughton, Gaffney, Cline & Associates, 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:

	<u>Crude Oil and Condensate</u> (million barrels)	<u>Natural Gas</u> (billion cubic feet)	<u>Total — All products</u> (million barrels of oil equivalent)
Proved developed and undeveloped reserves			
The Group			
Reserves at December 31, 2013	10,820	69,323	22,374
Changes resulting from:			
Revisions of previous estimates	(16)	(2,707)	(467)
Improved recovery	94	—	94
Extensions and discoveries	646	7,511	1,898
Sales	(5)	—	(5)
Production	<u>(946)</u>	<u>(3,029)</u>	<u>(1,451)</u>
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	<u>(972)</u>	<u>(3,131)</u>	<u>(1,494)</u>
Reserves at December 31, 2015	8,521	77,525	21,442
Changes resulting from:			
Revisions of previous estimates	(747)	(308)	(799)
Improved recovery	93	—	93
Extensions and discoveries	492	4,770	1,287
Production	<u>(921)</u>	<u>(3,275)</u>	<u>(1,467)</u>
Reserves at December 31, 2016	<u><u>7,438</u></u>	<u><u>78,712</u></u>	<u><u>20,556</u></u>

**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)

	<u>Crude Oil and Condensate</u>	<u>Natural Gas</u>	<u>Total — All products</u>
	(million barrels)	(billion cubic feet)	(million barrels of oil equivalent)
Proved developed reserves at:			
December 31, 2014	7,253	35,824	13,224
December 31, 2015	6,196	40,406	12,930
December 31, 2016	5,176	40,664	11,953
Proved undeveloped reserves at:			
December 31, 2014	3,340	35,274	9,219
December 31, 2015	2,325	37,119	8,512
December 31, 2016	2,262	38,048	8,603
Equity method investments			
Share of proved developed and undeveloped reserves of associates and joint ventures			
December 31, 2014	500	449	575
December 31, 2015	504	354	563
December 31, 2016	504	348	562

At December 31, 2016, total proved developed and undeveloped reserves of the Group and equity method investments is 21,118 million barrels of oil equivalent (December 31, 2015: 22,005 million barrels of oil equivalent, December 31, 2014: 23,017 million barrels of oil equivalent), comprising 7,942 million barrels of crude oil and condensate (December 31, 2015: 9,025 million barrels, December 31, 2014: 11,093 million barrels) and 79,060 billion cubic feet of natural gas (December 31, 2015: 77,879 billion cubic feet, December 31, 2014: 71,547 billion cubic feet).

At December 31, 2016, 6,341 million barrels (December 31, 2015: 7,650 million barrels, December 31, 2014: 9,735 million barrels) of crude oil and condensate and 76,245 billion cubic feet (December 31, 2015: 75,858 billion cubic feet, December 31, 2014: 69,836 billion cubic feet) of natural gas proved developed and undeveloped reserves of the Group are located within Mainland China, and 1,097 million barrels (December 31, 2015: 871 million barrels, December 31, 2014: 858 million barrels) of crude oil and condensate and 2,467 billion cubic feet (December 31, 2015: 1,667 billion cubic feet, December 31, 2014: 1,262 billion cubic feet) of natural gas proved developed and undeveloped reserves of the Group are located overseas.

**Capitalized Costs**

	<u>December 31, 2016</u>	<u>December 31, 2015</u>
	RMB	RMB
The Group		
Property costs and producing assets	1,519,124	1,421,608
Support facilities	390,089	378,279
Construction-in-progress	100,114	109,007
Total capitalized costs	2,009,327	1,908,894
Accumulated depreciation, depletion and amortization	(1,063,500)	(929,554)
Net capitalized costs	<u>945,827</u>	<u>979,340</u>
Equity method investments		
Share of net capitalized costs of associates and joint ventures	<u>28,999</u>	<u>30,418</u>

**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)

**Costs Incurred for Property Acquisitions, Exploration and Development Activities**

		<b>2016</b>		
		<b>Mainland China</b>	<b>Other</b>	<b>Total</b>
		<b>RMB</b>	<b>RMB</b>	<b>RMB</b>
The Group				
	Exploration costs	28,413	685	29,098
	Development costs	83,785	13,870	97,655
	Total	112,198	14,555	126,753
Equity method investments				
	Share of costs of property acquisition, exploration and development of associates and joint ventures	—	1,990	1,990
		<b>2015</b>		
		<b>Mainland China</b>	<b>Other</b>	<b>Total</b>
		<b>RMB</b>	<b>RMB</b>	<b>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
	Total	128,870	20,078	148,948
Equity method investments				
	Share of costs of property acquisition, exploration and development of associates and joint ventures	—	2,798	2,798
		<b>2014</b>		
		<b>Mainland China</b>	<b>Other</b>	<b>Total</b>
		<b>RMB</b>	<b>RMB</b>	<b>RMB</b>
The Group				
	Property acquisition costs	—	20,406	20,406
	Exploration costs	34,457	1,954	36,411
	Development costs	126,097	34,117	160,214
	Total	160,554	56,477	217,031
Equity method investments				
	Share of costs of property acquisition, exploration and development of associates and joint ventures	—	5,292	5,292

**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)

**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, 2016, 2015 and 2014 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>2016</b>		
	<b>Mainland China</b>	<b>Other</b>	<b>Total</b>
	<b>RMB</b>	<b>RMB</b>	<b>RMB</b>
The Group			
Revenue			
Sales to third parties	32,674	33,033	65,707
Inter-segment sales	245,091	2,898	247,989
	<u>277,765</u>	<u>35,931</u>	<u>313,696</u>
Production costs excluding taxes	(110,977)	(7,233)	(118,210)
Exploration expenses	(17,952)	(624)	(18,576)
Depreciation, depletion and amortization	(123,268)	(18,973)	(142,241)
Taxes other than income taxes	(16,056)	(3,133)	(19,189)
Accretion expense	(4,930)	(196)	(5,126)
Income taxes	(2,150)	(1,161)	(3,311)
Results of operations from producing activities	<u>2,432</u>	<u>4,611</u>	<u>7,043</u>
Equity method investments			
Share of profit for producing activities of associates and joint ventures	<u>—</u>	<u>649</u>	<u>649</u>
Total of the Group and equity method investments results of operations for producing activities	<u>2,432</u>	<u>5,260</u>	<u>7,692</u>
	<b>2015</b>		
	<b>Mainland China</b>	<b>Other</b>	<b>Total</b>
	<b>RMB</b>	<b>RMB</b>	<b>RMB</b>
The Group			
Revenue			
Sales to third parties	41,980	35,983	77,963
Inter-segment sales	292,656	4,696	297,352
	<u>334,636</u>	<u>40,679</u>	<u>375,315</u>
Production costs excluding taxes	(114,848)	(9,177)	(124,025)
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	<u>45,101</u>	<u>844</u>	<u>45,945</u>
Equity method investments			
Share of profit for producing activities of associates and joint ventures	<u>—</u>	<u>(4,188)</u>	<u>(4,188)</u>
Total of the Group and equity method investments results of operations for producing activities	<u>45,101</u>	<u>(3,344)</u>	<u>41,757</u>

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**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)**

	2014		
	Mainland China	Other	Total
	RMB	RMB	RMB
The Group			
Revenue			
Sales to third parties	87,676	43,260	130,936
Intersegment sales	466,051	9,205	475,256
	553,727	52,465	606,192
Production costs excluding taxes	(116,564)	(9,739)	(126,303)
Exploration expenses	(20,787)	(1,277)	(22,064)
Depreciation, depletion and amortization	(101,168)	(17,522)	(118,690)
Taxes other than income taxes	(102,506)	(10,367)	(112,873)
Accretion expense	(5,220)	(186)	(5,406)
Income taxes	(41,119)	(4,159)	(45,278)
Results of operations from producing activities	166,363	9,215	175,578
Equity method investments			
Share of profit for producing activities of associates and joint ventures	—	6,940	6,940
Total of the Group and equity method investments results of operations for producing activities	166,363	16,155	182,518

**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, 2016, 2015 and 2014 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.

The standardized measure of discounted future net cash flows related to proved oil and gas reserves at December 31, 2016, 2015 and 2014 is as follows:

	RMB
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

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**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)**

	<u>RMB</u>
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	<u>(567,946)</u>
Future net cash flows	2,249,612
Discount at 10% for estimated timing of cash flows	<u>(1,188,237)</u>
Standardized measure of discounted future net cash flows	<u><u>1,061,375</u></u>
	<u>RMB</u>
The Group	
At December 31, 2014	
Future cash inflows	8,225,339
Future production costs	(3,650,129)
Future development costs	(527,848)
Future income tax expense	<u>(863,348)</u>
Future net cash flows	3,184,014
Discount at 10% for estimated timing of cash flows	<u>(1,589,255)</u>
Standardized measure of discounted future net cash flows	<u><u>1,594,759</u></u>

At December 31, 2016, RMB 731,206 (December 31, 2015: RMB 1,023,933, December 31, 2014: RMB 1,520,307) of standardized measure of discounted future net cash flows related to proved oil and gas reserves located within mainland China and RMB 25,605 (December 31, 2015: RMB 37,442, December 31, 2014: RMB 74,452) of standardized measure of discounted future net cash flows related to proved oil and gas reserves located overseas.

Share of standardized measure of discounted future net cash flows of associates and joint ventures:

December 31, 2016	13,550
December 31, 2015	19,712
December 31, 2014	37,118

**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)**

**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, 2016, 2015 and 2014 are as follows:

	Year Ended December 31,		
	2016	2015	2014
	RMB	RMB	RMB
The Group			
Beginning of the year	1,061,375	1,595,704	1,551,265
Sales and transfers of oil and gas produced, net of production costs	(167,108)	(209,600)	(352,016)
Net changes in prices and production costs and other	(370,257)	(716,150)	62,017
Extensions, discoveries and improved recovery	81,248	157,220	189,828
Development costs incurred	32,918	49,064	59,075
Revisions of previous quantity estimates	(61,816)	(121,809)	(51,424)
Accretion of discount	113,324	172,090	160,293
Net change in income taxes	67,127	134,856	(23,786)
Sales	—	—	(493)
End of the year	<u>756,811</u>	<u>1,061,375</u>	<u>1,594,759</u>



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# **Crude Oil Mutual Supply Framework Agreement for Year 2017**

**between**

**PetroChina Company Limited**

**and**

**China Petrochemical Corporation**

**January 2017**

## **Crude Oil Mutual Supply Framework Agreement for Year 2017**

PetroChina Company Limited (“PetroChina”) and China Petrochemical Corporation (“Sinopec”), following friendly consultations, have reached consensus on mutual supply of crude oil in the year of 2017 and hereby enter into this Agreement (this “Agreement”).

### **I. Mutual Supply and Cross Supply of Crude Oil**

1. Mutual supply of crude oil: In 2017, PetroChina shall supply Sinopec with 1.13 million tons of domestic onshore crude oil, including 0.73 million tons of crude oil produced at the Changqing Oil Region, 0.32 million tons of crude oil produced at the Jizhong Oil Region, 50,000 tons of crude oil produced at the Erlian Oil Region and Tamtsag Oil Region, and 30,000 tons of crude oil produced at PetroChina Zhejiang Exploration Company.

In 2017, Sinopec shall supply PetroChina with 1.661 million tons of domestic onshore crude oil, including 0.50 million tons of crude oil produced at the Chunguang Oil Region, 0.37 million tons of crude oil produced at the Chunfeng Oil Region, 0.76 million tons of oil produced at the Tahe Oil Region, 26,000 tons of crude oil produced at the Yanqi Oil Region, and 5,000 tons of crude oil produced at the condensate unit of Sinopec Southwest Company.

2. The parties hereto shall, in principle, make available crude oil of the above supply and take delivery thereof on an evenly distributed basis. The quarterly mutual supply of crude oil may be adjusted as necessary by mutual agreement thereon and in light of the availability of crude oil resources, price and the State’s macro-economic planning requirements.

### **II. Quality of Crude Oil**

Matters with respect to the quality of the crude oil to be supplied hereunder shall be handled pursuant to applicable provisions of SY7513-88 Technical Conditions of Crude Oil at Wellhead.

### **III. Quarterly Supply Agreements; Sales and Purchase Contracts on an Enterprise-by-Enterprise Basis**

The parties hereto agree that quarterly supply agreements shall be entered into by and between the Production Management Department of PetroChina and the Production Management Department of Sinopec in accordance with this Agreement. After the quarterly plans have been issued to the respective subsidiaries, PetroChina’s relevant regional companies (including its oil fields, refineries and pipeline companies) and Sinopec’s relevant subsidiaries (including its oil fields and refineries) will enter into specific sales and purchase contracts with each other. The total quantities and varieties of crude oil to be supplied under such contracts shall be consistent with those specified under the above quarterly supply agreements.

### **IV. Price of Crude Oil**

The price of crude oil to be supplied hereunder shall be settled on the basis of the benchmark crude oil price and the crude oil premium mutually agreed between the parties.

### **V. Payment Guarantee**

Payment of the price of crude oil to be supplied hereunder shall be made on a timely basis and pursuant to the principles agreed upon by the parties hereto. PetroChina and Sinopec agree to be guarantors, and to assume joint and several guarantee liabilities for the failure of timely payment of the price of crude oil and other amounts payable by their respective oil refineries. The payer shall make timely payments to the payee upon receipt of and pursuant to the payment notice.

## **VI. Miscellaneous**

1. Both parties undertake that their subsidiaries will perform this Agreement strictly in accordance with the terms hereof while maintaining the free flow of the downstream operations of their respective oil field enterprises. Any issues not covered hereunder shall be resolved through consultations between the parties hereto.
2. This Agreement shall be executed in four counterparts, with each of PetroChina and Sinopec to hold two. This Agreement shall remain effective from January 1, 2017 to December 31, 2017.

**Production Management Department,  
PetroChina Company Limited**

**Production Management Department,  
China Petrochemical Corporation**

By: \_\_\_\_\_

By: \_\_\_\_\_

\_\_\_\_\_, 2017

\_\_\_\_\_, 2017

**LIST OF SUBSIDIARIES**

A List of PetroChina Company Limited's principal subsidiaries is provided in Note 18 to the consolidated financial statements included in this annual report following Item 19.

**CERTIFICATION**

I, WANG Yilin, certify that:

1. I have reviewed this annual report on Form 20-F of PetroChina Company Limited (the “Company”);
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the Company as of, and for, the periods presented in this report;
4. The Company’s other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the Company and have:
  - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the Company, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
  - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, 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;
  - (c) Evaluated the effectiveness of the Company’s disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
  - (d) Disclosed in this report any change in the Company’s internal control over financial reporting that occurred during the period covered by the annual report that has materially affected, or is reasonably likely to materially affect, the Company’s internal control over financial reporting; and
5. The Company’s other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the Company’s auditors and the audit committee of the Company’s board of directors (or persons performing the equivalent functions):
  - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the Company’s ability to record, process, summarize and report financial information; and
  - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the Company’s internal control over financial reporting.

/s/ WANG Yilin

Name: WANG Yilin

Title: Chairman (performing the functions of Chief Executive Officer)

Date: April 27, 2017

## CERTIFICATION

I, CHAI Shouping, certify that:

1. I have reviewed this annual report on Form 20-F of PetroChina Company Limited (the “Company”);
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the Company as of, and for, the periods presented in this report;
4. The Company’s other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the Company and have:
  - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the Company, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
  - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, 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;
  - (c) Evaluated the effectiveness of the Company’s disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
  - (d) Disclosed in this report any change in the Company’s internal control over financial reporting that occurred during the period covered by the annual report that has materially affected, or is reasonably likely to materially affect, the Company’s internal control over financial reporting; and
5. The Company’s other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the Company’s auditors and the audit committee of the Company’s board of directors (or persons performing the equivalent functions):
  - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the Company’s ability to record, process, summarize and report financial information; and
  - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the Company’s internal control over financial reporting.

/s/ CHAI Shouping

Name: CHAI Shouping

Title: Chief Financial Officer

Date: April 27, 2017



**CERTIFICATION PURSUANT TO  
18 U.S.C. SECTION 1350,  
AS ADOPTED PURSUANT TO  
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

In connection with the Annual Report of PetroChina Company Limited (the “Company”) on Form 20-F for the period ending December 31, 2016, as filed with the Securities and Exchange Commission on the date hereof (the “Report”), I, WANG Yilin, hereby certify that to the best of my knowledge:

1. The Report fully complies with the requirements of Section 13(a) of the Securities Exchange Act of 1934; and
2. The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

/s/ WANG Yilin

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Name: Wang Yilin

Title: Chairman  
(performing the functions of Chief  
Executive Officer)

Date: April 27, 2017

**CERTIFICATION PURSUANT TO  
18 U.S.C. SECTION 1350,  
AS ADOPTED PURSUANT TO  
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

In connection with the Annual Report of PetroChina Company Limited (the “Company”) on Form 20-F for the period ending December 31, 2016, as filed with the Securities and Exchange Commission on the date hereof (the “Report”), I, CHAI Shouping, hereby certify that to the best of my knowledge:

1. The Report fully complies with the requirements of Section 13(a) of the Securities Exchange Act of 1934; and
2. The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

/s/ CHAI Shouping

Name: CHAI Shouping

Title: Chief Financial Officer

Date: April 27, 2017

**DeGOLYER AND MACNAUGHTON**  
5001 SPRING VALLEY ROAD  
SUITE 800 EAST  
DALLAS, TEXAS 75244

This is a digital representation of a DeGolyer and MacNaughton report.

Each file contained herein is intended to be a manifestation of certain data in the subject report and as such is subject to the definitions, qualifications, explanations, conclusions, and other conditions thereof. The information and data contained in each file may be subject to misinterpretation; therefore, the signed and bound copy of this report should be considered the only authoritative source of such information.



**DeGOLYER AND MACNAUGHTON**  
5001 SPRING VALLEY ROAD  
SUITE 800 EAST  
DALLAS, TEXAS 75244

March 10, 2017

PetroChina Company Limited  
9 Dongzhimen North Street, Dongcheng District  
Beijing 100007  
P.R. China

Ladies and Gentlemen:

Pursuant to your request, we have conducted a reserves evaluation of the extent and value of the net proved oil, condensate, liquefied petroleum gas (LPG), and gas reserves, as of December 31, 2016, of certain selected properties that PetroChina Company Limited (PetroChina) has represented that it owns. This evaluation was completed on March 10, 2017. The properties evaluated herein are located in China as well as in Azerbaijan, Indonesia, Iraq, Kazakhstan, Mongolia, and Oman (collectively referred to herein as Other Countries). PetroChina has represented that these properties account for 97.7 percent on a net equivalent barrel basis of PetroChina's net proved reserves as of December 31, 2016. The net proved reserves estimates prepared by us have been prepared in accordance with the reserves definitions of Rules 4-10(a) (1)-(32) of Regulation S-X of the Securities and Exchange Commission (SEC) of the United States. This report was prepared in accordance with guidelines specified in Item 1202 (a)(8) of Regulation S-K and is to be used for inclusion in certain SEC filings by PetroChina.

Reserves estimates included herein are expressed as net reserves. Gross reserves are defined as the total estimated petroleum to be produced from these properties after December 31, 2016. Net reserves are defined as that portion of the gross reserves attributable to the interests owned or controlled by PetroChina after deducting all interests owned by others.

Certain properties in which PetroChina has an interest are subject to the terms of various profit sharing agreements. The terms of these agreements generally allow for working interest participants to be reimbursed for portions of capital costs and operating expenses and to share in the profits. The reimbursements and profit proceeds are converted to a barrel of oil equivalent or standard cubic foot of gas equivalent by dividing by product prices to estimate the "entitlement reserves." These entitlement reserves are equivalent in principle to net reserves and are used to calculate an equivalent net share, termed an "entitlement interest." In this report, PetroChina's net reserves or interest for certain properties subject to these agreements is the entitlement based on PetroChina's working interest.

Values included herein are expressed in terms of future net revenue and present worth. Future net revenue is calculated by deducting estimated operating expenses, capital costs, abandonment costs, and taxes from the revenue which will accrue to PetroChina from the production and sale of the estimated net reserves. Present worth is defined as future net revenue discounted at a specified arbitrary rate compounded monthly over the expected period of realization. Present worth values using a discount rate of 10 percent are reported herein. Present worth should not be construed as fair market value because no consideration was given to additional factors that influence the prices at which properties are bought and sold.

Estimates of oil, condensate, LPG, and gas reserves and future net revenue should be regarded only as estimates that may change as further production history and additional information become available. Not only are estimates of reserves and revenue based on that information which is currently available, but such estimates are also subject to the uncertainties inherent in the application of judgmental factors in interpreting such information.

Data used in this evaluation were obtained from reviews with PetroChina personnel, from PetroChina files, from records on file with the appropriate regulatory agencies, and from public sources. In the preparation of this report we have relied, without independent verification, upon such information furnished by PetroChina with respect to property interests, production from such properties, current costs of operation and development, current prices for production, agreements relating to current and future operations and sale of production, and various other information and data that were accepted as represented.

### **Methodology and Procedures**

Estimates of reserves were prepared by the use of appropriate geologic, petroleum engineering, and evaluation principles and techniques that are in accordance with practices generally recognized by the petroleum industry as presented in the publication of the Society of Petroleum Engineers entitled “Standards Pertaining to the Estimating and Auditing of Oil and Gas Reserves Information (Revision as of February 19, 2007).” The method or combination of methods used in the analysis of each reservoir was tempered by experience with similar reservoirs, stage of development, quality and completeness of basic data, and production history.

Based on the current stage of field development, production performance, the development plans provided by PetroChina, and the analyses of areas offsetting existing wells with test or production data, reserves were classified as proved.

When applicable, the volumetric method was used to estimate the original oil in place (OOIP) and the original gas in place (OGIP). Structure and isopach maps were constructed to estimate reservoir volume. Electrical logs, radioactivity logs, core analyses, and other available data were used to prepare these maps as well as to estimate representative values for porosity and water saturation.

Estimates of ultimate recovery were obtained after applying recovery factors to OOIP or OGIP. These recovery factors were based on consideration of the type of energy inherent in the reservoirs, analyses of the petroleum, the structural positions of the properties, and the production histories.

Where adequate data were available and where circumstances justified, material-balance and other engineering methods were used to estimate recovery factors. In these instances, reservoir performance parameters such as cumulative production, producing rate, reservoir pressure, and water production were considered in estimating recovery efficiencies used in estimating gross ultimate recovery.

For depletion-type reservoirs or those whose performance disclosed a reliable decline in producing-rate trends or other diagnostic characteristics, reserves were estimated by the application of appropriate decline curves or other performance relationships. In the analyses of production-decline curves, reserves were estimated only to the limits of economic production or to the limit of the production licenses, whichever occurs first.

In certain cases, when the previously named methods could not be used, reserves were estimated by analogy with similar wells, reservoirs, or fields for which more complete data were available.

Gas reserves reported herein for the properties in China are fuel gas, sales gas, and marketable gas. Fuel gas is that portion of the total quantity of gas to be produced from the reservoirs used in the operation of the field. Sales gas is defined as the total quantity of gas to be produced from the reservoirs, measured at the point of delivery, available for sales, after deductions for various losses and usage. Marketable gas is defined as the sum of fuel gas and sales gas. Gas reserves reported herein for the properties in Other Countries are reported as sales gas.

The oil, condensate, and LPG reserves estimated in this report are expressed in terms of 42 United States gallons per barrel. Oil reserves are to be recovered by conventional field operations. Condensate reserves are to be recovered both by normal field separation and by low-temperature separation from gas processing. For reporting purposes, oil and condensate reserves have been estimated separately and are presented herein as a summed quantity. LPG reserves are to be recovered from gas processing.

### **Definition of Reserves**

Petroleum reserves estimated by us included in this report are classified as proved. Only proved reserves have been evaluated for this report. Reserves classifications used by us in this report are in accordance with the reserves definitions of Rules 4-10(a) (1)-(32) of Regulation S-X of the SEC. Reserves are judged to be economically producible in future years from known reservoirs under existing economic and operating conditions and assuming continuation of current regulatory practices using conventional production methods and equipment. In the analyses of production-decline curves, reserves were estimated only to the limit of economic rates of production under existing economic and operating conditions using prices and costs consistent with the effective date of this report, including consideration of changes in existing prices provided only by contractual arrangements but not including escalations based upon future conditions. The petroleum reserves are classified as follows:

*Proved oil and gas reserves*—Proved oil and gas 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.

(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.

*Developed oil and gas reserves* – Developed oil and gas 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.

*Undeveloped oil and gas reserves* – Undeveloped oil and gas 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.
- (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, as defined in [section 210.4-10 (a) Definitions], or by other evidence using reliable technology establishing reasonable certainty.

### **Primary Economic Assumptions**

Revenue values in this report were estimated using the prices and costs specified by PetroChina. Future prices were estimated using guidelines established by the SEC and the Financial Accounting Standards Board (FASB). The prices used in this report were based on SEC guidelines and are expressed in United States dollars (U.S.\$). The assumptions used for estimating future prices and expenses are as follows:

#### *Oil and Condensate Prices*

PetroChina has represented that the oil and condensate prices were based on reference prices. Each reference price was calculated as the unweighted arithmetic average of the first-day-of-the-month price for each month within the 12-month period prior to the end of the reporting period. PetroChina has also represented that it has supplied the appropriate differentials to the reference prices.

PetroChina has represented that the 12-month average oil and condensate prices for the fields in China are based on a 12-month average reference price of U.S.\$41.40 per barrel for Dubai oil with appropriate differentials applied to this reference price. The volume-weighted average oil and condensate price in China attributable to estimated proved reserves was U.S.\$37.72 per barrel. The oil and condensate prices in China were held constant for the lives of the properties.

PetroChina has also represented that the 12-month average oil and condensate prices for the fields in Other Countries are based on 12-month average reference prices of U.S.\$43.62 per barrel for Brent, U.S.\$43.14 per barrel for Urals RCMB, and U.S.\$40.14 per barrel for Oman OSP, with appropriate differentials applied to these reference prices. The volume-weighted average oil and condensate price in Other Countries attributable to estimated proved reserves was U.S.\$29.86 per barrel. The oil and condensate prices in Other Countries were held constant for the lives of the properties.

#### *LPG Prices*

PetroChina has represented that the LPG prices were based on a 12-month average price, calculated as the unweighted arithmetic average of the first-day-of-the-month price for each month within the 12-month period prior to the end of the reporting period, unless prices are defined by contractual arrangements. These prices were held constant over the lives of the properties. The volume-weighted average LPG price for the fields evaluated was U.S.\$14.32 per barrel.

*Gas Prices*

PetroChina has represented that the gas prices in China are defined by contractual arrangements. The volume-weighted average gas price in China attributable to estimated proved reserves was U.S.\$6.05 per thousand cubic feet. The gas prices in China were held constant for the lives of the properties.

PetroChina has also represented that all of the gas reserves in Other Countries will be sold through contractual arrangements and the gas prices are defined by these contracts. The volume-weighted average gas price in Other Countries attributable to estimated proved reserves was U.S.\$1.08 per thousand cubic feet. The gas prices in Other Countries were held constant for the lives of the properties, except for certain properties where escalations are contractually allowed under the terms of the gas sales agreements.

*Operating Expenses, Capital Costs, and Abandonment Costs*

Operating expenses and capital costs were provided by PetroChina and were used in estimating future expenses and capital costs required to operate the properties. In certain cases, forecasts of future operating expenses and capital costs, either higher or lower than existing expenses and capital costs, may have been used to correspond to the production profiles included herein. Abandonment costs were also provided by PetroChina. Estimates of operating expenses, capital costs, and abandonment costs were considered in determining the economic viability of the undeveloped reserves estimated herein. Operating expenses, capital costs, and abandonment costs were not escalated for inflation.

*Taxes*

For PetroChina's properties in China, local taxes and value-added taxes were applied in addition to the consideration of the national Chinese income tax. A 25-percent income tax rate was applied to taxable income to estimate the applicable tax. The tax provisions provided by PetroChina were assumed to remain unchanged from current legislation.

For PetroChina's properties in Other Countries, local taxes were applied where appropriate. The future net revenue values presented in this report reflect the consideration of the host country income taxes. The tax provisions provided by PetroChina were assumed to remain unchanged from current legislation. Chinese income taxes, however, were not considered in estimating revenue values from the properties in Other Countries.

*Royalties*

In properties where royalties are paid in kind, the petroleum quantities associated with these royalties are excluded from the net proved reserves estimates. For properties where royalties are paid in cash, these royalties are considered production taxes and associated quantities have not been excluded from the net proved reserves estimates. PetroChina has represented that it has no royalty obligations for the properties in China that were evaluated for this report.

While the oil and gas industry may be subject to regulatory changes from time to time that could affect an industry participant's ability to recover its petroleum reserves, we are not aware of any such governmental actions which would restrict the recovery of the December 31, 2016, estimated oil, condensate, LPG, and gas reserves.



Our estimates of PetroChina's net proved reserves attributable to the reviewed properties were based on the definition of proved reserves of the SEC and are summarized as follows, expressed in thousands of barrels (Mbbbl) and millions of cubic feet (MMcf):

Estimated by DeGolyer and MacNaughton			
Net Proved Reserves as of December 31, 2016			
	Proved Developed	Proved Undeveloped	Total Proved
<b>China</b>			
Oil and Condensate, Mbbbl	4,607,720	1,733,390	6,341,110
LPG, Mbbbl	0	0	0
Marketable Gas, MMcf	38,827,324	37,417,069	76,244,393
Sales Gas, MMcf	34,532,161	34,577,659	69,109,820
Fuel Gas, MMcf	4,295,163	2,839,410	7,134,573
<b>Other Countries</b>			
Oil and Condensate, Mbbbl	358,029	308,532	666,561
LPG, Mbbbl	67,775	8,084	75,859
Sales Gas, MMcf	1,529,803	172,944	1,702,747
<b>China and Other Countries</b>			
Oil and Condensate, Mbbbl	4,965,749	2,041,922	7,007,671
LPG, Mbbbl	67,775	8,084	75,859
Sales Gas, MMcf	36,061,964	34,750,603	70,812,567

Note: Our estimates of PetroChina's net proved reserves include 173,336 Mbbbl of oil and condensate reserves, 40,768 Mbbbl of LPG reserves, and 920,807 MMcf of gas reserves that are attributable to minority interests owned by others. All minority interests are held in properties in Other Countries.

Our estimates of PetroChina's future net revenue to be derived from the proved reserves of PetroChina's petroleum interests in China and other countries, as of December 31, 2016, and the present worth of that revenue discounted at 10 percent are listed as follows, expressed in millions of United States dollars (MM U.S.\$):

Estimated by DeGolyer and MacNaughton			
	Proved Developed	Proved Undeveloped	Total Proved
<b>China</b>			
Future Net Revenue, MM U.S.\$	168,890	79,629	248,519
Present Worth at 10 Percent, MM U.S.\$	98,493	11,961	110,454
<b>Other Countries</b>			
Future Net Revenue, MM U.S.\$	3,730	574	4,304
Present Worth at 10 Percent, MM U.S.\$	2,574	66	2,640
<b>Total China and Other Countries</b>			
Future Net Revenue, MM U.S.\$	172,620	80,203	252,823
Present Worth at 10 Percent, MM U.S.\$	101,067	12,027	113,094

Notes:

1. Future net revenue and present worth for China are after Chinese income tax.
2. Future net revenue and present worth for Other Countries are before Chinese income tax.

In our opinion, the information relating to estimated proved reserves, estimated future net revenue from proved reserves, and present worth of estimated future net revenue from proved reserves of oil, condensate, LPG, and gas contained in this report has been prepared in accordance with Paragraphs 932-235-50-4, 932-235-50-6 through 932-235-50-9, 932-235-50-30, and 932-235-50-31 of the Accounting Standards Update 932-235-50, *Extractive Industries – Oil and Gas (Topic 932): Oil and Gas Reserve Estimation and Disclosures* (January 2010) of the Financial Accounting Standards Board and Rules 4-10(a) (1)–(32) of Regulation S-X and Rules 302(b), 1201, 1202(a) (1), (2), (3), (4), (8), and 1203(a) of Regulation S-K of the Securities and Exchange Commission; provided, however, that (i) estimates of proved developed and proved undeveloped reserves are not presented at the beginning of the year and (ii) future Chinese income tax expenses have not been taken into account in estimating the future net revenue and present worth values set forth for properties evaluated herein that are located in Other Countries.

To the extent the above-enumerated rules, regulations, and statements require determinations of an accounting or legal nature, we, as engineers, are necessarily unable to express an opinion as to whether the above-described information is in accordance therewith or sufficient therefor.

DeGolyer and MacNaughton is an independent petroleum engineering consulting firm that has been providing petroleum consulting services throughout the world since 1936. DeGolyer and MacNaughton does not have any financial interest, including stock ownership, in PetroChina. Our fees were not contingent on the results of our evaluation. This letter report has been prepared at the request of PetroChina. DeGolyer and MacNaughton has used all assumptions, data, procedures, and methods that it considers necessary and appropriate to prepare this report.

Submitted,

*DeGolyer and MacNaughton*

DeGOLYER and MacNAUGHTON  
Texas Registered Engineering Firm F-716



*Thomas C. Pence, P.E.*

---

Thomas C. Pence, P.E.  
Senior Vice President  
DeGolyer and MacNaughton

**CERTIFICATE of QUALIFICATION**

I, Thomas C. Pence, Petroleum Engineer with DeGolyer and MacNaughton, 5001 Spring Valley Road, Suite 800 East, Dallas, Texas, 75244 U.S.A., hereby certify:

1. That I am a Senior Vice President with DeGolyer and MacNaughton, which company did prepare the letter report addressed to PetroChina dated March 10, 2017, and that I, as Senior Vice President, was responsible for the preparation of this letter report.

2. That I attended Texas A&M University, and that I graduated with a degree in Petroleum Engineering in the year 1982; that I am a Registered Professional Engineer in the State of Texas; that I am a member of the International Society of Petroleum Engineers; and that I have in excess of 34 years of experience in the oil and gas reservoir studies and reserves evaluations.

SIGNED: March 10, 2017



A handwritten signature in black ink, reading "T.C. Pence, P.E.", written over a horizontal line.

Thomas C. Pence, P.E.  
Senior Vice President  
DeGolyer and MacNaughton

**THIRD PARTY REPORT  
RESERVES ESTIMATION AND EVALUATION OF  
CHAD, WEST QURNA AND PERU (PEP) ASSETS  
AS OF DECEMBER 31, 2016**

**Prepared for  
PETROCHINA COMPANY LIMITED  
APRIL 10, 2017**

***CONFIDENTIAL***

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D. John MacDonald, P.Eng.  
APEGA License No. 32634  
Vice President



Timour Baichev, P.Eng.  
APEGA License No. 87454  
Vice President



**RYDER SCOTT COMPANY, L.P.**  
TBPE Firm Registration No. F-1580



TBPE REGISTERED ENGINEERING FIRM F-1580  
1100 LOUISIANA SUITE 4600

HOUSTON, TEXAS 77002-5294

FAX (713) 651-0849  
TELEPHONE (713) 651-9191

April 10, 2017

PetroChina Company Limited  
9 Dongzhimen North Street  
Dongcheng District  
Beijing 100007  
China

**THIRD PARTY REPORT  
RESERVES ESTIMATION AND VALUATION OF  
CHAD, WEST QURNA AND PERU (PEP) ASSETS  
AS OF DECEMBER 31, 2016**

Ladies and Gentlemen,

Ryder Scott Company, L.P. (Ryder Scott) was requested by China National Oil and Gas Exploration and Development Corporation International Holding Ltd. ("CNODCI"), to conduct reserves estimations and evaluations (as of December 31, 2016) for selected petroleum assets in Chad, West Qurna and Peru (PEP), in which CNODCI has current interests. These reserves were prepared in accordance with U.S. Securities and Exchange Commission (SEC) regulations and the reserve reports have been delivered to CNODCI. Those reports are the definitive documents concerning the reserves and related net present values estimated by Ryder Scott.

Recently, CNODCI requested that Ryder Scott prepare this Third Party Report concerning the above reserve work, which is intended to be submitted to PetroChina Company Limited ("PetroChina"). This report is to summarize the results of the reserves estimations and evaluations as of December 31, 2016 for the selected petroleum assets. This summary report is subject to, and includes by reference, all of the discussion elements contained in the Ryder Scott report letters contained in aforementioned reserve reports as of December 31, 2016.

**METHODOLOGY**

In carrying out the review, Ryder Scott relied upon information and data provided by CNODCI, which comprised basic engineering data; geosciences information and engineering interpretation associated with such data; other technical reports; costs and commercial data; and development plans. The available data and interpretations were reviewed for reasonableness and the latter adjusted where appropriate.

The results presented in this report are based upon information and data made available to Ryder Scott in December 2016. The reserve estimates, future production and Net Present Value (NPV) computations as presented herein are based upon these data and represent Ryder Scott's opinion as of December 31, 2016, as presented in the individual Ryder Scott reports for those assets.

Economic models were constructed based on terms of the applicable petroleum contracts as provided by CNODCI, in order to calculate CNODCI's net revenue interest in the proved reserves. As of December 31, 2016, all proved SEC reserves were allocated up to the end of the license contract period only.

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62117TH STREET, SUITE 1550

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DENVER, COLORADO 80293-1501

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TEL (303) 623-9147

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FAX (303) 623-4258

As per SEC guidelines, the oil prices which were used in the evaluation are the un-weighted 12-month arithmetic averages of the first-day-of-the month price for each month within the 12-month period prior to the end of reporting period, unless prescribed by contract. Those prices were held constant throughout the evaluation period except where alternate prices are prescribed by contract. The historical 12-month oil prices or contract prices, with supporting differentials, were supplied by CNODCI.

Future capital costs were derived from development program forecasts prepared by CNODCI for each production unit and corresponding recent historical unit cost data. The recent historical cost data for each relevant production unit were utilized to determine current operating cost conditions. These costs were not escalated throughout the evaluation period.

CNODCI's net reserve volumes are derived by converting calculated net revenues accruing to CNODCI under the terms of the relevant petroleum contract into equivalent barrels of oil utilizing the average 2016 oil pricing explained above. The CNODCI net revenue interest volumes reported in this document represent those amounts that are determined to be attributable to CNODCI's net economic interest after the deduction of amounts attributable to third parties (government and other working interest partners).

The NPV computations were also undertaken and derived using cost and production profiles input to the various economic models established for the selected assets in each country. These NPVs represent future net revenue, after taxes, attributable to the interests of CNODCI, discounted over the economic life of the project at the SEC specified discount rate of ten percent to a present value as of December 31, 2016. Unless otherwise stated, no opening tax positions were considered.

## 1. RESULTS SUMMARY

### 1.1 Net Reserves

The following table presents the net entitlement for Total Proved reserves attributable to CNODCI's working interests (WI) estimated in accordance with SEC guidelines. They were prepared using the methodology described above.

#### NET ENTITLEMENT PROVED OIL RESERVES AS OF DECEMBER 31, 2016

<u>Country</u>	<u>Total Proved</u>		
	<u>Oil (Mstb)</u>	<u>Sales Gas (Bcf)</u>	<u>NGL (Mstb)</u>
Chad	88,627	0	0
Iraq – West Qurna	138,759	0	0
Peru – Block X	27,305	26.157	0
Peru – Block 57	0	476.257	31,942
TOTAL CNODCI	<u>254,691</u>	<u>502.414</u>	<u>31,942</u>

#### Notes:

1. CNODCI holds a 100% WI in Chad, a 34.413 % WI in West Qurna, a 100% WI in Block X (Peru) and a 46.16 % WI in Block 57 (Peru) assets. A royalty of 12 ½% in Permit H (Chad) is paid in kind; therefore, it is deducted from the Gross Reserves volumes. Net reserves are WI volumes less royalty volumes.
2. Both Chad and West Qurna assets produce oil only. Block X produces oil and solution gas. Block 57 produces gas and NGL. Gas has been discovered in some structures in Chad, but at this time there is no market available for the gas.

## 1.2 Gross Volumes

Gross production volumes are presented for reference information only. Gross volumes include volumes attributable to third parties, government and other working interest partners.

### GROSS PROVED OIL RESERVES AS OF DECEMBER 31, 2016

<u>Country</u>	<u>Oil (Mstb)</u>	<u>Total Proved Sales Gas (Bcf)</u>	<u>NGL (Mstb)</u>
Chad	103,149	0	0
Iraq – West Qurna	1,420,831	0	0
Peru – Block X	32,936	34.645	0
Peru – Block 57	0	1,086.199	73,545
TOTAL CNODC	<u>1,556,916</u>	<u>1,120.844</u>	<u>73,545</u>

## 1.3 Net Present Values

The NPVs as of December 31, 2016 of estimated before tax cash flows discounted at 10 percent, attributable to CNODCI's working interest in the projects identified above (excluding any balance sheet adjustments or financing costs), are summarized below.

### NET PRESENT VALUES ATTRIBUTABLE TO CNODCI AS OF DECEMBER 31, 2016 DISCOUNT RATE 10%

<u>Country</u>	<u>Total Proved (US\$M)</u>
Chad	1,523,238
Iraq – West Qurna	45,298
Block X	301,124
Block 57	259,768
TOTAL CNODCI	<u>2,129,428</u>

#### Notes:

1. NPVs in Chad, West Qurna, Block X and Block 57 assets represent CNODCI's 100%, 34.413%, 100% and 46.16% WI, respectively.

Reserves are those quantities of petroleum that are anticipated to be economically producible by application of development projects to known accumulations from a given date forward under defined conditions. Reserves must further satisfy four criteria: they must be discovered, recoverable, commercial and remaining (as of the evaluation date) based on the development project(s) applied. Reserves are further categorized in accordance with the level of certainty associated with the estimates and may be sub-classified based on project maturity and/or characterized by development and production status. All categories of reserve volumes quoted herein have been determined within the context of an economic limit test (pre-tax and exclusive of accumulated depreciation amounts) assessment prior to any NPV analysis.

We are independent petroleum engineers with respect to CNODCI. Neither we nor any of our employees have any financial interest in the subject properties and neither the employment to do this work nor the compensation is contingent on our estimates of reserves for the properties which were reviewed.

The results of these studies, presented herein, are based on technical analysis conducted by teams of geoscientists and engineers from Ryder Scott.

This third party report is provided subject to all the terms, conditions and qualifications set-out in the Ryder Scott reports on these assets that are mentioned at the start of this letter report.

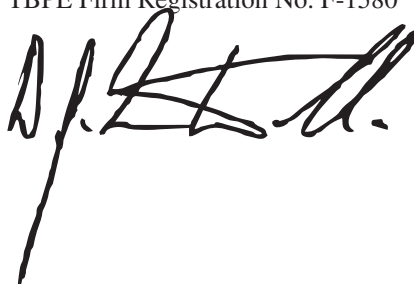
It should be clearly noted that the NPVs contained herein do not represent a Ryder Scott opinion as to the market value of the subject property, nor any interest in it.

Oil and NGL volumes appearing in this report have been quoted at stock tank conditions. Typically these volumes have been referred to in thousand barrel increments (Mstb). Natural gas volumes have been quoted in billions of standard cubic feet (Bscf) and are volumes of sales gas, after an allocation has been made for fuel and process shrinkage losses, at the standard conditions appropriate for the area.

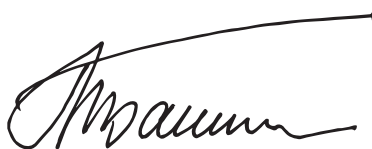
It is Ryder Scott's opinion that the estimates of total proved oil, gas and NGL volumes at December 31, 2016, summarized herein based on official reports submitted earlier to CNODCI, are, in the aggregate, reasonable and the reserves classification and categorization is appropriate and consistent with the SEC definitions and guidelines for reserves.

Very truly yours,

**RYDER SCOTT COMPANY, L.P.**  
TBPE Firm Registration No. F-1580



John MacDonald, P.Eng.  
APEGA License No. 32634  
Vice President



Timour Baichev, P.Eng.  
APEGA License No. 87454  
Vice President



JM-TB (DPR)/pl



March 10, 2017

Project 1160923

Mr. Michael Fox  
**Brion Energy Corporation**  
1000, 150 – 9<sup>th</sup> Avenue SW  
Calgary, Alberta T2P 3H9

Dear Sir:

**Re: Brion Energy Corporation**  
**Corporate Evaluation**  
**Effective December 31, 2016**

GLJ Petroleum Consultants (GLJ) has completed an independent reserves assessment and evaluation of the oil and gas properties of Brion Energy Corporation (the “Company”). The effective date of this evaluation is December 31, 2016. This report is an abbreviated version of the 2016 Corporate Summary (SEC) prepared December 20, 2016.

This report has been prepared for the Company for the purpose of annual disclosure and other financial requirements. This evaluation has been prepared in accordance with reserves definitions, standards and procedures of the United States Securities and Exchange Commission (SEC).

It was GLJ’s primary mandate in this evaluation to provide an independent evaluation of the oil and gas reserves of the Company in aggregate. Accordingly it may not be appropriate to extract individual property or entity estimates for other purposes.

Reserves included in this report represent the consolidation of the Groundbirch Montney and CNPC International conventional and in situ Canadian assets.

Our engagement letter notes these limitations on the use of this report.



It is trusted that this evaluation meets your current requirements. Should you have any questions regarding this analysis, please contact the undersigned.

Yours very truly,

**GLJ PETROLEUM CONSULTANTS LTD.**

A handwritten signature in blue ink that reads 'Trisha MacDonald'.

Trisha S. MacDonald, P. Eng.  
Manager, Engineering

A handwritten signature in blue ink that reads 'J Anhorn'.

Jodi L. Anhorn, M. Sc., P. Eng.  
Executive Vice President & COO

TSM/JLA/jem  
Attachments


## INDEPENDENT PETROLEUM CONSULTANTS' CONSENT

The undersigned firm of Independent Petroleum Consultants of Calgary, Alberta, Canada has prepared an independent evaluation of the **Brion Energy Corporation** (the "Company") Canadian oil and gas properties and hereby gives consent to the use of its name and to the said estimates. The effective date of the evaluation is **December 31, 2016**.

In the course of the evaluation, the Company provided GLJ Petroleum Consultants Ltd. personnel with basic information which included land data, well information, geological information, reservoir studies, estimates of on-stream dates, contract information, current hydrocarbon product prices, operating cost data, capital budget forecasts, financial data and future operating plans. Other engineering, geological or economic data required to conduct the evaluation and upon which this report is based, were obtained from public records, other operators and from GLJ Petroleum Consultants Ltd. nonconfidential files. The Company has provided a representation letter confirming that all information provided to GLJ Petroleum Consultants Ltd. is correct and complete to the best of its knowledge. Procedures recommended in the United States Securities and Exchange Commission (SEC) to verify certain interests and financial information were applied in this evaluation. In applying these procedures and tests, nothing came to GLJ Petroleum Consultants Ltd.'s attention that would suggest that information provided by the Company was not complete and accurate. GLJ Petroleum Consultants Ltd. reserves the right to review all calculations referred to or included in this report and to revise the estimates in light of erroneous data supplied or information existing but not made available which becomes known subsequent to the preparation of this report.

The accuracy of any reserves and production estimate is a function of the quality and quantity of available data and of engineering interpretation and judgment. While reserves and production estimates presented herein are considered reasonable, the estimates should be accepted with the understanding that reservoir performance subsequent to the date of the estimate may justify revision, either upward or downward.

Revenue projections presented in this report are based in part on forecasts of market prices, currency exchange rates, inflation, market demand and government policy which are subject to many uncertainties and may, in future, differ materially from the forecasts utilized herein. Present values of revenues documented in this report do not necessarily represent the fair market value of the reserves evaluated herein.

<b>PERMIT TO PRACTICE</b> GLJ PETROLEUM CONSULTANTS LTD.	
Signature:	
Date:	December 20, 2016
<b>PERMIT NUMBER: P 2066</b> The Association of Professional Engineers and Geoscientists of Alberta	



## INTRODUCTION

GLJ Petroleum Consultants (GLJ) was commissioned by Brion Energy Corporation (the “Company”) to prepare an independent evaluation of its oil and gas reserves effective December 31, 2016.

The evaluation was initiated in September 2016 and completed by December 2016. Estimates of reserves and projections of production were generally prepared using well information and production data available from public sources to approximately October 31, 2016. The Company provided land, accounting data and other technical information not available in the public domain to approximately December 15, 2016. In certain instances, the Company also provided recent engineering, geological and other information up to December 15, 2016. The Company has confirmed that, to the best of its knowledge, all information provided to GLJ is correct and complete as of the effective date.

The reserves definitions used in preparing this report (included herein under “Reserves Definitions”) are those required by the United States Securities Exchange Commission (SEC). The summary of reserves and value, using the SEC reserves definitions, uses the average historical prices derived from the first day of the month for January to December 2016.

The evaluation was conducted on the basis of the average of the first day posted prices in each of the 12 months of the Company’s fiscal year, as summarized in Tables 1 through 4.

The Evaluation Procedure section outlines general procedures used in preparing this evaluation. The individual property reports, provided under separate cover, provide additional evaluation details. The following summarizes evaluation matters that have been included/excluded in cash flow projections:

- The effect on projected revenues of the Company’s financial hedging activity has not been included,
- provisions for the abandonment and reclamation of all of the Company’s existing and future wells to which reserves have been attributed have been included; all other abandonment and reclamation costs have not been included,
- general and administrative (G&A) costs and overhead recovery have not been included,
- undeveloped land values have not been included.

Economic forecasts are provided on an after tax basis including tax pools provided by the Company in the “Evaluation Procedure” section. Estimates of the Company’s net proved reserves attributable to the reviewed properties are based on the definitions of proved reserves as detailed by the SEC in the previous sections. A summary table detailing the Company’s net proved reserves is included as Table 5, entitled Summary of Reserves and Values.

The Company’s future net value including abandonment and reclamation costs are also detailed on Table 5, illustrated at varying discount factors. All values contained herein are expressed in Canadian Dollars.

## **EVALUATION PROCEDURE**

The following outlines the methodology employed by GLJ Petroleum Consultants (GLJ) in conducting the evaluation of the Company's oil and gas properties. GLJ evaluation procedures are in compliance with standards outlined in the SPE-PRMS evaluation guidelines.

### **INTEREST DESCRIPTIONS**

The Company provided GLJ with current land interest information. The Company provided a representation letter confirming accuracy of land information. Certain cross-checks of land and accounting information were undertaken by GLJ as recommended in the COGE Handbook. In this process, nothing came to GLJ's attention that indicated that information provided by the Company was incomplete or unreliable.

In GLJ's reports, "Company Interest" reserves and values refer to the sum of royalty interest\* and working interest reserves before deduction of royalty burdens payable. "Working Interest" reserves equate to those reserves that are referred to as "Company Gross" reserves. Reserves and values reported herein are generally consistent with disclosure rules as required by the SEC.

\* *Royalty interest reserves include royalty volumes derived only from other working interest owners.*

### **WELL DATA**

Pertinent interest and offset well data such as drill stem tests, workovers, pressure surveys, production tests, etc., were provided by the Company or were obtained from other operators, public records or GLJ nonconfidential files.

### **ACCOUNTING SUMMARY**

The Company provided GLJ with available accounting data on a property basis and for the corporate total for the period January 1, 2016, to September 30, 2016. In some circumstances this information was also provided on a cost centre basis to address major reserves entities that are a subset of a Company property.

### **PRODUCTION FORECASTS**

In establishing all production forecasts, consideration was given to existing gas contracts and the possibility of contract revisions, to the operator's plans for development drilling and to reserves and well capability. Generally, development drilling in an area was not considered unless there was some indication from the operator that drilling could be expected.

The on-stream date for currently shut-in reserves was estimated with consideration given to the following:

- proximity to existing facilities
- plans of the operator
- economics

### **AFTER TAX ANALYSIS**

Canadian income taxes were calculated based on currently legislated federal and provincial tax rates, tax regulations and tax pool information provided by the Company. After tax values for reserves development status or production status subcategories (i.e. developed, undeveloped, producing, non-producing) are calculated by

difference. Tax pool information used in this analysis was provided by the Company, based on year end 2016 information. The following table details the tax pools relevant to this evaluation and the corresponding write-off rates as detailed below:

<u>Tax Pool Classification</u>	<u>Write-Off Rate (%)</u>
Canadian Oil and Gas Property Expense (COGPE) .....	10
Canadian Exploration Expense (CEE) .....	100
Non-Capital Losses .....	100
Canadian Development Expense (CDE) .....	30
Capital Cost Allowance: (CCA)	
Class 1 .....	10
Class 41 .....	25
Scientific Research and Experimental Development (SRED) .....	100

### ***Tax Rates***

Federal income tax calculations incorporate recently enacted reductions in general corporate income tax rates as follows:

<u>Year</u>	<u>Federal Income Tax Rate</u>
2017+ .....	15.0%

Allocation of revenues to Canadian provinces for income tax purposes depends on several factors in addition to the provincial origin of the resource revenues. The average future annual provincial tax rate has been calculated based on an allocation of provincial resource revenues.

### **ECONOMIC PARAMETERS**

Pertinent economic parameters are listed as follows:

- a) The effective date is December 31, 2016.
- b) Operating and capital costs were estimated in 2017 dollars and are unescalated.
- c) Economic forecasts were prepared for each property on a before income tax basis. Detailed discounting of future cash flow was performed using a discount factor of 10.0 percent with all values discounted annually to December 31, 2016, on a mid-calendar-year basis.
- d) Royalty holidays applicable to existing wells or forecast drilling are included in individual well economics. These credits are itemized within the property reports.
- e) Gas processing allowances relating to remaining undepreciated capital bases, were included in individual property economic evaluations.
- f) Mineral taxes on freehold interests were included.
- g) Field level overhead charges have been included; recovery of overhead expenses has not been included.
- h) The Company's office G&A costs have not been included.
- i) Abandonment and reclamation costs for all existing and future wells to which reserves have been assigned have been included at the property level. Costs have been scheduled 5 years after the last year of production for each well. Additional abandonment and reclamation costs associated with pipelines and facilities have not been included in this analysis.
- j) The Saskatchewan Resource Surcharge was included.

## **OIL EQUIVALENT OR GAS EQUIVALENT**

In this report, quantities of hydrocarbons have been converted to barrels of oil equivalent (boe); or to sales gas equivalent (sge) using factors of 6 Mcf/boe for gas, 1 bbl/boe for all liquids, and 0 boe for sulphur. Users of oil equivalent values are cautioned that while boe based metrics are useful for comparative purposes, they may be misleading when used in isolation.

## SEC RESERVES DEFINITIONS

The following definitions are excerpts from Regulation S-X 210.4-10. Portions of these definitions within square parentheses, [ ], have been transposed from other sections of Regulation S-X 210.4-10 to improve readability.

### Resources

Resources are quantities of oil and gas estimated to exist in naturally occurring accumulations. A portion of the resources may be estimated to be recoverable, and another portion may be considered to be unrecoverable. Resources include both discovered and undiscovered accumulations.

### Reserves

Reserves are estimated remaining quantities of oil and gas and related substances anticipated to be economically producible, as of a given date, by application of development projects to known accumulations. In addition, there must exist, or there must be a reasonable expectation that there will exist, the legal right to produce or a revenue interest in the production, installed means of delivering oil and gas or related substances to market, and all permits and financing required to implement the project.

*Note: Reserves should not be assigned to adjacent reservoirs isolated by major, potentially sealing, faults until those reservoirs are penetrated and evaluated as economically producible. Reserves should not be assigned to areas that are clearly separated from a known accumulation by a non-productive reservoir (i.e., absence of reservoir, structurally low reservoir, or negative test results). Such areas may contain prospective resources (i.e., potentially recoverable resources from undiscovered accumulations).*

### Proved Oil and Gas Reserves

Proved oil and gas 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.
- (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.

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

Developed oil and gas 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.

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

Undeveloped oil and gas 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.
- (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 [see Other Definitions below], or by other evidence using reliable technology establishing reasonable certainty.

### **Other Pertinent Definitions**

#### **Analogous Reservoir**

Analogous reservoirs, as used in resources assessments, have similar rock and fluid properties, reservoir conditions (depth, temperature, and pressure) and drive mechanisms, but are typically at a more advanced

stage of development than the reservoir of interest and thus may provide concepts to assist in the interpretation of more limited data and estimation of recovery. When used to support proved reserves, an “analogous reservoir” refers to a reservoir that shares the following characteristics with the reservoir of interest:

- (i) Same geological formation (but not necessarily in pressure communication with the reservoir of interest);
- (ii) Same environment of deposition;
- (iii) Similar geological structure; and
- (iv) Same drive mechanism.

### **Reasonable Certainty**

If deterministic methods are used, reasonable certainty means a high degree of confidence that the quantities will be recovered. If probabilistic methods are used, there should be at least a 90% probability that the quantities actually recovered will equal or exceed the estimate. A high degree of confidence exists if the quantity is much more likely to be achieved than not, and, as changes due to increased availability of geoscience (geological, geophysical, and geochemical), engineering, and economic data are made to estimated ultimate recovery (EUR) with time, reasonably certain EUR is much more likely to increase or remain constant than to decrease.

### **Reliable Technology**

Reliable technology is a grouping of one or more technologies (including computational methods) that has been field tested and has been demonstrated to provide reasonably certain results with consistency and repeatability in the formation being evaluated or in an analogous formation.

### **Reservoir**

A porous and permeable underground formation containing a natural accumulation of producible oil and/or gas that is confined by impermeable rock or water barriers and is individual and separate from other reservoirs.

Table 1

**GLJ Petroleum Consultants**  
**Crude Oil and Natural Gas Liquids**  
**SEC 2016-Dec-31 Posted (12 Month Avg.)**  
**Effective January 1, 2017**

Inflation %	CAD/USD Exchange Rate USD/CAD	NYMEX WTI Near Month Futures Contract Crude Oil at Cushing, Oklahoma										Alberta Natural Gas Liquids (Then Current Dollars)										Edmonton C5+			
		Constant 2017 \$ USD/bbl	Then Current USD/bbl	Brent Blend Crude Oil FOB North Sea	Light, Sweet Crude Oil (40 API, 0.3% S) at Edmonton	Bow River Crude Oil Stream Hardisty	WCS Crude Oil Stream Hardisty	Heavy Proxy Crude Oil (12 API) at Hardisty	Light Sour Crude Oil (35 API, 1.2% S) at Cromer	Medium Crude Oil (29 API, 2.0% S) at Cromer	Then Current CAD/bbl	Spec Ethane CAD/Btu	Edmonton Propane CAD/bbl	Edmonton Butane CAD/bbl	Edmonton Stream Quality CAD/bbl	Then Current CAD/bbl	Then Current CAD/bbl	Then Current CAD/bbl	Then Current CAD/bbl	Then Current CAD/bbl					
0.0	0.7560	42.65	42.65	43.07	52.12	38.92	38.02	31.85	50.51	47.89	6.78	11.38	33.61	55.27											

Table 2

**GLJ Petroleum Consultants**  
**Natural Gas and Sulphur**  
**SEC 2016-Dec-31 Posted (12 Month Avg.)**  
**Effective January 1, 2017**

NYMEX Henry Hub Near Month Contract	Midwest Price at Chicago		AECO/NIT Spot		Alliance Transfer Pool Spot		Alberta Plant Gate		Saskatchewan Plant Gate				British Columbia			Alberta Sulphur at Plant Gate CAD/lt
	Constant 2017 \$ USD/ MMBtu	Then Current USD/ MMBtu	Then Current CAD/ MMBtu	Then Current CAD/ MMBtu	Then Current CAD/ MMBtu	Then Current CAD/ MMBtu	Constant 2017 \$ MMBtu	Then Current CAD/ MMBtu	SaskEnergy CAD/ MMBtu	Spot CAD/ MMBtu	Sumas Spot USD/ MMBtu	Westcoast Station 2 CAD/ MMBtu	Spot Plant Gate CAD/ MMBtu	Sulphur FOB Vancouver USD/lt		
2.49	2.45	2.18	2.18	2.18	1.95	1.95	1.95	1.95	2.05	2.08	2.17	1.63	1.45	82.84	59.58	

**GLJ Petroleum Consultants  
International and Frontier  
SEC 2016-Dec-31 Posted (12 Month Avg.)  
Effective January 1, 2017**

Inflation %	CAD/USD Exchange Rate USD/CAD	NYMEX WTI Near Month Futures		Light Louisiana Sweet Crude Oil		Maya Crude Oil		Brent Blend Crude Oil FOB North Sea		NYMEX Henry Hub Near Month Contract		Nova Scotia Goldboro		National Balancing Point (UK)			
		GBP/USD Exchange Rate USD/GBP	EUR/USD Exchange Rate USD/EUR	Then Current	Then Current	Then Current	Then Current	Then Current	Then Current	Then Current	Then Current	Then Current	Then Current	Then Current	Then Current		
0.0	0.7560	1.3660	1.1070	42.65	56.42	44.32	58.62	35.31	46.71	43.07	56.97	2.49	3.29	1.49	1.96	4.67	6.18

**GLJ Petroleum Consultants  
US Liquids and Natural Gas  
SEC 2016-Dec-31 Posted (12 Month Avg.)  
Effective January 1, 2017**

	US Natural Gas Liquids (Then Current Dollars)						US Natural Gas (Then Current Dollars)		
	Conway			Mont Belvieu			Opal	Rocky Mountain	Algonquin
	Ethane USD/bbl	Propane USD/bbl	Butane USD/bbl	Condensate USD/bbl	Ethane USD/bbl	Propane USD/bbl	Butane USD/bbl	Natural Gas USD/MMBtu	City-Gates Natural Gas USD/MMBtu
	6.95	18.30	26.92	39.65	8.07	19.85	27.19	2.33	2.51

Company: **Brion Energy Corporation**  
Property: **Corporate**  
Description: **After Tax Analysis (SEC)**

**Table 5**

Reserve Class: **Various**  
Development Class: **Classifications**  
Pricing: **SEC 2016-Dec-31 Posted (12 Month Avg.)**  
Effective Date: **December 31, 2016**

### Summary of Reserves and Values

	<u>Proved Producing</u>	<u>Proved Developed Non- Producing</u>	<u>Proved Undeveloped</u>	<u>Total Proved Non- Producing</u>	<u>Total Proved</u>
<b>MARKETABLE RESERVES</b>					
<b><u>Light &amp; Medium Oil (Mbbbl)</u></b>					
Total Company Interest	27	0	0	0	27
Working Interest	27	0	0	0	27
Net After Royalty	26	0	0	0	26
<b><u>Residue Gas (MMcf)</u></b>					
Total Company Interest	12	0	0	0	12
Working Interest	12	0	0	0	12
Net After Royalty	11	0	0	0	11
<b><u>Shale Gas (MMcf)</u></b>					
Total Company Interest	17,982	0	0	0	17,982
Working Interest	17,982	0	0	0	17,982
Net After Royalty	17,537	0	0	0	17,537
<b><u>Coal Bed Methane (MMcf)</u></b>					
Total Company Interest	66	0	0	0	66
Working Interest	66	0	0	0	66
Net After Royalty	62	0	0	0	62
<b><u>Total Gas (MMcf)</u></b>					
Total Company Interest	18,060	0	0	0	18,060
Working Interest	18,060	0	0	0	18,060
Net After Royalty	17,610	0	0	0	17,610
<b><u>Natural Gas Liquids (Mbbbl)</u></b>					
Total Company Interest	94	0	0	0	94
Working Interest	94	0	0	0	94
Net After Royalty	82	0	0	0	82
<b><u>Oil Equivalent (Mboe)</u></b>					
Total Company Interest	3,131	0	0	0	3,131
Working Interest	3,131	0	0	0	3,131
Net After Royalty	3,044	0	0	0	3,044
<b>BEFORE TAX PRESENT VALUE (M\$)</b>					
0%	-1,655.2	0.0	0.0	0.0	-1,655.2
5%	-912.7	0.0	0.0	0.0	-912.7
8%	-591.4	0.0	0.0	0.0	-591.4
10%	-415.6	0.0	0.0	0.0	-415.6
12%	-264.9	0.0	0.0	0.0	-264.9
15%	-77.6	0.0	0.0	0.0	-77.6
20%	154.7	0.0	0.0	0.0	154.7
<b>AFTER TAX PRESENT VALUE (M\$)</b>					
0%	-1,655.2	0.0	0.0	0.0	-1,655.2
5%	-912.7	0.0	0.0	0.0	-912.7
8%	-591.4	0.0	0.0	0.0	-591.4
10%	-415.6	0.0	0.0	0.0	-415.6
12%	-264.9	0.0	0.0	0.0	-264.9
15%	-77.6	0.0	0.0	0.0	-77.6
20%	154.7	0.0	0.0	0.0	154.7

**BOE Factors:**    HVY OIL 1.0    RES GAS 6.0    PROPANE 1.0    ETHANE 1.0  
COND 1.0    SLN GAS 6.0    BUTANE 1.0    SULPHUR 0.0

**Run Date: January 09, 2017 16:57:36**

1160923    Class (A,B1,B2,B,C), SEC 2016-Dec-31 Posted (12 Month Avg.), psum

March 13, 2017 12:13:50

## **CERTIFICATES OF QUALIFICATION**

Jodi L. Anhorn  
Trisha S. MacDonald

### CERTIFICATION OF QUALIFICATION

I, Jodi L. Anhorn, Professional Engineer, 4100, 400 - 3rd Avenue S.W., Calgary, Alberta, Canada hereby certify:

1. That I am a principal officer of GLJ Petroleum Consultants Ltd., which company did prepare a detailed analysis of Canadian oil and gas properties of Brion Energy Corporation (the "Company"). The effective date of this evaluation is December 31, 2016.
2. That I do not have, nor do I expect to receive any direct or indirect interest in the securities of the Company or its affiliated companies.
3. That I attended the University of Calgary and that I graduated with a Master of Science Degree in Chemical and Petroleum Engineering in 1992; that I am a Registered Professional Engineer in the Province of Alberta; and that I have in excess of twenty-four years experience in engineering studies relating to oil and gas fields.
4. That a personal field inspection of the properties was not made; however, such an inspection was not considered necessary in view of the information available from public information and records, the files of the Company, and the appropriate provincial regulatory authorities.



## CERTIFICATION OF QUALIFICATION

I, Trisha S. MacDonald, Professional Engineer, 4100, 400 - 3rd Avenue S.W., Calgary, Alberta, Canada hereby certify:

1. That I am an employee of GLJ Petroleum Consultants Ltd., which company did prepare a detailed analysis of Canadian oil and gas properties of Brion Energy Corporation (the "Company"). The effective date of this evaluation is December 31, 2016.
2. That I do not have, nor do I expect to receive any direct or indirect interest in the securities of the Company or its affiliated companies.
3. That I attended the University of Calgary where I graduated with a Bachelor of Science Degree in Oil and Gas Engineering in 2004; that I am a Registered Professional Engineer in the Province of Alberta; and, that I have in excess of eleven years of experience in engineering studies relating to oil and gas fields.
4. That a personal field inspection of the properties was not made; however, such an inspection was not considered necessary in view of the information available from public information and records, the files of the Company, and the appropriate provincial regulatory authorities.







February 21, 2017

**China National Oil and Gas Exploration  
And Development Corporation  
International Holding Ltd (“CNODCI”)**  
No.6-1 Fuchengmen Beidajie  
Xicheng District Beijing,  
China 100034

Attention: Mr. Lv Gong Xun, President

Reference: **CNODCI Interest in PetroKazakhstan Inc.  
Evaluation of Crude Oil Reserves  
Third Party Report**

Dear Sir:

## 1. INTRODUCTION

McDaniel & Associates Consultants Ltd. (“McDaniel”) was requested by PetroKazakhstan Inc. (“PKI”) to prepare an evaluation of the crude oil reserves and the net present values of these reserves for the interests of PKI in the South Turgai Basin, Republic of Kazakhstan, effective as of December 31, 2016. McDaniel submitted to PKI an Executive Summary Report and Detailed Technical Report for the evaluation of PKI in January 2017.

PKI is an integrated oil and gas company, owned 67 percent by CNODCI and 33 percent by JSC KazMunaiGas Exploration Production (“KMG EP”). PKI requested McDaniel to prepare this Third Party Report for CNODCI based on the 67 percent interest owned by CNODCI in PKI for the assets of CNODCI that are held within three operating subsidiaries: PetroKazakhstan Kumkol Resources (“PKKR”), Kolzhan LLP (“Kolzhan”) and PetroKazakhstan Ventures Inc. (“PKVI”).

This report was prepared to support PKI’s and CNODCI’s annual securities filings with the SEC. The data employed in this evaluation and the assumptions and procedures used to estimate the reserves and net present values are consistent with standard industry reserves evaluation procedures.

## 2. METHODOLOGY

Crude oil reserves estimates and their associated net present values were evaluated in this report by McDaniel & Associates Consultants Ltd. for the interests of PKI in Kazakhstan.

Essentially all of the basic information employed in the preparation of this report was obtained from PKI including geological, geophysical, engineering and financial data. McDaniel utilized this data to prepare an independent assessment of the crude oil reserves as of December 31, 2016. The reserves estimates presented in this report have been prepared in accordance with the United States Securities and Exchange Commission (SEC) reserves definitions and guidance (see Section 3). Only the proved reserves and sub-classifications were included in this report.

Net present value estimates were calculated based on future revenue forecasts. As per SEC guidelines, the future net revenues and net present values presented were calculated using the first day of the month crude oil prices for each of the 12 months prior to the effective date of December 31, 2016 and were presented in United States dollars. No escalation of the prices were made nor were the operating and capital costs increased for inflation in this evaluation. Future capital costs and operating costs were based on PKI budgets for each respective property with adjustments as deemed appropriate by McDaniel.

### 3. RESERVES DEFINITIONS

The SEC reserves definitions are contained in the Final Rule of Modernization of Oil and Gas Reporting (17 CFR Parts 210, 211, 229 and 249) published by the SEC Regulation on January 14, 2009. A summary of the key proved reserves definitions in Regulation S-X 210.4-10 is presented below.

#### Reserves

Reserves are estimated remaining quantities of oil and gas and related substances anticipated to be economically producible, as of a given date, by application of development projects to known accumulations. In addition, there must exist, or there must be a reasonable expectation that there will exist, the legal right to produce or a revenue interest in the production, installed means of delivering oil and gas or related substances to market, and all permits and financing required to implement the project. Note: Reserves should not be assigned to adjacent reservoirs isolated by major, potentially sealing, faults until those reservoirs are penetrated and evaluated as economically producible. Reserves should not be assigned to areas that are clearly separated from a known accumulation by a non-productive reservoir (i.e., absence of reservoir, structurally low reservoir, or negative test results). Such areas may contain prospective resources (i.e., potentially recoverable resources from undiscovered accumulations).

#### Proved Oil and Gas Reserves

Proved oil and gas 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.
- (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.

#### **Analogous Reservoir**

Analogous reservoirs, as used in resources assessments, have similar rock and fluid properties, reservoir conditions (depth, temperature, and pressure) and drive mechanisms, but are typically at a more advanced stage of development than the reservoir of interest and thus may provide concepts to assist in the interpretation of more limited data and estimation of recovery. When used to support proved reserves, an “analogous reservoir” refers to a reservoir that shares the following characteristics with the reservoir of interest:

- (i) Same geological formation (but not necessarily in pressure communication with the reservoir of interest);
- (ii) Same environment of deposition; (iii) Similar geological structure; and (iv) Same drive mechanism.

#### **Reasonable Certainty**

If deterministic methods are used, reasonable certainty means a high degree of confidence that the quantities will be recovered. If probabilistic methods are used, there should be at least a 90 percent probability that the quantities actually recovered will equal or exceed the estimate. A high degree of confidence exists if the quantity is much more likely to be achieved than not, and, as changes due to increased availability of geoscience (geological, geophysical, and geochemical), engineering, and economic data are made to estimated ultimate recovery (EUR) with time, reasonably certain EUR is much more likely to increase or remain constant than to decrease.

## 4. EVALUATION SUMMARY

### 4.1 NET RESERVES

The net share of proved developed, proved undeveloped and total proved crude oil reserves as of December 31, 2016 attributable to CNODCI for each of the three subsidiary companies are summarized below.

#### CNODCI'S NET ENTITLEMENT OF PROVED RESERVES<sup>(1)</sup> AS OF DECEMBER 31, 2016

	<u>Proved Developed</u>	<u>Proved Undeveloped</u>	<u>Total Proved</u>
Crude Oil, Mbbl			
PKKR .....	17,561	2,580	20,141
Kolzhan .....	8,979	4,543	13,522
PKVI .....	759	—	759
<b>Total .....</b>	<b>27,298</b>	<b>7,123</b>	<b>34,421</b>

(1) Net entitlement reserves are the working interest reserves in each property after deducting royalties payable to others. In the case of all properties, there are no royalties payable to others.

### 4.2 GROSS RESERVES

The total proved developed, proved undeveloped and total proved crude oil reserves as of December 31, 2016 for each of the three subsidiary companies are presented below for reference purposes only. These gross reserves estimates are based on a 100 percent working interest in each of the properties and include all reserves attributable to government and working interest partners.

#### GROSS PROVED RESERVES AS OF DECEMBER 31, 2016

	<u>Proved Developed</u>	<u>Proved Undeveloped</u>	<u>Total Proved</u>
Crude Oil, Mbbl			
PKKR .....	26,210	3,851	30,061
Kolzhan .....	21,545	11,954	33,499
PKVI .....	1,510	—	1,510
<b>Total .....</b>	<b>49,265</b>	<b>15,804</b>	<b>65,069</b>

### 4.3 NET PRESENT VALUES

The net present values for the proved developed, proved undeveloped and total proved crude oil reserves as of December 31, 2016 attributable to CNODCI for each of the three subsidiary companies are presented below. All of the net present values have been presented at a 10 percent discount rate.

**CNODCI NET PRESENT VALUES DISCOUNTED AT 10 PERCENT  
AS OF DECEMBER 31, 2016, \$MM**

	<u>Proved Developed</u>	<u>Proved Undeveloped</u>	<u>Total Proved</u>
PKKR .....	92	14	107
Kolzhan .....	53	31	84
PKVI .....	8	—	8
<b>Total .....</b>	<b>153</b>	<b>46</b>	<b>198</b>

**4.4 NET PRESENT VALUES SENSITIVITY ANALYSIS**

A sensitivity analysis has been prepared for the net present values for the proved developed, proved undeveloped and total proved crude oil reserves as of December 31, 2016 attributable to CNODCI for each of the three subsidiary companies. At the request of PKI, all of the oil prices, capital costs and operating costs have been escalated at two percent per year throughout the evaluation period.

**CNODCI NET PRESENT VALUES SENSITIVITY DISCOUNTED AT 10 PERCENT  
AS OF DECEMBER 31, 2016, \$MM**

	<u>Proved Developed</u>	<u>Proved Undeveloped</u>	<u>Total Proved</u>
PKKR .....	94	15	109
Kolzhan .....	55	34	89
PKVI .....	8	—	8
<b>Total .....</b>	<b>156</b>	<b>49</b>	<b>205</b>

**5 SUMMARY TABLES**

Summary tables showing the reserves, reserves reconciliation, future production forecasts and future revenue forecasts are presented in the Appendix for each of the three subsidiary companies.

**6 BASIS OF OPINION**

McDaniel & Associates Consultants Ltd. has over 60 years of experience in the evaluation of oil and gas properties. McDaniel is registered with the Association of Professional Engineers and Geoscientists of Alberta (APEGA). All of the professionals involved in the preparation of this report have in excess of five years of experience in the evaluation of oil and gas properties. Mr. Paul Taylor, Vice President, supervised the preparation of this report. Mr. Taylor is a professional engineer registered with APEGA and has over 30 years of experience in the evaluation of oil and gas properties. All of the persons involved in the preparation of this report and McDaniel & Associates are independent of PKI and CNODCI.

In preparing this report, we relied upon certain factual information including ownership, well data, production data, prices, revenues, operating costs, capital costs, contracts, and other relevant data supplied by PKI. The supplied information was only relied upon where in our opinion it appeared reasonable and consistent with our knowledge of the properties; however, no independent verification of the information was made.

This report was prepared by McDaniel for the use of PKI and CNODCI for its securities filings with the SEC and is not to be used for any other purpose without the knowledge and consent of McDaniel & Associates Consultants Ltd.

We reserve the right to revise any estimates provided herein if any relevant data existing prior to preparation of this report was not made available, if any data between the preparation date and the evaluation date of this evaluation were to vary significantly from that forecast, or if any data provided was found to be erroneous.

Sincerely,

**McDANIEL & ASSOCIATES CONSULTANTS LTD.**  
**APEGA PERMIT NUMBER: P3145**



P. Taylor, CEng MEI, P. Eng.  
Vice President



C. Boulton, P. Eng.  
Vice President

PT/CB:jep  
[16-0208]

April 27, 2017

Securities and Exchange Commission  
Washington, D.C. 20549

Ladies and Gentlemen:

We were previously principal accountants for PetroChina Company Limited and under the date of April 28, 2016, we reported on the consolidated financial statements of PetroChina Company Limited as of and for the years ended December 31, 2015 and 2014, and the effectiveness of internal control over financial reporting as of December 31, 2015. On September 9, 2016, we resigned.

We have read PetroChina Company Limited's statements included under Item 16F of its Form 20-F dated April 27, 2017, and we agree with such statements, except that we are not in a position to agree or disagree with PetroChina Company Limited's statement that the change in principal accountant was approved by the audit committee of the board of directors.

Very truly yours,

/s/ KPMG

Hong Kong, China

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