CHINA PETROLEUM & CHEMICAL CORP
Form 20-F
April 27, 2018
Table of Contents

UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 20-F

(Mark One)

o	**REGISTRATION STATEMENT PURSUANT TO SECTION 12(b) OR (g) OF THE SECURITIES EXCHANGE ACT OF 1934**
	OR
x	**ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934** **For the fiscal year ended DECEMBER 31, 2017**
	OR
o	**TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**
	OR
o	**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 transaction period form to

Commission file number 1-15138

CHINA PETROLEUM & CHEMICAL CORPORATION

(Exact name of Registrant as specified in its charter)

The People s Republic of China
(Jurisdiction of incorporation or organization)

22 Chaoyangmen North Street

Chaoyang District, Beijing, 100728

The People s Republic of China
(Address of principal executive offices)

Mr. Huang Wensheng

22 Chaoyangmen North Street

Chaoyang District, Beijing, 100728

The People s Republic of China

Tel: +86 (10) 5996 0028

Fax: +86 (10) 5996 0386
(Name, Telephone, Email and/or Facsimile number and Address of Company 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 of par value RMB 1.00 per share	New York Stock Exchange, Inc.
H Shares of par value RMB 1.00 per share	New York Stock Exchange, Inc.*

* Not for trading, but only in connection with the registration of American Depository Shares.

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

None
(Title of Class)

Table of Contents

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.

H Shares, par value RMB 1.00 per share	25,513,438,600
A Shares, par value RMB 1.00 per share	95,557,771,046

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act.

x Yes o No

If this report 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.

o Yes x 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.

x Yes o 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)

x Yes o No

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, or a non-accelerated filer. See definition of accelerated filer and large accelerated filer in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer x | Accelerated filer o | Non-accelerated filer o | Emerging growth company o

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

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 o | International Financial Reporting Standards as issued by the International Accounting Standards Board x | Other o

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.

o Item 17 o 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).

o Yes x No

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

Indicate by check mark whether the registrant has filed all documents and reports required to be filed by Section 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. *

o Yes o No

* This requirement does not apply to the registrant in respect of this filing.

Table of Contents

Table of Contents

			Page
ITEM 1.	IDENTITY OF DIRECTORS, SENIOR MANAGEMENT AND ADVISORS		4
ITEM 2.	OFFER STATISTICS AND EXPECTED TIMETABLE		4
ITEM 3.	KEY INFORMATION		4
	A.	SELECTED FINANCIAL DATA	4
	B.	CAPITALIZATION AND INDEBTEDNESS	6
	C.	REASONS FOR THE OFFER AND USE OF PROCEEDS	6
	D.	RISK FACTORS	6
ITEM 4.	INFORMATION ON THE COMPANY		15
	A.	HISTORY AND DEVELOPMENT OF THE COMPANY	15
	B.	BUSINESS OVERVIEW	17
	C.	ORGANIZATIONAL STRUCTURE	34
	D.	PROPERTY, PLANT AND EQUIPMENT	35
ITEM 4A.	UNRESOLVED STAFF COMMENTS		36
ITEM 5.	OPERATING AND FINANCIAL REVIEW AND PROSPECTS		36
	A.	GENERAL	36
	B.	CONSOLIDATED RESULTS OF OPERATIONS	39
	C.	DISCUSSIONS ON RESULTS OF SEGMENT OPERATIONS	45
	D.	LIQUIDITY AND CAPITAL RESOURCES	53
ITEM 6.	DIRECTORS, SENIOR MANAGEMENT AND EMPLOYEES		57
	A.	DIRECTORS, SUPERVISORS AND SENIOR MANAGEMENT	57
	B.	COMPENSATION	62
	C.	BOARD PRACTICE	63
	D.	EMPLOYEES	65
	E.	SHARE OWNERSHIP	66
ITEM 7.	MAJOR SHAREHOLDERS AND RELATED PARTY TRANSACTIONS		66
	A.	MAJOR SHAREHOLDERS	66
	B.	RELATED PARTY TRANSACTIONS	66
	C.	INTERESTS OF EXPERTS AND COUNSEL	67
ITEM 8.	FINANCIAL INFORMATION		67
	A.	CONSOLIDATED STATEMENTS AND OTHER FINANCIAL INFORMATION	67
	B.	SIGNIFICANT CHANGES	68
ITEM 9.	THE OFFER AND LISTING		68
	A.	OFFER AND LISTING DETAILS	68

ITEM 10.	ADDITIONAL INFORMATION		69
	A.	SHARE CAPITAL	69
	B.	MEMORANDUM AND ARTICLES OF ASSOCIATION	69
	C.	MATERIAL CONTRACTS	78
	D.	EXCHANGE CONTROLS	78
	E.	TAXATION	78
	F.	DIVIDENDS AND PAYING AGENTS	83
	G.	STATEMENT BY EXPERTS	83
	H.	DOCUMENTS ON DISPLAY	83

Table of Contents

	I.	SUBSIDIARY INFORMATION	83
ITEM 11.	QUALITATIVE AND QUANTITATIVE DISCLOSURES ABOUT MARKET RISK		83
ITEM 12.	DESCRIPTION OF SECURITIES OTHER THAN EQUITY SECURITIES		88
	A.	Debt Securities	88
	B.	Warrants and Rights	88
	C.	Other Securities	88
	D.	American Depositary Shares	88
ITEM 13.	DEFAULTS, DIVIDEND ARREARAGES AND DELINQUENCIES		89
ITEM 14.	MATERIAL MODIFICATIONS TO THE RIGHTS OF SECURITY HOLDERS AND USE OF PROCEEDS		89
	A.	MATERIAL MODIFICATIONS TO THE RIGHTS TO SECURITIES HOLDERS	89
	B.	USE OF PROCEEDS	90
ITEM 15.	CONTROLS AND PROCEDURES		90
ITEM 16.	RESERVED		90
ITEM 16A.	AUDIT COMMITTEE FINANCIAL EXPERT		90
ITEM 16B.	CODE OF ETHICS		91
ITEM 16C.	PRINCIPAL ACCOUNTANT FEES AND SERVICES		91
ITEM 16D.	EXEMPTIONS FROM THE LISTING STANDARDS FOR AUDIT COMMITTEES		91
ITEM 16E.	PURCHASES OF EQUITY SECURITIES BY THE ISSUER AND AFFILIATED PURCHASERS		91
ITEM 16F.	CHANGE IN REGISTRANT_S CERTIFYING ACCOUNTANT		91
ITEM 16G.	COMPARISON OF NEW YORK STOCK EXCHANGE CORPORATE GOVERNANCE RULES AND CHINA CORPORATE GOVERNANCE RULES FOR LISTED COMPANIES		91
ITEM 16H.	MINE SAFETY DISCLOSURE		96
ITEM 17.	FINANCIAL STATEMENTS		96
ITEM 18.	FINANCIAL STATEMENTS		96
ITEM 19.	EXHIBITS		96

Table of Contents

CERTAIN TERMS AND CONVENTIONS

Definitions

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

- Sinopec Corp. , Company , we , our and us are to China Petroleum & Chemical Corporation, a PRC joint limited company, and its subsidiaries;

- Sinopec Group Company are to our controlling shareholder, China Petrochemical Corporation, a PRC limited liability company;

- Sinopec Group are to the Sinopec Group Company and its subsidiaries other than Sinopec Corp. and its subsidiaries;

- provinces are to provinces and to provincial-level autonomous regions and municipalities in China which are directly under the supervision of the central PRC government;

- RMB are to Renminbi, the currency of the PRC;

- HK$ are to Hong Kong dollar, the currency of the Hong Kong Special Administrative Region of the PRC; and

- US$ are to US dollars, the currency of the United States of America.

Conversion Conventions

Unless otherwise specified, conversion of crude oil from tonnes to barrels are made at a rate of one tonne to 7.10 barrels for crude oil we produced domestically and one tonne to 7.21, 7.20 and 7.21 barrels for the years ended December 31, 2015, 2016 and 2017, respectively for crude oil we produced overseas. Conversions of natural gas from cubic meters to cubic feet are made at a rate of one cubic meter to 35.31 cubic feet; and 6,000 cubic feet of natural gas is converted to one BOE.

Glossary of Technical Terms

Unless otherwise indicated in the context, references to:

- BOE are to barrels-of-oil equivalent.

- primary distillation capacity are to the crude oil throughput capacity of a refinery s crude oil distillation units, calculated by estimating the number of days in a year that such crude oil distillation units are expected to operate, excluding downtime for regular maintenance, and multiplying that number by the amount equal to the units optimal daily crude oil throughput.

- rated capacity are to the output capacity of a given production unit or, where appropriate, the throughput capacity, calculated by estimating the number of days in a year that such production unit is expected to operate, excluding downtime for regular maintenance, and multiplying that number by an amount equal to the unit s optimal daily output or throughput, as the case may be.

CURRENCIES AND EXCHANGE RATES

We publish our financial statements in Renminbi. Unless otherwise indicated, all translations from Renminbi to US dollars were made at the averages of mid-point exchange rates of Renminbi as published by the PRC State Administration of Foreign Exchange (SAFE) for the past five years.

Table of Contents

The following table sets forth the noon buying rate for US dollars in Renminbi for the periods indicated, as provided by the H.10 statistical release of the U.S. Federal Reserve Board. We do not represent that Renminbi or US dollar amounts could be converted into US dollars or Renminbi, as the case may be, at any particular rate, the rates below or at all. On April 20, 2018, the noon buying rate was RMB 6.2945 to US$1.00.

	Noon Buying Rate(1)			
Period	**End**	**Average(2)**	**High**	**Low**
		(RMB per US$1.00)		
2013	6.0537	6.1412	6.2438	6.0537
2014	6.2046	6.1704	6.2591	6.0402
2015	6.4778	6.2869	6.4896	6.1870
2016	6.9430	6.6549	6.9580	6.4480
2017	6.5063	6.7350	6.9575	6.4773
October 2017	6.6328	6.6254	6.6533	6.5712
November 2017	6.6090	6.6200	6.6385	6.5967
December 2017	6.5063	6.5932	6.6210	6.5063
January 2018	6.2841	6.4233	6.5263	6.2841
February 2018	6.3280	6.3183	6.3471	6.2649
March 2018	6.2726	6.3174	6.3565	6.2685
April 2018 (through April 20, 2018)	6.2945	6.2859	6.3045	6.2655

(1) The exchange rates reflect those set forth in the H.10 statistical release of the U.S. Federal Reserve Board.

(2) Annual averages are determined by averaging the rates on the last business day of each month during the relevant period. Monthly averages are calculated using the average of the daily rates during the relevant period.

FORWARD-LOOKING STATEMENTS

This annual report includes forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. All statements, other than statements of historical facts, included in this annual report that address activities, events or developments which we expect or anticipate will or may occur in the future are hereby identified as forward-looking statements for the purpose of the safe harbor provided by Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934. The words such as believe, intend, expect, anticipate, project, estimate, predict, plan and similar expressions are also intended to identify forward-looking statements. These forward-looking statements address, among others, such issues as:

- amount and nature of future exploration and development,
- future prices of and demand for our products,

- future earnings and cash flow,
- development projects and drilling prospects,
- future plans and capital expenditures,
- estimates of proved oil and gas reserves,
- exploration prospects and reserves potential,
- expansion and other development trends of the petroleum and petrochemical industry,
- production forecasts of oil and gas,
- expected production or processing capacities, including expected rated capacities and primary distillation capacities, of units or facilities not yet in operation,

Table of Contents

- expansion and growth of our business and operations, and

- our prospective operational and financial information.

These statements are based on assumptions and analyses made by us in light of our experience and perception of historical trends, current conditions and expected future developments, as well as other factors we believe are appropriate in particular circumstances. However, whether actual results and developments will meet our expectations and predictions depends on a number of risks and uncertainties which could cause actual results to differ materially from our expectations, including the risks set forth in Item 3. Key Information Risk Factors and the following:

- fluctuations in crude oil and natural gas prices,

- fluctuations in prices of our refined oil and chemical products,

- failures or delays in achieving production from development projects,

- potential acquisitions and other business opportunities,

- general economic, market and business conditions, and

- other risks and factors beyond our control.

Consequently, all of the forward-looking statements made in this annual report are qualified by these cautionary statements and readers are cautioned not to place undue reliance on these forward-looking statements. These forward-looking statements should be considered in light of the various important factors set forth above and elsewhere in this Form 20-F. In addition, we cannot assure you that the actual results or developments anticipated by us will be realized or, even if substantially realized, that they will have the expected effect on us or our business or operations.

Table of Contents

ITEM 1. IDENTITY OF DIRECTORS, SENIOR MANAGEMENT AND ADVISORS

Not applicable.

ITEM 2. OFFER STATISTICS AND EXPECTED TIMETABLE

Not applicable.

ITEM 3. KEY INFORMATION

A. SELECTED FINANCIAL DATA

The selected consolidated statement of income data (except per ADS data) and consolidated cash flows data for the years ended December 31, 2015, 2016 and 2017, and the selected consolidated balance sheet data as of December 31, 2016 and 2017 are derived from, and should be read in conjunction with, the audited consolidated financial statements included elsewhere in this annual report. The selected consolidated statement of income data (except per ADS data) and consolidated cash flows data for the years ended December 31, 2013 and 2014 and the selected consolidated balance sheet data as of December 31, 2013, 2014 and 2015 are derived from our audited consolidated financial statements which are not included elsewhere in this annual report.

Moreover, the selected financial data should be read in conjunction with our consolidated financial statements and Item 5. Operating and Financial Review and Prospects included elsewhere in this annual report. Our consolidated financial statements are prepared and presented in accordance with International Financial Reporting Standards, or IFRS, as issued by the International Accounting Standards Board.

	Year Ended December 31,				
	2013	2014	2015	2016	2017
	(RMB in millions, except per share, per ADS data and number of shares)				
Consolidated Statement of Income Data(1)**:**					
Operating revenues	2,881,928	2,827,566	2,020,375	1,930,911	2,360,193
Operating expenses	(2,785,165)	(2,754,127)	(1,963,553)	(1,853,718)	(2,288,723)
Operating income	96,763	73,439	56,822	77,193	71,470
Earnings before income tax	95,444	65,818	56,411	80,151	86,697
Tax expense	(24,763)	(17,571)	(12,613)	(20,707)	(16,279)
Net income attributable to equity shareholders of the Company	66,348	46,639	32,512	46,672	51,244

Basic earnings per share(2)	0.571	0.399	0.269	0.385	0.423
Basic earnings per ADS(2)	57.14	39.92	26.90	38.55	42.33
Diluted earnings per share(2)	0.536	0.399	0.269	0.385	0.423
Diluted earnings per ADS(2)	53.59	39.89	26.90	38.55	42.33
Cash dividends declared per share	0.240	0.200	0.150	0.249	0.500
Segment Operating Income/(Loss)					
Exploration and production	54,793	47,057	(17,418)	(36,641)	(45,944)
Refining	8,599	(1,954)	20,959	56,265	65,007
Marketing and distribution	35,143	29,449	28,855	32,153	31,569
Chemicals	846	(2,229)	19,476	20,623	26,977
Corporate and others	(3,412)	(1,063)	384	3,212	(4,484)
Elimination of inter-segment sales	794	2,179	4,566	1,581	(1,655)
Operating income	96,763	73,439	56,822	77,193	71,470
Shares					
Basic weighted average number of A and H shares	116,102,910,373	116,822,487,451	120,852,547,200	121,071,209,646	121,071,209,646
Diluted weighted average number of A and H shares	121,858,818,276	117,242,396,710	120,852,547,200	121,071,209,646	121,071,209,646

Table of Contents

	As of December 31,				
	2013	2014	2015	2016	2017
	(RMB in millions, except per share, per ADS data and number of shares)				
Consolidated Balance Sheet Data(1)**:**					
Cash and cash equivalents	16,336	10,526	68,933	124,468	113,218
Total current assets	374,578	361,559	333,657	412,261	529,049
Total non-current assets	1,012,703	1,094,035	1,113,611	1,086,348	1,066,455
Total assets	1,387,281	1,455,594	1,447,268	1,498,609	1,595,504
Total current liabilities	(572,018)	(604,451)	(462,832)	(485,543)	(579,446)
Short-term debts and loans from Sinopec Group Company and its affiliates (including current portion of long-term debts)	(163,870)	(178,148)	(115,446)	(74,819)	(80,649)
Long-term debts and loans from Sinopec Group Company and its affiliates (excluding current portion of long-term debts)	(145,590)	(150,932)	(139,746)	(117,446)	(99,124)
Total equity attributable to equity shareholders of the Company	(571,087)	(595,255)	(676,197)	(710,994)	(726,120)
Total equity	(625,778)	(649,603)	(788,161)	(831,235)	(852,890)

	Year Ended December 31,				
	2013	2014	2015	2016	2017
	(RMB in millions, except per share, per ADS data and number of shares)				
Statement of Cash Flow and Other Financial Data(1)**:**					
Net cash generated from operating activities	151,470	148,019	165,740	214,543	190,935
Net cash generated from/(used in) financing activities	31,146	(21,524)	9,093	(93,047)	(56,509)
Net cash used in investing activities	(178,322)	(132,321)	(116,719)	(66,217)	(145,323)
Capital expenditure Exploration and production	105,311	80,196	54,710	32,187	31,344
Refining	26,064	27,957	15,132	14,347	21,075
Marketing and distribution	29,486	26,989	22,115	18,493	21,539
Chemicals	19,263	15,944	17,634	8,849	23,028
Corporate and others	5,076	3,648	2,821	2,580	2,398
Total	185,200	154,734	112,412	76,456	99,384

Table of Contents

(1) The acquisition of 55% equity interest of Shanghai Gaoqiao Petrochemical Co., Ltd. (Gaoqiao) in 2016 from Sinopec Group Company were considered as combination of entities under common control and accounted in a manner of predecessor value accounting. Accordingly, the acquired assets and liabilities have been accounted for at historical cost and the consolidated financial statements for periods prior to the combinations have been restated to include the financial condition and results of operation of these acquired business on a combined basis.

(2) Basic earnings per share have been computed by dividing net income attributable to equity shareholders of our company by the weighted average number of shares in issue. Basic and diluted earnings per ADS have been computed as if all of our issued and authorized ordinary shares, including domestic shares and H shares, are represented by ADSs during each of the years presented. Each ADS represents 100 shares.

(3) On October 26, 2017, Gaoqiao purchased 50% equity interest in Shanghai SECCO from BP Chemicals East China Investment Limited with a cash consideration of RMB 10,135 million. Before the acquisition, we and one of our subsidiaries held 30% and 20% equity interest in Shanghai SECCO, respectively. Upon completion of the acquisition, we, together with our subsidiaries, hold 100% equity interest of Shanghai SECCO, which became a subsidiary of us.

B. CAPITALIZATION AND INDEBTEDNESS

Not applicable.

C. REASONS FOR THE OFFER AND USE OF PROCEEDS

Not applicable.

D. RISK FACTORS

Risks Relating to Our Business Operation

We are exposed to risks associated with price fluctuations of crude oil and refined oil products and petrochemical products.

We consume a large amount of crude oil to produce our refined oil products and petrochemical products. Increases in crude oil prices may result in cost inflation, and high prices may also reduce demand for our products which might adversely affect our profitability. Decreases in prices of crude oil, refined oil products and petrochemical products may cause us to incur impairment to our investment and assets. A prolonged period of low oil prices may impact our profit and ability to maintain our long-term investment projects. In addition, while we try to adjust the sale prices of our products to reflect international crude oil price fluctuations, our ability to pass on the increased cost resulting from crude oil price increases to our customers may be limited, and is dependent on international and domestic market conditions as well as the PRC government s price control policies over refined oil products. For instance, the PRC government could exercise price control over refined oil products when international crude oil prices experience a sustained rise or become significantly volatile. As a result, our results of operations and financial condition may be materially affected by the fluctuation of prices of crude oil, refined oil products and petrochemical products.

Our continued business success depends in part on our ability to replace reserves and develop newly discovered reserves.

Our ability to achieve our growth objectives is dependent in part on our level of success in discovering or acquiring additional oil and natural gas reserves. Our exploration and development activities for additional reserves also expose us to inherent risks associated with drilling, including the risk that no proved oil or natural gas reservoirs might be discovered. Exploring for, developing and acquiring reserves is highly risky and capital intensive. The fluctuation in the prices of crude oil and natural gas will impact the amount of our proved oil or natural gas reserves. In the low oil price environment, only large scale, high quality reserves meet our development criteria. Some exploration projects are not viable at the current crude oil price level and cannot be carried forward, potentially leading to failure in supplementing our oil and natural gas reserves with additional reserves through future exploration. Without reserve additions through further exploration and development or acquisition activities, or if the prices of crude oil and natural gas fall sharply, our reserves and production will decline over time, which may materially and adversely affect our results of operations and financial condition.

Table of Contents

We rely heavily on outside suppliers for crude oil and other raw materials, and we may even experience disruption of our ability to obtain crude oil and other raw materials.

We purchase a significant portion of crude oil and other feedstock from outside suppliers located in different countries and regions in the world, of which an insignificant amount of the crude oil processed by our refinery business was sourced from countries or regions that are on the sanction list published and administered by the Office of Foreign Assets Control, or OFAC, of the US Department of Treasury, including Iran and Sudan. In addition, our business growth requires us to source an increasing amount of crude oil from outside suppliers. While we purposely source our crude oil from a diversified portfolio of outside suppliers to avoid any potential disruptions to our normal business operations, we are subject to the political, geographical and economic risks associated with these countries and areas. If our contractual relationships with one or more outside suppliers were terminated or disrupted due to any natural disasters or political events, it is possible that we would not be able to find sufficient alternative sources of supply in a timely manner or on commercially reasonable terms. As a result, our business and financial condition would be materially and adversely affected.

Our business faces operation risks and natural disasters that may cause significant property damages, personal injuries and interruption of operations, and we may not have sufficient insurance coverage for all the financial losses incurred by us.

Exploring for, producing and transporting crude oil and natural gas and producing and transporting refined oil products and petrochemical products involves a number of operating hazards. Our operations are subject to significant hazards and risks inherent in refining operations and in transporting and storing crude oil, intermediate products, refined oil products and chemical products. These hazards and risks include, but are not limited to, natural disasters, fires, explosions, pipeline ruptures and spills, third-party interference and mechanical failure of equipment at our or third-party facilities, any of which could result in production and distribution difficulties and disruptions, environmental pollution, personal injury or wrongful death claims and other damage to our properties and the property of others. There is also risk of mechanical failure and equipment shutdowns both in general and following unforeseen events. In certain situations, undamaged refinery processing units may be dependent on or interact with damaged process units and, accordingly, are also subject to being shut down. Even though we have a strong institutional focus on the safety of our operations and have implemented health, safety and environment (HSE) management system within our company with the view to preventing accidents, and reducing personal injuries, property losses and environment pollution, our preventative measures may not be effective. We also maintain insurance coverage on our property, plant, equipment, inventory and potential third party liability, but our insurance coverage may not be sufficient to cover all the financial losses caused by the operation risks and natural disasters. Significant operating hazards and natural disasters may cause interruption to our operations, property or environmental damages as well as personal injuries, and each of these incidents could have a material adverse effect on our financial condition and results of operations.

The oil and natural gas reserves data in this annual report are only estimates, and our actual production, revenues and expenditures with respect to our reserves may differ materially from these estimates.

There are numerous uncertainties inherent in estimating quantities of proved oil and natural gas reserves, and in the timing of development expenditures and the projection of future rates of production. Adverse changes in economic conditions, such as a prolonged period of low oil prices, may render it uneconomical to develop certain reserves and lead to downward revisions in our reserves. Our actual production, revenues, taxes and fees payable and development and operating expenditures with respect to our reserves may likely vary from these estimates.

The estimate of reserves is influenced by, among other things:

- the quality and quantity of technical and economic data;
- the prevailing oil and gas prices applicable to our production;
- the production performance of the reservoirs; and
- the production plans and etc.

Table of Contents

In addition, new drilling, testing and production results following the estimates may cause substantial upward or downward revisions in the estimates.

Oilfield exploration and drilling involves numerous risks, including risks that no commercially productive crude oil or natural gas reserves can be discovered and risks of failure to acquire or retain reserves.

Our oil and gas business is currently involved in exploration activities in various regions, including in some areas where natural conditions may be challenging and where the costs of such exploration activities may be high. As a result, our oil and gas business may incur cost overruns or may be required to curtail, delay or cancel drilling operations because of many factors, including, but not limited to, the following:

- unexpected conditions in drilling projects;
- irregularities in geological formations pressure;
- equipment failures;
- oil well blowouts;
- adverse weather conditions or natural disasters;
- compliance with existing or enhanced environmental regulations;
- governmental requirements and standards; or
- delays in the availability of drilling rigs and delivery and maintenance of equipment.

The future production of our oil and gas business depends significantly upon our success in finding or acquiring additional reserves and retaining and developing such reserves. If our oil and gas business fails to conduct successful exploration activities or to acquire or retain assets holding

proved reserves, it may not meet its production or growth targets, and its proved reserves will decline as it extracts crude oil and natural gas from the existing reservoirs, which could adversely affect our business, financial condition and results of operations.

We have been actively pursuing business opportunities outside China to supplement our domestic resources. However, there can be no assurance that we can successfully locate sufficient alternative sources of crude oil supply or at all 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 adversely affected.

Our exploration, development and production activities and our refining and petrochemical business require substantial expenditure and investments and our plans for and ability to make such expenditures and investments are subject to various risks.

Exploring, developing and producing crude oil and natural gas fields are capital-intensive activities involving a high degree of risk. Our ability to undertake exploration, development and production activities and make the necessary capital expenditures and investments is subject to many risks, contingencies and other uncertainties, which may prevent our oil and gas business from achieving the desired results, or which may significantly increase the expenditures and investments that our oil and gas business makes, including, but not limited to, the following:

- ability to generate sufficient cash flows from operations to finance its expenditures, investments and other requirements, which are affected by changes in crude oil and natural gas prices and sales volumes, and other factors;

- availability and terms of external financing;

Table of Contents

- mix of exploration and development activities conducted on an independent basis and those conducted jointly with other partners;

- extent to which its ability to influence or adjust plans for exploration and development related expenditures is limited under joint operating agreements for those projects in which it has partners;

- government approvals required for exploration and development-related expenditures and investments in jurisdictions in which it conducts business; and

- economic, political and other conditions in jurisdictions in which it conducts business.

From time to time, we may construct new and/or revamp existing refining and petrochemical facilities, which require substantial capital expenditures and investments. There can be no assurance 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. Our inability to obtain sufficient funding for development plans could adversely affect our business, financial condition and results of operations.

Our development projects and production activities involve many uncertainties and operating risks that can prevent us from realizing profits and cause substantial losses.

Our development projects and production activities may be curtailed, delayed or cancelled for many reasons, including equipment shortages or failures, natural hazards, unexpected drilling conditions or reservoir characteristics, pressure or irregularities in geological formations, accidents, mechanical and technical difficulties and industrial action. These projects and activities, which include projects focused on non-conventional oil and gas exploration and development, will also often require the use of new and advanced technologies that may be expensive to develop, purchase and implement, and may not function as expected. There is a risk that any development projects that we undertake may not yield adequate returns. In addition, our development projects and production activities, particularly those in remote areas, could become less profitable, or unprofitable, if we experience a prolonged period of low oil or gas prices or cost overruns.

Our business may be adversely affected by actions and regulations prompted by global climate changes.

As many nations in the world have reached consensus on the importance and urgency of addressing climate change, the oil and gas industry in which we operate is drawing increasing concerns about global climate change in recent years. A number of international, national and regional measures to limit greenhouse gas emissions have been enacted. The Paris Agreement on climate change adopted by 195 nations in December 2015 has placed binding commitments on nations that have ratified it since November 2016, which may lead to more stringent national and regional measures in the near future. It could result in our substantial capital expenditure from compliance with these measures, and our revenue generation and strategic growth opportunities could also be adversely impacted. In addition, China has undertaken to peak the CO2

emissions by 2030 or earlier, if possible, and to increase the non-fossil fuel share of all energy to around 20 percent by 2030. China has also implemented a national carbon emissions trading scheme in 2017, power generation industry has been included initially, and will gradually expand the industry coverage after the market matures. We are recognized as an emission-control enterprise as are most of the Chinese enterprises, which could have adverse effect on our business, financial condition and results of operations.

Our overseas businesses may be adversely affected by changes of overseas government policies and business environment.

We have operations and assets and may seek new opportunities in various countries and regions, including countries in Africa, South America and Central Asia and certain other regions, some of which are deemed to be subject to a high degree of political risk. These countries have experienced and/or may experience in future political instability, changes to the regulatory environment, changes in taxation and foreign exchange controls, disease outbreaks, deterioration in social security and environmental risks. Any of these conditions occurring could disrupt or curtail our operations or development activities. These events may also cause our production to decline, limit our ability to pursue new opportunities, affect the recoverability of our assets or cause us to incur additional costs, particularly due to the long-term nature of many of our projects and the significant capital expenditure required.

Table of Contents

We may be classified as a passive foreign investment company for United States federal income tax purposes, which could result in adverse United States federal income tax consequences to United States investors in the H shares or ADSs.

Depending upon the value of our assets, which may be determined based, in part, on the market price of our H shares or ADSs, and the nature of our assets and income over time, we could be classified as a passive foreign investment company, or PFIC, for United States federal income tax purposes. Based on our income and assets and the market price of our H shares or ADSs, we do not believe that we were a PFIC for the taxable year ended December 31, 2017 and do not anticipate becoming a PFIC or in the foreseeable future. Because PFIC status is a factual determination made annually after the close of each taxable year on the basis of the composition of our income and the value of our active versus passive assets for that year, there can be no assurance that we will not be a PFIC for any future taxable year. The overall level of our passive assets will be affected by how, and how quickly, we expend our liquid assets. Under circumstances where gross income from activities that produce passive income significantly increase relative to our gross income from activities that produce non-passive income or where we determine not to deploy significant amounts of cash for active purposes, our risk of becoming classified as a PFIC may substantially increase. If we were to be or become classified as a PFIC, a US Holder (as defined in Item 10. Additional Information E. Taxation United States Federal Income Tax Considerations) may incur significantly increased United States income tax on gain recognized on the sale or other disposition of the H shares or ADSs and on the receipt of distributions on the H shares or ADSs to the extent such gain or distribution is treated as an excess distribution under the United States federal income tax rules. For more information see Item 10. Additional Information E. Taxation United States Federal Income Tax Considerations.

Our operations may be adversely affected by cyber-attacks or similar disruptions.

We devote significant resources to protecting our digital infrastructure and data against cyber-attacks, if our systems against cyber-security risk prove to be ineffective, we could be adversely affected by, among other things, disruptions to our business operations, and loss of proprietary information, including intellectual property, financial information and employer and customer data, injury to people, property, environment and reputation. As cyber-security attacks continue to evolve, we may be required to expend additional resources to enhance our protective measures against cyber-security breaches.

Risks Relating to Our Industry

Our operations may be adversely affected by the global and domestic economic conditions.

Our results of operations are materially affected by economic conditions in China and elsewhere around the world. There are some uncertainty and instability in the current global economic recovery. The Chinese economy has entered the new normal stage with stable and favorable economic growth and is moving forward with high quality development. Our operations may also be adversely affected by factors such as foreign countries trade protection policies and regional trade agreements which may adversely affect our export and import activities.

Our operations may be adversely affected by the cyclical nature of the market.

Most of our revenues are attributable to sales of refined oil products and petrochemical products, and certain of these businesses and related products have historically been cyclical and sensitive to a number of factors that are beyond our control. These factors include the availability and prices of feedstock and general economic conditions, such as changes in industry capacity and output levels, cyclical changes in regional and global economic conditions, prices and availability of substitute products and fluctuation in prices and demands of natural gas, refined oil products and chemical products. Although we are an integrated company with upstream, midstream and downstream businesses, we have limited ability to mitigate the adverse influence of the cyclicality of global markets.

Table of Contents

We face strong competition from domestic and foreign competitors.

Among our competitors, some are major integrated petroleum and petrochemical companies within and outside China, which have recently become more significant participants in the petroleum and petrochemical industry in China. The PRC government has gradually eased the restrictions on the right to use imported crude oil and relaxed control over the right to import refined oil products. This development may lead to refining overcapacity in China and intensify competition among local refineries. The relaxation of import control may drive up cost of crude oil imports and reduce the prices of refined oil products, thus adversely impact our refining margin. The Chinese crude oil and refined oil product markets are becoming increasingly dynamic and internationalized with implementation of tariff concessions and relaxation of market access as part of China s commitment for its accession to the WTO. The potential trade conflict and increased trade protection measures implemented by several countries may adversely affect the production, trade or demand in petroleum and petrochemical industries, and may have a significant impact on our results of operations. In the wholesale market of refined oil products previously dominated by PetroChina and us, we are facing stronger competition with new players and imported products entering the market. Our market share of chemical products is also under stronger competitive pressure due to the increasingly active participation of diversified new market players including multinational petroleum and petrochemical companies and domestic private enterprises. In addition, we also expect to face competition in both domestic and international petrochemical product market as a result of our domestic and international competitors increasing production capacity. Increased competition may have a material adverse effect on our financial condition and results of operations.

Risks Relating to Our Controlling Shareholder

We engage in related party transactions with Sinopec Group from time to time which may create potential conflict of interest.

We have engaged from time to time and will continue to engage in a variety of transactions with Sinopec Group, which provides us with a number of services, including, but not limited to, ancillary supply, engineering, maintenance, transport, lease of land use right, lease of buildings, as well as educational and community services. The nature of our transactions with Sinopec Group is governed by a number of service and other contracts between Sinopec Group and us. We have established various schemes in those agreements so that these transactions, when entered into, are under terms that are at arm s length. However, we cannot assure you that Sinopec Group Company or any of its members would not take actions that may favor its interests or its other subsidiaries interests over ours.

We are controlled by Sinopec Group Company, our ultimate controlling shareholder, whose interest in certain businesses compete or are likely to compete with our business.

Sinopec Group Company has interests in certain businesses, such as oil refining, petrochemical producing and overseas exploration and development, which compete or are likely to compete, either directly or indirectly, with our businesses. To avoid the adverse effects brought by the competition between us and Sinopec Group Company to the maximum extent possible, we and Sinopec Group Company have entered into a non-competition agreement. In 2012, we received from Sinopec Group Company an undertaking to avoid its competition with us. For details, please refer to the descriptions under Item 7. Major Shareholders and Related Party Transactions A. Major Shareholders . Notwithstanding the foregoing contractual arrangements, because Sinopec Group Company is our controlling shareholder, Sinopec Group Company may take actions that may conflict with our own interests.

It is possible that the current or future activities of our ultimate controlling shareholder, Sinopec Group Company, or its affiliates in or with certain countries that are the subject of economic sanctions under relevant U.S. laws could result in negative media and investor attention to us and possible imposition of sanctions on Sinopec Group Company, which could materially and adversely affect our shareholders value and operations.

Table of Contents

Sinopec Group Company undertakes, from time to time and without our involvement, overseas investments and operations in the oil and gas industry, including exploration and production of oil and gas, refining and Liquefied Natural Gas or LNG, oilfield services and refining engineering projects. Sinopec Group Company s overseas asset portfolio includes a limited number of projects in countries that are subject to U.S. sanctions administrated by OFAC and by the U.S. Department of State. We currently do not believe that our investments will result in any direct sanctions imposed by OFAC. However, further trade restrictions and other sanctions could adversely impact our investments. In addition, the United States may expand its sanctions regime to include other countries or regions where Sinopec Group Company or its affiliates, including us, may have assets or operations, or may unilaterally reinstate its sanction regime in Iran, where most U.S. secondary sanctions (i.e., those covering non-U.S. persons) have been suspended since January 16, 2016 pursuant to the terms of the Joint Comprehensive Plan of Action (the JCPOA), in the event of a dispute over Iran s compliance with its nuclear commitments under the JCPOA. We cannot predict the interpretation or implementation of government policy at the U.S. federal, state or local levels with respect to any current or future activities by Sinopec Group Company or its affiliates, including us, in countries or with individuals or entities that are the subject of U.S. sanctions. Similarly, we cannot predict whether U.S. sanctions will be further tightened or reinstated in the case of Iran, or the impact that such actions may have on Sinopec Group Company and us. Certain U.S. state and local governments and colleges have restrictions on the investment of public funds or endowment funds, respectively, in companies that are members of corporate groups with activities in certain countries that are the subject of U.S. sanctions. These investors may not wish to invest, and may divest their investment, in us because of our relationship with Sinopec Group Company and its investments and activities in those OFAC sanctioned countries. It is possible that, as a result of activities by Sinopec Group Company or its affiliates in countries that are the subject of U.S. sanctions, we may be subject to negative media or investor attention, which may distract management, consume internal resources and affect investors perception of our company. Furthermore, if the most extreme sanction measures under U.S. sanctions laws were applied to the properties of Sinopec Group Company and its controlled subsidiaries, Sinopec Group Company could be prohibited from engaging in business activities in the United States or with U.S. individuals or entities, and U.S. transactions in our securities and distributions to U.S. individuals and entities with respect to our securities could also be prohibited.

Risks Relating to the PRC

Government regulations may limit our activities and affect our business operations.

The PRC government, though gradually liberalizing its regulations on entry into the petroleum and petrochemical industry, continues to exercise certain controls over the petroleum and petrochemical industry in China. These control mechanisms include granting the licenses to explore and produce crude oil and natural gas, granting the licenses to market and distribute crude oil and refined oil products, regulating the upper limit of the retail prices for gasoline and diesel; collecting special oil income levies, deciding import and export quotas and procedures, setting safety, environmental and quality standards, and formulating policies to save energy and reduce emission; meanwhile, there could be potential changes to macroeconomic and industry policies such as reforming of the oil and gas industry, further improvement of pricing mechanism of refined oil products, reforming and improvement of pricing mechanism of natural gas, and reforming in resource tax and environmental tax, which could impact our production and operations. Such control mechanisms may have material effects on our operations and profitability.

The PRC governmental authorities, from time to time, audit or inspect our ultimate controlling shareholder. We cannot predict the impact if any, of their outcome on our reputation, business and financial condition as well as the trading prices of our ADSs and H shares.

The PRC governmental authorities, from time to time, perform audits, inspections, inquiries or similar actions on state-owned companies, such as Sinopec Group Company, our ultimate controlling shareholder. Such inspections are not conducted on a regular basis with specific targets, and therefore we cannot predict the outcome of these governmental activities. If, as a result of such audits, inspections or inquiries, (i) material irregularities are found within Sinopec Group Company or us or our employees or (ii) Sinopec Group Company or we become the target of any negative publicity, our reputation, business and financial condition as well as the trading prices of our ADSs and H shares may be materially and negatively impacted.

Our business operations may be adversely affected by present or future environmental regulations.

As an integrated petroleum and petrochemical company, we are subject to extensive environmental protection laws and regulations in China. These laws and regulations permit:

- the imposition of environmental tax for the discharge of waste substances;

- the government, in accordance with law, to order correction, suspend production and impose fines for unlicensed or uncertified pollution discharge;

Table of Contents

- the government, at its discretion, to seal up or close down any facility which has cause or may cause severe environmental damage and require it to correct or stop operations causing environmental damage; and

- litigations and liabilities arising from pollutions and damages to the environment and public interests.

Our production activities produce substantial amounts of liquid, gas and solid waste materials. We have established a system to treat waste materials to prevent and reduce pollution. However, the PRC government has moved, and may move further, toward more rigorous enforcement of applicable laws, and toward the adoption of more stringent environmental standards, which, in turn, would require us to incur additional expenditures on environmental matters.

In recent years, we have commenced exploration and production of unconventional oil and gas resources, such as shale oil and gas and coal bed methane, through the application of relatively advanced technologies. As a result, our unconventional oil and gas operations are subject to the limitations of unproven technology and expose us to higher environmental compliance standards and requirements. In the event of any failure to comply with such standards and requirements, we may be subject to public concerns about our unconventional oil and gas operations, which may also harm our corporate reputation.

Some of our development plans require compliance with state policies and governmental regulation.

We are currently engaged in a number of construction, renovation and expansion projects. Some of our large construction, renovation and expansion projects are subject to governmental confirmation and registration. The timing and cost of completion of these projects will depend on numerous factors, including when we can receive the required confirmation and registration from relevant PRC government authorities and the general economic condition in China. If any of our key projects required for our future growth are not confirmed or registered, or not confirmed or registered in a timely manner, our results of operations and financial condition could be adversely impacted.

Government control of currency conversion and exchange rate fluctuation may adversely affect our operations and financial results.

We receive a significant majority of our revenues in Renminbi. A portion of such revenues will need to be converted into other currencies to meet our foreign currency needs, which include, among other things:

- import of crude oil and other materials;

- debt service on foreign currency-denominated debt;

- purchases of imported equipment;

- payment of the principals and interests of bonds issued overseas; and

- payment of any cash dividends declared in respect of the H shares (including ADS).

The existing foreign exchange regulations have significantly reduced government foreign exchange controls for transactions under the current account, including trade and service related foreign exchange transactions and payment of dividends. Foreign exchange transactions under the capital account, including principal payments in respect of foreign currency-denominated obligations, continue to be subject to significant foreign exchange controls and require the approval of the State Administration of Foreign Exchange. These limitations could affect our ability to obtain foreign exchange through debt or equity financing, or to obtain foreign exchange. The PRC government has stated publicly that it intends to make the Renminbi freely convertible in the future. However, we cannot predict whether the PRC government will continue its existing foreign exchange policy and when the PRC government will allow free conversion of Renminbi.

Table of Contents

The exchange rate of the Renminbi against the U.S. dollar and other foreign currencies fluctuates and is affected by, among other things, the changes in the PRC s and international political and economic conditions. On July 21, 2005, the PRC government introduced 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. On June 19, 2010 and August 11, 2015, respectively, the People s Bank of China (PBOC) decided to further promote the reform of exchange rate regime and enhance the flexibility of Renminbi exchange rate. Prices of refined oil products are guided by the PRC Government and are pegged to the exchange rate of the Renminbi against the U.S. dollar. Therefore the impact of Renminbi exchange rate fluctuation on the purchase cost of crude oil could largely be offset by the corresponding fluctuation in the prices of domestic refined oil products and chemical products.

Risks relating to enforcement of shareholder rights; Mandatory arbitration.

Currently, the primary sources of shareholder rights are our articles of association, the PRC Company Law and the Listing Rules of the Hong Kong Stock Exchange, which, among other things, impose certain standards of conduct, fairness and disclosure on us, our directors and our controlling shareholder. In general, their provisions for protection of shareholder s rights and access to information are different from those applicable to companies incorporated in the United States, the United Kingdom and other Western countries. In addition, the mechanism for enforcement of rights under the corporate framework to which we are subject may also be relatively undeveloped and untested. To our knowledge, there has not been any published report of judicial enforcement in the PRC by H share shareholders of their rights under constituent documents of joint stock limited companies or the PRC Company Law or in the application or interpretation of the PRC or Hong Kong regulatory provisions applicable to PRC joint stock limited companies. We cannot guarantee that our shareholders will enjoy protections that they may be entitled in other jurisdictions.

China does not have treaties providing for the reciprocal recognition and enforcement of judgments of courts with the United States, the United Kingdom or most other Western countries, and therefore recognition and enforcement in China of judgments of a court in any of these jurisdictions in relation to any matter not subject to a binding arbitration provision may not be assured. Our articles of association as well as the Listing Rules of the Hong Kong Stock Exchange provide that most disputes between holders of H shares and us, our directors, supervisors, officers or holders of domestic shares, arising out of the articles of association or the PRC Company Law concerning the affairs of our company, are to be resolved through arbitration, at the election of the claimant, by arbitration organizations in Hong Kong or the PRC, rather than through a court of law. On June 18, 1999, an arrangement was made between Hong Kong and the PRC for the mutual enforcement of arbitral awards. This new arrangement was approved by the Supreme People s Court of the PRC and the Hong Kong Legislative Council, and became effective on February 1, 2000. We are uncertain as to the outcome of any action brought in China to enforce an arbitral award granted to shareholders.

Our auditor, like other independent registered public accounting firms operating in China, is not permitted to be subject to inspection by Public Company Accounting Oversight Board, and as such, investors may be deprived of the benefits of such inspection.

Our independent registered public accounting firm that issues the audit reports included in our annual reports filed with the SEC, as an auditor of companies that are traded publicly in the United States and a firm registered with the Public Company Accounting Oversight Board, or PCAOB, is required by the laws of the United States to undergo regular inspections by PCAOB to assess its compliance with the laws of the United States and professional standards. Because our auditor is located in China, a jurisdiction where PCAOB is currently unable to conduct inspections without the approval of the PRC authorities, our auditor, like other independent registered public accounting firms, is currently not inspected by PCAOB.

Inspections of other firms that PCAOB has conducted outside of China have identified deficiencies in those firms audit procedures and quality control procedures, which may be addressed as part of the inspection process to improve future audit quality. The lack of PCAOB inspections in China may prevent PCAOB from regularly evaluating our auditor s audits and quality control procedures. The inability of PCAOB to conduct inspections of auditors in China makes it more difficult to evaluate the effectiveness of our auditor s audit procedures or quality control procedures. As a result, investors may be deprived of the benefits of PCAOB inspections.

Table of Contents

Additional remedial measures imposed on certain PRC-based accounting firms, including our independent registered public accounting firm, in proceedings brought by the SEC alleging the firms failure to meet specific criteria, could result in financial statements being determined to not be in compliance with the requirements of the Exchange Act.

In December 2012, the SEC brought administrative proceedings against the Big Four accounting firms in China, including our independent registered public accounting firm, alleging that these firms had refused to produce audit work papers and other documents related to certain other China-based companies whose securities are publicly traded in the United States. On January 22, 2014, an initial administrative law decision was issued, censuring these accounting firms and barring these firms from practicing before the SEC for a period of six months. The decision is neither final nor legally effective unless and until it is endorsed by the SEC. In February 2015, each of the four PRC-based accounting firms agreed to a censure and to pay a fine to the SEC to settle the dispute and avoid suspension of their ability to practice before the SEC. The settlement requires the firms to follow detailed procedures to seek to provide the SEC with access to Chinese firms audit documents via the China Securities Regulatory Commission (CSRC) in response to future document requests by the SEC made through the CSRC. If the firms fail to comply with the documentation production procedures that set forth in the settlement agreement or if these required information fails to be provided to the SEC by the CSRC for reasons out of these firms control, the SEC could impose penalties such as suspensions, or it could restart the administrative proceedings.

In the event that the SEC restarts the administrative proceedings, depending upon the final outcome, listed companies in the United States with major PRC operations may find it difficult or impossible to retain auditors in respect of their operations in the PRC, which could result in financial statements being determined to not be in compliance with the requirements of the Exchange Act, including possible delisting. Moreover, any negative news about the proceedings against these audit firms may cause investor uncertainty regarding China-based, United States-listed companies and the market price of our ADSs may be adversely affected.

If our independent registered public accounting firm was denied, even temporarily, the ability to practice before the SEC and we were unable to timely find another registered public accounting firm to audit and issue an opinion on our financial statements, our financial statements could be determined not to be in compliance with the requirements of the Exchange Act. Such a determination could ultimately lead to the delay or abandonment of this offering, delisting of our ADSs from the New York Stock Exchange (NYSE) or deregistration from the SEC, or both, which would substantially reduce or effectively terminate the trading of our ADSs in the United States.

ITEM 4. INFORMATION ON THE COMPANY

A. HISTORY AND DEVELOPMENT OF THE COMPANY

Our legal and commercial name is China Petroleum & Chemical Corporation. Our head office is located at 22 Chaoyangmen North Street, Chaoyang District, Beijing 100728, the People s Republic of China, our telephone number is (8610) 5996-0028 and our fax number is (8610) 5996-0386. We have appointed our representative office in the United States, located at 515 Madison Avenue, Suite 27 West, New York, NY 10022, USA (telephone number: (212) 759-5085; fax number: (212) 759-6882) as our agent for service of processes for actions brought under the U.S. securities laws.

We were established as a joint stock limited company on February 25, 2000 under the Company Law of the PRC with Sinopec Group Company as the sole shareholder at our inception. Our principal businesses consist of petroleum and petrochemical businesses transferred to us by Sinopec Group Company pursuant to a reorganization agreement. Such businesses include:

- exploration for, development, production and marketing of crude oil and natural gas;

- refining of crude oil and marketing and distribution of refined oil products, including transportation, storage, trading, import and export of petroleum products; and

- production and sales of petrochemical products.

Sinopec Group s continuing activities primarily consist, among other things, of:

Table of Contents

- exploring and developing oil and gas reserves overseas;
- operating certain petrochemical facilities;
- providing geophysical exploration, and well drilling, survey, logging and downhole operational services;
- manufacturing production equipment and providing equipment maintenance services;
- providing construction services;
- providing utilities, such as electricity and water; and
- providing other operational services including transportation services.

Sinopec Group Company transferred the businesses to us either by transferring its equity holdings in subsidiaries or by transferring their assets and liabilities. Sinopec Group Company also agreed in the reorganization agreement to transfer to us its exploration and production licenses and all rights and obligations under the agreements in connection with its core businesses transferred to us. The employees relating to these assets were also transferred to us.

From July 8, 2015 to July 7, 2016, Sinopec Group Company increased its shareholding in the Company through acquisitions of our ordinary shares on the stock market in its own name or through other concerting parties, by way of acquiring 72,000,000 A shares, representing approximately 0.06% of our issued and outstanding shares. Immediately following the shareholding increase, Sinopec Group Company directly and indirectly held 86,345,821,101 shares of the Company, representing approximately 71.32% of our issued and outstanding shares.

On October 29, 2015, we entered into a joint venture agreement with Sinopec Assets Management Co., Ltd. (SAMC), a wholly-owned subsidiary of Sinopec Group Company, in relation to the formation of Sinopec Shanghai Gaoqiao Petrochemical Co., Ltd. (Gaoqiao). We and SAMC subscribed for 55% and 45% of the registered capital of Gaoqiao, respectively, and Gaoqiao became a subsidiary of the Company.

On August 2, 2016, our board of directors unanimously approved the proposal to introduce capitals from potential investors to invest in Sichuan-to-East China gas pipeline project, through our indirectly wholly-owned subsidiary Sinopec Sichuan-to-East China Natural Gas Pipeline

Co., Ltd. (Sichuan-to-East China Pipeline Co.). On December 12, 2016, China Life Insurance Co., Ltd. (China Life) and SDIC Communications Holding Co., Ltd. (SDIC Communications) entered into the Capital Injection Agreement in relation to Sichuan-to-East China Pipeline Co. and agreed to collectively subscribe for 50% equity interest in Sichuan-to-East China Pipeline Co. for an aggregate amount of RMB 22.8 billion in cash. Upon completion of the capital injection, China Life, SDIC Communications and us hold 43.86%, 6.14% and 50% equity interest in Sichuan-to-East China Pipeline Co., respectively.

On April 27, 2017, our board of directors unanimously approved the proposal of the acquisition of equity interest in Shanghai SECCO Petrochemical Company Limited (Shanghai SECCO) by Gaoqiao. On October 26, 2017, Gaoqiao purchased 50% equity interest in Shanghai SECCO from BP Chemicals East China Investment Limited with a cash consideration of RMB 10,135 million. Before the acquisition, we and one of our subsidiaries held 30% and 20% equity interest in Shanghai SECCO, respectively. Upon completion of the acquisition, we, together with our subsidiaries, hold 100% equity interest of Shanghai SECCO, which became a subsidiary of us.

Table of Contents

B. BUSINESS OVERVIEW

Exploration and Production

Overview

We currently explore for, develop and produce crude oil and natural gas in a number of areas in China and overseas. As of December 31, 2017, we held 217 production licenses in China, with an aggregate acreage of 31,498 square kilometers and with terms ranging from 10 to 80 years. Our production licenses may be renewed upon our application at least 30 days prior to the expiration date, which are renewable for unlimited times. During the term of our production license, we pay an annual production license fee of RMB 1,000 per square kilometer.

As of December 31, 2017, we held 211 exploration licenses in China for various blocks in which we engaged in exploration activities, with an aggregate acreage of approximately 621,500 square kilometers.

As of December 31, 2017, our overseas subsidiary held one production licenses, with an acreage of 322.57 square kilometers. It currently does not have exploration licenses. Our overseas equity-accounted investments held 72 production licenses, with an aggregate acreage of 4,783 square kilometers, and four exploration licenses.

Properties

We currently operate 295 oil and gas producing fields and blocks.

Shengli production field is our most important crude oil production field. It consists of 75 producing blocks of various sizes extending over an area of 2,559 square kilometers in northern Shandong province, all of which are our net developed acreage. Most of Shengli s blocks are located in the Jiyang trough with various oil producing layers. In 2017, Shengli production field produced 166 million barrels of crude oil and 14.38 billion cubic feet of natural gas, with an average daily production of 426 thousand BOE.

As of December 31, 2017, the total acreage of our oil and gas producing fields and blocks in China was 14,394 square kilometers, including 8,528 square kilometers of developed acreage, all of which were net developed acreage; and 5,866 square kilometers of gross undeveloped acreage, all of which were net undeveloped acreage.

As of December 31, 2017, the total acreage of our oil and gas producing fields and blocks of our overseas subsidiary was 322.57 square kilometers, including 169.21 square kilometers of developed acreage, of which 110 square kilometers were net developed acreage; and 153.36 square kilometers of gross undeveloped acreage, of which 31.8 square kilometers were net undeveloped acreage.

As of December 31, 2017, the total acreage of our oil and gas producing fields and blocks of our overseas equity-accounted investments was 1,700 square kilometers, including 1,628 square kilometers of developed acreage, of which 1,628 square kilometers were net developed acreage; and 72.4 square kilometers of gross undeveloped acreage, of which 72.4 square kilometers were net undeveloped acreage.

Oil and Natural Gas Reserves

As of December 31, 2017, our estimated proved reserves of crude oil and natural gas in China were 2,425 million BOE (including 1,261 million barrels of crude oil and 6,985 billion cubic feet of natural gas), and our estimated proved reserves of crude oil and natural gas outside of China, which included a share of the estimated proved reserves of our equity-accounted investments, were 340 million BOE. Our estimated proved reserves do not include additional quantities recoverable beyond the term of the relevant production licenses, or that may result from extensions of currently proved areas, or from application of improved recovery processes not yet tested and determined to be economical.

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

Table of Contents

Crude Oil Proved Reserves	As of December 31, 2017 (in millions of barrels)
Developed Subsidiaries	
China	1,124
Shengli	811
Others	313
Overseas	32
Subtotal	1,156
Equity-accounted investments	
China	
Overseas	273
Subtotal	273
Total Proved Developed	**1,429**
Undeveloped Subsidiaries	
China	137
Shengli	49
Others	88
Overseas	
Subtotal	137
Equity-accounted investments	
China	
Overseas	33
Subtotal	33
Total Proved Undeveloped	**170**
Total Crude Oil Proved Reserves	**1,599**

Natural Gas Proved Reserves	As of December 31, 2017 (in billions of cubic feet)
Developed Subsidiaries	
China	6,000
Puguang	2,127
Fuling	1,121
Others	2,752
Overseas	
Subtotal	6,000
Equity-accounted investments	
China	
Overseas	12
Subtotal	12
Total Proved Developed	**6,012**
Undeveloped Subsidiaries	
China	985
Puguang	
Fuling	187
Others	798
Overseas	
Subtotal	**985**
Equity-accounted investments	
China	
Overseas	
Subtotal	
Total Proved Undeveloped	**985**
Total Natural Gas Proved Reserves	**6,997**

Table of Contents

As of December 31, 2017, approximately 170 million barrels of our crude oil proved reserves and 985 billion cubic feet of our natural gas proved reserves were classified as proved undeveloped reserves in China and overseas. 2 million barrels of crude oil and 33 billion cubic feet natural gas proved reserves in China have been classified as proved undeveloped for more than five years, mainly under Sinopec Shanghai Offshore Petroleum Company, one of our subsidiaries.

During 2017, a total of 312 wells were drilled by us in China and 122 wells were drilled overseas. We converted 41 million barrels of proved undeveloped crude oil reserves and 33 billion cubic feet of proved undeveloped natural gas reserves into proved developed reserves in 2017. Proved developed reserves of natural gas increased from 724 billion cubic feet at the beginning of the year to 985 billion cubic feet at the end of the year. Total capital expenditure incurred in converting proved undeveloped reserves into proved developed reserves amounted to RMB 5.7 billion, including RMB 5.1 billion and RMB 0.6 billion incurred in connection with our operations in China and overseas, respectively, in 2017.

We manage our reserves estimation through a two-tier management system. The Oil and Natural Gas Reserves Management Committee, or the RMC, at our headquarters level oversees the overall reserves estimation process and reviews the reserves estimation of our company. Each of our Branches has a reserves committee that manages the reserves estimation process and reviews the reserves estimation report at the branches level.

Our RMC is co-led by several of our senior vice presidents and the head of our exploration and production segment. The current chairman of our RMC, Mr. Jiao Fangzheng, holds a Ph.D. degree in petroleum and natural gas engineering and has over 30 years of experience in the oil and gas industry. The rest of the members of our RMC are all senior management members in charge of exploration and development activities at production bureau level. A majority of our RMC members hold doctor s or master s degrees and our RMC members have an average of 20 years of technical experience in relevant industry fields, such as geology, engineering and economics.

Our reserves estimation is guided by procedural manuals and technical guidance. Initial collection and compilation of reserves information are conducted by different working divisions, including exploration, development and financial divisions, at production bureau level. Exploration and development divisions collectively prepare the initial report on reserves estimation. Together with technical experts, reserves management committees at production bureau level then review to ensure the qualitative and quantitative compliance with technical guidance and accuracy and reasonableness of the reserves estimation. At our headquarters level, the RMC is primarily responsible for the management and coordination of the reserves estimation process, review and approval of annual changes and results in reserves estimation and disclosure of our proved reserves. We also engage outside consultants who assist us to be in compliance with the U.S. Securities and Exchange Commission rules and regulations. Our reserves estimation process is further facilitated by a specialized reserves database which is reviewed and updated periodically.

Oil and Natural Gas Production

In 2017, we produced an average of 1,105 thousand BOE per day in China, of which approximately 61.7% was crude oil and 38.3% was natural gas. We produced an average of 124 thousand BOE per day overseas, of which 98.4% was crude oil and 1.6% was natural gas.

The following tables set forth our average daily production of crude oil and natural gas for the years ended December 31, 2015, 2016 and 2017. The production of crude oil includes condensate.

	Year Ended December 31,		
	2015	2016	2017
	(in thousands of barrels)		
Average Daily Crude Oil Production			
China	812	692	682
Subsidiaries	812	692	682
Shengli	527	464	455
Others	285	228	227
Overseas	146	138	122
Subsidiary	54	51	41
Equity-accounted investments	92	87	81
Total Crude Oil Production	958	830	804

Table of Contents

	Year Ended December 31,		
	2015	2016	2017
	(in millions of cubic feet)		
Average Daily Natural Gas Production			
China	1,952	2,083	2,490
Subsidiaries	1,952	2,083	2,490
Puguang	530	362	558
Fuling	306	486	581
Others	1,116	1,235	1,351
Overseas	11	10	10
Equity-accounted investments	11	10	10
Total Natural Gas Production	1,963	2,093	2,500

Lifting Cost & Realized Prices

The following table sets forth our average lifting costs per BOE of crude oil produced, average sales prices per barrel of crude oil and average sales prices per thousand cubic meters of natural gas for the years ended December 31, 2015, 2016 and 2017.

	Weighted Average	China (RMB)	Overseas(1)
For the year ended December 31, 2017			
Average petroleum lifting cost per BOE	107.53	111.47	85.52
Average realized sales price			
Per barrel of crude oil	332.60	327.06	363.6
Per thousand cubic meters of natural gas	1,185.53	1,185.53	
For the year ended December 31, 2016			
Average petroleum lifting cost per BOE	108.21	112.19	77.62
Average realized sales price			
Per barrel of crude oil	240.70	246.10	213.41
Per thousand cubic meters of natural gas	1,266.03	1,266.03	
For the year ended December 31, 2015			
Average petroleum lifting cost per BOE	109.70	111.56	72.20
Average realized sales price			
Per barrel of crude oil	283.72	280.74	316.15
Per thousand cubic meters of natural gas	1,519.83	1,519.83	

(1) The exchange rates we used for overseas data in this table were exchange rates for each year ended December 31, 2015, 2016 and 2017, which were RMB 6.2284 to US$1.00, RMB 6.6400 to US$ 1.00 and RMB 6.7518 to US$ 1.00, respectively.

Exploration and Development Activities

In the low oil price environment in 2017, we prioritized low-cost and high-quality exploration activities. We continued our efforts in exploration activities, focused on increasing efficiency and effectiveness, reducing our inefficient crude oil production and high cost activities, and

completed the construction of the second phase of our Fuling shale gas project.

Table of Contents

The following table sets forth the numbers of our exploratory and development wells, including a breakdown of productive wells and dry wells we drilled during the years ended December 31, 2015, 2016 and 2017.

	As of December 31,											
	2015				2016				2017			
Number of	Exploratory		Development		Exploratory		Development		Exploratory		Development	
Drilled Wells	Productive	Dry	Productive	Dry	Productive	Dry	Productive	Dry	Productive	Dry	Productive	Dry
China	373	195	1,801	25	266	149	801	6	266	149	1,442	9
Subsidiaries	373	195	1,801	25	266	149	801	6	266	149	1,442	9
Shengli	150	73	1,020	18	166	73	462	5	151	71	845	1
Others	223	122	781	7	100	76	339	1	115	78	597	8
Overseas		1	149	1	2	1	99		2	1	119	
Subsidiaries			5									
Equity-accounted investments		1	144	1	2	1	99		2	1	119	
Total	373	196	1,950	26	268	150	900	6	268	150	1,561	9

The following table sets forth the number of wells being drilled by us as of December 31, 2017, as compared to December 31, 2016:

	As of December 31,							
	2016				2017			
	Gross		Net		Gross		Net	
Number of Drilling Welling	Exploratory	Development	Exploratory	Development	Exploratory	Development	Exploratory	Development
China	78	138	78	138	62	147	62	147
Subsidiaries	78	138	78	138	62	147	62	147
Shengli	28	21	28	21	19		19	
Others	50	117	50	117	43	147	43	147
Overseas		2		2		5		5
Subsidiaries								
Equity-accounted investments		2		2		5		5
Total	78	140	78	140	62	152	62	152

The following table sets forth our number of productive wells for crude oil and natural gas as of December 31, 2017, as compared to December 31, 2016:

	As of December 31,					
	2015		2016		2017	
Productive Wells for Crude Oil	Gross	Net	Gross	Net	Gross	Net
China	49,662	49,662	49,921	49,921	50,121	50,121
Subsidiaries	49,662	49,662	49,921	49,921	50,121	50,121
Shengli	31,547	31,547	32,019	32,019	32,105	32,105
Others	18,115	18,115	17,902	17,902	18,016	18,016
Overseas	6,913	3,122	7,432	3,614	7,350	3,968
Subsidiaries	28	15	28	14	28	14
Equity-accounted investments	6,885	3,107	7,404	3,600	7,322	3,954

Total	56,575	52,784	57,353	53,535	57,471	54,089

Table of Contents

	As of December 31,					
	2015		2016		2017	
Productive Wells for Natural Gas	**Gross**	**Net**	**Gross**	**Net**	**Gross**	**Net**
China	4,758	4,727	4,966	4,932	4,800	4,762
Subsidiaries	4,758	4,727	4,966	4,932	4,800	4,762
Puguang	55	55	57	57	57	57
Fuling	175	175	253	253	266	266
Others	4,528	4,497	4,656	4,622	4,477	4,439
Total	4,758	4,727	4,966	4,932	4,800	4,762

Refining

Overview

In 2017, our refinery throughputs were approximately 239 million tonnes. We produce a full range of refined oil products. The following table sets forth our production of our principal refined oil products for the years ended December 31, 2015, 2016 and 2017.

	Year Ended December 31,		
	2015	2016	2017
		(in million tonnes)	
Gasoline	53.98	56.36	57.03
Diesel	70.05	67.34	66.76
Kerosene	24.35	25.47	26.88
Light chemical feedstock	38.81	38.54	38.60
Liquefied petroleum gas	11.58	12.12	12.37
Fuel oil	1.48	0.94	0.80

Gasoline and diesel are our largest revenue-generating products, and are sold mostly through our marketing and distribution segment through both wholesale and retail channels. We use most of our production of chemical feedstock as feedstock for our own chemical operations. Most of our other refined oil products were sold in China to a wide variety of industrial and agricultural customers, and a small amount is exported.

Refining Facilities

Currently we operate 30 refineries in China. As of December 31, 2017, our total primary distillation capacity of crude oil was 295 million tonnes per annum.

The following table sets forth our total primary distillation capacity per annum of crude oil and refinery throughputs as of and for the years ended December 31, 2015, 2016 and 2017.

	As of and for the Year Ended December 31,		
	2015	2016	2017
Primary distillation capacity of crude oil (million tonnes per annum)(1)	293.2	294.7	294.7
Refinery throughputs (million tonnes)(2)	236.5	235.5	238.5

(1) The primary distillation capacity and refinery throughputs of joint ventures are fully included in our statistics.

(2) When calculating refinery throughputs, conversion from tonnes to barrels are made at a rate of one tonne to 7.35 barrels.

In 2017, our gasoline yield was 22.08%, diesel yield was 25.84%, kerosene yield was 10.41%, and light chemical feedstock yield was 14.94%. Other products include lubricant, liquefied petroleum gas, solvent, asphalt, petroleum coke, paraffin and fuel oil. For the years ended December 31, 2015, 2016 and 2017, our overall yield for all refined oil products at our refineries was 94.75%, 94.70% and 94.88%, respectively.

The following table sets forth the primary distillation capacity per annum as of December 31, 2017 of each of our refineries with the primary distillation capacity of 8 million tonnes or more per annum.

Table of Contents

Refinery	Primary Distillation Capacity as of December 31, 2017 (in million tonnes per annum)
Maoming	23.5
Zhenhai	23.0
Jinling	21.0
Shanghai	16.0
Qilu	14.0
Yangzi	14.0
Fujian	14.0
Tianjin	13.8
Guangzhou	13.2
Gaoqiao	13.0
Qingdao	12.0
Changling	11.5
Yanshan	11.0
Shijiazhuang	10.0
Jiujiang	10.0
Hainan	9.2
Luoyang	8.0
Wuhan	8.0

In 2017, our primary distillation capacity of crude oil remained the same. In addition, in 2017, our hydrofining capacity increased by 1.8 million tonnes per annum. The revamping projects for a number of refining facilities to improve refined oil product quality were also completed and put into operation.

Source of crude oil

In 2017, approximately 88% of the crude oil required for our refinery business was imported.

Marketing and Sales of Refined Oil Products

Overview

We operate the largest sales and distribution network for refined oil products in China. In 2017, we distributed and sold approximately 178 million tonnes of gasoline, diesel and kerosene domestically. Most of the refined oil products sold by us are produced internally. In 2017, approximately 67% of our gasoline sales volume and approximately 78% of our diesel sales volumes were produced internally.

The table below sets forth a summary of key data in the marketing and sales of refined oil products in the years of 2015, 2016 and 2017.

	As of December 31,		
	2015	2016	2017
Total sales volume of refined oil products (in million tonnes)	189.33	194.84	198.75
Domestic sales volume of refined oil products (in million tonnes)	171.37	172.70	177.76
Retail	119.03	120.14	121.56
Wholesale and Distribution	52.34	52.56	56.20
Average annual throughput of service stations (in tonnes per station)	3,896	3,926	3,969

	As of December 31,		
	2015	2016	2017
Total number of service stations under Sinopec brand	30,560	30,603	30,633
Self-operated service stations	30,547	30,597	30,627

Retail

All of our retail sales are made through a network of service stations and petroleum shops operated under the Sinopec brand. Through this unified network we are able to implement consistent pricing policies, maintain both product and service quality standards and more efficiently deploy our retail network.

Table of Contents

In 2017, we sold approximately 121.56 million tonnes of gasoline, diesel and kerosene through our retail network, representing approximately 68.4% of our total domestic gasoline, diesel, jet fuel and kerosene sales volume. Our retail network mainly consists of service stations that are wholly-owned and operated by us, and jointly-owned and generally operated or leased by us, all of which are operated under the Sinopec brand. We also franchised the Sinopec brand to third parties services stations. As of December 31, 2017, we had 6 franchised service stations that are owned and operated by third parties. In 2017, the average annual throughput of our service stations increased slightly from 2016, and we have further strengthened our leading position in our principal market, and further improved our brand awareness and customer loyalty.

Wholesale and Distribution

In 2017, we sold approximately 56.20 million tonnes of refined oil products, including 10.76 million tonnes of gasoline, 28.77 million tonnes of diesel and 16.67 million tonnes of kerosene, through wholesale and distribution to independent distributors such as domestic industrial enterprises, hotels, restaurants and agricultural producers and long-term large-scale end users such as railways, airlines, shipping and public utilities.

We operate 353 storage facilities with a total capacity of approximately 18.58 million cubic meters, substantially all of which are wholly-owned by us. These storage facilities and our wholesale centers are connected to our refineries by railway, waterway and pipelines. We also own some dedicated railways, oil wharfs and oil barges, as well as a number of rail tankers and oil trucks.

Chemicals

Overview

We are the largest petrochemicals producer and distributor in China, with our petrochemical production plants located in economically developed regions such as central, eastern and southern China. We produce and distribute a full range of chemical products including intermediate petrochemicals, synthetic resins, synthetic fiber monomer and polymers, synthetic fibers and synthetic rubber. Synthetic resins, synthetic fibers, and synthetic rubber comprise a significant majority of our external sales. Synthetic fiber monomer and polymers and intermediate petrochemicals, on the other hand, are mostly internally consumed as feedstock for the production of other chemical products. Our chemical operations are integrated upstream and downstream with our refining businesses, which supply a significant portion of our chemical feedstock such as naphtha. Due to the high demand in China, we sell substantially all of our chemical products in China.

Products

Intermediate Petrochemicals

We are the largest ethylene producer in China. Our rated ethylene capacity as of December 31, 2017 was 11.13 million tonnes per annum. In 2017, we produced 11.61 million tonnes of ethylene. Nearly all of our olefins production is used as feedstock for our petrochemical operations.

We produce aromatics mainly in the forms of benzene and para-xylene, which are used primarily as feedstock for purified terephthalic acid, or PTA, the preferred raw material for polyester. We are the largest aromatics producer in China.

Chemicals extracted from olefins and aromatics are mainly used to produce synthetic resins, synthetic rubber and synthetic fibers, as well as intermediate petrochemicals.

The following table sets forth our rated capacity per annum, production volume and major plants of production as of or for the year ended December 31, 2017 for our principal intermediate chemical products.

Table of Contents

	Our Rated Capacity (thousand tonnes per annum)	Our Production (thousand tonnes)	Major Plants of Production
Ethylene	11,128	11,610	Yanshan, Shanghai, Yangzi, Qilu, Maoming, Guangzhou, Tianjin, Zhongyuan, Shanghai SECCO*, BASF-YPC*, Fujian, Zhongsha (Tianjing)*, Zhenhai, Sino-Korean (Wuhan)* and Great Wall EC*
Propylene	10,210	9,397	Yanshan, Shanghai, Yangzi, Qilu, Maoming, Guangzhou, Tianjin, Zhongyuan, Shanghai SECCO*, BASF-YPC*, Jinling, Anqing, Qingdao, Hainan, Fujian, Zhongsha (Tianjing)*, Zhenhai, Sino-Korean (Wuhan)* and Great Wall EC*
Benzene	5,363	4,155	Yanshan, Shanghai, Yangzi, Qilu, Guangzhou, Zhenhai, Tianjin, Luoyang, Shanghai SECCO*, BASF-YPC*, Fujian*, Maoming, Hainan and Sino-Korean (Wuhan)*, Jinling
Styrene	2,303	2,349	Zhenhai, Yanshan, Qilu, Guangzhou, Maoming, Shanghai SECCO*, Anqing and BASF-YPC*
Para-xylene	4,839	4,625	Shanghai, Yangzi, Qilu, Tianjin, Luoyang, Zhenhai, Jinling, Fujian* and Hainan
Phenol	758	709	Yanshan, Gaoqiao and Zhongsha (Tianjin)*

* Joint ventures, of which the production capacities and outputs are fully included in our statistics; Shanghai SECCO became our wholly owned subsidiary in November 2017.

Synthetic Resins

We are the largest producer of polyethylene, polypropylene and polystyrene and supplier of major synthetic resins products in China.

The following table sets forth our rated capacity per annum, production volumes and major plants of production for each of our principal synthetic resins as of or for the year ended December 31, 2017.

	Our Rated Capacity (thousand tonnes per annum)	Our Production (thousand tonnes)	Major Plants of Production
Polyethylene	7,564	7,486	Yanshan, Shanghai, Yangzi, Qilu, Maoming, Guangzhou, Tianjin,

			Zhongyuan, Shanghai SECCO*, BASF-YPC*, Fujian, Zhongsha (Tianjing)*, Zhenhai, Sino-Korean (Wuhan)* and Great Wall EC*
Polypropylene	7,409	7,082	Yanshan, Shanghai, Yangzi, Qilu, Guangzhou, Maoming, Tianjin, Zhongyuan, Shanghai SECCO*, Fujian, Zhongsha (Tianjing)*, Zhenhai, Sino-Korean (Wuhan)* , Great Wall EC*, Luoyang, Jiujiang, Jingmen, Hainan, Beihai, and Shijiazhuang
Polyvinyl chloride	600	203	Qilu
Polystyrene	698	630	Yanshan, Qilu, Maoming, Guangzhou, and Shanghai SECCO*
Acrylonitrile butadiene styrene	200	180	Gaoqiao

* Joint ventures, of which the production capacities and outputs are fully included in our statistics; Shanghai SECCO became our wholly owned subsidiary in November 2017.

Table of Contents

Synthetic Fiber Monomers and Polymers

Our principal synthetic fiber monomers and polymers are purified terephthalic acid, ethylene glycol, acrylonitrile, caprolactam, polyester, polyethylene glycol and polyamide fiber. Based on our 2017 production, we are the largest producer of ethylene glycol and caprolactam in China.

The following table sets forth our rated capacity per annum, our production volume and major plants of production as of or for the year ended December 31, 2017 for each type of our principal synthetic fiber monomers and polymers.

	Our Rated Capacity (thousand tonnes per annum)	Our Production (thousand tonnes)	Major Plants of Production
Purified terephthalic acid	3,119	2,248	Shanghai, Yangzi, Yizheng, Tianjin and Luoyang
Ethylene glycol	3,209	2,690	Yanshan, Shanghai, Yangzi, Tianjin, Maoming, BASF-YPC*, Zhongsha (Tianjing)*, Zhenhai
Acrylonitrile	1,070	979	Anqing, Qilu and Shanghai SECCO*
Caprolactam	709	589	Baling and Shijiazhuang
Polyester	3,393	2,723	Shanghai, Yizheng, Tianjin and Luoyang

* Joint ventures, of which the production capacities and outputs are fully included in our statistics; Shanghai SECCO became our wholly owned subsidiary in November 2017.

Synthetic Fibers

We are the largest producer of acrylic fibers in China. Our principal synthetic fiber products are polyester fiber and acrylic fiber.

The following table sets forth our rated capacity per annum, production volume and major plants of production for each type of our principal synthetic fibers as of or for the year ended December 31, 2017.

	Our Rated Capacity (thousand tonnes per annum)	Our Production (thousand tonnes)	Major Plants of Production
Polyester fiber	1,231	1,006	Yizheng, Shanghai, Tianjin and Luoyang
Acrylic fiber	265	208	Shanghai, Anqing and Qilu

Table of Contents

Synthetic Rubbers

Our principal synthetic rubbers are cis-polybutadiene rubber, styrene butadiene rubber, or SBR, styrene butadiene-styrene thermoplastic elastomer and isobutadiene isoprene rubber, or IIR. Based on our 2017 production, we are the largest producer of SBR and cis-polybutadiene rubber in China.

The following table sets forth our rated capacity per annum, production volume and major plants of production as of or for the year ended December 31, 2017 for each of our principal synthetic rubbers.

	Our Rated Capacity (thousand tonnes per annum)	Our Production (thousand tonnes)	Major Plants of Operation
Cis-polybutadiene rubber	420	363	Yanshan, Qilu, Maoming and Yangzi
Styrene butadiene rubber	430	316	Qilu, Gaoqiao and Yangzi
Styrene-butadiene-styrene thermoplastic elastomers	340	96	Yanshan and Maoming
Isobutylene isoprene rubber	125	13	Yanshan
Isoprene rubber	30		Yanshan
Ethylene propylene rubber	75	62	Gaoqiao

Marketing and Sales of Petrochemicals

The central, eastern and southern regions in China, where most of our petrochemical plants are located, constitute the major petrochemical market in China. Our proximity to the major petrochemical market gives us a geographic advantage over our competitors.

The prices of petrochemical products in China have become market-oriented. Our principal sales channels consist of (i) direct sales to domestic and foreign large- and medium-sized manufacturing enterprises, which account for more than 74% of our direct sales, (ii) sales to distributors, who are responsible for sales and distribution to a portion of our smaller and scattered customers or specific customers, and (iii) sales of chemical products through our e-commerce platform Chem E-Mall , which effectively expands our traditional sales channels and provides new options for procurement.

Competition

According to the Measures for the Administration of Overseas Investment of Enterprises (Decree No. 11 of 2017 of the National Development and Reform Commission), when an investment entity conducts overseas investment, it shall undergo the formalities for the confirmation or recordation of overseas investment projects, report relevant information, and cooperate in supervision and inspection. The scope of implementation of confirmation management is sensitive projects conducted by investors directly or through overseas enterprises controlled by them, including projects involving sensitive countries and regions, and projects involving sensitive industries. The scope of the implementation

of recordation management is non-sensitive projects that are directly conducted by investors, namely, non-sensitive projects that involve investors direct contribution of assets or rights and interests or provision of financing or security. The confirmation or recordation authority is the National Development and Reform Commission (NDRC).

In accordance with the Administrative Measures Confirmation or Recordation of Overseas Investment Projects (NDRC Decree No. 9 of 2014) and the Decision of NDRC on Amending the Relevant Clauses of the Administrative Measures for the Confirmation or Recordation of Outbound Investment Projects and Administrative Measures for the Approval and Record-Filing of Foreign Investment Projects (NDRC Decree No. 20), overseas investment projects involving sensitive countries or regions or sensitive industries shall be confirmed by NDRC, among which, projects with the amount of Chinese investment over US$ 2 billion shall be subject to an examination opinion of NDRC after being reported to the State Council for confirmation. All other projects, including those by enterprises directly administered by the SASAC and local enterprises with an investment size over US$3 billion, will require only a recordation with NDRC.

Table of Contents

Pursuant to the Anti-Monopoly Law of the PRC which became effective on August 1, 2008, when market concentration by business carriers through merger, acquisition of control through shares or assets acquisition, or acquisition of control or the ability to exercise decisive influence over other business carriers by contract or by other means reaches a threshold of declaration level prescribed by the State Council, the business carriers shall declare in advance to the Anti-monopoly Law enforcement agency, otherwise, the business carriers shall not implement such market concentration.

Refining and Marketing of Refined Oil Products

Market participants compete primarily on the basis of wide-established sales network and logistics system, quality of products and service, efficiency of operations including proximity to customers, awareness of brand name and price. While we constantly face competition from other market participants, we believe that we have a competitive advantage in our principal market against our competitors.

Chemicals

We compete with domestic and foreign chemicals producers in the chemicals market. We adopt the strategy of one product one policy, one customer one case to meet customers needs, tailor supply secured plans for customers, provide customized services, and strive to create value for customers. Our petrochemical production facilities proximity to customers has given us significant regional advantages over our competitors in terms of easy access to our customers, resulting in lower transportation costs, more reliable delivery of products and better service to customers.

Patents and Trademarks

In 2017, we were granted 3,640 patents in China and overseas. As of December 31, 2017, we owned a total of 25,931 patents in China and overseas.

In 2017, we have 391 material trademarks approved internally, among which 241 are registered in China and 150 registered overseas.

Business Operations Relating to Iran Threat Reduction and Syria Human Rights Act of 2012

In 2017, we sourced approximately 8.57% of our total refinery throughputs of crude oil from Iran. In addition, we engaged in a small amount of trading activities with an Iranian company which generated us a net profit of approximately US$2.32 million.

Based on feedback to our inquiries to Sinopec Group Company, our controlling shareholder, Sinopec Group Company engaged in a small amount of business activities in Iran such as providing engineering services and designs. Sales revenue from these business activities accounted for 0.0001% of its total unaudited sales revenue.

Since we have performance obligations under our Iran-related contracts, we are contractually required to continue our performance under our Iran-related contracts in 2018.

Regulatory Matters

Overview

China s petroleum and petrochemical industry has seen significant liberalization in the past ten years. However, the exploration, production, marketing and distribution of crude oil and natural gas, as well as the production, marketing and distribution of certain refined oil products are still subject to regulation of many government agencies including:

National Development and Reform Commission (NDRC)

NDRC is responsible for formulating and implementing key policies in respect of petroleum and petrochemical industry, including:

Table of Contents

- Formulating guidance plan for annual production, import and export amount of crude oil, natural gas and petroleum products nationwide based on its forecast on macro-economic conditions in China;

- Setting the pricing policy for refined oil products;

- Approving certain domestic and overseas resource investment projects which are subject to NDRC s approval as required by the Catalogue of Investment Projects Approved by the Government in effect; and

National Energy Administration (NEA)

NEA is primarily responsible for the formulation of energy development plans and annual directive plans, approving major energy-related projects and facilitating the implementation of sustainable development of energy strategies, coordinating the development and utilization of renewable energies and new energies, and organizing matters relating to energy conservation and comprehensive utilization as well as environmental protection for the energy industry.

The Ministry of Commerce (MOFCOM)

MOFCOM is responsible for the record-filing of Sino-foreign equity joint venture contracts and Sino-foreign cooperation joint venture contracts, and monitoring the foreign investors oil and gas exploration projects in the PRC. It is responsible for approving or filing of the overseas investment by PRC enterprises and issuing the enterprise overseas investment certificate and quotas and licenses for import and export of crude oil and refined oil products. According to the law, MOFCOM is also responsible for supervising, approving and record-filing of foreign investment (excluding financial investment) of domestic enterprises.

Ministry of Land and Resources (MLR)

The MLR is responsible for issuing the licenses that are required to explore and produce crude oil and natural gas in China.

Regulation of Exploration and Production

Exploration and Production Rights

The PRC Constitution provides that all mineral and oil resources belong to the state. In 1986, the Standing Committee of the National People s Congress passed the Mineral Resources Law which authorizes the Ministry of Land and Resources, or the MLR, to exercise administrative authority over the exploration and production of the mineral and oil resources within the PRC, including its territorial waters. 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 grant exploration licenses and production licenses on a competitive bidding or other basis it considers appropriate. Applicants for these licenses must be companies approved by the State Council to engage in oil and gas exploration and production activities. Currently, we are one of the few companies that have received such exploration licenses and production licenses in oil and gas industry. In addition, pursuant to the Regulation on the Administration of Geological Survey Qualifications promulgated by the State Council, which became effective from July 1, 2008, any entity engaging in geological survey activities shall obtain a geological survey qualification certificate. Oil and natural gas survey qualifications, among others, shall be examined, approved and granted by the MLR.

Applicants for exploration licenses must first submit applications to the MLR with respect to blocks in which they intend to engage in exploration activities. The holder of an exploration license is obligated to make an annual minimum exploration investment and pay annual exploration license fees, ranging from RMB 100 to RMB 500 per square kilometer, relating to the exploration blocks in respect of which the license is issued. The maximum term of an oil and gas exploration license is 7 years. Such exploration license may be renewed upon application by the holder at least 30 days prior to expiration date, with each renewal for a maximum two-year term. Under the PRC laws and regulations, we are entitled for reductions and exemptions of exploration license fees for exploration in the western, offshore and northeastern regions of China.

Table of Contents

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 proved. The progressive oil and gas exploration and production license has a maximum term of 15 years. When the reserves become proved for a block, the holder must apply for a full production license in order to undertake production.

The MLR issues full production licenses to applicants on the basis of the reserve reports approved by relevant authorities. The maximum term of a full production license is 30 years unless a special dispensation is given by the State Council. Due to a special dispensation granted to us by the State Council, the maximum term of our full production licenses is 80 years. The full production license is renewable upon application by the holder at least 30 days prior to expiration of the original term. A holder of the full production license has to pay an annual full production right usage fee of RMB 1,000 per square kilometer.

Exploration and production licenses do not grant the holders the right to enter upon any land for the purpose of exploration and production. Holders of exploration and production licenses must separately obtain the right to use the land covered by the licenses, and if permissible under applicable laws, current owners of the rights to use such land may transfer or lease the land to the license holder.

Incentives for Shale Gas Development

In order to incentivize the exploration, discovery and development of China s shale gas reserves, to increase the supply of natural gas and to relieve the imbalance between supply and demand of natural gas, the Ministry of Finance of China and China National Energy Administration issued the Notice on Subsidy for Shale Gas Development and Utilization (Ministry of Finance No. 847 [2012]), pursuant to which the central government will subsidize shale gas production companies at a rate of RMB 0.4 per cubic meter of shale gas produced from 2012 to 2015.

China National Energy Administration issued the Shale Gas Industry Policy (NEA No. 5 [2013]) in October, 2013, which classifies shale gas as a national strategic new industry and calls for more fiscal support for exploration and development of shale gas. In particular, subsidies should be given directly to a shale gas production company according to the amount of its shale gas development and utilization. Local governments are also encouraged to provide subsidies to shale gas production companies, with the subsidy amount to be determined by local fiscal authorities. The Policy also reduces or waives compensatory fee for mineral resources, license and royalty fees for shale gas production companies. For encouraged projects like shale gas exploration and discovery, the policy also waives customs duty for imported equipment and machineries that cannot be manufactured domestically in accordance with relevant regulations.

In April 2015, to facilitate the development of the shale gas industry, the Ministry of Finance of China and China National Energy Administration issued the Notice on Fiscal Subsidies for Shale Gas Development and Utilization (Ministry of Finance No. 112 [2015]) to further implement the policy of fiscally subsidizing the shale gas industry during the period of the thirteenth five-year plan, and the subsidy will be RMB 0.3 per cubic meter of shale gas produced and RMB 0.2 per cubic meter of shale gas produced from 2016 to 2018 and from 2019 to 2020, respectively.

Price Controls on Crude Oil

According to the Measures for Administration of Petroleum Products Price (for Trial Implementation) issued by NDRC on March 26, 2013, the crude oil price shall be determined by the enterprises on their own accord, by reference to the international market price. The price for supplying crude oil by us and CNPC to each other shall be determined by both the parties upon consultation in accordance with the principle that the cost for transporting domestic crude oil to the refinery is equivalent to the cost for importing crude oil from international market to the refinery. The price for providing crude oil by us and the CNPC to local refineries shall be determined in reference to the supply prices between the two corporations. The price of crude oil produced by CNOOC or other enterprises shall be determined on their own accord by reference to the international market price.

According to the Measures for Administration of Petroleum Products Price issued by NDRC on January 13, 2016, the crude oil price shall be determined by the enterprises on their own accord, by reference to the international market price.

Table of Contents

Price Controls on Natural Gas

In recent years, the pace of market-oriented natural gas price reforms has accelerated significantly. In April 2015, according to the change in the price of alternative energy, NDRC has reduced the price of non-residential incremental natural gas by RMB 0.44 per cubic meter, increased the price of stock natural gas by RMB 0.04 per cubic meter, and unified the stock natural gas and incremental natural gas prices. In November 2015, pursuant to the general guideline of furthering the price reform of resource products, NDRC released the Circular on Adjustment of the City-Gate Price of Non-Residential Stock Natural Gas (NDRC Pricing Circular 2688[2015]) to further liberalize the pricing of natural gas by replacing the reference ceiling price for city-gate prices of non-residential stock natural gas with a reference base rate. Starting from November 2016, suppliers and buyers may determine through negotiations the specific prices, subject to the cap of 120% of the reference base rate. In October 2016, NDRC has gradually relaxed the control over service prices for gas prices used for fertilizer production, determined that the relevant prices of gas storage facilities were market-oriented, and launched a trial reform of the marketization of city-gate prices in Fujian Province. The city-gate prices for the supply of natural gas in Fujian Province were determined by the supplying and demanding parties through consultation, which further promoted the market-oriented reform of natural gas prices.

In August 2017, based on the results of the supervision and review of the pricing of natural gas pipelines, NDRC adjusted the pipeline transportation prices, and issued the Notice on Reducing the Non-Residential Natural Gas Reference City-Gate Price (NDRC Pricing Circular 1582[2017]) in conjunction with the adjustment of the natural gas value-added tax rate. Since September 1, 2017, the non-residential natural gas reference city-gate prices have been reduced by RMB 0.1 per cubic meter. NDRC encouraged the natural gas production and operation enterprises and users to actively enter the natural gas trading platform, and the prices of natural gas that have been openly traded on trading platforms such as the Shanghai Oil and Gas Exchange Center and Chongqing Oil and Gas Exchange Center are formed by the market. The marketization of domestic natural gas prices is further enhanced.

Regulation of Pipelines Networks

In October 2016, NDRC issued the Interim Provisions for Management Measures of Natural Gas Pipeline Transmission Prices and the Interim Provisions for Supervision and Review of Natural Gas Pipeline Transmission Cost (NDRC Pricing Circular 2142[2016]).

In August 2017, according to the Interim Provisions for Management Measures of Natural Gas Pipeline Transmission Prices and the Interim Provisions for Supervision and Review of Natural Gas Pipeline Transmission Cost, after the supervision and review of the pricing of natural gas interprovincial pipelines, NDRC issued the Notice on Ratifying the Natural Gas Pipeline Transmission Prices (NDRC Pricing Circular 1581[2017]) to adjust the prices of natural gas interprovincial pipelines. Since September 1, 2017, based on the pipeline transmission prices (traffic price rate) of the Sichuan-East Gas Pipeline and Yulin-Jinan Pipeline published by the NDRC, along the transportation distance of the natural gas inlet and export, we have calculated and determined the prices of the gas transmission points for Sichuan-East Gas Pipeline and the Yulin-Jinan Pipeline and published the list of prices on our official website.

Regulation of Refining and Marketing of Refined Oil Products

Gasoline and Diesel Prices

Gasoline and diesel prices are government-guided.

In March 2013, NDRC released Circular on Establishment of Sound Price Formation Mechanism of Refined Oil Products (NDRC Pricing Circular 624[2013]), which specified that a reformed refined oil product price formation mechanism shall include: shortening of the refined oil product price adjustment period to 10 working days; elimination of the 4% price fluctuation on international market as a prerequisite for price adjustment; adjustment of the composition of benchmarked crude oil as a reference for domestic oil product prices. To save social resources, if the assessed adjustment in domestic refined oil product prices is less than RMB 50 per tonne, the adjustment will be postponed to next period. In cases of special conditions such as significant increase in domestic CPI, significant emergencies or significant fluctuations of crude oil price on international market which may trigger adjustment of domestic refined oil price, NDRC may implement ad hoc suspension, delay or narrowing of price adjustment upon the approval by the State Council. Upon elimination of the special conditions, the price formation mechanism may resume operation after NDRC obtains the State Council s for approval.

Table of Contents

On September 16, 2013, a Circular of Relevant Opinions on Pricing Policies for Upgrading Oil Product Quality (NDRC Pricing Circular 1845[2013]) was promulgated by NDRC. The Circular provides that the prices of gasoline and diesel products shall be increased if the quality of such products is upgraded. For standard gasoline and diesel products that are upgraded to GB IV standards, their prices shall be raised by RMB 290 per tonne and RMB 370 per tonne, respectively; for gasoline and diesel products that are upgraded from GB IV to GB V standards, their price shall be raised by RMB 170 per tonne and RMB 160 per tonne, respectively. Prices for regular diesel shall be benchmarked against automobile diesel with same specification.

On January 13, 2016, NDRC made further adjustments to the pricing mechanism for refined oil products, effective immediately. When benchmark crude oil price falls below US$ 40/bbl, NDRC will not further adjust oil product prices, the unadjusted portion would be transferred into a risk fund, which can be used for energy conservation and emission reduction, refined oil product quality upgrading and security of and gas supply upon approval by relevant departments.

Jet Fuels Price

During the transition period, the ex-factory price of the jet fuels (standard) will temporarily be determined by the buyers and the sellers, subject to a limit of no more than the CIF post-duty price in the Singapore market.

Regulation of Crude Oil and Refined Oil Products Market

On December 4, 2006, Ministry of Commerce of the PRC promulgated the Administrative Rules for Crude Oil Market and Administrative Rules for Refined Oil Products Market to open the wholesale market of crude oil and refined oil products to new market entrants, respectively.

The Notice of the National Energy Administration on Issuing the Measures for the Supervision and Administration of Fair Opening of Oil and Gas Pipelines Network Facilities (for Trial Implementation) (NEA No. 84 [2014]) requires that (i) oil and gas pipelines network facilities operating enterprises, in case of spare capacity of oil and gas pipelines network facilities, shall equally provide their pipeline network facilities to main third-party market players and provide transportation, storage, gasification, liquefaction, compression, and other services; (ii) the transportation (storage, gasification, etc.) prices determined by the pricing authorities in accordance with the relevant administrative provisions shall be implemented for the opening of oil and gas pipelines network facilities; (iii) oil and gas pipelines network facilities operating enterprises shall disclose the access standards, transportation (storage and gasification) prices, conditions for application for access, acceptance procedures, and other information on oil and gas pipelines network facilities on the websites or the information platforms designated by the National Energy Administration on a quarterly basis; and (iv) oil and gas pipeline network facilities operating enterprises shall submit the relevant status of oil and gas pipelines network facilities to the National Energy Administration or its dispatched offices semiannually.

Investment

Overseas investments by Chinese enterprises (other than financial enterprises) involving sensitive countries or regions or sensitive industries shall be submitted to MOFCOM for approval, and other overseas investments by Chinese enterprises will only need to submit a filing with

MOFCOM or its regional branches.

On June 28, 2017, NDRC and MOFCOM jointly issued the Catalogue of Industries for Guiding Foreign Investment (Revision 2017), which came into force on July 28, 2017. The catalogue further reduces the restrictive measures for foreign investment, promotes the substantial relaxation of foreign investment access, and enhances the level of opening of industries of services, manufacturing and mining. It also explicitly presents a negative list for foreign investment access.

According to the Measures for Supervision and Administration of Overseas Investment by Central Enterprises (SASAC Decree No. 35[2017]) promulgated by the State-owned Assets Supervision and Administration Commission of the State Council, central enterprises shall establish a negative list for overseas investment. The foreign investment projects listed in the special supervision category of the negative list shall be submitted to the SASAC for approval.

Table of Contents

In accordance with the Administrative Measures for Overseas Investments (MOFCOM Order No. 3[2014]) issued by MOFCOM, overseas investments involving sensitive countries (regions) and sensitive shall be approved by MOFCOM. All other investments swill require only a filing with MOFCOM.

Under the State Council s Decision on Investment System Reform (State Council No.20[2004]), investments without the use of government funds are only subject to a licensing system or a registration system, as the case may be. Under the current system, only significant projects and the projects of restrictive nature are subject to approval so as to maintain social and public interests, and all other projects of any investment scale are only subject to a registration system.

Taxation, Fees and Royalty

Companies which operate petroleum and petrochemical businesses in China are subject to a variety of taxes, fees and royalties.

Effective from December 1, 2014, the rate of mineral resource compensation charges on crude oil and natural gas is reduced to zero, and the applicable resource tax rate is correspondingly increased from 5% to 6%.

Effective from January 1, 2015, the threshold of the special oil income levy is increased from US$55 to 65 per barrel, and a five-level progressive rate is applied to special oil income levy collection based on the sale prices.

From November 29, 2014 to January 12, 2015, the unit tax amount of consumption tax on gasoline, naphtha, solvent and lubricant have been adjusted three times and the current applicable consumption tax rates are set forth in the table below. For further information about consumption tax rates, see Note 6 to our consolidated financial statements.

Effective from May 1, 2016, business tax has been completed replaced by value-added tax to cover all the business sectors that used to fall under the business tax regime.

In April 2017, the State Council issued a notice to implement the reform of the existing mineral resources income levy system, in which the existing license fees of exploration rights and production rights will be integrated into mining rights occupancy fees, and will be dynamically adjusted based on the changes in mineral product prices and economic development needs. Collection methods and standards have not yet been released.

Applicable tax, fees and royalties on refined oil products and other refined oil products generally payable by us or by other companies in similar industries are shown below.

33

Table of Contents

Tax Item	Tax Base	Tax Rate/Fee Rate
Enterprise income tax	Taxable income	25% effective from January 1, 2008.
Value-added tax	Revenue	11% for liquefied petroleum gas, natural gas, and low density polyethylene for production of agricultural film and fertilizers and 17% for other items. 6%, 11% and 17% for taxable services. We generally charge value-added tax to our customers at the time of settlement on top of the selling prices of our products on behalf of the taxation authority. We may directly claim refund from the value-added tax collected from our customers for value-added tax that we paid for (i) purchasing materials consumed during the production process; and (ii) charges paid for drilling and other engineering services.
Consumption tax	Aggregate volume sold or self-consumed	Effective from January 13, 2015, RMB 1.52 per liter for gasoline, naphtha, solvent and lubricant, and RMB 1.2 per liter for diesel, fuel oil and jet kerosene.
Import tariff	CIF China price	5% for gasoline, 6% for diesel, 9% for jet kerosene and 6% for fuel oil. In 2017, the applicable tax rate for motor gasoline and aviation gasoline, No. 5-7 fuel oil and diesel is 1% and 0% for jet kerosene and naphtha.
Resource tax	Aggregate volume sold or self-consumed	Effective from December 1, 2014, for domestic production of crude oil and natural gas, the applicable tax rate is increased from 5% to 6% of the sales revenue, exemption or deduction may apply if qualified.
Resource compensation tax	Sales revenue of crude oil and natural gas	Effective from December 1, 2014, the applicable tax rate is reduced from 1% to zero.
Exploration license fee	Area	RMB 100 to RMB 500 per square kilometer per annum.
Production license fee	Area	RMB 1,000 per square kilometer per annum.
Royalty fee(1)	Production volume	Progressive rate of 0-12.5% for crude oil and 0-3% for natural gas.
City construction tax	Total payment of value-added tax, consumption tax and business tax	1%, 5% and 7%.
Education surcharge and local education surcharge	Total payment of value-added tax, consumption tax and business tax	3% for education surcharge and 2% for local education surcharge.
Special Oil Income Levy	Any revenue derived from sale of domestically produced crude oil when the realized crude oil price exceeds US$65 per barrel.	Progressive rate of 20% to 40% for revenues derived from crude oil with realized price in excess of US$65 per barrel.

(1) Sino-foreign oil and gas exploration and development cooperative projects whose contracts were signed prior to November 1, 2011 and have not yet expired are still subject to royalty fee, and the project companies of those cooperative projects are not subject to any other resource taxes or fees. Sino-foreign oil and gas exploration

cooperative projects whose contracts are signed after November 1, 2011 are not subject to royalty fee, but are subject to resource taxes.

C. ORGANIZATIONAL STRUCTURE

For a description of our relationship with Sinopec Group Company, see Item 4. Information on the Company A. History and Development of the Company and Item 7. Major Shareholders and Related Party Transactions. For a description of our significant subsidiaries, see Note 35 to our consolidated financial statements.

Table of Contents

D. PROPERTY, PLANT AND EQUIPMENT

We own substantially all of our properties, plants and equipment relating to our business activities. See Item 4. Information on the Company B. Business Overview for description of our property, plant and equipment.

Environmental Matters

We are subject to various national environmental laws and regulations and also environmental regulations promulgated by the local governments in those jurisdictions we have operations, and we must pay the environmental tax for pollutant emissions. Usually the environmental tax increases for each incremental amount of discharge up to a certain level. Above a certain level prescribed by the pollutant discharge permits or other standards, the PRC regulations permit the local government to order any of our facilities to cure certain behavior causing environmental damage and subject to the central government s approval, the local government may also issue orders to close any of our facilities that fail to comply with the existing regulations. In addition, we have incurred capital expenditure specifically in compliance with the various environmental protection objectives set by the PRC government for the petroleum and chemical industry, to promote energy saving and environmental protection.

Our Energy Management and Environmental Protection Department is responsible for environmental management functions such as energy saving, emission reduction, environmental protection, water saving, comprehensive utilization of resources and clean production. Each of our production subsidiaries has implemented policies to control its pollutant emissions and discharge and to oversee compliance with the PRC environmental regulations.

Most of our production facilities have their own environmental protection facilities, and the rest of our production facilities utilize available social resources, to guarantee the effective treatment of waste water, solid waste and waste gases, to ensure the compliance with applicable emission standard for our emission of waste water and waste gas, and to follow applicable disposal procedures for our disposal of solid waste.

Environmental regulations also require companies to file an environmental impact report to the Ministry of Ecology and Environment or local environment department for approval before undertaking any project with negative impact on the environment. The construction of such projects shall comply with any environmental protection measures required by the environmental bureau. After the completion of the construction, the projects shall be assessed according to the relevant requirements of environmental assessment, and the projects will only be permitted to operate after the assessment of its discharge treatment facilities, measures and pollutant discharge satisfactory environmental assessment and approval requirements.

We believe our environmental protection systems and facilities are adequate for us to comply with current applicable national and local environmental protection regulations. The PRC government, however, may impose stricter regulations which may require additional expenditure on compliance with environmental regulations.

Our environmental protection expenditures were approximately RMB 5.8 billion in 2015, RMB 6.4 billion in 2016 and RMB 7.9 billion in 2017.

Insurance

In respect of our refining, petrochemical production, and marketing and sales operations, we currently maintain with Sinopec Group Company, under the terms of its Safety Production Insurance Fund (SPI Fund), approximately RMB 817.1 billion of coverage on our property and plants and approximately RMB 81.8 billion of coverage on our inventory. In 2017, we paid an insurance premium of approximately RMB 2.4 billion to Sinopec Group Company for such coverage.

Transportation vehicles and products in transit are not covered by Sinopec Group Company and we maintain insurance policies for those assets with insurance companies in the PRC.

The insurance coverage under SPI Fund applies to all domestic enterprises controlled by Sinopec Group Company under regulations published by the Ministry of Finance. We believe that, in the event of a major accident, we will be able to recover most of our losses from insurance proceeds paid under the SPI Fund or by insurance companies.

Table of Contents

Pursuant to an approval of the Ministry of Finance, Sinopec Group Company entered into an agreement with PICC Property and Casualty Company Limited on January 29, 2002 to purchase a property and casualty policy which would also cover our assets. The policy provides for an annual maximum cumulative claim amount of RMB 4.0 billion and a maximum of RMB 2.36 billion per occurrence.

ITEM 4A. UNRESOLVED STAFF COMMENTS

None.

ITEM 5. OPERATING AND FINANCIAL REVIEW AND PROSPECTS

A. GENERAL

The following discussion and analysis should be read in conjunction with our audited consolidated financial statements. Our consolidated financial statements have been prepared in accordance with IFRS. Certain financial information presented in this section is derived from our audited consolidated financial statements. Unless otherwise indicated, all financial data presented on a consolidated basis or by segment, are presented net of inter-segment transactions (i.e., inter-segment and other intercompany transactions have been eliminated).

Critical Accounting Policies

Our reported consolidated financial condition and consolidated results of operations are sensitive to accounting methods, assumptions and estimates that underlie the preparation of our financial statements. We base our assumptions and estimates on historical experience and on various other assumptions that we believe to be reasonable and which form the basis for making judgments about matters that are not readily apparent from other sources. On an on-going basis, our management evaluates its estimates. Actual results may differ from those estimates as facts, circumstances and conditions change.

The selection of critical accounting policies, the judgments and other uncertainties affecting application of those policies and the sensitivity of reported results to changes in conditions and assumptions are factors to be considered when reviewing our financial statements. Our principal accounting policies are set forth in Note 2 to the consolidated financial statements. We believe the following critical accounting policies involve the most significant judgments and estimates used in the preparation of our financial statements.

Oil and gas properties and reserves

The accounting for our upstream oil and gas activities is subject to special accounting rules that are unique to the oil and gas business. There are two methods to account for oil and gas business activities, the successful efforts method and the full cost method. We have elected to use the successful efforts method.

The successful efforts method reflects the volatility that is inherent in exploring for mineral resources in that costs of unsuccessful exploratory efforts are charged to expense as they are incurred. These costs primarily include dry hole costs, seismic costs and other exploratory costs.

Engineering estimates of our oil and gas reserves are inherently imprecise and represent only approximate amounts because of the subjective judgments involved in developing such information. There are authoritative guidelines regarding the engineering criteria that have to be met before estimated oil and gas reserves can be designated as proved . Proved and proved developed reserves estimates are updated at least annually and take into account recent production and technical information about each field. In addition, as prices and cost levels change from year to year, the estimate of proved and proved developed reserves also changes. If the estimated proved reserves is adjusted downward, the change in depreciation expense or write-down of book value of oil and gas properties will have impact on our profit. This change is considered a change in estimate for accounting purposes and is reflected on a prospective basis in related depletion rates.

Table of Contents

Future dismantlement costs for oil and gas properties are estimated with reference to engineering estimates after taking into consideration the anticipated method of dismantlement required in accordance with industry practices in similar geographic area, including estimation of economic life of oil and gas properties, technology and price level. The present values of these estimated future dismantlement costs are capitalized as oil and gas properties with equivalent amounts recognized as provision for dismantlement costs.

Despite the inherent imprecision in these engineering estimates, these estimates are used in determining depreciation expense, impairment expense and future dismantlement costs, and in disclosing the supplemental standardized measure of discounted future net cash flows relating to proved oil and gas properties. Depletion rates are determined based on estimated proved developed oil and gas reserve quantities (the denominator) and oil and gas production volume within reporting period (the numerator). Therefore, assuming all other variables are held constant, an increase in estimated proved developed reserves decreases our depreciation, depletion and amortization expense. Also, estimated reserves are often used to calculate future cash flows from our oil and gas operations, which serve as an indicator of fair value in determining whether a property is impaired or not.

Impairment for long-lived assets

If circumstances indicate that the net book value of a long-lived asset, including oil and gas properties, may not be recoverable, the asset may be considered impaired , and an impairment loss may be recognized. The carrying amounts of long-lived assets are reviewed periodically in order to assess whether the recoverable amounts have declined below the carrying amounts. For goodwill, the recoverable amount is estimated annually. These assets are tested for impairment whenever events or changes in circumstances indicate that their recorded carrying amounts may not be recoverable. When such a decline has occurred, the carrying amount is reduced to recoverable amount. The recoverable amount is the greater of the net selling price and the value in use. It is difficult to precisely estimate selling price because quoted market prices for our assets or cash-generating units are not readily available. In determining the value in use, expected cash flows generated by the asset or the cash-generating unit are discounted to their present value, which requires significant judgment relating to level of sales volume, selling price, amount of operating costs and discount rate. We use all readily available information in determining an amount that is a reasonable approximation of recoverable amount, including estimates based on reasonable and supportable assumptions and projections of reserve quantities, sales volume, selling price, amount of operating costs and discount rate.

Impairment losses recognized for each of the three years ended December 31, 2015, 2016 and 2017 in our statement of income on long-lived assets are summarized as follows:

	Year ended December 31,		
	2015	2016	2017
		(RMB in millions)	
Exploration and production	4,864	11,605*	13,556*
Refining	9	1,655	1,894
Marketing and distribution	19	267	675
Chemicals	142	2,898	4,922
Corporate and others	112		211
Total	5,146	16,425	21,258

* Information relating to the detailed analysis of the change in impairment losses is presented in Note 7 to the consolidated financial statements.

Depreciation

Property, plant and equipment (other than oil and gas properties) are depreciated on a straight-line basis over the estimated useful lives of the assets, after taking into account the estimated residual value. We review the estimated useful lives of the assets regularly in order to determine the amount of depreciation expense to be recorded during any reporting period. The useful lives are based on our historical experience with similar assets and take into account anticipated technological changes. The depreciation expense for future periods is adjusted if there are significant changes from previous estimates. There have been no significant changes to the estimated useful lives and residual values during each of the three years ended December 31, 2015, 2016 and 2017.

Table of Contents

Impairment of accounts receivable for bad and doubtful debts

We estimate impairment of accounts receivable for bad and doubtful debts resulting from the inability of our customers to make the required payments. We base our estimates on the aging of our accounts receivable balance, customer credit-worthiness, and historical write-off experience. If the financial condition of our customers were to deteriorate, actual write-offs would be higher than estimated. The changes in the impairment losses for bad and doubtful accounts are as follows:

	Year ended December 31,		
	2015	2016	2017
	(RMB in millions)		
Balance as of January 1	530	525	683
Impairment losses recognized for the year .	40	238	49
Reversal of impairment losses	(13)	(8)	(100)
Written off	(38)	(72)	(21)
Others	6		1
Balance as of December 31	525	683	612

Allowance for diminution in value of inventories

If the costs of inventories become higher than their net realizable values, an allowance for diminution in value of inventories is recognized. Net realizable value represents the estimated selling price in the ordinary course of business, less the estimated costs of completion and the estimated costs necessary to make the sale. We base the estimates on all available information, including the current market prices of the finished goods and raw materials, and historical operating costs. If the actual selling prices were to be lower or the costs of completion were to be higher than estimated, the actual allowance for diminution in value of inventories could be higher than estimated. Allowance for diminution in value of inventories is analyzed as follows:

	Year ended December 31,		
	2015	2016	2017
	(RMB in millions)		
Balance as of January 1	3,603	4,402	920
Allowance for the year	3,687	430	436
Reversal of allowance on disposal	(34)	(10)	(13)
Written off	(2,931)	(4,021)	(190)
Others	77	119	2
Balance as of December 31	4,402	920	1,155

Recently Pronounced International Financial Reporting Standards

Information relating to the recently pronounced IFRS is presented in Note 1 to the consolidated financial statements.

Overview of Our Operations

We are the largest integrated petroleum and petrochemical company in China and one of the largest in Asia in terms of operating revenues. We engage in exploring for, developing and producing crude oil and natural gas, operating refineries and petrochemical facilities and marketing crude oil, natural gas, refined oil products and petrochemical products. We have reported our consolidated financial results according to the following four principal business segments and the corporate and others segment.

- *Exploration and Production Segment*, which consists of our activities related to exploring for and developing, producing and selling crude oil and natural gas;

Table of Contents

- *Refining Segment*, which consists of purchasing crude oil from our exploration and production segment and from third parties, processing of crude oil into refined oil products, selling refined oil products principally to our marketing and distribution segment;

- *Marketing and Distribution Segment*, which consists of purchasing refined oil products from our refining segment and third parties, and marketing, selling and distributing refined oil products by wholesale to large customers and independent distributors and retail through our retail network;

- *Chemicals Segment*, which consists of purchasing chemical feedstock principally from the refining segment and producing, marketing, selling and distributing chemical products; and

- *Corporate and Others Segment*, which consists principally of trading activities of the import and export subsidiaries and our research and development activities.

B. CONSOLIDATED RESULTS OF OPERATIONS

Year Ended December 31, 2017 Compared with Year Ended December 31, 2016

In 2017, our total operating revenues were RMB 2,360.2 billion, representing an increase of 22.2% over 2016. Our operating income was RMB 86.7 billion, representing an increase of 8.2% over 2016.

The following table sets forth major revenue and expense items in the consolidated statement of income for the years ended December 31, 2016 and 2017.

	Year Ended December 31,		
	2016	2017	Change from 2016 to 2017 (%)
	(RMB in millions)		
Operating revenues	1,930,911	2,360,193	22.2
Sales of goods	1,880,190	2,300,470	22.4
Other operating revenues	50,721	59,723	17.7
Operating expenses	(1,853,718)	(2,288,723)	23.5
Purchased crude oil, products and operating supplies and expenses	(1,379,691)	(1,770,651)	28.3
Selling, general and administrative expenses	(64,360)	(64,973)	1.0
Depreciation, depletion and amortization	(108,425)	(115,310)	6.4

Exploration expenses, including dry holes	(11,035)	(11,089)	0.5
Personnel expenses	(63,887)	(74,854)	17.2
Taxes other than income tax	(232,006)	(235,292)	1.4
Other operating (expenses)/income, net	5,686	(16,554)	
Operating income	77,193	71,470	(7.4)
Net finance costs	(6,611)	(1,560)	(76.4)
Investment income and share of profits less losses from associates and joint ventures	9,569	16,787	75.4
Earnings before income tax	80,151	86,697	8.2
Tax expense	(20,707)	(16,279)	(21.4)
Net income	59,444	70,418	18.5
Attributable to:			
Owners of the Company	46,672	51,244	9.8
Non-controlling interests	12,772	19,174	50.1

Operating revenues

In 2017, our sales of goods were RMB 2,300.5 billion, representing a increase of 22.4% over 2016. This was mainly attributable to our expanded market by taking opportunities along with oil price s gradually rising, and the increase of prices and sales volume of main crude oil and petrochemical products in 2017.

Table of Contents

The following table sets forth our external sales volume, average realized prices and the respective rates of change from 2016 to 2017 for our major products:

	Sales Volume		Change from	Average Realized Price		Change from
	2016	2017	2016 to 2017	2016	2017	2016 to 2017
	(thousand tonnes)		(%)	(RMB per tonne)		(%)
Crude oil	6,808	6,567	(3.5)	1,628	2,390	46.8
Natural gas	19,008(1)	22,529	18.5	1,258(2)	1,290	2.5
Gasoline	77,480	83,933	8.3	6,386	6,941	8.7
Diesel	91,492	88,848	(2.9)	4,482	5,038	12.4
Kerosene	25,164	25,557	1.6	2,807	3,531	25.8
Basic chemical feedstock	32,248	35,964	11.5	4,054	4,855	19.8
Monomer and polymer for synthetic fiber	7,146	10,267	43.7	5,325	6,038	13.4
Synthetic resin	12,223	13,199	8.0	7,488	8,155	8.9
Synthetic fiber	1,369	1,304	(4.7)	7,113	8,556	20.3
Synthetic rubber	1,098	1,128	2.7	9,608	11,913	24.0
Chemical Fertilizer	714	698	(2.2)	1,612	2,010	24.7

(1) million cubic meters

(2) RMB per thousand cubic meters

Sales of crude oil and natural gas

Most of crude oil and a portion of natural gas we produced were used internally for refining and chemical production and the remaining were sold to external customers. In 2017, the total revenue from crude oil, natural gas and other upstream products that were sold externally amounted to RMB 69.2 billion, representing an increase of 45.8% over 2016. The change was mainly due to price increase of crude oil and sales volume increase of natural gas in 2017.

Sales of refined petroleum products

In 2017, our refining segment and marketing and distribution segment sell petroleum products (mainly consisting of gasoline, diesel and kerosene which are referred to as the refined oil products and other refined petroleum products) to external parties. The external sales revenue realized by these two segments were RMB 1,324.4 billion, accounting for 56.1% of our operating revenues and representing an increase of 17.2% over 2016. The increase was mainly because of the increase in prices of various refined petrochemical products. The sales revenue of gasoline, diesel and kerosene was RMB 1,120.4 billion, accounting for 84.6% of the total revenue of other refined petroleum products and representing an increase of 14.8% over 2016. The sales revenue of other refined petroleum products was RMB 204.0 billion, accounting for

15.4% of the total revenue of petroleum products and representing an increase of 31.8% over 2016.

Sales of chemical products

Our external sales revenue of chemical products was RMB 373.8 billion, accounting for 15.8% of our operating revenues and representing an increase of 31.5% over 2016. This was mainly attributable to the increase in prices and sales volume of chemical products.

Revenue from corporate and others

In 2017, our corporate and others realized sales revenue of RMB 533.1 billion, accounting for 22.6% of our operating revenue and representing an increase of 27.5% over 2016. This was mainly attributable to the price increase of trading crude oil and refined oil.

Table of Contents

Operating expenses

In 2017, our operating expenses were RMB 2,288.7 billion, representing an increase of 23.5% over 2016, which was mainly attributable to the prices increase of crude oil and petrochemical products. Among the operating expenses:

Purchased crude oil, products and operating supplies and expenses were RMB 1,770.7 billion, representing an increase of 28.3% over 2016, accounting for 77.4% of the total operating expenses, of which:

- crude oil purchase expenses were RMB 497.1 billion, representing an increase of 33.0% over 2016. In 2017, the total throughput of crude oil that was purchased externally was 211.03 million tonnes (excluding the amount processed for third parties), representing an increase of 4.3% over 2016; the average unit processing cost for crude oil purchased externally was RMB 2,655 per tonne, representing an increase of 27.4% over 2016;

- refined oil purchase expenses were RMB 300.5 billion, representing an increase of 23.3% over 2016, which was mainly attributable to the prices increase of purchased refined oil along with the price increase of crude oil;

- trade purchase expenses were RMB 503.9 billion, representing an increase of 27.7% over 2016, which was mainly attributable to the price increase of trading crude oil and refined oil; and

- other purchasing expenses were RMB 469.2 billion, representing an increase of 27.6% over 2016. This was mainly due to the price increase of other petroleum related products purchased from external sources along with the price increase of crude oil.

Selling, general and administrative expenses totaled RMB 65.0 billion, representing an increase of 1.0% over 2016.

Depreciation, depletion and amortization was RMB 115.3 billion, representing an increase of RMB 6.9 billion and 6.4% over 2016. This was mainly due to the increase of exploration and production segment by RMB 4.9 billion over 2016.

Exploration expenses, including dry holes were RMB 11.1 billion, representing an increase of 0.5% over 2016.

Personnel expenses were RMB 74.9 billion, representing an increase of 17.2% over 2016. That was mainly because the Company promoted the reform of employment system, transferred some labours into contracted employees, which increased salary and other expenses. To implement the requirement of deepening the reform as required by the Central government, the Company handed over parts of its subsidiaries social insurance to local government, and paid relevant fees according to the local government s requirements. As the Company improved its profit in 2017, income of employee was increased accordingly in line with its incentive mechanism.

Taxes other than income tax were RMB 235.3 billion, representing an increase of 1.4% over 2016.

Other operating (expenses)/income, net were RMB 16.6 billion, increased by RMB 22.2 billion over the same period of 2016. That was mainly due to the non-operating income from capital injection of Sichuan-to-East China Pipeline Co.

Operating income

In 2017, our operating income was RMB 71.5 billion, representing a decrease of 7.4% over 2016. Excluding the capital introduction in Sichuan-to-East China gas pipeline in 2016 and the acquisition of Shanghai SECCO in 2017, our operating income in 2017 increased by 19.2% over 2016.

Table of Contents

Net finance costs

In 2017, our net finance costs were RMB 1.6 billion, representing a decrease of 76.4% over 2016. This decrease in finance costs was mainly attributable to (i) interest expenses decreased by RMB 2.1 billion as a result of the significant decrease of interest-bearing debts ; (ii) foreign exchange gain of RMB 0.3 billion, increased by RMB 0.9 billion as compared with 2016; (iii) interest income increased by RMB 2.0 billion due to the increase of monetary reserve.

Earnings before income tax

In 2017, our earnings before income tax were RMB 86.7 billion, excluding the capital introduction in Sichuan-to-East China gas pipeline in 2016 and the acquisition of Shanghai SECCO in 2017, representing an increase of 38.9% over 2016.

Tax expense

In 2017, we recognized income tax expense of RMB 16.3 billion, representing a decrease of 21.4% over 2016. That was mainly due to the increase in exempt investment income.

Net income attributable to non-controlling interests

In 2017, our net income attributable to non-controlling interests was RMB 19.2 billion, representing an increase of RMB 6.4 billion over 2016.

Net income attributable to equity shareholders of the Company

In 2017, our net income attributable to our equity shareholders was RMB 51.2 billion, representing an increase of 9.8% over 2016.

Year Ended December 31, 2016 Compared with Year Ended December 31, 2015

In 2016, our total operating revenues were RMB 1,930.9 billion, representing a decrease of 4.4% over 2015. Our operating income was RMB 77.2 billion, representing an increase of 35.9% over 2015.

The following table sets forth major revenue and expense items in the consolidated statement of income for the years ended December 31, 2015 and 2016.

	Year Ended December 31,		
	2015	2016	Change from 2015 to 2016 (%)
	(RMB in millions)		
Operating revenues	2,020,375	1,930,911	(4.4)
Sales of goods	1,977,877	1,880,190	(4.9)
Other operating revenues	42,498	50,721	19.3
Operating expenses	(1,963,553)	(1,853,718)	(5.6)
Purchased crude oil, products and operating supplies and expenses	(1,494,046)	(1,379,691)	(7.7)
Selling, general and administrative expenses	(69,491)	(64,360)	(7.4)
Depreciation, depletion and amortization	(96,460)	(108,425)	12.4
Exploration expenses, including dry holes	(10,459)	(11,035)	5.5
Personnel expenses	(56,619)	(63,887)	12.8
Taxes other than income tax	(236,349)	(232,006)	(1.8)
Other operating (expenses)/income, net	(129)	5,686	
Operating income	56,822	77,193	35.9
Net finance costs	(9,239)	(6,611)	(28.4)
Investment income and share of profits less losses from associates and joint ventures	8,828	9,569	8.4
Earnings before income tax	56,411	80,151	42.1
Tax expense	(12,613)	(20,707)	64.2
Net income	43,798	59,444	35.7
Attributable to:			
Owner of the Company	32,512	46,672	43.6
Non-controlling interests	11,286	12,772	13.2

Table of Contents

Operating revenues

In 2016, our sales of goods were RMB 1,880.2 billion, representing a decrease of 4.9% over 2015. This was mainly attributable to the price decline of crude oil and petrochemical products.

The following table sets forth our external sales volume, average realized prices and the respective rates of change from 2015 to 2016 for our major products:

	Sales Volume		Change from	Average Realized Price		Change from
	2015	2016	2015 to 2016	2015	2016	2015 to 2016
	(thousand tonnes)		(%)	(RMB per tonne)		(%)
Crude oil	9,674	6,808	(29.6)	2,019	1,628	(19.4)
Natural gas	18,440(1)	19,008(1)	3.1	1,519(2)	1,258(2)	(17.2)
Gasoline	69,749	77,480	11.1	6,749	6,386	(5.4)
Diesel	95,472	91,492	(4.2)	4,937	4,482	(9.2)
Kerosene	23,028	25,164	9.3	3,387	2,807	(17.1)
Basic chemical feedstock	29,608	32,248	8.9	4,175	4,054	(2.9)
Synthetic fiber monomer and polymer	6,071	7,146	17.7	5,796	5,325	(8.1)
Synthetic resin	11,989	12,223	2.0	7,771	7,488	(3.6)
Synthetic fiber	1,380	1,369	(0.8)	7,740	7,113	(8.1)
Synthetic rubber	1,104	1,098	(0.5)	8,778	9,608	9.5
Chemical fertilizer	243	714	193.8	1,823	1,612	(11.6)

(1) million cubic meters

(2) RMB per thousand cubic meters

Sales of crude oil and natural gas

Most of crude oil and a portion of natural gas we produced were used internally for refining and chemical production and the remaining were sold to other customers. In 2016, the total revenue from crude oil, natural gas and other upstream products that were sold externally amounted to RMB 47.4 billion, representing a decrease of 17.8% over 2015. The change was mainly due to price and sales volume decline of crude oil in 2016.

Sales of refined oil products

In 2016, our refining segment and marketing and distribution segment sell petroleum products (mainly consisting of gasoline, diesel and kerosene which are referred to as the refined oil products and other refined oil products) to external parties. The external sales revenue realized by these two segments were RMB 1,130.4 billion, accounting for 58.5% of our operating revenues and representing a decrease of 6.3% over 2015. The decrease was mainly because of the decline in prices of various refined petrochemical products. The sales revenue of gasoline, diesel and kerosene was RMB 975.6 billion, accounting for 86.3% of the total revenue of other refined petroleum products and representing a decrease of 4.4% over 2015. Sales revenue of other refined oil products was RMB 154.8 billion, accounting for 13.7% of the total revenue of petroleum products and representing a decrease of 17.0% over 2015.

Table of Contents

Sales of chemical products

Our external sales revenue of chemical products was RMB 284.3 billion, accounting for 14.7% of our operating revenues and representing an increase of 2.8% over 2015. This was mainly attributable to the sales volume increase of our chemical products.

Revenue from corporate and others

In 2016, our corporate and others realized sales revenue of RMB 418.1 billion, accounting for 21.7% of our operating revenue and representing a decrease of 4.3% over 2015. This was mainly attributable to the price decline of crude oil and petrochemical products.

Operating expenses

In 2016, our operating expenses were RMB 1,853.7 billion, representing a decrease of 5.6% over 2015, among which:

Purchased crude oil, products and operating supplies and expenses were RMB 1,379.7 billion, representing a decrease of 7.7% over 2015, accounting for 74.4% of the total operating expenses, of which:

- crude oil purchase expenses were RMB 373.7 billion, representing a decrease of 20.4% over 2015. In 2016, the total throughput of crude oil that was purchased externally was 202.40 million tonnes (excluding the amount processed for third parties), representing a decrease of 1.9% over 2015; the average unit processing cost for crude oil purchased externally was RMB 2,084 per tonne, representing a decrease of 19.6% over 2015; and

- other purchasing expenses were RMB 1,006.0 billion, representing a decrease of 1.8% over 2015. This was mainly due to the price decline of feedstock purchased from external sources.

Selling, general and administrative expenses totaled RMB 64.4 billion, representing a decrease of 7.4% over 2015. This was mainly attributable to the reform of our employment system, the transfer of certain labor services to contract employment and continued efforts in cost control.

Depreciation, depletion and amortization was RMB 108.4 billion, representing an increase of 12.4% over 2015. This was mainly due to the decrease of oil and gas reserves and the increase in depreciation and depletion rate as a result of the oil price decline.

Exploration expenses, including dry holes were RMB 11.0 billion, representing an increase of 5.5% over 2015. This was mainly due to our exploration efforts maintained in low oil price environment.

Personnel expenses were RMB 63.9 billion, representing an increase of 12.8% over 2015. This was mainly attributable to the reform of our employment system from 2016.

Taxes other than income tax were RMB 232.0 billion, representing a decrease of 1.8% over 2015. This was mainly attributable to the decrease of consumption tax by RMB 4.9 billion as a result of the decline of diesel production, and the decrease of resources tax by RMB 1.0 billion over the same period of 2015 due to oil price drop.

Other operating income, net were RMB 5.7 billion, compared by a loss of RMB 0.1 billion in 2015 was mainly attributable to the increase of non-operating income as a result of the disposal of Sichuan-to-East China gas pipeline assets as well as the increase of asset impairment.

Operating income

In 2016, our operating income was RMB 77.2 billion, representing an increase of 35.9% over 2015. This was mainly attributable to the utilization of our integration advantage, particularly offsetting the negative impact of low oil price by the profitability of our downstream business.

Table of Contents

Net finance costs

In 2016, our net finance costs were RMB 6.6 billion, representing a decrease of 28.4% over 2015. This decrease in finance costs was mainly attributable to (i) interest expenses increased by RMB 1.1 billion as a result of replacing US dollar loans with RMB loans (including replacing US dollar loans and compressing risk exposures of US dollar); (ii) foreign exchange loss of RMB 0.6 billion, decreased by RMB 3.2 billion as compared with 2015; (iii) interest income increased by RMB 0.2 billion due to the increase of monetary reserve.

Earnings before income tax

In 2016, our earnings before income tax were RMB 80.2 billion, representing an increase of 42.1% over 2015.

Tax expense

In 2016, we recognized income tax expense of RMB 20.7 billion, representing an increase of 64.2% over 2015. That was mainly due to the substantial increase of profits over the same period of 2015.

Net income attributable to non-controlling interests

In 2016, our net income attributable to non-controlling interests was RMB 12.8 billion, representing an increase of RMB 1.5 billion over 2015.

Net income attributable to equity shareholders of the Company

In 2016, our net income attributable to our equity shareholders was RMB 46.7 billion, representing an increase of 43.6% over 2015.

C. DISCUSSIONS ON RESULTS OF SEGMENT OPERATIONS

We divide our operations into four business segments (exploration and production segment, refining segment, marketing and distribution segment and chemicals segment) and corporate and others. Unless otherwise specified, the inter-segment transactions have not been eliminated in the financial data discussed in this section. In addition, the operating revenue data of each segment have included the other operating revenues

of this segment.

The following table sets forth the operating revenues by each segment, the contribution of external sales and inter-segment sales as a percentage of operating revenues before elimination of inter-segment sales, and the contribution of external sales as a percentage of consolidated operating revenues (i.e. after elimination of inter-segment sales) for the periods indicated.

Table of Contents

	Year Ended December 31,			As a Percentage of Consolidated Operating Revenues Before Elimination of Inter-segment Sales		As a Percentage of Consolidated Operating Revenues After Elimination of Inter-segment Sales	
	2015	2016	2017	2016	2017	2016	2017
		(RMB in billions)		(%)	(%)	(%)	(%)
Exploration and production							
External sales(1)	68	57	80	1.8	2.1	3.0	3.4
Inter-segment sales	71	59	78	1.9	2.0		
Total operating revenue	139	116	158	3.7	4.1		
Refining							
External sales(1)	126	108	138	3.5	3.6	5.6	5.8
Inter-segment sales	801	748	874	24.2	23.0		
Total operating revenue	927	856	1,012	27.7	26.6		
Marketing and distribution							
External sales(1)	1,103	1,049	1,220	33.9	32.1	54.3	51.7
Inter-segment sales	3	4	4	0.1	0.1		
Total operating revenue	1,106	1,053	1,224	34.0	32.2		
Chemicals							
External sales(1)	285	297	388	9.6	10.2	15.4	16.5
Inter-segment sales	43	38	50	1.2	1.3		
Total operating revenue	328	335	438	10.8	11.5		
Corporate and others							
External sales(1)	438	420	534	13.5	14.0	21.7	22.6
Inter-segment sales	346	320	440	10.3	11.6		
Total operating revenue	784	740	974	23.8	25.6		
Total operating revenue before inter-segment eliminations	3,284	3,100	3,806	100.0	100.0		
Elimination of inter-segment sales	(1,264)	(1,169)	(1,446)				
Consolidated operating revenues	2,020	1,931	2,360			100.0	100.0

(1) include other operating revenues.

The following table sets forth the operating revenues, operating expenses and operating income/(loss) by each segment before elimination of the inter-segment transactions for the periods indicated, and the changes from 2016 to 2017.

	2015	Year Ended December 31, 2016 (RMB in billions)	2017	Change from 2016 to 2017 (%)
Exploration and production				
Total operating revenues	139	116	158	35.9
Total operating expenses	(156)	(153)	(204)	33.3
Total operating income/(loss)	(17)	(37)	(46)	
Refining				
Total operating revenues	927	856	1012	18.2
Total operating expenses	(906)	(800)	(947)	18.4
Total operating (loss)/income	21	56	65	15.5

Marketing and distribution				
Total operating revenues	1,106	1,053	1,224	16.3
Total operating expenses	(1,078)	(1,021)	(1193)	16.8
Total operating income/(loss)	28	32	31	(1.8)
Chemicals				
Total operating revenues	328	335	438	30.6
Total operating expenses	(309)	(314)	(411)	30.6
Total operating (loss)/income	19	21	27	30.8
Corporate and others				
Total operating revenues	784	740	974	31.7
Total operating expenses	(784)	(737)	(979)	32.9
Total operating (loss)/income	0	3	(5)	
Elimination of inter-segment income	5	2	(2)	

Table of Contents

Exploration and Production Segment

Most of the crude oil and a small portion of the natural gas produced by the exploration and production segment were used for our refining and chemicals operations. Most of our natural gas and a small portion of crude oil were sold to other customers.

Year Ended December 31, 2017 Compared with Year Ended December 31, 2016

In 2017, the operating revenues of this segment were RMB 157.5 billion, representing an increase of 35.9% over 2016. This was mainly attributed to the rise of realized price of crude oil and natural gas as well as expansion of LNG business.

This segment sold 35.31 million tonnes of crude oil and 24.48 billion cubic meters of natural gas in 2017, representing a decrease of 2.9% and an increase of 19.1% over 2016, respectively; 4.82 billion cubic meters of gasified LNG, representing an increase of 118.9% over 2016; and 2.28 million tonnes of LNG, representing an increase of 43.7% over 2016, The average realized price of crude oil and natural gas were RMB 2,341 per tonne and RMB 1,296 per thousand cubic meters, respectively, representing an increase of 35.0% and 2.3%, respectively, over 2016, and the average realized price of gasified LNG and LNG were RMB 1,742 per thousand cubic meters and RMB 3,056 per tonne, respectively, representing an increase of 2.0% and 24.0%, respectively.

In 2017, the operating expenses of this segment were RMB 204 billion, representing an increase of 33.3% over 2016. This was mainly due to:

- Depreciation, depletion and amortization increased by RMB 4.9 billion;
- Impairment of assets increased by RMB 2.0 billion;
- Personnel expenses increased by RMB 1.7 billion;
- Increase of resources tax by RMB 1.0 billion over the same period of 2016 due to price increase of crude oil;
- Increase of purchasing expenses by RMB 15.1 billion as a result of the expansion of LNG business; and

- other income (net) decreased by RMB 20.6 billion, as a result of the restructuring of Sichuan-to-East China Pipeline Co in 2016.

The lifting cost for oil and gas was RMB 788.3 per tonne in 2017, representing a slight increase of 0.3% over 2016.

In 2017, the operating loss of the exploration and production segment were RMB 45.9 billion, representing an increase by RMB 9.3 billion over 2016. Excluding the restructuring of Sichuan-to-East China Pipeline Co., the operating loss of the exploration and production segment decreased by 11.3 billion over 2016.

Table of Contents

Year Ended December 31, 2016 Compared with Year Ended December 31, 2015

In 2016, the operating revenues of this segment were RMB 115.9 billion, representing a decrease of 16.5% over 2015. This was mainly attributable to the decline of price of crude oil and natural gas, and decline of sales volume of crude oil.

This segment sold 36.38 million tonnes of crude oil and 20.56 billion cubic meters of natural gas in 2016, representing a decrease of 13.8% and an increase of 3.7% over 2015, respectively. The average realized price of crude oil and natural gas were RMB 1,734 per tonne and RMB 1,267 per thousand cubic meters, respectively, representing a decrease of 13.9% and 17.5%, respectively, over 2015.

In 2016, the operating expenses of this segment were RMB 152.6 billion, representing a decrease of 2.2% over 2015. This was mainly due to:

- Depreciation, depletion and amortization increased by RMB 9.8 billion, primarily as a result of downward revision of oil and gas reserve due to price decrease;

- Impairment of oil and gas assets increased by RMB 6.7 billion, as a result of downward revision of oil and gas reserve due to price decrease and high operating and development cost for certain oil fields; and

- other expenses (net) decreased by RMB 20.6 billion, as a result of the restructuring of Sichuan-to-East China Pipeline Co..

The lifting cost for oil and gas was RMB 786.0 per tonne in 2016, representing a slight increase of 0.8% despite of the production volume of crude oil decreased by 13.2% over 2015.

In 2016, the segment made every effort to optimize resource mix, attached great emphasis on cash flow contributions, and proactively controlled costs. Due to the drop in crude oil and natural gas prices, the operating loss of the exploration and production segment were RMB 36.6 billion.

Refining Segment

Business activities of the refining segment consist of purchasing crude oil from third parties and from our exploration and production segment, processing crude oil into refined oil products, selling gasoline, diesel and kerosene to the marketing and distribution segment, selling a portion of chemical feedstock to our chemicals segment, and selling other refined oil products to the domestic and overseas customers.

Year Ended December 31, 2017 Compared with Year Ended December 31, 2016

In 2017, the operating revenues of this segment were RMB 1,011.9 billion, representing an increase of 18.2% over 2016. This was mainly attributable to the price increase of refined oil products.

The table below sets forth sales volume and average realized prices by product for 2017 and 2016, as well as the percentage changes in sales volume and average realized prices for the periods shown.

	Sales volume		Change from	Average realized prices		Change from
	2016	2017	2016 to 2017	2016	2017	2016 to 2017
	(thousand tonnes)		(%)	(RMB per tonne)		(%)
Gasoline	52,461	54,273	3.5	5,904	6,538	10.7
Diesel	58,734	60,680	3.3	4,505	4,962	10.1
Kerosene	14,529	17,080	17.6	2,814	3,527	25.3
Chemical feedstock	36,408	36,951	1.5	2,584	3,204	24.0
Other refined oil products	55,742	58,801	5.5	2,529	2,929	15.8

In 2017, the domestic gasoline and diesel prices were raised 11 times and lowered 6 times. The 90# gasoline price (tax included) was accumulatively increased by RMB 435 per tonne, and the 0# diesel price (tax included) was increased by RMB 420 per tonne cumulatively.

Table of Contents

In 2017, our sales revenues of gasoline were RMB 354.8 billion, representing an increase of 14.6% over 2016; the sales revenues of diesel were RMB 301.1 billion, representing an increase of 13.8% over 2016; the sales revenues of kerosene were RMB 60.2 billion, representing an increase of 47.3% over 2016; the sales revenues of chemical feedstock were RMB 118.4 billion, representing an increase of 25.8% over 2016; and the sales revenues of other refined oil products other than gasoline, diesel, kerosene and chemical feedstock were RMB 172.2 billion, representing an increase of 22.2% over 2016.

This segment s operating expenses were RMB 946.8 billion in 2017, representing an increase of 18.4% over 2016, which is mainly attributable to the increase in procurement cost of crude oil.

In 2017, the average processing cost of crude oil was RMB 2,774 per tonne, representing an increase of 26.4% over 2016. Refining throughput were 230.30 million tonnes (excluding the volume processed for third parties), representing an increase of 4.2% over 2016. In 2017, the total costs of crude oil processed were RMB 638.8 billion, representing an increase of 31.8% over 2016.

The refining margin was RMB 510.7 per tonne in 2017, representing an increase of RMB 38.8 per tonne compared with 2016. This is mainly due to the increased proportion of high value added products (volume of gasoline with high octane number and jet fuel increased by 0.7% and 5.6% over 2016 and diesel to gasoline ratio down to 1.17), the promotion of quality upgrading of refined oil products (output of gasoline and diesel with GB V standard or above increased by 58% over 2016), enlarged total refinery throughput by increasing the export volume, and further improved margins for LPG, asphalt and other refined oil products by our centralized marketing advantages brought fully into play.

In 2017, the unit refining cash operating cost (defined as operating expenses less the processing cost of crude oil and refining feedstock, depreciation and amortisation, taxes other than income tax and other operating expenses, then divided by the throughput of crude oil and refining feedstock) was RMB 175.2 per tonne, an increase of RMB 9.5 per tonne over 2016, mainly because of increased operating expenses resulting from newly operated facilities related to quality upgrading of refined oil products as well as safety enhancement and environment protection.

This segment s operating profit of the segment was RMB 65.0 billion in 2017, representing an increase of RMB 8.7 billion or 15.5% as compared with 2016.

Year Ended December 31, 2016 Compared with Year Ended December 31, 2015

In 2016, the operating revenues of this segment were RMB 855.8 billion, representing a decrease of 7.7% over 2015. This was mainly attributable to the price decline of refined oil products.

The table below sets forth sales volume and average realized prices by product for 2016 and 2015, as well as the percentage changes in sales volume and average realized prices for the periods shown.

	Sales volume		Change from	Average realized prices		Change from
	2015	2016	2015 to 2016	2015	2016	2015 to 2016
	(thousand tonnes)		(%)	(RMB per tonne)		(%)
Gasoline	50,921	52,461	3.0	6,191	5,904	(4.6)
Diesel	63,359	58,734	(7.3)	4,797	4,505	(6.1)
Kerosene	13,518	14,529	7.5	3,420	2,814	(17.7)
Chemical feedstock	35,945	36,408	1.3	2,984	2,584	(13.4)
Other refined oil products	52,418	55,742	6.3	2,842	2,529	(11.0)

In 2016, our sales revenues of gasoline were RMB 309.7 billion, representing a decrease of 1.8% over 2015; the sales revenues of diesel were RMB 264.6 billion, representing a decrease of 12.9% over 2015; the sales revenues of kerosene were RMB 40.9 billion, representing a decrease of 11.6% over 2015; the sales revenues of chemical feedstock were RMB 94.1 billion, representing a decrease of 12.3% over 2015; and the sales revenues of other refined oil products other than gasoline, diesel, kerosene and chemical feedstock were RMB 141.0 billion, representing a decrease of 5.4% over 2015.

Table of Contents

This segment s operating expenses were RMB 799.5 billion in 2016, representing a decrease of 11.7% over 2015, which is mainly attributable to the decline in procurement cost of crude oil.

In 2016, the average unit cost of refining feedstock processed was RMB 2,194 per tonne, representing a decrease of 18.5% over 2015. Refining throughput were 220.98 million tonnes (excluding the volume processed for third parties), representing a decrease of 1.1% over 2015. In 2016, the total costs of refining feedstock processed were RMB 484.8 billion, representing a decrease of 19.4% over 2015.

The refining margin was RMB 471.9 per tonne in 2016, representing an increase of RMB 153.8 per tonne over 2015. This was mainly attributable to the rebound of international crude oil price, and floor prices policy for refined oil products announced by the PRC government, therefore widened the price spread between raw materials and products

In 2016, the unit refining cash operating cost (defined as operating expenses less the purchase cost of crude oil and refining feedstock, depreciation and amortization, taxes other than income tax and other operating expenses, and divided by the refinery throughput) was RMB 165.7 per tonne, decreased by RMB 1.9 per tonne. This was mainly attributable to strengthening of cost control, improving operating efficiency and reducing costs of fuel, electricity and other auxiliaries facilities.

In 2016, this segment utilized the rebound of oil price, strengthened crude oil procurement management, adjusted structure with market-oriented efforts, increased exports and improved the profitability of self-selling products, and as a result, realized significant increase in operating profit.

This segment s operating income was RMB 56.3 billion in 2016, representing an increase of RMB 35.3 billion as compared with 2015.

Marketing and Distribution Segment

The business activities of the marketing and distribution segment include purchasing refined oil products from our refining segment and third parties, making wholesale and distribution to domestic customers, and retail of the refined oil products through this segment s retail distribution network, as well as providing related services.

Year Ended December 31, 2017 Compared with Year Ended December 31, 2016

In 2017, the operating revenues of this segment were RMB 1,224.2 billion, representing an increase of 16.3% compared with 2016.

In 2017, the sales revenues of gasoline, diesel and kerosene were RMB 582.9 billion, RMB 449.2 billion and RMB 90.2 billion, representing an increase of 17.7%, 9.0% and 27.8%, respectively, over 2016.

The following table sets forth the sales volumes, average realized prices and the respective rates of changes of the four major product categories in 2017 and 2016, including breakdown in retail, wholesale and distribution of gasoline and diesel.

	Sales Volume		Change from	Average Realized Prices		Change from
	2016	2017	2016 to 2017	2016	2017	2016 to 2017
	(thousand tonnes)		(%)	(RMB per tonne)		(%)
Gasoline	77,613	83,980	8.2	6,380	6,941	8.8
Retail sale	63,718	66,364	4.2	6,722	7,346	9.3
Wholesale and distribution	13,895	17,616	26.8	4,812	5,412	12.5
Diesel	91,998	89,146	(3.1)	4,478	5,039	12.5
Retail sale	46,656	44,736	(4.1)	5,088	5,588	9.8
Wholesale and distribution	45,342	44,410	(2.1)	3,851	4,486	16.5
Kerosene	25,164	25,555	1.6	2,807	3,531	25.8
Fuel oil	22,034	23,299	5.7	1,703	2,251	32.2

Table of Contents

In 2017, the operating expenses of the segment were RMB 1,192.6 billion, representing an increase of RMB 171.9 billion or 16.8% as compared with that of 2016. This was mainly due to increased procurement prices of refined oil products and volume of gasoline.

In 2017, the segment s marketing cash operating cost (defined as the operating expenses less purchase costs, taxes other than income tax, depreciation and amortisation, and then divided by the sales volume) was RMB 198.7 per tonne, representing an increase of 0.7% compared with that of 2016.

In 2017, the operating revenues of non-fuel business was RMB 27.6 billion, representing an increase of RMB 6.2 billion compared with 2016; the profit of non-fuel business was RMB 2.2 billion, representing an increase of RMB 0.7 billion compared with 2016.

The operating income of this segment in 2017 was RMB 31.6 billion, representing a decrease of 1.8% compared with 2016.

Year Ended December 31, 2016 Compared with Year Ended December 31, 2015

In 2016, the operating revenues of this segment were RMB 1,052.9 billion, representing a decrease of 4.9% compared with 2015.

In 2016, the sales revenues of gasoline, diesel and kerosene were RMB 495.2 billion, RMB 412.0 billion and RMB 70.6 billion, representing an increase of 5.1%, a decrease of 13.0% and a decrease of 9.5%, respectively, over 2015.

The following table sets forth the sales volumes, average realized prices and the respective rates of changes of the four major product categories in 2016 and 2015, including breakdown in retail, wholesale and distribution of gasoline and diesel.

	Sales Volume		Change from	Average Realized Prices		Change from
	2015	2016	2015 to 2016	2015	2016	2015 to 2016
	(thousand tonnes)		(%)	(RMB per tonne)		(%)
Gasoline	69,842	77,613	11.1	6,747	6,380	(5.4)
Retail sale	58,211	63,718	9.5	6,996	6,722	(3.9)
Wholesale and distribution	11,631	13,895	19.5	5,498	4,812	(12.5)
Diesel	95,907	91,998	(4.1)	4,936	4,478	(9.3)
Retail sale	50,756	46,656	(8.1)	5,490	5,088	(7.3)
Wholesale and distribution	45,151	45,342	0.4	4,314	3,851	(10.7)
Kerosene	23,028	25,164	9.3	3,387	2,807	(17.1)
Fuel oil	24,980	22,034	(11.8)	2,215	1,703	(23.1)

The operating expenses of this segment in 2016 was RMB 1,020.7 billion, representing a decrease of RMB 57.1 billion or 5.3%, over 2015, which was mainly attributable to the decrease of purchase volume and purchase costs of diesel and fuel oil.

In 2016, this segment s unit cash selling expenses of refined oil products per tonne (defined as the operating expenses less the purchasing costs, taxes other than income tax, depreciation and amortization and divided by the sales volume) was RMB 197.3 per tonne, representing an increase of 4.3%.

In 2016, facing abundant domestic supply of refined oil products and strong market competition, the segment made full use of the advantages of our extensive sales network to actively expand the gasoline market, increased sales of high-grade gasoline and expanded the total sales volume, coordinated for more efficient utilization of internal and external resources, which led to improved profit margins and better performance.

The operating income of this segment in 2016 was RMB 32.2 billion, representing an increase of 11.4% over 2015.

Table of Contents

Chemicals Segment

The business activities of the chemicals segment include purchasing chemical feedstock from the refining segment and third parties, producing, marketing and distributing petrochemical and inorganic chemical products.

Year Ended December 31, 2017 Compared with Year Ended December 31, 2016

The operating revenues of the chemicals segment in 2017 were RMB 437.7 billion, representing an increase of 30.6% over 2016, which was mainly attributable to the increase in sales volume and price of chemical products.

The sales revenues generated by the segment s six major categories of chemical products (namely basic organic chemicals, synthetic resin, synthetic fiber monomer and polymer, synthetic fiber, synthetic rubber, and chemical fertiliser) totaled RMB 413.5 billion, representing an increase of 30.8% as compared with 2016, and accounted for 94.5% of the operating revenues of the segment.

The following table sets forth the sales volume, average realized price and the respective rates of changes for each of these six categories of chemical products of this segment from 2016 to 2017.

	Sales Volume		Change from	Average Realized Prices		Change from
	2016	2017	2016 to 2017	2016	2017	2016 to 2017
	(thousand tonnes)		(%)	(RMB per tonne)		(%)
Basic organic chemicals	41,605	46,351	11.4	3,963	4,684	18.2
Synthetic fiber monomers and polymers	7,169	10,332	44.1	5,328	6,047	13.5
Synthetic resins	12,250	13,215	7.9	7,482	8,153	9.0
Synthetic fiber	1,369	1,304	(4.7)	7,113	8,556	20.3
Synthetic rubber	1,099	1,138	3.5	9,609	11,957	24.4
Chemical fertilizer	714	700	(2.0)	1,612	2,008	24.6

In 2017, the operating expenses of the chemicals segment were RMB 410.8 billion, representing an increase of 30.6% over 2016, mainly because of the significant increase in the price of externally procured raw materials.

In 2017, the segment seized the opportunities of the improving market conditions, coordinated production with sales, intensified structural adjustment, increased the production of synthetic resin, rubber and some organic products which were more profitable, positively expanded the market, strictly controlled costs and expenses, thus, resulting in remarkable profits.

In 2017, the operating income of this segment was RMB 27.0 billion, representing an increase of RMB 6.4 billion or 30.8% as compared with 2016.

Year Ended December 31, 2016 Compared with Year Ended December 31, 2015

The operating revenues of the chemicals segment in 2016 were RMB 335.1 billion, representing an increase of 1.8% over 2015, which was mainly attributable to the increase in sales volume of chemical products.

The sales revenues of our six major categories of chemical products (namely basic organic chemicals, synthetic resins, synthetic fiber monomers and polymers for synthetic fiber, synthetic fiber, synthetic rubber and chemical fertilizer) of this segment in 2016 were approximately RMB 316.2 billion, representing an increase of 2.1% compared with 2015, accounting for 94.3% of the operating revenues of this segment.

The following table sets forth the sales volume, average realized price and the respective rates of changes for each of these six categories of chemical products of this segment from 2015 to 2016.

Table of Contents

	Sales Volume		Change from	Average Realized Prices		Change from
	2015	2016	2015 to 2016	2015	2016	2015 to 2016
	(thousand tonnes)		(%)	(RMB per tonne)		(%)
Basic organic chemicals	38,903	41,605	6.9	4,121	3,963	(3.8)
Synthetic fiber monomers and polymers	6,083	7,169	17.9	5,797	5,328	(8.1)
Synthetic resins	11,993	12,250	2.1	7,771	7,482	(3.7)
Synthetic fiber	1,380	1,369	(0.8)	7,739	7,113	(8.1)
Synthetic rubber	1,107	1,099	(0.7)	8,769	9,609	9.6
Chemical fertilizer	243	714	193.8	1,823	1,612	(11.6)

The operating expenses of this segment in 2016 were RMB 314.5 billion, representing an increase of 1.6% over 2015.

In 2016, the segment seized the favorable opportunities of the low feed stock price, further adjust feed stock and product mix, coordinated production with sales, strictly controlled costs and expenses, thus, resulting in remarkable profits.

In 2016, the operating income of this segment was RMB 20.6 billion, representing an increase of RMB 1.1 billion as compared with 2015.

Corporate and Others

The business activities of corporate and others mainly consist of the import and export business activities of our subsidiaries, research and development activities of us and managerial activities of our headquarters.

Year Ended December 31, 2017 Compared with Year Ended December 31, 2016

In 2017, the operating revenue generated from corporate and others was RMB 974.9 billion, representing increase of 31.8% over 2016, which was mainly attributable to the increase in crude oil trading incomes caused by price increase of crude oil as compared with 2016.

In 2017, the operating expenses of this segment was RMB 979.3 billion, representing an increase of 32.9% over 2016.

In 2017, the operating loss of this segment was RMB 4.48 billion.

Year Ended December 31, 2016 Compared with Year Ended December 31, 2015

In 2016, the operating revenue generated from corporate and others was RMB 739.9 billion, among which the sales revenues realized by subsidiaries such as trading companies were RMB 736.2 billion, representing decrease of 5.6% over 2015, which was mainly attributable to the decrease in trading incomes caused by price drop of crude oil as well as lower revenue from crude oil trading business as compared with 2015.

In 2016, the operating expenses of this segment was RMB 736.7 billion, among which operating expenses realized by trading companies subsidiaries were RMB 728.0 billion, representing a decrease of 6.0% over 2015.

In 2016, the operating income of this segment was RMB 3.2 billion, among which the operating income realized by subsidiaries such as trading companies was RMB 8.2 billion.

D. LIQUIDITY AND CAPITAL RESOURCES

Our primary sources of funding have been cash provided by our operating activities, along with short-term and long-term loans. Our primary uses of cash have been for working capital, capital expenditures and repayment of short-term and long-term loans. We arrange and negotiate financing with financial institutions to finance our capital resource requirement, and maintain a certain level of standby credit facilities to reduce liquidity risk. We believe that our current cash on hand, expected cash flows from operations and available standby credit facilities from financial institutions will be sufficient to meet our working capital requirements and repay our short term debts and obligations when they become due.

Table of Contents

The following table sets forth a summary of our consolidated statements of cash flow data for the years ended December 31, 2015, 2016 and 2017.

Statement of cash flow data	Year Ended December 31, 2015	2016	2017
		(RMB in millions)	
Net cash generated from operating activities	165,740	214,543	190,935
Net cash used in investing activities	(116,719)	(66,217)	(145,323)
Net cash generated from/(used in) financing activities	9,093	(93,047)	(56,509)
Net increase/(decrease) in cash and cash equivalents	58,114	55,279	(10,897)

The net cash generated from our operating activities in 2017 was RMB 190.9 billion, representing a decrease of RMB 23.6 billion over 2016, which was mainly due to the increase in receivables and inventory resulted from the rising oil prices and inventory level.

The net cash generated from our operating activities in 2016 was RMB 214.5 billion, representing an increase of RMB 48.8 billion over 2015, which was mainly due to an increase in earnings before income tax by RMB 23.7 billion, optimized fund utilization and improvement on working capital.

The net cash generated from our operating activities in 2015 was RMB 165.7 billion, representing an increase of RMB 17.7 billion over 2014, which was mainly due to an increase in earnings before tax and improvement on working capital.

The net cash used in our investing activities in 2017 was RMB 145.3 billion, representing an increase of RMB 79.1 billion over 2016, which was mainly due to an increase of fixed deposits due over three months and an increase of acquisitions and investments in associates and joint ventures.

The net cash used in our investing activities in 2016 was RMB 66.2 billion, representing a decrease of RMB 50.5 billion over 2015, which was mainly due to the decrease of capital expenditure by RMB 30.0 billion and RMB 13.2 billion received as proceeds from the sale of equity interest in Sinopec Sichuan-to-East China Pipeline Co., Ltd..

The net cash used in our investing activities in 2015 was RMB 116.7 billion, representing a decrease of RMB 15.6 billion over 2014, which was mainly due to the decrease of fixed assets expenditure in the reporting period.

The net cash used in the Company s financing activities in 2017 was RMB 56.5 billion, representing a decrease of cash out flow by RMB 36.5 billion over 2016. This was mainly due to the decrease in borrowing repayment.

The net cash outflow used in our financing activities in 2016 was RMB 93.0 billion, representing a net cash outflow increase of RMB 102.1 billion over 2015, which was mainly due to a cash inflow of RMB 105.0 billion from the capital introduction of Sinopec Marketing Co., Ltd. in 2015 and the significant reduction in interest bearing debts for two consecutive years, of which, the Company repaid RMB 62.6 billion and RMB 63.0 billion in 2015 and 2016, respectively.

The net cash inflow generated from our financing activities in 2015 was RMB 9.1 billion, representing an increase of RMB 30.6 billion over 2014. This reflected: (i) the completion of capital injection to Sinopec Marketing Co.; and (ii) the repayment of high interest bearing debts.

In respect of our cash flow situation of 2017, we further intensified central management of funds, strictly controlled the size of monetary funds and interest bearing debts, reduced capital precipitation, accelerated cash flow to continuously maintain a high level of our operating cash flow.

Table of Contents

In respect of our debts and borrowings, due to continuing improvement of our cash flow, we decreased our debts to RMB 179.8 billion at the end of 2017 from RMB 192.3 billion from the beginning of 2017. Our short-term debts, primarily consist of revolving loans borrowed according to our business plan and operation needs and overdrawing agreements entered into on the corporate bank account with our strategic-alliance banks to meet our intra-day payment requirements, increased by RMB 5.8 billion from the beginning of 2017, representing an increase from 38.91% at the beginning of 2017 to 44.86% at the end of 2017 of the debts, which is mainly due to the increase of short-term debts when the direct financing rate is at historically high level to reduce the financing costs. Our long-term debts decreased by RMB 18.3 billion from the beginning of 2017, representing a decrease from 61.09% at the beginning of 2017 to 55.14% at the end of 2017 of the debts, which is due to the recognition of two tranches of our corporate bonds to be matured in 2018 as non-current debt within one year, and signed overdraft account agreements with major strategic and cooperative banks to meet the daily payment needs.

Contractual Obligations and Commercial Commitments

The following table sets forth our obligations and commitments to make future payments under contracts and commercial commitments as of December 31, 2017.

	As of December 31, 2017				
	Total	less than 1 year	1-3 years	4-5 years	After 5 years
			(RMB in millions)		
Contractual obligations(1)					
Short-term debt	81,979	81,979			
Long-term debt	109,735	2,253	38,108	52,131	17,243
Total contractual obligations	191,714	84,232	38,108	52,131	17,243
Other commercial commitments					
Operating lease commitments	257,122	11,114	22,222	20,980	202,806
Capital commitments	178,383	178,383			
Exploration and production licenses	1,258	205	115	56	882
Guarantees(2)	24,192	24,192			
Total commercial commitments	460,955	213,894	22,337	21,036	203,688

(1) Contractual obligations include the contractual obligations relating to interest payments.

(2) Guarantee is not limited by time, therefore specific payment due period is not applicable. As of December 31, 2017, with respect to guarantees in relation to banking facilities granted to certain parties, we have not entered into any off-balance sheet arrangements. As of December 31, 2017, the maximum amount of potential future payments under the guarantees was RMB 24.2 billion. As of December 31, 2016, the maximum amount of potential future payments under the guarantees was RMB 22.9 billion. See Note 30 to the consolidated financial statements for further information of the guarantees.

Historical and Planned Capital Expenditure

The following table sets forth our capital expenditure by segment for the years of 2015, 2016 and 2017 and the capital expenditure in each segment as a percentage of our total capital expenditure for such year.

	2015		2016		2017		Total	
	RMB	Percent	RMB	Percent	RMB	Percent	RMB	Percent
	(in billions, except percentage data)							
Exploration and production	54.71	48.67%	32.19	42.10%	31.34	31.54%	118.24	41.02%
Refining	15.13	13.46%	14.35	18.77%	21.07	21.21%	50.55	17.54%
Marketing and distribution	22.12	19.68%	18.49	24.18%	21.54	21.67%	62.15	21.56%
Chemicals	17.63	15.68%	8.85	11.58%	23.03	23.17%	49.51	17.18%
Corporate and others	2.82	2.51%	2.58	3.37%	2.40	2.41%	7.80	2.70%
Capital Expenditure	112.41	100.00%	76.46	100.00%	99.38	100.00%	288.25	100.00%

In 2017, focusing on quality and profitability of investment, we continuously optimized our investment projects. As a result, our capital expenditure amounted to RMB 99.4 billion, among which:

Table of Contents

- *Exploration and production*. RMB 31.3 billion was mainly for Fuling shale gas and Hangjinqi natural gas field development projects, Shengli and Northwest crude development projects, LNG terminals in Tianjin, Wen-23 gas storage and phase I of Xinjiang gas pipeline, as well as overseas projects.

- *Refining*. RMB 21.1 billion was mainly for Zhongke Refining and Petrochemical project, adjustments in the product mix of Zhenhai and Maoming refineries, and gasoline and diesel GB VI quality upgrading projects.

- *Marketing and distribution*. RMB 21.5 billion was mainly for construction of service stations and refined oil product pipelines, depots and storage facilities.

- *Chemicals*. RMB 23.0 billion was mainly for Zhongke Refining and Petrochemical project, phase II of Hainan high-efficiency and environment-friendly aromatics project, Gulei and Zhong an projects, acquisition of interest in Shanghai SECCO, as well as projects regarding resource comprehensive utilisation and product structure adjustments.

- *Corporate and others*. RMB 2.4 billion was mainly for R&D facilities and information technology application projects.

In 2018, we will devote attention to the quality and profitability of investments, and constantly optimise our investment projects. Capital expenditures for the year are budgeted at RMB 117.0 billion, including:

- *Exploration and production.* The planned capital expenditure in 2018 for this segment is approximately RMB 48.5 billion, mainly for the shale gas development in southwest China, the natural gas project in north China and crude capacity building in northwest China, as well as natural gas pipelines and storage projects, and overseas oil and gas projects.

- *Refining.* The planned capital expenditure in 2018 for this segment is RMB 28.8 billion, mainly for Zhongke Refining and Petrochemical Project, the structural adjustments of refining business in Zhenhai, Maoming and Tianjin subsidiaries, and the quality upgrading of GB VI standard gasoline and diesel.

- *Marketing and distribution*. The planned capital expenditure in 2018 for this segment is RMB 18.5 billion. We expect to focus on constructing and renovating pipelines and service stations and building refined oil product

storage.

- *Chemicals*. The planned capital expenditure in 2018 for this segment is RMB 17.7 billion, mainly for Zhongke Refining and Petrochemical Project, the high-efficiency and phase II of Hainan high-efficiency and environmental-friendly aromatics project, the integrated refining and petrochemical project in Gulei and the resource utilisation and structural adjustment projects in Zhenhai, Yangzi, Jinling, Maoming and Wuhan subsidiaries.

- *Corporate and others*. The planned capital expenditure in 2018 for this segment is RMB 3.5 billion, mainly for R&D facilities and information technology projects.

Research and Development

Our expenditures for the research and development were RMB 5.65 billion in 2015, RMB 5.94 billion in 2016, and RMB 6.42 billion in 2017.

Consumer Price Index

According to the data provided by the National Bureau of Statistics, the consumer price index (CPI) in the PRC increased by 1.6% in 2017 (CPI increased by 2.0% in 2016) over 2016 and increased by 3.6% over 2015. According to China s official analysis, the decrease of consumer price index in the PRC during 2017 was due to the decrease in prices of food, mainly for pork and fresh vegetables prices, which is the first decline since 2003. Inflation has not had a significant impact on our results of operations in 2017.

Table of Contents

ITEM 6. DIRECTORS, SENIOR MANAGEMENT AND EMPLOYEES

A. DIRECTORS, SUPERVISORS AND SENIOR MANAGEMENT

Directors

The table and discussion below set forth certain information concerning our directors. The current term for all our directors is three years, which will expire in May 2018.

Name	Age	Position with the Company
Dai Houliang	54	Vice Chairman, President
Li Yunpeng	58	Director
Wang Zhigang	60	Former Director, Senior Vice President
Zhang Haichao	60	Former Director, Senior Vice President
Jiao Fangzheng	55	Director, Senior Vice President
Ma Yongsheng	56	Director, Senior Vice President
Jiang Xiaoming	64	Independent Director
Andrew Y. Yan	60	Independent Director
Tang Min	64	Independent Director
Fan Gang	64	Independent Director

Dai Houliang, aged 54, Vice Chairman of Board of Directors and President of Sinopec Corp. Mr. Dai is a professor level senior engineer with a Ph.D. degree and an academician of the Chinese Academy of Engineering. In December 1997, he was appointed as Vice President of Yangzi Petrochemical Corporation; in April 1998, he served as Director and Vice President of Yangzi Petrochemical Co., Ltd.; in July 2002, he served as Vice Chairman of Board of Directors, President of Yangzi Petrochemical Co., Ltd. and Director of Yangzi Petrochemical Corporation; in December 2003, he served as Chairman of Board of Directors and President of Yangzi Petrochemical Co., Ltd. and concurrently as Chairman of Board of Directors of Yangzi Petrochemical Corporation; in December 2004, he served concurrently as Chairman of Board of Directors of BASF-YPC Company Limited; in September 2005, he was appointed as Deputy CFO of Sinopec Corp.; in November 2005, he was appointed as Vice President of Sinopec Corp.; in May 2006, he served as Director, Senior Vice President and CFO of Sinopec Corp.; in June 2008, he served as a member of the Leading Party Member Group of China Petrochemical Corporation; in August 2012, he was appointed concurrently as Chairman of Sinopec Great Wall Energy & Chemical Co., Ltd.; in March 2013, he was appointed concurrently as Chairman of Sinopec Catalyst Co., Ltd.; and in May 2009, he was elected as Director and appointed as Senior Vice President of Sinopec Corp. in May 2016, he was appointed as the President and Deputy Secretary of the Leading Party Member Group of China Petrochemical Corporation and since August 2016, he was elected as the Vice Chairman of the Board and appointed as President of Sinopec Corp.

Li Yunpeng, aged 58, Director of Sinopec Corp. Mr. Li is a senior administration engineer with a master degree in engineering. In January 1998, he was appointed as deputy General Manager of Executive Division of China Ocean Shipping (Group) Company (COSCO); in September 1998, he served as Deputy Secretary of Discipline Inspection Committee, Director of Supervision Office and concurrently served as General Manager of Supervision Division of COSCO; in November 1999, he was appointed as General Manager of Human Resource Division of COSCO; and in September 2000, he served as Head of Organisation Department of COSCO; in December 2000, he was appointed as Secretary of Communist Youth League Committee of COSCO; in April 2003, he was appointed as Assistant President of COSCO; in April 2004, he served as a member of the Leading Party Member Group and Team Leader of the Discipline Inspection Group of CPC Leading Group of COSCO; in December 2011, he was appointed as Executive Vice President and a member of the Leading Party Member Group of COSCO; in June 2013, he served as President and a member of the Leading Party Member Group of COSCO; in July 2013, he served as Director of COSCO; and in February 2017, Mr. Li was appointed as Deputy Secretary of the Leading Party Member Group and Vice President of China Petrochemical Corporation. In June 2017, he was elected as Director of Sinopec Corp.

Table of Contents

Wang Zhigang, aged 60, former Director and Senior Vice President of Sinopec Corp. Mr. Wang is a professor level senior engineer with a Ph.D. Degree. In February 2000, he was appointed as Vice President of Sinopec Shengli Oilfield Co., Ltd.; in June 2000, he served as Board Director and President of Shengli Oilfield Co., Ltd.; in November 2001, he was appointed temporarily as Deputy Director General and Deputy Secretary of Leading Party Member Group of Economic and Trade Commission, Ningxia Hui Autonomous Region; in April 2003, he was appointed as Vice President of Sinopec Corp.; in June 2003, he was appointed concurrently as Director General of Exploration and Production Department of Sinopec Corp.; in February 2005, he was appointed as Member of the Leading Party Member Group of China Petrochemical Corporation; in March 2005, he was appointed as Senior Vice President of Sinopec Corp.; in January 2007, he was appointed concurrently as Vice Chairman of Sinopec International Petroleum Exploration and Production Corporation; in September 2014, he was appointed concurrently as Chairman of Board of Directors of Sinopec International Petroleum Exploration and Production Corporation; and in May 2006, he was elected as Director and appointed as Senior Vice President of Sinopec Corp. In January 2018, he resigned as an executive director, a member of Strategy Committee of the Board and the Senior Vice President of Sinopec Corp.

Zhang Haichao, aged 60, former Director and Senior Vice President of Sinopec Corp. Mr. Zhang is a professor level senior economist with a master degree. In March 1998, he was appointed as Vice President of Zhejiang Petroleum Corporation; in September 1999, he was appointed as President of Zhejiang Petroleum Corporation; in February 2000, he was appointed as President of Sinopec Zhejiang Petroleum Co., Ltd.; in April 2003, he was elected as Employee s Representative Supervisor of Sinopec Corp.; in April 2004, he served as Chairman of Board of Directors of Sinopec-BP Zhejiang Petroleum Sales Co., Ltd.; in October 2004, he served as Secretary of CPC Committee, Vice Chairman of Board of Directors, and Vice President of Sinopec Sales Co., Ltd.; in November 2005 he served as Vice President of Sinopec Corp., Secretary of the Leading Party Member Group, Chairman of Board of Directors, and President of Sinopec Sales Co., Ltd.; in June 2006, he served as Chairman of Board of Directors, and President of Sinopec Sales Co., Ltd.; in July 2014, he was appointed as Member of the Leading Party Member Group and Vice President of China Petrochemical Corporation; and in May 2015, he was elected as Board Director and appointed as Senior Vice President of Sinopec Corp. In January 2018, he resigned as an executive director, a member of Strategy Committee of the Board and the Senior Vice President of Sinopec Corp.

Jiao Fangzheng, aged 55, Director and Senior Vice President of Sinopec Corp. Mr. Jiao is a professor level senior engineer with a Ph.D. degree. In January 1999, he was appointed as Chief Geologist in Zhongyuan Petroleum Exploration Bureau of China Petrochemical Corporation; in February 2000, he was appointed as Vice President and Chief Geologist of Sinopec Zhongyuan Oilfield Company; in July 2000, he was appointed as Deputy Director General of Sinopec Petroleum Exploration & Development Research Institute; in March 2001, he was appointed as Deputy Director General of Sinopec Exploration & Production Department; in June 2004, he was appointed as President of Sinopec Northwest Oilfield Company; in October 2006, he was appointed as Vice President of Sinopec Corp. in July 2010, he was appointed as the Director General of Sinopec Exploration & Production Department; in July 2014, he was appointed as Member of the Leading Party Member Group and Vice President of China Petrochemical Corporation; in September 2014, he was elected concurrently as Chairman of Board of Directors of Sinopec Oilfield Service Corporation and Vice Chairman of Board of Directors of Sinopec International Petroleum Exploration and Production Corporation; and in May 2015, he was elected as Director and appointed as Senior Vice President of Sinopec Corp.

Ma Yongsheng, aged 56, Director and Senior Vice President of Sinopec Corp. Mr. Ma is a professor level senior engineer with a Ph.D. degree and an academician of the Chinese Academy of Engineering. Mr. Ma is the member of the thirteenth national committee of CPPCC. In April 2002, he was appointed as Chief Geologist of Sinopec Southern Exploration and Production Company; in April 2006, he was appointed as Executive Deputy Manager (in charge of overall management), Chief Geologist of Sinopec Southern Exploration and Production Company; in January 2007, he was appointed as Manager and Party Secretary of CPC Committee of Sinopec Southern Exploration and Production Company; in March 2007, he served as General Manager and Deputy Party Secretary of CPC Committee of Sinopec Exploration Company; in May 2007, he was appointed as Deputy Commander of Sichuan-East China Gas Transmission Construction Project Headquarter of Sinopec Corp., General Manager and Deputy Secretary of CPC Committee of Sinopec Exploration Company; in May 2008, he was appointed as Deputy Director General of Exploration and Production Department of Sinopec Corp. (Director General Level) and Deputy Commander of Sichuan-East China Gas Transmission Construction Project Headquarter; in July 2010, he served as Deputy Chief Geologist of Sinopec Corp.; in August 2013, he was appointed as Chief Geologist of Sinopec Corp.; in December 2015, he served as Vice President of China Petrochemical Corporation and appointed as Senior Vice President of Sinopec Corp.; in January 2017, he was appointed as Member of the Leading Party Member Group of China Petrochemical Corporation. In February 2016, he was elected as Director of Sinopec Corp.

Table of Contents

Jiang Xiaoming, aged 64, Independent Director of Sinopec Corp. Mr. Jiang has a Ph.D. in economics. Presently, he acts as the member of the United Nations Board of Investment, Chairman of the Board of Directors of Hong Kong Saibo International Co. Ltd., Independent Director of COSCO International, Senior Fellow of the University of Cambridge Business School, and trustee of University of Cambridge China Development Fund. Between 1992 and 1998, he acted as the Vice President of United Nations Staff Retirement Fund; between 1999 and 2003, he acted as the Chairman of the Board of Directors of Frasers Property (China) Co., Ltd.; and he has previously acted as the member of the Eleventh and Twelfth national committee of CPPCC, the Board Director of JSW Energy Ltd., member of the Advisory Committee of American Capital Group and Rothschild, the British Investment Bank, and Independent Director of China Oilfield Services Limited. From May 2012 to the present, he has acted as Independent Director of Sinopec Corp.

Andrew Y. Yan, aged 60, Independent Director of Sinopec Corp. Mr. Yan is the founding Managing Partner of SAIF Partners. He studied in Nanjing University of Aeronautics and Astronautics, Peking University and Princeton University and earned a master degree from Princeton University. Presently, he acts as the Independent Non-executive Director of China Resources Land Limited, the Non-executive Director of China Huiyuan Juice Group Limited, Feng Deli Holdings Limited and Guodian Technology & Environment Group Corporation Limited; the Independent Director of Beijing BlueFocus Brand Management Consulting Co., Ltd and TCL Group; and the Director of ATA Co., Ltd and Ata Online(Beijing)Education Technology Co.,Ltd.. From 1989 to 1994, he acted as Economist of the World Bank headquarters in Washington, research Fellow of Hudson Institute, an American famous research think tank, and acted as the director of APAC Strategic Planning & Business Development of Sprint International Corporation; between 1994 and 2001, he acted as the Managing Director of Emerging Markets Partnership and Director of Hong Kong Office of AIG Asia Infrastructural Investment Fund. From May 2012 to the present, he has acted as Independent Director of Sinopec Corp.

Tang Min, aged 64, Independent Director of Sinopec Corp. Mr. Tang has a Ph.D. in economics. He presently acts as a Counsellor of the State Council of the PRC and the Executive Vice Chairman of YouChange China Social Entrepreneur Foundation, Independent Director of Minmetals Development Co., Ltd, Origin Agritech Limited and Baoshang Bank Co., Ltd. He has served as economist and senior economist at the Economic Research Centre of the Asian Development Bank between 1989 and 2000; chief economist at the Representative office of the Asian Development Bank in China between 2000 and 2004; deputy representative at the Representative Office of the Asian Development Bank in China between 2004 and 2007 and the deputy secretary-general of the China Development Research Foundation between 2007 and 2010. From May 2015 to the present, he has acted as Independent Director of Sinopec Corp.

Fan Gang, aged 64, Independent Director of Sinopec Corp. Mr. Fan has a Ph.D. in economics. He presently acts as Vice President of China Society of Economic Reform, Head of the National Economic Research Institution of China Reform Foundation, President of China Development Institute (Shenzhen) and an economics professor at Peking University. He began to work for Chinese Academy of Social Sciences in 1988, and subsequently served as Director of Editorial Department for the Economic Research Journal between 1992 and 1993 and as Deputy Head of the Institute of Economics of Chinese Academy of Social Sciences between 1994 and 1995. In 1996, he was redesignated to work for China Society of Economic Reform, and subsequently founded the National Economic Research

Institution. From 2006 to 2010, and from 2015 to the present, he has served as a member of the Monetary Policy Committee of People s Bank of China. Mr. Fan is recognised as one of the National Young and Middle-Aged Experts with Outstanding Contributions. From May 2015 to the present, he has acted as Independent Director of Sinopec Corp.

Supervisors

The table and discussion below set forth certain information concerning our supervisors. The current term of our supervisors is three years, which will expire in May 2018.

Name	Age	Position with the Company
Zhao Dong	47	Chairman
Liu Zhongyun	54	Former Supervisor
Zhou Hengyou	54	Supervisor
Zou Huiping	57	Supervisor
Jiang Zhenying	53	Employee Representative Supervisor
Yu Renming	54	Employee Representative Supervisor
Yu Xizhi	55	Employee Representative Supervisor

Table of Contents

Zhao Dong, aged 47, Chairman of Board of Supervisors of Sinopec Corp. Mr. Zhao is a professor-level senior accountant with a doctor s degree. In July 2002, he was appointed as chief accountant and manager of financial assets department of CNPC International (Nile) Ltd.; in January 2005, he was appointed as deputy chief accountant and executive deputy director of financial and capital operation department of China National Oil and Gas Exploration and Development Corporation; in April 2005, he was appointed as deputy chief accountant and manager of financial and capital operation department of China National Oil and Gas Exploration and Development Corporation; in June 2008, he was appointed as chief accountant of China National Oil and Gas Exploration and Development Corporation; in October 2009, he was appointed as chief accountant of China National Oil and Gas Exploration and Development Corporation and chief financial officer of PetroChina International Investment Company Limited; in September 2012, he was appointed as vice general manager of CNPC Nile Company and in August 2013, he was appointed as general manager of CNPC Nile Company; in November 2015, he was appointed as chief financial officer of PetroChina Company Limited. He has been a member of the Leading Party Member Group and chief accountant of China Petrochemical Corporation since November 2016; in June 2017, he was elected as Chairman of Board of Supervisors of Sinopec Corp.

Liu Zhongyun, aged 54, former Supervisor of Sinopec Corp. Mr. Liu is a professor level senior engineer with a Ph.D. in engineering. In December 2002, he was appointed as a standing committee member of CPC Committee and Director of Organisation Department of Shengli Petroleum Administration Bureau; in November 2004, he was appointed as Deputy Secretary of CPC Committee of Shengli Petroleum Administration Bureau; in December 2005, he was appointed as Manager of Sinopec Shengli Oilfield Branch; in December 2008, he was appointed as Secretary of CPC Committee of Sinopec International Petroleum Exploration and Production Corporation; in July 2010, he was appointed as General Manager of Sinopec Northwest Oilfield Company, Director General of Northwest Petroleum Bureau under China Petrochemical Corporation. Since August 2014, Mr. Liu has acted as Assistant to President and Director General of HR Department of China Petrochemical Corporation, and in May 2015, he was elected as Supervisor of Sinopec Corp.; in March 2017, he was appointed as Vice President of China Petrochemical Corporation; in February 2018, he resigned as Supervisor of Sinopec Corp.; in February 2018, he was appointed as Senior Vice President of Sinopec Corp.

Zhou Hengyou, aged 54, Supervisor of Sinopec Corp. Mr. Zhou is a professor level senior administration engineer and with a master degree. In December 1998, Mr. Zhou was appointed as a standing committee member of CPC Committee and Deputy Labour Union Chairman of Jiangsu Petroleum Exploration Bureau; in February 1999, he was appointed as a standing committee member of CPC Committee and Labour Union Chairman of Jiangsu Petroleum Exploration Bureau of China Petrochemical Corporation; in December 2002, he was appointed as Deputy Secretary of CPC Committee and Labour Union Chairman of Jiangsu Petroleum Exploration Bureau; in June 2004, he was appointed as Deputy Secretary of CPC Committee and Secretary of CPC Disciplinary Inspection Committee of Jiangsu Petroleum Exploration Bureau; in August 2005, he was appointed as Secretary of CPC Committee of Jiangsu Petroleum Exploration Bureau; in March 2011,he was appointed as Director General and Secretary of CPC Committee of China Petrochemical News. In March 2015, he was appointed as Director General of the General Office of China Petrochemical Corporation, Director General of Policy Research Department of the General Office and Director General of President s office of Sinopec Corp. In August 2015, he was appointed as Director General of Board of Directors Office under China Petrochemical Corporation; and in May 2015, he was elected as Supervisor of Sinopec Corp.

Zou Huiping, aged 57, Supervisor of Sinopec Corp. Mr. Zou is a professor level senior accountant with a university diploma. In November 1998, he was appointed as Chief Accountant in Guangzhou Petrochemical General Plant of China Petrochemical Corporation; in February 2000, he was appointed as Deputy Director General of Finance & Assets Department of China Petrochemical Corporation; in December 2001, he was appointed as Deputy Director General of Finance & Planning Department of China Petrochemical Corporation; in March 2006, he was appointed as Director General of Finance & Assets Department of Assets Management Co., Ltd. of China Petrochemical Corporation; in March 2006, he was appointed as Director General of Auditing Department of Sinopec Corp.; and in May 2006, he was elected as Supervisor of Sinopec Corp.

Table of Contents

Jiang Zhenying, aged 53, Employee s Representative Supervisor of Sinopec Corp. Mr. Jiang is a professor level senior economist with a doctor degree. In December 1998, he was appointed as the Vice President of the China Petrochemical Supplies & Equipment Co., Ltd.; in February 2000, he was appointed as the Deputy Director General of Sinopec Procurement Management Department; in December 2001, he was appointed as the Director General of Sinopec Procurement Management Department and in November 2005 he concurrently held the positions of Chairman of Board of Directors, President and Secretary of CPC Committee of China Petrochemical International Co., Ltd.; in March 2006, he was appointed as the Director General (General Manager), Executive Director and Secretary of the CPC Committee of Sinopec Procurement Management Department (Sinopec International Co. Ltd.); in April 2010, he was appointed as the Director General (General Manager), Executive Director and Deputy Secretary of the CPC Committee of Sinopec Procurement Management Department (Sinopec International Co. Ltd); in November 2014, he was appointed as Director General of Safety Supervisory Department of Sinopec Corp.; in May 2017, he was appointed as Deputy Director of the Leading Group Office of Party Inspection Work of China Petrochemical Corporation and the leader of overseas enterprises inspection group; and since December 2010, he was elected as the Employee s Representative Supervisor of Sinopec Corp.

Yu Renming, aged 54, Employee s Representative Supervisor of Sinopec Corp. Mr. Yu is a professor level senior engineer with a university diploma. In June 2000, he was appointed as the Deputy General Manager of Sinopec Zhenhai Refining & Chemical Co., Ltd.; in June 2003, he was appointed as the Board Director and Deputy General Manager of Sinopec Zhenhai Refining & Chemical Co., Ltd.; in September 2006, he was appointed as the Vice President of Sinopec Zhenhai Refining & Chemical Company; in September 2007, he was appointed as the President and the Vice Secretary of CPC committee of Sinopec Zhenhai Refining & Chemical Company; in January 2008, he was appointed as the Director General of Sinopec Production Management Department; in December 2017, he was appointed as the Director General of Refining Department of Sinopec Corp.; and in December 2010, he was elected as Employee s Representative Supervisor of Sinopec Corp.

Yu Xizhi, aged 55, Employee s Representative Supervisor of Sinopec Corp. Mr Yu is a professor-level senior engineer with a Ph.D. in engineering. In August 1997, he was appointed as Deputy Manager of Anqing Petrochemical Complex and Manager of Fertiliser Plant; in September 1999, he became a member of the CPC Standing Committee of Anqing Petrochemical Complex; in February 2000, he was appointed as Deputy Manager of Sinopec Anqing Company and in September 2000, he was appointed as Manager of Sinopec Anqing Company. In January 2005, he was appointed as Manager of Anqing Petrochemical Complex and from May 2009 to July 2010, he served a temporary position at the Standing Committee of the CPC Anqing Municipal Committee. In July 2010, he became General Manager and Deputy Secretary of the CPC Committee of Maoming Petrochemical Company and General Manager of Sinopec Maoming Company; in July 2016, Mr. Yu was appointed as head of Maoming-Zhanjiang Integration Leading Group; in December 2016, he became Executive Director, General Manager and Deputy Secretary of the CPC Committee of Zhongke (Guangdong) Refining and Petrochemical Co., Ltd. Since April 2017, Mr. Yu has been Director General of Human Resources Department of China Petrochemical Corporation and Sinopec Corp. In June 2017, he was elected as Employee s Representative Supervisor of Sinopec Corp.

Other Executive Officers

Name	Age	Positions with Sinopec Corp.
Wang Dehua	51	CFO
Ling Yiqun	55	Former Vice President
Huang Wensheng	51	Vice President/Secretary to the Board of Directors
Chang Zhenyong	59	Vice President
Lei Dianwu	55	Vice President

Wang Dehua, aged 51, Chief Financial Officer of Sinopec Corp. Mr. Wang is a senior accountant with university diploma. In January 2001, he was appointed as Deputy Director General of Finance Department of Sinopec Corp.; in May 2014, he was appointed as Acting Director General of Finance Department of Sinopec Corp.; in October 2015, he was promoted to Director General of Finance Department of Sinopec Corp.; in November 2015, he was appointed as Director General of Finance Department of China Petrochemical Corporation; in August 2016, he was appointed as Director General of Finance Department of Sinopec Corp.. Mr. Wang now concurrently acts as Vice Chairman of Sinopec Finance CO., Ltd. and Taiping & Sinopec Financial Leasing Co., in September 2016, he was appointed as Chief Financial Officer of Sinopec Corp.

Table of Contents

Ling Yiqun, aged 55, former Vice President of Sinopec Corp. Mr. Ling is a professor level senior engineer with a Ph.D. degree. From 1983, he worked in the refinery of Beijing Yanshan Petrochemical Company and the Refining Department of Beijing Yanshan Petrochemical Company Ltd. In February 2000, he was appointed as the Deputy Director General of Refining Department of Sinopec Corp.; in June 2003, he was appointed as the Director General of Refining Department of Sinopec Corp.; in July 2010, he was appointed as Vice President of Sinopec Corp; in May 2012, he was appointed as Executive Director, President and Secretary of CPC Committee of Sinopec Refinery Product Sales Company Limited; in August 2013, he was appointed as the President of Sinopec Qilu Company; in December 2016, he was elected concurrently as Chairman of Board of Directors of Sinopec Engineering(Group) Co. Ltd.; in March 2017, he was appointed as Vice President of China Petrochemical Corporation and in February 2018, he was appointed as Senior Vice President of Sinopec Corp.

Huang Wensheng, aged 51, Vice President of Sinopec Corp., Secretary to the Board of Directors. Mr. Huang is a professor level senior economist with a university diploma. In March 2003, he was appointed as Deputy Director General of the Board Secretariat of Sinopec Corp.; in May 2006, he was appointed as Representative on Securities Matters of Sinopec Corp.; since August 2009, He has served as the Deputy Director General of President s office of Sinopec Corp. In September 2009, he was appointed as Director General of the Board Secretariat of Sinopec Corp.; in May 2012, he was appointed as Secretary to the Board of Directors of Sinopec Corp.; and in May 2014, he was appointed as Vice President of Sinopec Corp.

Chang Zhenyong, aged 59, Vice President of Sinopec Corp. Mr. Chang is a professor level senior engineer with a master s degree. In September 1997, he was appointed as Vice President of Tianjin Petrochemical Company; in February 2000, he was appointed as Vice President of Sinopec Tianjin Company; and in September 2000, he was promoted to President of Sinopec Tianjin Company; from February 2004, he was appointed temporarily as member of Standing Committee of CPC Committee of Beihai, Guangxi; in March 2004, he was appointed temporarily as deputy mayor of Beihai, Guangxi; in November 2005, he was appointed as Director General of Production and Operation Management Department of Sinopec Corp.; in December 2007, he was appointed as President of Qilu Petrochemical Company and President of Sinopec Qilu Company; in April 2010, he was appointed as Employee s Representative Supervisor of Sinopec Corp.; in July 2010, he was appointed as Deputy Chief Engineer and concurrently as Director General of Chemicals Department of Sinopec Corp.; in August 2012, he was appointed concurrently as Vice Chairman of Board of Directors of Sinopec Great Wall Energy & Chemical Co., Ltd.; in November 2014, he was appointed as Executive Director and President of Sinopec Chemical Products Sales Co. Ltd and concurrently as Chairman of Board of Directors of Sinopec Chemical Products Sales (Hong Kong) Co. Ltd.; and in May 2014, he was appointed as Vice President of Sinopec Corp.

Lei Dianwu, aged 55, Vice President of Sinopec Corp. Mr. Lei is a Professor level Senior Engineer with a university diploma. In October 1995, he was appointed as Vice President of Yangzi Petrochemical Corporation; in December 1997, he was appointed as Director General of Planning & Development Department in China Eastern United Petrochemical (Group) Co., Ltd.; in May 1998, he was appointed as Vice President of Yangzi Petrochemical Corporation; in August 1998 he was appointed as Vice President of Yangzi Petrochemical Co., Ltd.; in March 1999, he was appointed temporarily as Deputy Director General of Development & Planning Department of China Petrochemical Corporation; in February 2000, he was appointed as Deputy Director General of Development &

Planning Department of Sinopec Corp.; in March 2001, he was appointed as Director General of Development & Planning Department of Sinopec Corp.; in March 2009, he was appointed as Assistant to President of China Petrochemical Corporation; in August 2013, he was appointed as the Chief Economist of China Petrochemical Corporation; in October 2015, he was appointed as Secretary to the Board of Directors of China Petrochemical Corporation; and in May 2009, he was appointed as Vice President of Sinopec Corp.

B. COMPENSATION

Salaries of Directors, Supervisors and Members of the Senior Management

Our directors and supervisors who hold working posts with us and other senior management members receive all their compensation from us in cash. Our compensation committee, with assistances from relevant administrative departments, determines the appropriate level of annual compensation for each of our directors and supervisors who hold working posts with us and other senior management members in two components: a base salary component and a performance rewards component. The base salary component is a fixed amount that will be paid on monthly basis. The performance rewards component is paid in one lump sum at about year end and the exact amounts of the performance rewards to be paid will be based on the completion by the Company of certain performance targets (key performance indicators, or KPIs) which are set at the beginning of the year and reviewed at year end. The KPIs cover areas such as profitability, workplace safety and environmental protection. Based on the annual review by our compensation committee, with the assistances from relevant administrative departments, of the Company s completion of various KPIs, our directors and supervisors who hold working posts with us and other senior management members will receive full or partial payments as their performance rewards.

Table of Contents

The following table sets forth the compensation on individual basis for our directors, supervisors and executive officers who received compensation from us in 2017.

Name	Position with the Company	Remuneration paid by the Company in 2017 (RMB in thousands before tax)
Directors		
Dai Houliang	Vice Chairman, President	843.8
Li Yunpeng	Director	
Wang Zhigang	Former Director, Senior Vice President	769.9
Zhang Haichao	Former Director, Senior Vice President	
Jiao Fangzheng	Director, Senior Vice President	
Ma Yongsheng	Director, Senior Vice President	
Jiang Xiaoming	Independent Director	300.0
Andrew Y. Yan	Independent Director	300.0
Tang Min	Independent Director	300.0
Fan Gang	Independent Director	300.0
Wang Yupu	Former Chairman	
Supervisors		
Zhao Dong	Chairman of the Board of Supervisors	
Liu Zhongyun	Former Supervisor	
Zhou Hengyou	Supervisor	
Zou Huiping	Supervisor	758.2
Jiang Zhenying	Employee Representative Supervisor	758.2
Yu Renming	Employee Representative Supervisor	758.2
Yu Xizhi	Employee Representative Supervisor	265.9
Liu Yun	Former Chairman of the Board of Supervisors	
Wang Yajun	Former Employee Representative Supervisor	417.3
Other Executive officers		
Wang Dehua	CFO	866.3
Ling Yiqun	Former Vice President	
Huang Wensheng	Secretary of the Board of Directors/Vice President	892.9
Chang Zhenyong	Vice President	892.9
Lei Dianwu	Vice President	892.9
Jiang Zhenghong	Former Vice President	755.4

C. BOARD PRACTICE

We have eight directors. We have four special board committees, namely, the audit committee, the strategic committee, the remuneration and evaluation committee and social responsibility management committee. The majority of the members of the remuneration and evaluation committee and all members of the audit committee are independent directors. In addition, there is at least one independent director who is a financial expert in the audit committee.

The main responsibilities of the audit committee include:

- to propose the appointment or replacement of the independent auditor;

Table of Contents

- to oversee the internal auditing system and its implementation;

- to coordinate the communication between the internal auditing department and the independent auditor;

- to examine and approve financial information and it disclosure; and

- to examine the financial policies, internal auditing, internal control and risk management system.

The members of our audit committee are Andrew Y. Yan, Jiang Xiaoming and Tang Min, all of whom are our Independent Non-executive Directors. Our Board has determined that Andrew Y. Yan qualifies as an audit committee financial expert.

The main responsibilities of the strategy committee are to conduct research and put forward proposals on the long-term development strategy and significant investments.

The members of our strategy committee are Dai Houliang, Jiao Fangzheng, Ma Yongsheng, Andrew Y. Yan and Fan Gang.

The main responsibilities of the remuneration and appraisal committee (remuneration committee) include:

- to review evaluation standards on the performance of directors and senior management, to conduct their evaluations and make suggestions to the Board; and

- to review compensation policies and scheme in respect of the remuneration of directors, supervisors and executive officers, and make suggestions to the Board.

The members of our remuneration committee are Fan Gang, Dai Houliang and Jiang Xiaoming.

The main responsibilities of the social responsibility management committee are to research on the policy, governance, strategy and planning for the Company s social responsibility and put forward proposals to the Board.

The members of social responsibility management committee are Dai Houliang and Tang Min.

Our directors have entered into directors service contracts with us and under such contracts, there is no severance pay arrangements for our directors.

As a joint stock company incorporated in the PRC, we are required by the PRC law to have in place a board of supervisors. The board of supervisors shall consist of no less than three supervisors, and at least one third of the board of supervisors shall be employee representative supervisors. Employee representative supervisors shall be elected by our employees at a meeting of employee representatives, a general meeting of employees or through other means.

According to our articles of association, the main responsibilities of our board of supervisors include:

- to review the Company s financial affairs;

- to supervise directors and executive officers when they perform their duties, and to propose to our shareholders the dismissal of any director or executive officer who has violated our articles of association and relevant laws and regulation;

- to demand directors or executive officers to rectify their conducts that conflict with our interests;

- to propose the call of any extraordinary general meeting of shareholders to the Board, and to convene and preside over such shareholder meeting if the Board fails to do so; and

- to initiate legal proceedings against directors and executive officers on behalf of the Company.

Table of Contents

Our board of supervisors currently consists of six supervisors including three employee representative supervisors. In 2016, the supervisors attended the Company s shareholder meetings and presented at the Company s board meetings, attended the trainings for directors and supervisors of listed companies organized by Beijing Securities Supervisory Bureau under CSRC.. A detailed report of our board of supervisors performance overview to our shareholders for the year 2016 was included in our annual report to shareholders, and could be found in the Section Report of the Board of Supervisors in our Form 6-K submitted to the Securities and Exchange Commission on April 7, 2017.

D. EMPLOYEES

As of December 31, 2015, 2016 and 2017, we had approximately 351,019, 451,611 and 446,225 employees, respectively. The following table sets forth the number of our employees by our business segments, their scope of work and their education as of December 31, 2017.

By Segment	Number of Employees	Percentage of Total Number of Employees (%)
Exploration and production	148,069	33.2
Refining	70,128	15.7
Marketing and distribution	153,804	34.5
Chemicals	63,052	14.1
Corporate and other	11,172	2.5
Total	446,225	100

By Employee s Scope of Work	Number of Employees	Percentage of Total Number of Employees (%)
Production	163,319	36.6
Sales	142,824	32.0
Technical	83,816	18.8
Finance	10,951	2.4
Administration	35,698	8.0
Others	9,617	2.2
Total	446,225	100

By Education	Number of Employees	Percentage of Total Number of Employees (%)
Master s degree and above	15,707	3.5
University	109,274	24.5
Junior college	98,983	22.2
Technical secondary school	40,272	9.0
Senior high school and technical school degree or below	181,989	40.8
Total	446,225	100

During this report period, there has been no significant change to our core technical team and key technicians.

We have a workers association that protects employee rights, organizes educational programs, assists in the fulfillment of economic objectives, encourages employee participation in management decisions, and assists in mediating disputes between us and individual employees. We have not been subject to any strikes or other labor disturbances that have interfered with our operation, and we believe that our relations with our employees are good.

The total remuneration of our employees includes salary, performance bonuses and allowances. Employees also receive certain subsidies in housing, health services, education and other miscellaneous items.

Table of Contents

E. SHARE OWNERSHIP

As of December 31, 2017, except our vice president Ling Yiqun who holds 13,000 shares of our A shares, none of our directors, supervisors and executive officers beneficially own any of our shares.

ITEM 7. MAJOR SHAREHOLDERS AND RELATED PARTY TRANSACTIONS

A. MAJOR SHAREHOLDERS

The following table sets forth information regarding our 5% or more shareholders as of April 17, 2018.

Shareholder	Number of Shares Owned (in millions)	Percentage of Ownership (%)
Sinopec Group Company(1)	86,346	71.32

(1) Inclusive of 553,150,000 H shares held by Sinopec Century Bright Capital Investment Ltd. (overseas wholly-owned subsidiary of Sinopec Group Company) under HKSCC Nominees Limited.

As of April 17, 2018, 1,671,084,700 H shares were registered in the name of a nominee of Citibank, N.A., the depositary under our ADS deposit agreement. Citibank, N.A. has advised us that, as of April 17, 2018, 16,710,847 ADSs, representing 1,671,084,700 H shares, were held of record by Cede & Co. and 36 other registered shareholders domiciled in and outside of the United States. We have no further information as to our shares held, or beneficially owned, by U.S. persons.

To avoid the adverse effects brought by intra-industry competition to the maximum extent possible, we and Sinopec Group Company have entered into a non-competition agreement whereby Sinopec Group Company has agreed to: refrain from operating new businesses which compete or could compete with us in any of our domestic or international markets; grant us an option to purchase Sinopec Group Company s operations that compete or could compete with our businesses; operate its sales enterprises in a manner uniform to our sales and service operations; and appoint us as sales agent for certain of its products which compete or could compete with our products.

In March 2017, Sinopec Group has earnestly fulfilled its undertaking in eliminating competitions in chemical business with us through: (1) subscribing capital contribution of joint ventures controlled by us, by way of injecting net assets of certain chemical business and cash; (2) authorizing us to be in charge of production plan, management and sales of the remaining chemical business. The competition in chemical business between Sinopec Group and us has been eliminated.

To further avoid the competition with us, Sinopec Group Company granted us an undertaking, as amended, whereby Sinopec Group Company undertakes that: first, we shall become the sole platform which deals with the exploration and production of oil and gas, oil refining, chemicals, sale of petroleum products; second, given that Sinopec Group Company engages in the same or similar businesses as us with regard to the exploration and production of overseas petroleum and natural gas, we have the option, after thorough analysis from political, economic and other perspectives, to require Sinopec Group Company to sell its overseas oil and gas assets owned at the time, to the extent remaining in its possession, to us. Sinopec Group Company further promises to sell its overseas oil and gas assets to us, provided that the aforementioned proposed acquisitions comply with the applicable laws and regulations, contractual obligations and other procedural requirements.

B. RELATED PARTY TRANSACTIONS

Sinopec Group Company owned 71.32% of our outstanding equity as of April 17, 2018. Sinopec Group Company is able to exercise all the rights of a controlling shareholder, including the election of directors and voting in respect of amendments to our articles of association. Sinopec Group Company, as our controlling shareholder, is subject to certain non-controlling shareholder protection provisions under our articles of association.

Table of Contents

We have engaged from time to time and will continue to engage in a variety of transactions with Sinopec Group Company, which provide a number of services to us, including ancillary supply, transport, educational and community services. The nature of our transactions with Sinopec Group Company is governed by a number of service and other contracts between Sinopec Group Company and us. A discussion of these agreements and arrangements is set forth 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 Securities and Exchange Commission on October 10, 2000, April 13, 2007, May 20, 2009, April 30, 2010, April 11, 2013, April 16 ,2014, April 10, 2015, April 20, 2016 and April 24, 2017 respectively, and under the heading Item 4 Information on the Company History and Development of the Company of this annual report.

On August 26, 2015, we entered into a supplementary agreement of connected transactions with Sinopec Corp., whereby the terms of the Mutual Supply Agreement and the Cultural and Educational, Hygienic and Community Services Agreement (Exhibit 4.4) were extended from January 1, 2016 to December 31, 2018. The resolution relating to continuing connected transactions for the three years from 2016 to 2018 was approved at the first extraordinary general meeting for 2015 held on October 23, 2015. For details of the above continuing connected transactions, please refer to Exhibit 4.22. Capitalized terms used in this section shall have the same meaning as that used in the above-mentioned exhibit.

On August 26, 2015, we entered into an equity transfer agreement relating with Sinopec Baichuan Economic and Trading Company (Baichuan Co. , a wholly-owned subsidiary of Sinopec Group Company), pursuant to which, we proposed to transfer 100% of the equity interest of Sinopec Beijing Jingtian Engineering and Construction Co., Ltd. (Jingtian Co.) held by us to Baichuan Co. The final consideration of above-mentioned equity interest was around RMB 1.869 billion.

On October 29, 2015, we entered into a joint venture agreement with SAMC in relation to the formation of Gaoqiao. We and SAMC subscribed 55% and 45% of the registered capital of Gaoqiao, respectively.

On December 28, 2015, the Proposal on Providing Completion Guarantee for the Project Financing of Zhongtian Synergetic was considered and approved at the fourth meeting of the sixth session of Board, where our directors unanimously agreed to us providing a completion guarantee to Zhongtian Synergetic Ordos coal deep processing demonstration project subject to the provision of completion guarantees by the other shareholders of Zhongtian Synergetic on a pro-rata basis (the Guarantee). The Guarantee has been considered and approved at the first extraordinary general meeting for the year 2016. Zhongtian Synergetic is a connected party of the Company under the Shanghai Listing Rules because its vice chairman, Mr. Chang Zhenyong is a vice president of the Company. However, Zhongtian Synergetic is not a connected person under the Hong Kong Listing Rules.

For our related party transaction starting from January 1, 2016, please also see Note 32 of our consolidated financial statements included elsewhere in this annual report for a detailed discussion of our related party transactions.

In 2017, we provided RMB 1.46 billion of loans to certain affiliates of Sinopec Group Company. In addition, we received loans with a net amount of RMB 5.28 billion to certain affiliates of Sinopec Group Company in 2017.

The above-mentioned variety of transactions with Sinopec Group Company are in compliance with the upper limit of the amount of related party transactions approved by the shareholders and the Board.

C. INTERESTS OF EXPERTS AND COUNSEL

Not applicable.

ITEM 8. FINANCIAL INFORMATION

A. CONSOLIDATED STATEMENTS AND OTHER FINANCIAL INFORMATION

See consolidated financial statements included in this annual report following Item 19.

Legal Proceedings

We are involved in certain judicial and arbitral proceedings before Chinese courts or arbitral bodies concerning matters arising in connection with the conduct of our businesses. We believe, based on currently available information, that the results of such proceedings, in the aggregate, will not have a material adverse effect on our financial condition or results of operations.

Table of Contents

Dividend Distribution Policy

In 2012, we amended our articles of association based on its original framework. Our dividend distribution policy was amended. According to our amended articles of association:

Our board of directors will determine the payment of dividends, if any, with respect to our shares on a per share basis. Any final dividend for a financial year shall be subject to shareholders approval. The board may declare interim and special dividends at any time under general authorization by a shareholders ordinary resolution. A decision to declare or to pay any dividends in the future, and the amount of any dividends, will depend on our results of operations, cash flows, financial condition, the payment by our subsidiaries of cash dividends to us, future prospects and other factors which our directors may determine are important.

For holders of our H shares, cash dividend payments, if any, shall be declared by our board of directors in Renminbi and paid in HK dollars. The depositary will convert the HK dollar dividend payments and distribute them to holders of ADSs in US dollars, less expenses of conversion.

The Company may distribute dividends in the following forms: cash, shares or other forms provided by laws, administrative rules, regulations of competent authorities and regulatory provisions in the place where the Company s shares are listed. The Company shall give priority to the distribution of dividends in cash. The Company may make interim dividends distribution. The Company shall distribute cash dividends when the Company s net profit and retained earnings, in separate financial statement, are positive and the Company has adequate cash inflows over the requirements of cash outflows of operation and sustainable development. The cash dividends per annum should not be less than thirty (30) percent of the net profit of the Company in the current year. Dividends in the form of shares will be distributed to the depositary and, except as otherwise described in the Deposit Agreement, will be distributed by the depositary in the form of additional ADSs, to holders of ADSs.

At the seventeenth meeting of the sixth session of our board, our board approved the proposal to distribute a final cash dividend of RMB 0.40 (including tax) per share, combining with an interim distributed dividend of RMB 0.10 (including tax) per share, the total dividend for 2017 is RMB 0.50 (including tax) per share. The proposal is subject to the shareholder s approval at the annual general meeting.

B. SIGNIFICANT CHANGES

None.

ITEM 9. THE OFFER AND LISTING

A. OFFER AND LISTING DETAILS

Not applicable, except for Item 9A(4) and Item 9C.

Our H Shares have been listed on the Hong Kong Stock Exchange (Code: 0386), and our ADSs, each representing 100 H Shares, have been listed on the New York Stock Exchange and the London Stock Exchange under the symbol SNP , since we completed our initial public offering on October 19, 2000. Prior to that time, there was no public market for our H Shares. The Hong Kong Stock Exchange is the principal non-U.S. trading market for our H Shares. Our publicly traded domestic shares, or A shares, are listed on the Stock Exchange of Shanghai since August 8, 2001 (Code: 600028).

On 14 February 2013, we issued 2,845,234,000 listed H shares with a par value of RMB 1.00 each at the price of HKD 8.45 per share. The aggregate gross proceeds from the placing amounted to approximately HKD 24.0 billion.

On January 26, 2015, the conditional redemption of the 2011 convertible bonds amounting to RMB 27 billion, was triggered. As of February 11, 2015 (the redemption registration date), the cumulative conversion of the 2011 convertible bonds to listed A shares is 4,623,769,047 shares, and the balance of registered 2011 convertible bonds is RMB 52,766,000. On February 17, 2015, we redeemed the balance plus interests payable at the aggregate amount of RMB 53,348,948.28. The 2011 convertible bonds were delisted from the Shanghai Stock Exchange.

Table of Contents

The following table sets forth, for the periods indicated, the high and low closing prices per H Share, as reported on the Stock Exchange of Hong Kong, per ADS, as reported on the New York Stock Exchange and per A share, as reported on the Stock Exchange of Shanghai.

	The Stock Exchange of Hong Kong		The New York Stock Exchange		The Shanghai Stock Exchange	
Period	**High**	**Low**	**High**	**Low**	**High**	**Low**
April 2018 (as of April 17, 2018)	7.43	7.02	96.05	86.62	6.94	6.38
	(HK dollar per H share)		**(US dollar per ADS)**		**(RMB per A share)**	
Past 6 months						
2018 March						
2018 February	6.97	5.99	88.46	74.98	7.63	6.30
2018 January	7.00	5.73	89.68	75.14	7.44	6.13
2017 December	5.77	5.45	74.06	69.82	6.18	5.93
2017 November	5.94	5.44	76.66	70.00	6.29	5.89
2017 October	5.85	5.63	75.88	72.45	5.99	5.81
Quarterly Data						
2018 First Quarter						
2017 Fourth Quarter	5.94	5.44	76.66	69.82	6.29	5.81
Third Quarter	6.12	5.60	80.06	72.05	6.32	5.83
Second Quarter	6.55	6.02	84.50	78.16	6.33	5.64
First Quarter	6.36	5.50	82.42	71.02	6.06	5.41
2016 Fourth Quarter	5.95	5.27	77.47	68.12	5.67	4.86
Third Quarter	5.84	5.28	75.21	68.10	5.02	4.70
Second Quarter	5.65	4.93	73.06	62.99	5.08	4.60
First Quarter	5.09	3.88	65.15	49.82	4.96	4.27
Annual Data						
2017	6.55	5.44	84.50	69.82	6.33	5.41
2016	5.95	3.88	77.47	49.82	5.67	4.27
2015	7.63	4.35	96.41	55.73	8.67	4.49
2014	8.18	5.74	105.28	74.53	6.56	4.38
2013	7.26	5.08	94.36	65.95	5.94	4.10

Source: Bloomberg

ITEM 10. ADDITIONAL INFORMATION

A. SHARE CAPITAL

Not applicable.

B. MEMORANDUM AND ARTICLES OF ASSOCIATION

In 2017, we amended the articles of association and rules and procedures for the board meetings. With the amendments, corporate governance mechanism in scientific decision-making, efficient implementation and supervision was promoted. When making decisions on significant matters such as directions for reform and development, key targets and projects arrangements, and nominations and employment of executives of the Company, the Board would seek advice from the Party organisation, which further strengthened the Company s democratic and scientific decision-making process. In respect of resolutions made by the Board, the Party organisations motivate party members to actively play an exemplary and leading role on implementations based on their responsibilities and inspires the initiative and enthusiasm of employees, which has helped the effective implementation of the Board s decisions by the management. In addition, the Party organisations have strengthened the supervision and accountability on anti-corruption and self-discipline of the Party members which promote the clean governance and risk-management level.

Table of Contents

The following is a summary of certain provisions of our articles of association and its appendices, as amended, the Company Law of the PRC (2006) and certain other applicable laws and regulations of the PRC. You and your advisors should refer to the text of our articles of association, as amended, and to the texts of applicable laws and regulations for further information.

Objects and Purposes

We are a joint stock limited company established in accordance with the Company Law and certain other laws and regulations of the PRC. We are registered with the PRC State Administration of Industry and Commerce with business license number 100000000032985. Article 12 of our articles of association provides that our scope of businesses includes, among other things, the production, storage, pipeline transportation, land transportation, water transportation and sale of non-coal mines (oil and natural gas etc.), dangerous chemicals (ethylene, propylene, butadiene and naphtha etc.), heavy oil, rubber and other chemical raw materials and products; oil refining; wholesaling and retailing (for subsidiaries only) of gasoline, kerosene and diesel oil; the production, storage, transportation and sale of natural gas chemicals and coal chemicals; sale of lubricant, fuel oil, solvent naphtha and asphalt; production of chemical fertilizer; operation of LPG station, sale of CNG, LNG, LPG and city gas; operation of electrical vehicle charging station; production, supervision of manufacturing, installation of oil and petrochemical machinery and equipment; manufacturing of equipment, tools, instruments and gauges in petroleum drilling and production; purchase and sale of oil and petrochemical raw and auxiliary materials, equipment and parts; technology and information, research, development, application and consultation of alternative energy products; production and sale of electricity, steam, water and industrial gases; wholesaling of farm, forestry and pasture products; operation of general merchandise convenience stores; wholesaling and retailing of knitted garments and housewares; wholesaling and retailing of cultural and sports goods and equipment; sale of food, beverages and tobacco products; wholesaling and retailing of pharmaceuticals and medical devices; retailing of automobiles, motorcycles and components; repair and maintenance of and technical training for automobiles and motorcycles; wholesaling and retailing of machineries, hardware products, electronic products and household appliances; retailing of furniture and materials for indoor decoration; stalls, no-store sale and other forms of retail business; general merchandise retail; accommodation and catering services; manufacturing of food and food additives; residents´ services; transportation agency services; warehousing; operation of self-owned properties; leasing of natural gas storage facility; leasing of houses, working places, vehicles and equipment; lease of machineries; media, advertising and acting as commission agent; insurance brokerage and agency services; financial trust and management services; E-commerce; self-operation of and acting as agency for the import and export of various commodities and technologies other than those restricted or prohibited by the state from import and export; contractor of overseas mechanical, electronics, petrochemical projects and domestic international bid-inviting projects; export of equipment and materials required for the aforementioned overseas projects; dispatch of labor required for the aforementioned overseas projects.

Directors

Our directors shall be elected at our shareholders general meeting. Cumulative voting shall be adopted for the election of directors if a controlling shareholder controls 30% or more of our shares. Details of the cumulative voting mechanism are set forth in Article 59 of the Rules and Procedures for the Shareholders General Meetings that is an appendix to, and forms an integral part of, our articles of association. Our directors shall be elected for a term of three years and may serve consecutive terms upon re-election, except that independent directors may only serve a maximum of two terms. Our directors are not required to hold any shares in us, and there is no age limit requirement for the retirement or non-retirement of our directors.

Where a director is materially interested, directly or indirectly, in a contract, transaction or arrangement (including any proposed contract, transaction or arrangement) with us, he or she shall declare the nature and extent of his or her interests to the board of directors at the earliest opportunity, whether or not such contract, transaction or arrangement is otherwise subject to the approval of the board. A director shall not vote, and shall not be counted in the quorum of the meeting, on any resolution concerning any contract, transaction or arrangement where the director owns material rights or interests therein. A director is deemed to be interested in a contract, transaction or arrangement in which his associate (as

defined by the Listing Rule of the Hong Kong Stock Exchange) is interested.

Table of Contents

Unless the interested director discloses his interests to the board and the contract, transaction or arrangement in which the director is materially interested is approved by the board at a meeting in which the director neither votes nor is not counted in the quorum, such contract, transaction or arrangement shall be voidable by us except with respect to a bona fide party thereto who does not have notice of the director s interests.

We are prohibited from making loans or providing guarantees to our directors and their associates except where such loan or guarantee is to meet expenditure requirement incurred or to be incurred by the director for the purposes of the company or for the purpose of enabling the director to perform his or her duties properly in accordance with the terms of a service contract approved by the shareholders in a general meeting.

The board of directors shall examine and approve the amount of the long-term loans for the current year according to the annual investment plan as approved by the shareholders general meeting. The chairman of the board of directors is authorized to make adjustments of no more than 10% of the total amount of the long-term loans as approved by the board of directors for the current year. Within the total amount of the long-term loans as approved by the board of directors, the chairman of the board of directors is authorized to approve and execute individual long-term loan agreement with the loan amount exceeding RMB 1 billion, and the president is authorized to approve and execute individual long-term loan agreement with the loan amount not exceeding RMB 1 billion. Within the total amount of the working capital loans for the current year as approved by the board of directors, the chairman of the board of directors is authorized to execute the overall short-term loan facility agreement for raising working capitals as we need.

Matters relating to the remuneration of our directors shall be determined by the shareholders general meeting.

Dividends

A distribution of final dividends for any financial year is subject to shareholders approval. Except as otherwise decided by Shareholders meeting, the board of directors may make decision on the distribution of interim dividends. Except as otherwise provided by laws and regulations, the sum of interim dividends shall not exceed 50 percent of the net profit for the half year interim period. Dividends may be distributed in the forms of cash, shares or other forms provided by laws, administrative rules or regulations of competent authorities and regulatory provisions in the place where the Company s shares are listed. The Company shall give priority to the distribution of dividends in cash. A distribution of shares, however, must be approved by special resolution of the shareholders.

Dividends may only be distributed after allowance has been made for:

- recovery of losses, if any;
- allocations to the statutory surplus reserve fund; and

- allocations to a discretionary surplus reserve fund if approved by the shareholders.

The allocations to the statutory surplus reserve fund shall be 10% of our after-tax profits of the current year determined in accordance with ASBE. In the event that the statutory surplus reserve balance reaches fifty (50) percent of the registered capital of the Company, no allocation is needed.

The articles of association require us to appoint on behalf of the holders of H shares a receiving agent which is registered as a trust corporation under the Trustee Ordinance of Hong Kong to receive dividends declared by us in respect of the H shares on behalf of such shareholders. The articles of association require that cash dividends in respect of H shares be declared in Renminbi and paid by us in HK dollars. The depositary of our ADSs will convert such proceeds into U.S. dollars and will remit such converted proceeds to our holders of ADSs. If we record no profit for the year, we may not normally distribute dividends for the year.

Dividend payments may be subject to PRC withholding tax.

Table of Contents

Voting Rights and Shareholders Meetings

Our board of directors shall convene a shareholders annual general meeting once every year and within six months from the end of the preceding financial year. Our board shall convene an extraordinary general meeting within two months of the occurrence of any one of the following events:

- where the number of directors is less than the number stipulated in the PRC Company Law or two-thirds of the number specified in our articles of association;

- where our unrecovered losses reach one-third of the total amount of our actually paid-in share capital;

- where shareholder(s) holding 10% or more of our issued and outstanding voting shares request(s) in writing the convening of an extraordinary general meeting;

- whenever our board deems necessary or our board of supervisors so requests; or

- circumstances provided in the articles of association.

Meetings of a special class of shareholders must be called in certain enumerated situations when the rights of the holders of such class of shares may be modified or adversely affected as discussed below. Proposals made by the board of directors, the board of supervisors or shareholder(s) holding 3% or more of the total number of voting shares shall be included in the agenda for the relevant general meeting if they are matters which fall within the scope of the functions and powers of shareholders in general meeting. Shareholder(s) holding 3% or more of the total shares of the Company may put forward interim motions by written proposals to the convener 10 days before the shareholders general meeting. The convener shall publish supplementary notice to announce the interim motion within two days upon receiving.

All shareholders meetings must be convened by our board of directors by written notice given to shareholders no less than 45 days before the meeting, by our board of supervisors or certain qualified shareholders in case a shareholders meeting is not convened by our board of directors and board of supervisors. Shareholder(s) holding 10% or more the total number of shares of the Company have the right to convene and chair the interim shareholders general meeting or class shareholders meeting in accordance with the provisions in laws, administrative rules and the articles of association, in the event that the board of directors and the board of supervisors fail to convene and chair such meeting upon demand made by such shareholders. Based on the written replies received by us 20 days before a shareholders meeting, we shall calculate the number of voting shares represented by shareholders who have indicated that they intend to attend the meeting. Where the number of voting shares represented by those shareholders amount to more than one-half of our total voting shares, we may convene the shareholders general meeting (regardless of the number of shareholders who actually attend). Otherwise, we shall, within five days, inform the shareholders again of the motions to be considered and the date and venue of the meeting by way of public announcement. After the announcement is made, the

shareholders meeting may be convened. The accidental omission by us to give notice of a meeting to, or the non-receipt of notice of a meeting by, a shareholder will not invalidate the proceedings at that shareholders meeting.

Shareholders at meetings have the power, among other things, to approve or reject our profit distribution plans, annual budget, financial statements, increase or decrease in share capital, issuance of debentures, merger or liquidation and any amendment to our articles of association. Shareholders of the shares which the Company issues to foreign investors for subscription in foreign currencies possess the same rights and undertake the same obligations as those of the shares which the Company issues to domestic investors for subscription in Renminbi. In addition, the rights of a class of shareholders may not be modified or abrogated, unless approved by a special resolution of all shareholders at a general shareholders meeting and by a special resolution of shareholders of that class of shares at a separate meeting. Our articles of association enumerate, without limitation, certain amendments which would be deemed to be a modification or abrogation of the rights of a class of shareholders, including increasing or decreasing the number of shares of a class disproportionate to increases or decreases of other classes of shares, removing or reducing rights to receive dividends in a particular currency or creating shares with voting or equity rights superior to shares of such class.

Table of Contents

Cumulative voting in accordance with the relevant laws and regulations in effect is adopted for the election of directors and supervisors. For all other matters, each share is entitled to one vote on all such matters submitted to a vote of our shareholders at all shareholders meetings, except for meetings of a special class of shareholders where only holders of shares of the affected class are entitled to vote on the basis of one vote per share of the affected class.

Shareholders are entitled to attend and vote at meetings either in person or by proxy. Proxies must be in writing and deposited at our legal address, or such other place as is specified in the meeting notice, no less than 24 hours before the time for holding the meeting at which the proxy proposes to vote or the time appointed for the passing of the relevant resolution(s). When the instrument appointing a proxy is executed by the shareholder s attorney-in-fact, such proxy when deposited must be accompanied by a notary certified copy of the relevant power of attorney or other authority under which the proxy was executed.

Except for those actions discussed below which require supermajority votes (special resolutions), resolutions of the shareholders are passed by a simple majority of the voting shares held by shareholders who are present in person or by proxy. Special resolutions must be passed by or more than two-thirds of the voting rights represented held by shareholders who are present in person or by proxy.

The following decisions must be adopted by special resolution:

- an increase or reduction of our share capital or the issue of shares, including stock distributions, of any class, warrants and other similar securities;

- issuance of debentures;

- our division, merger, dissolution and liquidation; (Shareholders who object to a proposed division or merger are entitled to demand that either we or the shareholders who approved the merger purchase their shares at a fair price.)

- amendments to our articles of association and its appendices;

- change of our company form;

- acquisition or disposal of material assets or provision of material guarantee within one year, with the value exceeding 30% of our latest audited total assets;

- any stock incentive plan;

- any other matters required by laws and regulations or our articles of association and its appendices or considered by the shareholders in a general meeting and which they have resolved by way of an ordinary resolution to be of a nature which may have a material impact on us and should be adopted by special resolution.

All other actions taken by the shareholders, including the appointment and removal of our directors and supervisors and the declaration of cash dividend payments, will be decided by an ordinary resolution of the shareholders. The listing agreement between us and the Hong Kong Stock Exchange (Listing Agreement) provided that we may not permit amendments to certain sections of the articles of association which have been mandated by the Hong Kong Stock Exchange. These sections include provisions relating to:

- varying the rights of existing classes of shares;

- voting rights;

- our power to purchase our own shares;

- rights of non-controlling shareholders; and

- procedure on liquidation.

Table of Contents

In addition, certain amendments to the articles of association require the approval and consent of the relevant PRC authorities.

Any shareholder resolution which is in violation of any laws or administrative regulations of the PRC will be null and void subject to statutory procedures.

Liquidation Rights

In the event of our liquidation, the H shares will rank pari passu with the domestic ordinary shares, and payment of debts out of our remaining assets shall be made in the order of priority prescribed by applicable laws and regulations or, if no such standards exist, in accordance with such procedure as the liquidation committee which has been appointed either by us or the People s Court of the PRC may consider to be fair and reasonable. After payment of debts, we shall distribute the remaining property to shareholders according to the class and proportion of their shareholders.

Further Capital Call

Shareholders are not liable to make any further contribution to the share capital other than according to the terms, which were agreed by the subscriber of the relevant shares at the time of subscription.

Increases in Share Capital and Preemptive Rights

The articles of association require the approval by a special resolution of the shareholders and by special resolution of holders of domestic ordinary shares and overseas-listed foreign invested shares at separate shareholder class meetings be obtained prior to authorizing, allotting, issuing or granting shares, securities convertible into shares or options, warrants or similar rights to subscribe for any shares or such convertible securities. No such approval is required if, but only to the extent that:

- we issue domestic ordinary shares and/or overseas-listed foreign-invested shares, either separately or concurrently, in numbers not exceeding 20% of the number of domestic ordinary shares and overseas-listed foreign-invested shares then in issue, respectively, in any 12-month period, as approved by a special resolution of the shareholders; or

- if our plans for issuing domestic ordinary shares and overseas-listed foreign-invested shares upon our establishment are implemented within fifteen months of the date of approval by the China Securities Regulatory Commission.

New issues of shares must also be approved by the relevant PRC authorities.

Reduction of Share Capital and Purchase by Us of Our Shares and General Mandate to Repurchase Shares

We may reduce our registered share capital only upon obtaining the approval of the shareholders by a special resolution and, in certain circumstances, of relevant PRC authorities. The number of H shares, which may be purchased is subject to the Hong Kong Takeovers and Share Repurchase Codes.

Restrictions on Large or Controlling Shareholders

Our articles of association provide that, in addition to any obligation imposed by laws and administration regulations or required by the listing rules of the stock exchanges on which our H shares are listed, a controlling shareholder shall not exercise his voting rights in a manner prejudicial to the interests of the shareholders generally or of some part of the shareholders:

- to relieve a director or supervisor from his or her duty to act honestly in our best interests;

Table of Contents

- to approve the expropriation by a director or supervisor (for his or her own benefit or for the benefit of another person) of our assets in any way, including, without limitation, opportunities which may benefit us; or

- to approve the expropriation by a director or supervisor (for his or her own benefit or for the benefit of another person) of the individual rights of other shareholders, including, without limitation, rights to distributions and voting rights (save according to a restructuring of our company which has been submitted for approval by the shareholders in a general meeting in accordance with our articles of association and its appendices).

A controlling shareholder, however, will not be precluded by our articles of association or any laws and administrative regulations or the listing rules of the stock exchanges on which our H shares are listed from voting on these matters.

A controlling shareholder is defined by our articles of association as any person who acting alone or in concert with others:

- is in a position to elect half or more of the board of directors;

- has the power to exercise, or to control the exercise of, 30% or more of our voting rights;

- acting separately or in concert with others, holds 30% or more of our issued and outstanding shares,; or

- acting separately or in concert with others, has de facto control of us in any other way.

As of the date of this annual report, Sinopec Group Company is and will be our only controlling shareholder.

Disclosure

The Listing Agreement imposes a requirement on us to keep the Hong Kong Stock Exchange, our shareholders and other holders of our listed securities informed as soon as reasonably practicable of any information relating to us and our subsidiaries, including information on any major new developments which are not public knowledge, which:

- is necessary to enable them and the public to appraise the position of us and our subsidiaries;

- is necessary to avoid the establishment of a false market in its securities; and

- might be reasonably expected materially to affect market activity in and the price of its securities.

There are also requirements under the Listing Rules for us to obtain prior shareholders approval and/or to disclose to shareholders details of certain acquisitions or disposals of assets and other transactions (including transactions with controlling shareholders).

Sources of Shareholders Rights

The PRC s legal system is based on written statutes and is a system in which decided legal cases have little precedent value. The PRC s legal system is similar to civil law systems in this regard. In 1979, the PRC began the process of developing its legal system by undertaking to promulgate a comprehensive system of laws. In December 1993, the Standing Committee of the 8th National People s Congress adopted the PRC Company Law. On October 27, 2005, the PRC Company law was amended by the Standing Committee of the 10th National People s Congress, and came into force on January 1, 2006. The amended PRC Company Law enhanced the protection of shareholders rights primarily in the following regards:

- Shareholders holding 10 percent or more of the shares of the Company are entitled to petition the court to dissolve the Company if (i) the Company is in serious operational difficulties; (ii) its continuing existence will seriously prejudice the interests of the shareholders; and (iii) such difficulties cannot be resolved through any other means;

Table of Contents

- Shareholders holding 1 percent or more of the shares of the Company for more than 180 consecutive days are entitled to request the board of supervisors (in terms of directors and senior management) or the board of directors (in terms of supervisors) to bring legal proceedings, or bring legal proceedings in their own name on behalf of the Company where it is in emergency and the Company will be subject to irreparable loss if not to do so, against directors, supervisors or senior management who fail to comply with the laws and regulations or the Company s articles of association in the course of performing their duties and cause loss to the Company;

- Shareholders who oppose the Company s decision on merger or separation are entitled to request the Company to repurchase their shares; and

- Shareholders holding 10 percent or more of the voting rights of the Company are entitled to convene a shareholders meeting.

Currently, the primary sources of shareholder rights are our articles of association, as amended, the PRC Company Law and the Listing Rules of the Hong Kong Stock Exchange, which, among other things, impose certain standards of conduct, fairness and disclosure on us, our directors and our controlling shareholder, i.e., Sinopec Group Company. To facilitate the offering and listing of shares of PRC companies overseas, and to regulate the behavior of companies whose shares are listed overseas, the State Council Securities Committee and the State Commission for Restructuring the Economic System issued on August 27, 1994 the Mandatory Provisions for articles of association of Company Listing Overseas (Mandatory Provisions). These Mandatory Provisions become entrenched in that, once they are incorporated into the articles of association of a PRC company, any amendment to those provisions will only become effective after approval by the SASAC. The Listing Rules require a number of additional provisions to the Mandatory Provisions to be included in the articles of association of PRC companies listing H shares on the Hong Kong Stock Exchange (Additional Provisions). The Mandatory Provisions and the Additional Provisions have been incorporated into our articles of association.

In addition, upon the listing of and for so long as the H shares are listed on the Hong Kong Stock Exchange, we will be subject to those relevant ordinances, rules and regulations applicable to companies listed on the Hong Kong Stock Exchange, including the Listing Rules of the Hong Kong Stock Exchange, the Securities (Disclosure of Interests) Ordinance (SDI Ordinance), the Securities (Insider Dealing) Ordinance and the Hong Kong Codes on Takeovers and Mergers and Share Repurchases (Hong Kong Takeovers and Repurchase Codes).

Unless otherwise specified, all rights, obligations and protections discussed below derive from our articles of association and/or the PRC Company Law.

Enforceability of Shareholders Rights

There has not been any public disclosure in relation to the enforcement by holders of H shares of their rights under constitutive documents of joint stock limited companies or the PRC Company Law or in the application or interpretation of the PRC or Hong Kong regulatory provisions applicable to PRC joint stock limited companies.

In most states of the United States, shareholders may sue a corporation derivatively . A derivative suit involves the commencement by a shareholder of a corporate cause of action against persons (including corporate officers, directors or controlling shareholders) who have allegedly wronged the corporation, where the corporation itself has failed to enforce such claim against such persons directly. Such action is brought based upon a primary right of the corporation, but is asserted by a shareholder on behalf of the corporation. The PRC company law as amended in October 2005 and effective in January 2006 has also granted shareholders with the rights to bring such derivative suits.

Our articles of association provide that all differences or claims, arising from any provision of our articles of association, any right or obligation conferred or imposed by the PRC Company Law or any other relevant law or administrative regulation which concerns our affairs:

Table of Contents

- between a holder of overseas-listed foreign-invested shares and us;

- between a holder of overseas-listed foreign-invested shares and any of our directors, supervisors, general managers, deputy general managers or other senior officers; or

- between a holder of overseas-listed foreign-invested shares and a holder of domestic ordinary shares

must be referred to arbitration at either the China International Economic and Trade Arbitration Commission in the PRC or the Hong Kong International Arbitration Center, and the laws of the PRC shall apply, save as otherwise provided in the laws and administrative regulations. Our articles of association provide that such arbitration will be final and conclusive. In June 1999, an arrangement was made between the People s Courts of the PRC and the courts of Hong Kong to mutually enforce arbitration rewards rendered in the PRC and Hong Kong according to their respective laws. This new arrangement was approved by the Supreme Court of the PRC and the Hong Kong Legislative Council and became effective on February 1, 2000. We have provided an undertaking to the United States Securities and Exchange Commission that, at such time, if any, as all applicable laws and regulations of the PRC and (unless our H shares are no longer listed on the Hong Kong Stock Exchange) all applicable regulations of the Stock Exchange of Hong Kong Ltd. shall not prohibit, and to the extent Section 14 under the United States Securities Act of 1933, as amended, so requires, our board of directors shall propose an amendment to the articles of association which would permit shareholders to adjudicate disputes arising between our shareholders and us, our directors, supervisors or officers by means of judicial proceedings.

The holders of H shares will not be able to bring actions on the basis of violations of the Listing Rules and must rely on the Hong Kong Stock Exchange to enforce its rules. The SDI Ordinance establishes certain obligations in relation to disclosure of shareholder interests in Hong Kong listed companies, the violation of which is subject to prosecution by the Securities and Futures Commission of Hong Kong. The Hong Kong Takeovers and Repurchase Codes do not have the force of law and are only standards of commercial conduct considered acceptable for takeover and merger transactions and share repurchases in Hong Kong as established by the Securities and Futures Commission and the securities and futures industry in Hong Kong.

We have appointed our representative office, located at 515 Madison Avenue, Suite 27 West, New York, NY 10022, USA, as our agent to receive service of process with respect to any action brought against us in certain courts in New York under the United States federal and New York State s securities laws. However, as the PRC does not have treaties providing for the reciprocal recognition and enforcement of judgments of courts within the United States, the United Kingdom, Japan or most other the Organization for Economic Cooperation and Development countries, administrative actions brought by regulatory authorities, such as the Commission, and other actions which result in foreign court judgments, could (assuming such actions are not required by PRC law and the articles of association to be arbitrated) only be enforced in the PRC on a reciprocal basis or according to relevant international treaty to which China is a party if such judgments or rulings do not violate the basic principles of the law of the PRC or the sovereignty, security and public interest of the society of the PRC, as determined by a People s Court of the PRC which has the jurisdiction for recognition and enforcement of judgments. We have been advised by our PRC counsel, Haiwen & Partners, that there is certain doubt as to the enforceability in the PRC of actions to enforce judgments of United States courts arising out of or based on the ownership of H shares or ADSs, including judgments arising out of or based on the civil liability provisions of United States federal or state securities laws.

Restrictions on Transferability and the Share Register

As provided in the articles of associations we may refuse to register a transfer of H shares unless:

- any relevant transfer fee is paid;

- the instrument of transfer is only related to H shares listed in Hong Kong;

- the instrument of transfer is accompanied by the share certificates to which it relates, or such other evidence is given as may be reasonably necessary to show the right of the transferor to make the transfer;

Table of Contents

- the stamp duty which is chargeable on the instrument of transfer has already been paid;

- if it is intended that the shares be transferred to joint owners, the maximum number of joint owners shall not be more than four (4); and

- the Company does not have any lien on the relevant shares.

We are required to keep a register of our shareholders which shall be comprised of various parts, including one part which is to be maintained in Hong Kong in relation to H shares to be listed on the Hong Kong Stock Exchange. Shareholders have the right to inspect and, for a nominal charge, to copy the share register. No transfers of ordinary shares shall be recorded in our share register within 30 days prior to the date of a shareholders general meeting or within 5 days prior to the record date established for the purpose of distributing a dividend.

We have appointed HKSCC Registrars Limited to act as the registrar of our H shares. This registrar maintains our register of holders of H shares at our offices in Hong Kong and enters transfers of shares in such register upon the presentation of the documents described above.

C. 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 20-F.

D. EXCHANGE CONTROLS

The existing foreign exchange regulations have significantly reduced government foreign exchange controls for transactions under the current account, including trade and service related foreign exchange transactions and payment of dividends. We may undertake current account foreign exchange transactions 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. The PRC government has stated publicly that it intends to make the Renminbi freely convertible in the future. However, we cannot predict whether the PRC government will continue its existing foreign exchange policy and when the PRC government will allow free conversion of Renminbi to foreign currency.

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

expenditures.

The exchange rate of the Renminbi against the U.S. dollar and other foreign currencies fluctuates and is affected by, among other things, the changes in the PRC s and international political and economic conditions. The PRC government has been gradually promoting the reform of exchange rate regime and enhance the flexibility of Renminbi exchange rate. On August 11, 2015, the PBOC decided to further improve the mechanism of RMB s central parity rate against the US dollar. Any fluctuation of exchange rate of the Renminbi against US dollars and Hong Kong dollars may have an effect on our revenues and financial condition, and the value of, and any dividends payable on, our ADSs in foreign currency terms. We cannot assure you that the fluctuation of exchange rate of the Renminbi against US dollars or other foreign currencies would not have a material and adverse effect on our operation and financial condition in the future. Information relating to the exchange risk, exchange rate and hedging activities is presented in Item 11. Qualitative and Quantitative Disclosures about Market risk Foreign Exchange Rate Risk .

E. TAXATION

PRC Taxation

The following discussion addresses the principal PRC tax consequences of investing in the H shares or ADSs.

Table of Contents

Taxation of Dividends

Individual Investors

According to the PRC Individual Income Tax Law, as amended, dividends paid by Chinese companies are ordinarily subject to a Chinese withholding tax levied at a flat rate of 20%. For a foreign individual who has no domicile and does not stay in the territory of China or who has no domicile but has stayed in the territory of China for less than one year, the receipt of dividends from a company in China is normally subject to a withholding tax of 20% unless reduced or exempted by an applicable tax treaties.

Foreign Enterprises

In accordance with the new Enterprise Income Tax Law and its implementation rules that became effective on January 1, 2008 and amended on February 24, 2017, dividends derived from the revenues accumulated from January 1, 2008 and are paid to non-resident enterprises, which are established under the laws of non-PRC jurisdictions and have no establishment or place of business in China or whose dividends from China do not relate to their establishment or place of business in China, 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. Dividends paid by PRC companies to resident enterprises, including enterprises established under the laws of non-PRC jurisdictions but whose de facto management body is located in the PRC, are not subject to any PRC withholding tax, unless the investment income are derived from the publicly traded shares which have been held continuously by the resident enterprises for less than twelve months. Dividends, bonuses and other return based on equity investment that a non-resident enterprise with establishment or place of business in China receives from a resident enterprise and that have actual connection with such establishment or place of business are also exempted from any PRC withholding tax, except for investment income derived from the publicly traded shares which have been held continuously by the resident enterprises for less than 12 months. Chinese resident enterprises are required to withhold PRC enterprise income tax at the rate of 10% on dividends paid for 2009 and later years earnings payable to their respective H Shares holders that are non-resident enterprises, except for those holders whose dividend income is not subject to PRC enterprise income tax pursuant to PRC governmental approval.

Tax Treaties

Holders resident in countries which have entered into avoidance of double taxation treaties or arrangements with the PRC may be entitled to a reduction or exemption of the withholding tax imposed on the payment of dividends.

Under a tax treaty between United States and China, China may tax dividends paid by Sinopec Corp. to eligible US Holders up to a maximum of 10% of the gross amount of such dividend. Under the tax treaty, an eligible US Holder is a person who, by reason of domicile, residence, place of head office, place of incorporation or any other criterion of similar nature is liable to tax in the United States, subject to a detailed treaty shopping provision.

Taxation of Capital Gains

In accordance with the new Enterprise Income Tax Law effective from January 1, 2008 and amended on January 8, 2011, and its implementation rules, capital gains realized by foreign enterprises which are non-resident enterprises in China upon the sale of overseas-listed shares 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. The capital gains realized by resident enterprises, including enterprises established under the laws of non-PRC jurisdictions but whose de facto management body is located in the PRC, upon the sales of overseas-listed shares are subject to the PRC enterprise income tax.

PRC Stamp Tax Considerations

Under the Provisional Regulations of The People s Republic of China Concerning Stamp Tax, which was effective on October 1, 1988 and amended in January 2011, PRC stamp tax should not be imposed on the transfer of shares of H Shares or ADSs of PRC publicly traded companies.

Table of Contents

United States Federal Income Tax Considerations

The following is a summary of United States federal income tax considerations relating to the ownership and disposition of our H shares or ADSs by a US Holder (as defined below). This summary is based upon existing United States federal income tax law, which is subject to differing interpretations or change, possibly with retroactive effect. This summary does not discuss all aspects of United States federal income taxation which may be important to particular investors in light of their individual investment circumstances, such as certain investors subject to special tax rules including: financial institutions, regulated investment companies, real estate investment trusts, broker-dealers, cooperatives, pension plans, insurance companies, traders in securities that elect mark-to-market treatment, partnerships and their partners, tax-exempt organizations (including private foundations), non-US Holders, holders who own (directly, indirectly, or constructively) 10% or more of our stock, investors that hold H shares or ADSs as part of a straddle, hedge, conversion, constructive sale, or other integrated transaction for United States federal income tax purposes, holders who acquired their H shares or ADSs pursuant to any employee share option or otherwise as compensation, or US Holders that have a functional currency other than the United States dollar, all of whom may be subject to tax rules that differ significantly from those summarized below. In addition, this summary does not discuss any state, local, non-United States, alternative minimum tax, non-income tax (such as the U.S. federal estate and gift tax) or Medicare considerations. This summary assumes that our H shares or ADSs held by investors are capital assets (generally, property held for investment) under the United States Internal Revenue Code of 1986, as amended (Code). US Holders should consult their tax advisors regarding the United States federal, state, local, and non-United States income and other tax considerations relating to their ownership or disposition of our H shares or ADSs.

For purposes of this summary, a US Holder is a beneficial owner of H shares or ADSs that is, for United States federal income tax purposes:

- an individual who is a citizen or resident of the United States;

- a corporation created in 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 includible in gross income for United States federal income tax purposes regardless of its source; or

- a trust (a) the administration of which is subject to the primary supervision of a United States court and which has one or more United States persons who have the authority to control all substantial decisions of the trust or (b) a trust that has otherwise elected to be treated as a United States person under the Code.

If a partnership (including any entity treated as a partnership for United States federal income tax purposes) is a beneficial owner of H shares or ADSs, the tax treatment of a partner in such partnership will depend upon the status of the partner and the activities of the partnership. Partners in a partnership holding our H shares or ADSs should consult their tax advisors regarding the United States federal income tax considerations relating to the investment in our H shares or ADSs.

For United States federal income tax purposes, it is generally expected that US Holders of ADSs will be treated as the beneficial owners of the underlying H shares represented by the ADSs. The remainder of this discussion assumes that a holder of ADSs will be treated in this manner. Accordingly, deposits or withdrawals of H shares for ADSs will generally not be subject to United States federal income tax.

Passive Foreign Investment Company Considerations

A non-United States corporation, such as our company, will be a passive foreign investment company (PFIC), for United States federal income tax purposes for any taxable year, if either (a) 75% or more of its gross income for such year consists of certain types of passive income or (b) 50% or more of its average quarterly assets as determined on the basis of fair market value during such year produce or are held for the production of passive income. For this purpose, cash and assets readily convertible into cash are categorized as passive assets and the Company s goodwill and other unbooked intangibles associated with active business activities may generally be classified as active assets. We will be treated as owning a proportionate share of the assets and earning a proportionate share of the income of any other corporation in which we own, directly or indirectly, more than 25% (by value) of the stock.

Table of Contents

We do not believe that we were classified as a PFIC for the taxable year ended December 31, 2017 and we do not expect to be classified as a PFIC for the foreseeable future. The determination of whether we will be or become a PFIC will depend, in part, upon the composition of our income and our assets (which are subject to change from year to year) and the market price of our H shares or ADSs (of which we cannot control). Although we do not expect that our business plans will change in a manner that will affect our PFIC status, no assurance can be given in this regard. Because there are uncertainties in the application of the relevant rules and PFIC status is a fact-intensive determination made on an annual basis, no assurance can be given that we will not be classified as a PFIC for any taxable year.

The discussion below under Dividends and Sale or Other Disposition of H shares or ADSs assumes that we will not be classified as a PFIC for United States federal income tax purposes. See the discussion below under the heading Passive Foreign Investment Company Rules for a brief summary of the PFIC rules.

Dividends

The gross amount of any cash distributions (including the amount of any tax withheld) paid on our H shares or ADSs out of our current or accumulated earnings and profits, as determined under United States federal income tax principles, will be subject to tax as dividend income on the day actually or constructively received by a US Holder, in the case of H shares, or by the depositary bank, in the case of ADSs. Because we do not intend to determine our earnings and profits on the basis of United States federal income tax principles, any distribution paid will generally be reported as a dividend for United States federal income tax purposes. A non-corporate recipient of dividend income will generally be subject to tax on dividend income from a qualified foreign corporation at a reduced capital gains rate rather than the marginal tax rates generally applicable to ordinary income provided that the holding period requirement is met.

A non-U.S. corporation (other than a corporation that is classified as a PFIC for the taxable year in which the dividend is paid or the preceding taxable year) generally will be considered to be a qualified foreign corporation (i) if it is eligible for the benefits of a comprehensive tax treaty with the United States which the Secretary of Treasury of the United States determines is satisfactory for purposes of this provision and which includes an exchange of information program or (ii) with respect to any dividend it pays on stock which is readily tradable on an established securities market in the United States. There is currently a tax treaty in effect between the United States and the People s Republic of China (U.S.-PRC Treaty) which the Secretary of Treasury of the United States determined is satisfactory for these purposes and we believe that we are eligible for the benefits of such treaty. Additionally, our ADSs trade on the New York Stock Exchange, an established securities market in the United States. Although we presently believe that we are a qualified foreign corporation for purposes of the reduced tax rate, no assurance can be given that we will continue to be treated as a qualified foreign corporation in the future. US Holders should consult their tax advisors regarding the availability of the reduced tax rate on dividends under their particular circumstances. Dividends received on H shares or ADSs will not be eligible for the dividends received deduction allowed to corporations.

Dividends paid in non-United States currency will be includible in income in a United States dollar amount based on the exchange rate prevailing at the time of receipt of such dividends by the depositary, in the case of ADSs, or by the US Holder, in the case of H shares held directly by such US Holder, regardless of whether the non-United States currency is actually converted into United States dollars at that time. Gain or loss, if any, recognized on a subsequent sale, conversion or other disposition of the non-United States currency will generally be United States source income or loss.

Dividends received on H shares or ADSs will be treated, for United States foreign tax credit purposes, as foreign source income. A US Holder may be eligible, subject to a number of complex limitations, to claim a foreign tax credit in respect of any non-United States withholding taxes imposed on dividends received on H shares or ADSs. US Holders who do not elect to claim a foreign tax credit for foreign income tax withheld

may instead claim a deduction, for United States federal income tax purposes, in respect of such withholdings, but only for a year in which the US Holder elects to do so for all creditable foreign income taxes. US Holders should consult their tax advisors regarding the availability of the foreign tax credit under their particular circumstances.

Table of Contents

Sale or Other Disposition of H shares or ADSs

A US Holder will recognize capital gain or loss upon the sale or other disposition of H shares or ADSs in an amount equal to the difference between the amount realized upon the disposition and the US Holder s adjusted tax basis in such H shares or ADSs. Any capital gain or loss will be long-term if the H shares or ADSs have been held for more than one year and will generally be United States source gain or loss for United States foreign tax credit purposes. If any PRC tax were to be imposed on any gain from the disposition of H shares or ADSs, however, a US Holder that is eligible for the benefits of the U.S.- PRC Treaty may elect to treat the gain as non-United States source gain or loss. The deductibility of a capital loss may be subject to limitations. The rules governing the foreign tax credit are complex and their outcome depends in large part on the US Holder s individual facts and circumstances. Accordingly, US Holders should consult their tax advisors regarding the availability of the foreign tax credit under their particular circumstances.

US Holders that receive currency other than the United States dollar upon the sale or other disposition of H shares will realize an amount equal to the United States dollar value of the non-United States currency on the date of such sale or other disposition, or if the shares are traded on an established securities market, in the case of cash basis and electing accrual basis taxpayers, the settlement date. US Holders will recognize currency gain or loss if the United States dollar value of the currency received on the settlement date differs from the amount realized. US Holders will have a tax basis in the currency received equal to the United States dollar amount at the spot rate on the settlement date. Generally, any gain or loss realized by US Holders on a subsequent conversion or disposition of such currency will be United States source ordinary income or loss.

Passive Foreign Investment Company Rules

If we were to be classified as a PFIC in any taxable year, a special tax regime will apply to both (a) any excess distribution by us to a US Holder (generally, the US Holder s ratable portion of distributions in any year which are greater than 125% of the average annual distribution received by such US Holder in the shorter of the three preceding years or the US Holder s holding period for our H shares or ADSs) and (b) any gain realized on the sale or other disposition of the H shares or ADSs. Under this regime, any excess distribution and realized gain will be treated as ordinary income and will be subject to tax as if (a) the excess distribution or gain had been realized ratably over the US Holder s holding period, (b) the amount deemed realized in each year had been subject to tax in each year of that holding period at the highest marginal rate for such year (other than income allocated to the current period or any taxable period before we became a PFIC, which would be subject to tax at the US Holder s regular ordinary income rate for the current year and would not be subject to the interest charge discussed below), and (c) the interest charge generally applicable to underpayments of tax had been imposed on the taxes deemed to have been payable in those years. In addition, dividends made to a US Holder will not qualify for the lower rates of taxation applicable to long-term capital gains discussed above under Dividends.

If a mark-to-market election is available and a US Holder validly makes such an election, notwithstanding the foregoing, such a holder generally will be required to take into account the difference, if any, between the fair market value and its adjusted tax basis in H shares or ADSs at the end of each taxable year as ordinary income or ordinary loss (to the extent of any net mark-to-market gain previously included in income). In addition, any gain from a sale or other disposition of H shares or ADSs will be treated as ordinary income, and any loss will be treated as ordinary loss (to the extent of any net mark-to-market gain previously included in income).

Because a mark-to-market election cannot be made for any lower-tier PFICs that we may own, a US Holder may continue to be subject to the PFIC rules with respect to such US Holder s indirect interest in any investments held by us that are treated as an equity interest in a PFIC for United States federal income tax purposes.

We do not intend to provide information necessary for US Holders to make qualified electing fund elections which, if available, would result in tax treatment different from (and generally less adverse than) the general tax treatment for PFICs described above.

Table of Contents

Each US Holder is urged to consult its tax advisor concerning the United States federal income tax consequences of holding and disposing H shares or ADSs if we are or become treated as a PFIC, including the possibility of making a mark-to-market election, the deemed sale and deemed dividend elections and the unavailability of the election to treat us as a qualified electing fund.

Withholding Tax and Information Reporting

Certain US Holders are required to report information relating to an interest in specified foreign financial assets, including shares issued by a non-United States corporation, for any year in which the aggregate value of all specified foreign financial assets exceeds US$50,000, subject to certain exceptions (including an exception for ordinary shares held in custodial accounts maintained with a United States financial institution). A US Holder who fails to timely furnish the required information may be subject to a penalty. In addition, information reporting generally will apply to dividends on and proceeds from the sale or other disposition of our H shares or ADSs. US withholding tax is generally inapplicable to dividends on or proceeds from the sale or other disposition of our H shares or ADSs (provided that various certification requirements have been met). US Holders are advised to consult with their tax advisors regarding the application of the United States information reporting and withholding rules.

F. DIVIDENDS AND PAYING AGENTS

Not applicable.

G. STATEMENT BY EXPERTS

Not applicable.

H. DOCUMENTS ON DISPLAY

This annual report contains exhibits and schedules. Any statement in this annual report about any of our contracts or other documents is not necessarily complete. If the contract or document is filed or incorporated by reference as an exhibit to this annual report, the contract or document is deemed to modify the description contained in this annual report. You must review the exhibits themselves for a complete description of the contracts or documents.

Copies of reports and other information, when so filed, may be inspected without charge and may be obtained at prescribed rates at the public reference facilities maintained by the SEC at Judiciary Plaza, 450 Fifth Street, Room 1024, NW, Washington, D.C. 20549; or at New York (address: 233 Broadway, New York, NY 10279) and Chicago (address: Citicorp Center, 500 West Madison Street, Suite 1400, Chicago, Illinois 60661). Copies of the above materials may also be obtained from the Public Information Department of SEC at 450 Fifth Street, NW,

Washington DC 20549, charges as appropriate. You may also view the registration statement (including attachments and schedules) at the New York Stock Exchange at Wall Street, New York, NY 10005. The public may obtain information regarding the Washington, D.C. Public Reference Room by calling the SEC at 1-800-SEC-0330. The SEC also maintains a web site at www.sec.gov. As a foreign private issuer, we are exempt from the rules under the Exchange Act prescribing the furnishing and content of quarterly reports and proxy statements, and officers, directors and principal shareholders are exempt from the reporting and short-swing profit recovery provisions contained in Section 16 of the Exchange Act.

I. SUBSIDIARY INFORMATION

Not applicable.

ITEM 11. QUALITATIVE AND QUANTITATIVE DISCLOSURES ABOUT MARKET RISK

Our primary market risk exposures are to fluctuations in oil and gas prices, exchange rates and interest rates. Please also refer to Note 36 to the consolidated financial statements included elsewhere in this annual report for a detailed discussion of other market risks that we have exposure to.

Table of Contents

Commodity Price Risk

The Group engages in oil and gas operations and is exposed to commodity price risk related to price volatility of crude oil, refined oil products and chemical products. The fluctuations in prices of crude oil, refined oil products and chemical products could have significant impact on the Group. The Group uses derivative financial instruments, including commodity futures and swaps, to manage a portion of such risk.

At 31 December 2017, the Group had certain commodity contracts of crude oil, refined oil products and chemical products designated as qualified cash flow hedges and economic hedges. At 31 December 2017, the net fair value of such derivative hedging financial instruments is derivative financial assets of RMB 515 million (2016: RMB 312 million) recognised in other receivables and derivative financial liabilities of RMB 2,624 million (2016: RMB 4,336 million) recognised in other payables.

At 31 December 2017, it is estimated that a general increase/decrease of USD 10 per barrel in basic price of derivative financial instruments, with all other variables held constant, would impact the fair value of derivative financial instruments which would decrease/increase the Group s profit for the year by approximately RMB 4,049 million (2016: decrease/increase RMB 634 million), and decrease/increase the Group s other comprehensive income by approximately RMB 701 million (2016: decrease/increase RMB 4,007 million). This sensitivity analysis has been determined assuming that the change in prices had occurred at the balance sheet date and the change was applied to the Group s derivative financial instruments at that date with exposure to commodity price risk. The analysis is performed on the same basis for 2016.

Foreign Exchange Rate Risk

The Renminbi is not a freely convertible currency. With the authorization from the PRC government, the PBOC announced that the PRC government reformed the exchange rate regime by moving into a managed floating exchange rate regime based on market supply and demand with reference to a basket of currencies on July 21, 2005. The PRC government has been gradually promoting the Renminbi exchange rate formation mechanism to enhance the flexibility of Renminbi exchange rate. On August 11, 2015, the PBOC decided to further improve the mechanism of RMB s central parity rate against the US dollar. Actions taken by the PRC government could cause future exchange rates to vary significantly from current or historical exchange rates. Fluctuations in exchange rates may adversely affect the value, translated or converted into US dollars or Hong Kong dollars, of our net assets, earnings and any declared dividends. We cannot give any assurance that any future movements in the exchange rate of the Renminbi against the US dollar and other foreign currencies will not adversely affect our results of operations and financial condition.

The following presents various market risk information regarding market-sensitive financial instruments that we held or issued as of December 31, 2016 and 2017. We conduct our business primarily in Renminbi, which is also our functional and reporting currency.

The following tables provide information regarding instruments that are sensitive to foreign exchange rates as of December 31, 2016 and 2017. For debt obligations, the table presents cash flows and related weighted average rates by expected maturity dates.

Table of Contents

	As of December 31, 2017							
	Expected Maturity Date						Total carrying amount	Fair value
	2018	2019	2020	2021	2022	Thereafter		
	(RMB equivalent in millions, except interest rate)							
Assets								
Cash and cash equivalent								
In US Dollar	11,260						11,260	11,260
In HK Dollar	87						87	87
In Japanese Yen	13						13	13
In Euro	136						136	136
Others	109						109	109
Time deposits with financial institutions								
In US Dollar	28,557						28,557	28,557
Liabilities								
Debts in US Dollar								
Fixed rate	6,775	54	54	39	13	11,379	18,314	18,333
Average interest rate	0.63%	3.03%	3.03%	2.56%	1.37%	1.11%		
Variable rate	26,868						26,868	26,868
Average interest rate(1)	1.90%							
Debts in HK Dollar								
Fixed rate	5						5	5
Average interest rate	1.76%							
Variable rate	1,898						1,898	1,898
Average interest rate(1)	2.05%							
Debts in Singapore Dollar								
Fixed rate								
Average interest rate								
Variable rate	20						20	20
Average interest rate(1)	1.57%							

(1) The average interest rates for variable rate debts are calculated based on the rates reported as of December 31, 2017.

	As of December 31, 2016							
	Expected Maturity Date						Total carrying amount	Fair value
	2017	2018	2019	2020	2021	Thereafter		
	(RMB equivalent in millions, except interest rate)							
Assets								
Cash and cash equivalent								
In US Dollar	20,745						20,745	20,745
In HK Dollar	82						82	82
In Japanese Yen	12						12	12
In Euro	41						41	41
Others	66						66	66
Time deposits with financial institutions								
In US Dollar	7,843						7,843	7,843
Liabilities								
Debts in US Dollar								

Fixed rate	42	6,944	25	25	283	12,091	19,410	19,289
Average interest rate	1.40%	0.94%	1.41%	1.41%	4.07%	1.11%		
Variable rate	14,591						14,591	14,584
Average interest rate(1)	1.40%							
Debts in HK Dollar								
Fixed rate								
Average interest rate								
Variable rate	1,969						1,969	1,969

Table of Contents

	As of December 31, 2016							
	Expected Maturity Date						Total carrying amount	Fair value
	2017	2018	2019	2020	2021	Thereafter		
	(RMB equivalent in millions, except interest rate)							
Average interest rate(1)	1.68%							
Debts in Euro								
Fixed rate								
Average interest rate								
Variable rate	5						5	5
Average interest rate(1)	0.68%							
Debts in Singapore Dollar								
Fixed rate								
Average interest rate								
Variable rate	21						21	21
Average interest rate(1)	1.50%							

(1) The average interest rates for variable rate debts are calculated based on the rates reported as of December 31, 2016.

Interest Rate Risk

We are exposed to interest rate risk resulting from fluctuations in interest rates on our short-term and long-term debts. Upward fluctuations in interest rates increase the cost of new debt and the interest cost of outstanding floating rate borrowings.

Our debts consist of fixed and variable rate debt obligations with original maturities ranging from one to thirty years. Fluctuations in interest rates can lead to significant fluctuations in the fair values of our debt obligations.

The following tables present principal cash flows and related weighted average interest rates by expected maturity dates of our interest rate sensitive financial instruments as of December 31, 2016 and 2017.

	As of December 31, 2017							
	Expected Maturity Date						Total carrying amount(2)	Fair value
	2018	2019	2020	2021	2022	Thereafter		
	(RMB equivalent in millions, except interest rate)							
Assets								
Cash and cash equivalent								
In RMB	101,613						101,613	101,613
In US Dollar	11,260						11,260	11,260
In HK Dollar	87						87	87
In Japanese Yen	13						13	13
In Euro	136						136	136

Others	109						109	109
Time deposits with financial institutions								
In RMB	23,229						23,229	23,229
In US Dollar	28,557						28,557	28,557
Liabilities								
Debts in RMB								
Fixed rate	31,841	5,406	15,230	40,621	7,467	895	101,460	100,233
Average interest rate	2.93%	1.70%	1.96%	0.47%	1.99%	1.83%		
Variable rate	13,240	11,363	2,498	1,171	1,146	1,790	31,208	31,208

Table of Contents

	As of December 31, 2017							
	Expected Maturity Date						Total carrying amount(2)	Fair value
	2018	2019	2020	2021	2022	Thereafter		
	(RMB equivalent in millions, except interest rate)							
Average interest rate(1)	4.03%	3.94%	3.68%	3.00%	2.96%	3.96%		
Debts in US Dollar								
Fixed rate	6,775	54	54	39	13	11,379	18,314	18,333
Average interest rate	0.63%	3.03%	3.03%	2.56%	1.37%	1.11%		
Variable rate	26,868						26,868	26,868
Average interest rate(1)	1.90%							
Debts in HK Dollar								
Fixed rate	5						5	5
Average interest rate	1.76%							
Variable rate	1,898						1,898	1,898
Average interest rate(1)	2.05%							
Debts in Singapore Dollar								
Fixed rate								
Average interest rate								
Variable rate	20						20	20
Average interest rate(1)	1.57%							

(2) The average interest rates for variable rate debts are calculated based on the rates reported as of December 31, 2017.

(3) Carrying amounts are used for loans from Sinopec Group Company and its affiliates as it is not practicable to estimate their fair values because the cost of obtaining discount and borrowing rates for comparable borrowings would be excessive.

	As of December 31, 2016							
	Expected Maturity Date						Total carrying amount(2)	Fair value
	2017	2018	2019	2020	2021	Thereafter		
	(RMB equivalent in millions, except interest rate)							
Assets								
Cash and cash equivalent								
In RMB	103,522						103,522	103,522
In US Dollar	20,745						20,745	20,745
In HK Dollar	82						82	82
In Japanese Yen	12						12	12
In Euro	41						41	41
Others	66						66	66
Time deposits with financial institutions								
In RMB	10,186						10,186	10,186
In US Dollar	7,843						7,843	7,843
Liabilities								
Debts in RMB								
Fixed rate	40,904	19,614	5,353	15,533	40,161	7,711	129,276	127,737
Average interest rate	2.21%	2.78%	1.67%	2.00%	0.43%	1.92%		

Variable rate	17,288	320	8,105		168	1,113	26,993	26,993
Average interest rate(1)	3.40%	4.35%	4.28%		4.41%	4.41%		
Debts in US Dollar								
Fixed rate	42	6,944	25	25	283	12,091	19,410	19,289
Average interest rate	1.40%	0.94%	1.41%	1.41%	4.07%	1.11%		
Variable rate	14,591						14,591	14,584

Table of Contents

	As of December 31, 2016							
	Expected Maturity Date						Total carrying amount(2)	Fair value
	2017	2018	2019	2020	2021	Thereafter		
	(RMB equivalent in millions, except interest rate)							
Average interest rate(1)	1.40%							
Debts in HK Dollar								
Fixed rate								
Average interest rate								
Variable rate	1,969						1,969	1,969
Average interest rate(1)	1.68%							
Debts in Euro								
Fixed rate								
Average interest rate								
Variable rate	5						5	5
Average interest rate(1)	0.68%							
Debts in Singapore Dollar								
Fixed rate								
Average interest rate								
Variable rate	21						21	21
Average interest rate(1)	1.50%							

(1) The average interest rates for variable rate debts are calculated based on the rates reported as of December 31, 2016.

(2) Carrying amounts are used for loans from Sinopec Group Company and its affiliates as it is not practicable to estimate their fair values because the cost of obtaining discount and borrowing rates for comparable borrowings would be excessive.

ITEM 12. DESCRIPTION OF SECURITIES OTHER THAN EQUITY SECURITIES

A. Debt Securities

Not applicable.

B. Warrants and Rights

Not applicable.

C. Other Securities

Not applicable.

D. American Depositary Shares

Depositary Fees and Charges

Under the terms of the Deposit Agreement for China Petroleum & Chemical Corporation s American Depositary Shares (ADSs), an ADS holder may have to pay the following services fees to the Depositary:

Services	Fees
Issuance of ADSs	US$5.00 (or less) per 100 ADSs (or portion of 100 ADSs) issued
Cancellation of ADSs	US$5.00 (or less) per 100 ADSs (or portion of 100 ADSs) canceled
Distribution of cash dividends or other cash distributions	US$2.00 (or less) per 100 ADSs (or portion of 100 ADSs) held

Table of Contents

Services	Fees
Distribution of ADSs pursuant to stock dividends, free stock distributions or exercises of rights	US$5.00 (or less) per 100 ADSs (or portion of 100 ADSs) held
Distribution of securities other than ADSs or rights to purchase additional ADSs	US$5.00 (or less) per 100 ADSs (or portion of 100 ADSs) held

An ADS holder will also be responsible to pay certain fees and expenses incurred by the Depositary and certain taxes and governmental charges such as:

- Taxes (including relevant interests and fines) and other governmental charges;

- such registration fees as may from time to time be in effect, for the registration of deposited securities in the register of members, or for the registration of transfers of deposited securities to the name of the Depositary or its nominee or the Custodian or its nominee on the making of deposits or withdrawals;

- such cable, telex and facsimile transmission expenses as are expressly provided in the Deposit Agreement;

- such expenses as are incurred by the Depositary in the conversion of foreign currency;

- such expenses as are incurred with the compliance with the foreign currency control, ADSs and other deposited securities related laws, regulations and rules; and

- any other charge payable by the Depositary, any of the Depositary s agents, including the Custodian, Depositary, or the agents of the Custodian or Depositary, in connection with the servicing of deposited securities.

Depositary Payments for the Year 2017

In 2017, Citibank, N.A., the Depositary for our ADR program, provided reimbursement net of applicable withholding taxes for our expenses related to the listing and investor relations activities as follows:

- reimbursement of application fees: US$ 90,804.85

- reimbursement of data infrastructure fees: US$ 4,205.55

- reimbursement of proxy procedure fees: US$ 37,785.55

- reimbursement of investor relations expenses (including expenses related to non-deal road show, investor meeting and investor relations agency): US$ 232,460.07

- the accounting committee and accounting standard committee of public company: US$ 35,137.88

- Total: US$ 400,393.90

ITEM 13. DEFAULTS, DIVIDEND ARREARAGES AND DELINQUENCIES

None.

ITEM 14. MATERIAL MODIFICATIONS TO THE RIGHTS OF SECURITY HOLDERS AND USE OF PROCEEDS

A. MATERIAL MODIFICATIONS TO THE RIGHTS TO SECURITIES HOLDERS

None.

Table of Contents

B. USE OF PROCEEDS

Not applicable.

ITEM 15. CONTROLS AND PROCEDURES

Disclosure Controls and Procedures

We maintain disclosure controls and procedures that are designed to ensure the information required to be disclosed in reports filed by us under the U.S. Securities Exchange Act of 1934 (Exchange Act), as amended, is recorded, processed, summarized and reported within the time periods specified in the Securities and Exchange Commission s rules and forms and that such information is accumulated and communicated to our management, including our principal executive officer and principal officer, as appropriate, to allow for timely decisions regarding required disclosure. Our management, with the participation of our principal executive officer and principal financial officer, has evaluated the effectiveness of our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) of the Exchange Act) as of December 31, 2017 (Evaluation Date), the end of the fiscal year covered by this annual report. Based on this evaluation, our principal executive officer and principal financial officer have concluded that, as of the Evaluation Date, our disclosure controls and procedures were effective.

Management s Annual Report on Internal Control over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting (as defined in Rules 13a-15(f) of the Securities Exchange Act of 1934). The Company s internal control over financial reporting is designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with International Financial Reporting Standards as issued by the International Accounting Standards Board.

Internal control over financial reporting cannot provide absolute assurance of achieving financial reporting objectives because of its inherent limitations. 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.

Our management assessed the effectiveness of our internal control over financial reporting based upon the criteria established in *Internal Control Integrated Framework* (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission as of December 31, 2017. Based on that evaluation, our management has concluded that our internal control over financial reporting was effective as of December 31, 2017 based on these criteria.

PricewaterhouseCoopers Zhong Tian LLP, an independent registered public accounting firm, has audited the consolidated financial statements included in this annual report on Form 20-F and, as part of the audit, has issued a report, included herein, on the effectiveness of our internal control over financial reporting.

Changes in Internal Control over Financial Reporting

During the year ended December 31, 2017, there have been no changes in our internal control over financial reporting that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

ITEM 16. RESERVED

[Reserved]

ITEM 16A. AUDIT COMMITTEE FINANCIAL EXPERT

The board of directors has determined that Mr. Andrew Y. Yan qualifies as an audit committee financial expert in accordance with the terms of Item 16.A of Form 20-F. Mr. Yan was appointed as an independent non-executive director and a manager of the audit committee of the sixth board of our company in 2015. For Mr. Yan s biographical information, see Item 6 Directors, Senior Management and Employees A. Directors, members of the supervisory committee and senior management.

Table of Contents

ITEM 16B. CODE OF ETHICS

Our controlling shareholder, Sinopec Group Company, has adopted a Staff Code to provide disciplines and requirements for its staff s conducts, including legal and ethical matters as well as the sensitivities involved in reporting illegal and unethical matters. The Staff Code covers such areas as HSE, conflict of interests, anti-corruption, protection and proper use of our assets and properties as well as reporting requirements. The Staff Code also applies to all directors, officers and employees of each subsidiary of Sinopec Group Company, including us. We have provided all our directors and senior officers with a copy of the Staff Code and require them to comply with it in order to ensure our operations are proper and lawful. We have posted the Staff Code on our website, http://www.sinopec.com/listco/en/Resource/Pdf/ygsz2014b.pdf.

ITEM 16C. PRINCIPAL ACCOUNTANT FEES AND SERVICES

The following table sets forth the aggregate audit fees, audit-related fees, tax fees of our principal accountants and all other fees billed for products and services provided by our principal accountants other than the audit fees, audit-related fees and tax fees for each of the fiscal years 2016 and 2017.

	Audit Fees	Audit-Related Fees	Tax Fees	Other Fees
2016	RMB 73 million			RMB 2 million
2017	RMB 72 million			RMB 5 million

We are only allowed to engage our principal accountants to render audit or non-audit services, after the engagement has been approved by our audit committee.

ITEM 16D. EXEMPTIONS FROM THE LISTING STANDARDS FOR AUDIT COMMITTEES

Not applicable.

ITEM 16E. PURCHASES OF EQUITY SECURITIES BY THE ISSUER AND AFFILIATED PURCHASERS

None.

ITEM 16F. CHANGE IN REGISTRANT S CERTIFYING ACCOUNTANT

None.

ITEM 16G. COMPARISON OF NEW YORK STOCK EXCHANGE CORPORATE GOVERNANCE RULES AND CHINA CORPORATE GOVERNANCE RULES FOR LISTED COMPANIES

Under the amended Corporate Governance Rules of the NYSE, foreign issuers (including us) listed on the NYSE are required to disclose a summary of the significant differences between their domestic corporate governance rules and NYSE corporate governance rules that would apply to a U.S. domestic issuer. A summary of such differences is listed below:

NYSE corporate governance rules	Corporate governance rules applicable to the domestically listed companies in China and the Company s governance practices
Corporate governance guidelines Listed companies must adopt and disclose corporate governance guidelines, involving director responsibilities, director compensation, director continuing education, annual performance evaluation of the board of directors, etc.	PRC corporate governance rules promulgated by China Securities Regulatory Commission prescribe detailed guidelines on directors of the listed companies, including director selection, the structure of the board of directors and director performance evaluation etc. The Company has complied with the above mentioned laws or rules.

Table of Contents

NYSE corporate governance rules	Corporate governance rules applicable to the domestically listed companies in China and the Company s governance practices
Director Independence	
A listed company must have a majority of independent directors on its board of directors. No director qualifies as independent unless the board of directors affirmatively determines that the director has no material relationship with the listed company (either directly or as a partner, shareholder or officer of an organization that has a relationship with the Company). In addition, a director must meet certain standards to be deemed independent. For example, a director is not independent if the director is, or has been within the last three years, an employee of the listed company, or an immediate family member is, or has been within the last three years, an executive officer of the listed company, or if the director has received, or has an immediate family member who has received, during any twelve-month period within the last three years, more than US$120,000 in direct compensation from the listed company, other than director and committee fees and pension or other forms of deferred compensation for prior service (provided such compensation is not contingent in any way on continued service).	It is required in China that any listed company must establish an independent director system and set forth specific requirements for the qualification of independent directors. For example, an independent director shall not hold any other position in the listed company other than being a director and shall not be influenced by the main shareholders or the controlling persons of the listed company, or by any other entities or persons with whom the listed company has a significant relationship. The Company has complied with the relevant Chinese corporate governance rules and has implemented internal rules governing the independence and responsibilities of independent directors. The Company determines the independence of independent directors every year.
To empower non-management directors to serve as a more effective check on management, the non-management directors of each listed company must meet at regularly scheduled executive sessions without management.	No similar requirements.
Nominating/Corporate Governance Committee	
Listed companies must have a nominating/corporate governance committee composed entirely of independent directors.	It is stipulated in China that the board of directors of a listed company may, through the resolution of the shareholders meeting, establish a nominating committee composed entirely of directors, of which the independent directors shall be the majority and the convener. Up to now, the Company has not set up any nominating committee.
The nominating/corporate governance committee must have a written charter that addresses the committee s purposes and responsibilities which, at minimum, must be to: search for eligible people for the board of directors, select and nominate directors for the next session of the shareholders annual meeting, study and propose corporate governance guidelines, supervise the evaluation of the board of directors and management, and evaluate the performance of the committee every year.	Relevant responsibilities of the nominating/corporate governance committee are similar to those stipulated by the NYSE rules, but the main responsibilities do not include the research and recommendation of corporate governance guidelines, the supervision of the evaluation of the board of directors and management, or the annual evaluation of the committee.

Table of Contents

NYSE corporate governance rules	Corporate governance rules applicable to the domestically listed companies in China and the Company s governance practices
Compensation Committee Listed companies must have a compensation committee composed entirely of independent directors.	It is stipulated in China that the board of directors of a listed company may, subject to shareholders resolution, have a compensation and assessment committee composed entirely of directors, of whom the independent directors are the majority and act as the convener.
The compensation committee must have a written charter that addresses, at least, the following purposes and responsibilities: (1) review and approve the corporate goals associated with CEO s compensation, evaluate the performance of the CEO in fulfilling these goals, and, either as a committee or together with the other independent directors (as directed by the board), based on such evaluation, determine and approve the CEO s compensation level; (2) make recommendations to the board with respect to non-CEO executive officer compensation, and incentive-compensation and equity-based plans that are subject to board approval; (3) produce a committee report on executive compensation as required by the SEC to be included in the annual proxy statement or annual report filed with the SEC. The charter must also include the requirement for an annual performance evaluation of the compensation committee.	It is stipulated in China that the responsibilities of the compensation committee are: (1) to review evaluation standards on the performance of directors and the senior management and submit suggestion to the board of directors; (2) to review compensation policies on the directors and the senior management. But the committee is not required to produce a report on the executive compensation or make an annual performance evaluation of the committee. The board of directors of the Company has established a compensation and performance evaluation committee composed mainly of independent directors who act as the convener, and the committee has established a written charter complying with the domestic corporate governance rules.
The compensation committee may, in its sole discretion, retain or consult a compensation consultant, independent legal counsel or other advisor. The compensation committee shall be directly responsible for the appointment, compensation and oversight of the work of such advisor. A listed company must provide for appropriate funding for payment of reasonable compensation to such advisor. The compensation committee may select such advisor to the compensation committee only after taking into consideration all factors relevant to that person s independence from management.	
Audit Committee Listed companies must have an audit committee that satisfies the requirements of Rule 10A-3 of Securities Exchange Act of 1934 (Exchange Act). It must have a minimum of three members, and all audit committee members must satisfy the requirements for independence set forth in Section 303A.02 of NYSE Corporate Governance Rules as well as the requirements of Rule 10A-3(b)(1) of the Exchange Act.	It is stipulated in China that the board of directors of a listed company may, subject to shareholders resolution, establish an audit committee composed entirely of competent directors with expertise and business experience, of which the independent directors are the majority and act as the convener, and, at minimum, one independent director is an accounting professional.

Table of Contents

NYSE corporate governance rules	Corporate governance rules applicable to the domestically listed companies in China and the Company s governance practices
The audit committee must have a written charter that specifies the purpose of the audit committee is, at minimum, to assist the board oversight of the integrity of financial statements, the Company s compliance with legal and regulatory requirements, qualifications and independence of independent auditors and the performance of the listed company s internal audit function and independent auditors. In addition, the written charter must require the audit committee to prepare an audit committee report as required by the SEC to be included in the listed company s annual proxy statement as well as an annual performance evaluation of the audit committee. The written charter must also specify the duties and responsibilities of the audit committee, which, at a minimum, must include those set out in Rule 10A-3(b)(2), (3), (4) and (5) of the Exchange Act, as well as other duties and responsibilities such as to obtain and review a report by the independent auditor at least annually, meet to review and discuss the listed company s annual audited financial statements and quarterly financial statements with management and independent auditor.	The responsibilities of the audit committee are similar to those stipulated by the NYSE rules. The board of directors shall evaluate the independence and performance of members of the audit committee periodically, and may replace any member who is no longer suitable for the position. The Company shall disclose the performance of the audit committee in its annual report, including meetings convened by the audit committee. The Board of Directors of the Company has established an audit committee that satisfies relevant domestic and overseas requirements and the audit committee has a written charter.
The audit committee must have a written charter that specifies the purpose of the audit committee is, at minimum, to assist the board oversight of the integrity of financial statements, the Company s compliance with legal and regulatory requirements, qualifications and independence of independent auditors and the performance of the listed company s internal audit function and independent auditors. In addition, the written charter must require the audit committee to prepare an audit committee report as required by the SEC to be included in the listed company s annual proxy statement as well as an annual performance evaluation of the audit committee. The written charter must also specify the duties and responsibilities of the audit committee, which, at a minimum, must include those set out in Rule 10A-3(b)(2), (3), (4) and (5) of the Exchange Act, as well as other duties and responsibilities such as to obtain and review a report by the independent auditor at least annually, meet to review and discuss the listed company s annual audited financial statements and quarterly financial statements with management and independent auditor.	The responsibilities of the audit committee are similar to those stipulated by the NYSE rules. The board of directors shall evaluate the independence and performance of members of the audit committee periodically, and may replace any member who is no longer suitable for the position. The Company shall disclose the performance of the audit committee in its annual report, including meetings convened by the audit committee. The Board of Directors of the Company has established an audit committee that satisfies relevant domestic and overseas requirements and the audit committee has a written charter.

Table of Contents

NYSE corporate governance rules	Corporate governance rules applicable to the domestically listed companies in China and the Company s governance practices
Each listed company must have an internal audit department.	China has a similar regulatory provision, and the Company has an internal audit department.
Shareholder approval of equity compensation plan Shareholders must be given the opportunity to vote on all equity-compensation plans and material revisions thereto, except for, among others, plans that are made available to shareholders generally, such as typical dividend reinvestment plan and certain awards and plans in the context of mergers and acquisitions.	The relevant regulations of China require the board of directors propose plans on the amount and types of director compensation for the shareholders meeting to approve. The compensation plan of executive officers shall be approved by the board and disclosed to the public. The Company has complied with the above mentioned laws or rules.
Code of ethics for directors, officers and employees Listed companies must adopt and disclose a code of business conduct and ethics for directors, officers and employees, and promptly disclose any waivers of the code for directors or executive officers. Each code of business conduct and ethics must require that any waiver of the code for executive officers or directors may be made only by the board or a board committee.	China does not have such requirement for a code for ethics. But our controlling shareholder, Sinopec Group Company, adopted a Staff Code in 2015 to provide disciplines and requirements for its staff s conducts, including legal and ethical matters as well as the sensitivities involved in reporting illegal and unethical matters. The Staff Code covers such areas as HSE, conflict of interests, anti-corruption, protection and proper use of our assets and properties as well as reporting requirements. The Staff Code also applies to all directors, officers and employees of each subsidiary of Sinopec Group Company, including us. In addition, the directors and officers must perform their legal responsibilities in accordance with the Company Law of PRC, relative requirements of CSRS and Mandatory Provisions to the Charter of Companies Listed Overseas. Meanwhile, the Company establishes The Model Code of Securities Transactions by Corporate Employees and The Rules of The Company s Shares Transactions by Corporate Directors, Superiors and Senior Managements to regulate the above mentioned people when transacting related securities. The Company also promulgated the Code for Employees of the Company as the standards of business conduct and ethics of the employees.
Each listed company CEO must certify to the NYSE each year that he or she is not aware of any violation by the listed company of NYSE corporate governance listing standards and he or she must promptly notify the NYSE in writing of any non-compliance with any applicable provisions of Section 303A.	No similar requirements.

Table of Contents

NYSE corporate governance rules	Corporate governance rules applicable to the domestically listed companies in China and the Company s governance practices
[redacted]	

ITEM 16H. MINE SAFETY DISCLOSURE

Not applicable.

ITEM 17. FINANCIAL STATEMENTS

Not applicable.

ITEM 18. FINANCIAL STATEMENTS

See consolidated financial statements included in this annual report following Item 19.

ITEM 19. EXHIBITS

1*	Articles of Association of the Registrant, amended and adopted by the shareholders meeting on June 28, 2017.
1.1	Amendment to Articles of Association of China Petroleum & Chemical Corporation, adopted by the shareholders meeting on May 11, 2012 (English translation), incorporated by reference to Exhibit 1.1 to our Annual Report on Form 20-F filed with the Securities and Exchange Commission on April 11, 2013 (File Number: 001-15138).

1.2	Amendment to Articles of Association of China Petroleum & Chemical Corporation, adopted by the shareholders meeting on October 16, 2012 (English translation), incorporated by reference to Exhibit 1.2 to our Annual Report on Form 20-F filed with the Securities and Exchange Commission on April 11, 2013 (File Number: 001-15138).
1.3	Amendment to Articles of Association of China Petroleum & Chemical Corporation, adopted by the shareholders meeting on May 29, 2013 (English translation), incorporated by reference to Exhibit 1.3 to our Annual Report on Form 20-F filed with the Securities and Exchange Commission on April 22, 2014 (File Number: 001-15138).
1.4	Amendment to Articles of Association of China Petroleum & Chemical Corporation, adopted by the shareholders meeting on May 9, 2014 (English translation), incorporate by reference to Exhibit 1.4 to our Annual Report on Form 20-F filed with the Securities and Exchange Commission on April 10, 2015 (File Number: 001-15138).
1.5	Amendment to Articles of Association of China Petroleum & Chemical Corporation, adopted by the shareholders meeting on May 27, 2015 (English translation), incorporated by reference to Exhibit 1.5 to our Annual Report on Form 20-F filed with the Securities and Exchange Commission on April 20, 2016 (File Number: 001-15138).

Table of Contents

4.1	Forms of Director Service Contracts dated May 11, 2012 (English translation), incorporated by reference to Exhibit 4.1 to our Annual Report on Form 20-F filed with the Securities and Exchange Commission on April 11, 2013 (File Number: 001-15138).
4.2	Forms of Supervisor Service Contracts dated May 11, 2012 (English translation), incorporated by reference to Exhibit 4.2 to our Annual Report on Form 20-F filed with the Securities and Exchange Commission on April 11, 2013 (File Number: 001-15138).
4.3	Reorganization Agreement between China Petrochemical Corporation and China Petroleum & Chemical Corporation dated June 3, 2000 (including English translation), incorporated by reference to Exhibit 10.1 to our Registration Statement on Form F-1 filed with the Securities and Exchange Commission on October 10, 2000 (File Number: 333-12502).
4.4	Agreement for Mutual Provision of Products and Ancillary Services between China Petrochemical Corporation and China Petroleum & Chemical Corporation dated June 3, 2000 (including English translation), incorporated by reference to Exhibit 10.3 to our Registration Statement on Form F-1 filed with the Securities and Exchange Commission on October 10, 2000 (File Number: 333-12502).
4.5	Agreement for Provision of Cultural, Educational, Hygiene and Community Services between China Petrochemical Corporation and China Petroleum & Chemical Corporation dated June 3, 2000 (including English translation), incorporated by reference to Exhibit 10.4 to our Registration Statement on Form F-1 filed with the Securities and Exchange Commission on October 10, 2000 (File Number: 333-12502).
4.6	Trademark License Agreement between China Petrochemical Corporation and China Petroleum & Chemical Corporation dated June 3, 2000 (including English translation), incorporated by reference to Exhibit 10.6 to our Registration Statement on Form F-1 filed with the Securities and Exchange Commission on October 10, 2000 (File Number: 333-12502).
4.7	Patents and Proprietary Technology License Contract between China Petrochemical Corporation and China Petroleum & Chemical Corporation dated June 3, 2000 (including English translation), incorporated by reference to Exhibit 10.7 to our Registration Statement on Form F-1 filed with the Securities and Exchange Commission on October 10, 2000 (File Number: 333-12502).
4.8	Computer Software License Contract between China Petrochemical Corporation and China Petroleum & Chemical Corporation dated June 3, 2000 (including English translation), incorporated by reference to Exhibit 10.8 to our Registration Statement on Form F-1 filed with the Securities and Exchange Commission on October 10, 2000 (File Number: 333-12502).
4.9	Assets Swap Contract between China Petrochemical Corporation and China Petroleum & Chemical Corporation dated June 3, 2000 (including English translation), incorporated by reference to Exhibit 10.9 to our Registration Statement on Form F-1 filed with the Securities and Exchange Commission on October 10, 2000 (File Number: 333-12502).
4.10	Land Use Rights Leasing Contract between China Petrochemical Corporation and China Petroleum & Chemical Corporation dated June 3, 2000 (including English translation), incorporated by reference to Exhibit 10.10 to our Registration Statement on Form F-1 filed with the Securities and Exchange Commission on October 10, 2000 (File Number: 333-12502).
4.12	Property Leasing Contract between China Petrochemical Corporation and China Petroleum & Chemical Corporation dated June 3, 2000 (including English translation), incorporated by reference to Exhibit 10.11 to our Registration Statement on Form F-1 filed with the Securities and Exchange Commission on October 10, 2000 (File Number: 333-12502).

Table of Contents

4.13	Accounts Collectable Contract between China Petrochemical Corporation and China Petroleum & Chemical Corporation dated August 16, 2000 (including English translation), incorporated by reference to Exhibit 10.17 to our Registration Statement on Form F-1 filed with the Securities and Exchange Commission on October 10, 2000 (File Number: 333-12502).
4.14	Loan Transfer and Adjustment Contract between China Petrochemical Corporation and China Petroleum & Chemical Corporation dated August 16, 2000 (including English translation), incorporated by reference to Exhibit 10.18 to our Registration Statement on Form F-1 filed with the Securities and Exchange Commission on October 10, 2000 (File Number: 333-12502).
4.15	Agreement on Adjustment to Related Party Transactions between China Petrochemical Corporation and China Petroleum & Chemical Corporation dated June 11, 2001 (English translation), incorporated by reference to Exhibit 4.15 to our Annual Report on Form 20-F filed with the Securities and Exchange Commission on April 13, 2007 (File Number: 001-15138).
4.16	Land Use Right Leasing Agreement between China Petrochemical Corporation and China Petroleum & Chemical Corporation dated August 22, 2003 (English translation), incorporated by reference to Exhibit 4.16 to our Annual Report on Form 20-F filed with the Securities and Exchange Commission on April 13, 2007 (File Number: 001-15138).
4.17	2004 Agreement on Adjustment to Related Party Transactions between China Petrochemical Corporation and China Petroleum & Chemical Corporation dated October 31, 2004 (English translation) , incorporated by reference to Exhibit 4.17 to our Annual Report on Form 20-F filed with the Securities and Exchange Commission on April 13, 2007 (File Number: 001-15138).
4.18	Memorandum on Adjustment of Rent of Land Use Rights between China Petrochemical Corporation and China Petroleum & Chemical Corporation dated March 31, 2006 (English translation) , incorporated by reference to Exhibit 4.18 to our Annual Report on Form 20-F filed with the Securities and Exchange Commission on April 13, 2007 (File Number: 001-15138).
4.19	Supplemental Agreement on Related Party Transactions between China Petrochemical Corporation and China Petroleum & Chemical Corporation dated March 31, 2006 (English translation) , incorporated by reference to Exhibit 4.19 to our Annual Report on Form 20-F filed with the Securities and Exchange Commission on April 13, 2007 (File Number: 001-15138).
4.19.1	Continuing Connected Transactions Second Supplemental Agreement between China Petrochemical Corporation and China Petroleum & Chemical Corporation dated August 21, 2009 (English translation), incorporated by reference to Exhibit 4.21 to our Annual Report on Form 20-F filed with the Securities and Exchange Commission on April 30, 2010 (File Number: 001-15138).
4.19.2	Continuing Connected Transactions Third Supplemental Agreement between China Petrochemical Corporation and China Petroleum & Chemical Corporation dated August 24, 2012 (English translation), incorporated by reference to Exhibit 4.19.2 to our Annual Report on Form 20-F filed with the Securities and Exchange Commission on April 11, 2013 (File Number: 001-15138).
4.20	Memorandum on Adjustment of Rent of Land Use Rights between China Petrochemical Corporation and China Petroleum & Chemical Corporation dated August 22, 2008 (English Translation), incorporated by reference to Exhibit 4.20 to our Annual Report on Form 20-F filed with the Securities and Exchange Commission on May 20, 2009 (File Number: 001-15138).
4.20.1	Land Use Rights Leasing Agreement Third Amendment Memo between China Petrochemical Corporation and China Petroleum & Chemical Corporation dated August 24, 2012 (English Translation), incorporated by reference to Exhibit 4.20.1 to our Annual Report on Form 20-F filed with the Securities and Exchange Commission on April 11, 2013 (File Number: 001-15138).

Table of Contents

4.21	Non-Compete Agreement Between China Petrochemical Corporation and China Petroleum & Chemical Corporation dated June 3, 2000 and its related Undertakings (English translation), incorporated by reference to Exhibit 4.21 to our Annual Report on Form 20-F filed with the Securities and Exchange Commission on September 26, 2013 (File Number: 001-15138).
4.21.1	Undertakings from China Petrochemical Corporation Regarding Further Avoiding Competition with China Petroleum & Chemical Corporation dated April 28, 2014 (English translation), incorporated by reference to Exhibit 4.21.1 to our Annual Report on Form 20-F filed with the Securities and Exchange Commission on April 10, 2015 (File Number: 001-15138).
4.22	A Supplementary Agreement to the existing Non-Compete Agreement Between China Petrochemical Corporation and China Petroleum & Chemical Corporation dated June 3, 2000 and its related Undertakings (English translation), incorporated by reference to Exhibit 4.22 to our Annual Report on Form 20-F filed with the Securities and Exchange Commission on April 20, 2016 (File Number: 001-15138).
8.1*	A list of the Registrant s subsidiaries.
12.1*	Certification of Principal Executive Officer pursuant to Rule 13a-14(a).
12.2*	Certification of Principal Financial Officer pursuant to Rule 13a-14(a).
13**	Certification of CEO and CFO pursuant to 18 U.S.C. §1350, and Rule 13a-14(b).
15.1	Letter from KPMG regarding Item 16F of this annual report, incorporated by reference to Exhibit 15.1 to our Annual Report on Form 20-F filed with the Securities and Exchange Commission on April 11, 2013 (File Number: 001-15138).
101.INS*	XBRL Instance Document
101.SCH*	XBRL Taxonomy Extension Schema Document
101.CAL*	XBRL Taxonomy Extension Calculation Linkbase Document
101.DEF*	XBRL Taxonomy Extension Definition Linkbase Document
101.LAB*	XBRL Taxonomy Extension Label Linkbase Document
101.PRE*	XBRL Taxonomy Extension Presentation Linkbase Document

* Filed herewith.

** Furnished with this annual report on Form 20-F.

Table of Contents

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.

China Petroleum & Chemical Corporation

By:	/s/ Huang Wensheng	
	Name:	Huang Wensheng
	Title:	Secretary to the Board of Directors

Date: April 27, 2018

Table of Contents

CHINA PETROLEUM & CHEMICAL CORPORATION AND SUBSIDIARIES

INDEX TO CONSOLIDATED FINANCIAL STATEMENTS

	Page
Report of independent registered public accounting firm	F-2
Consolidated statement of income	F-4
Consolidated statement of comprehensive income	F-5
Consolidated balance sheet	F-6
Consolidated statement of changes in equity	F-7
Consolidated statement of cash flows	F-10
Notes to consolidated financial statements	F-12

Table of Contents

Report of Independent Registered Public Accounting Firm

To the Board of Directors and Shareholders of China Petroleum & Chemical Corporation,

Opinions on the Financial Statements and Internal Control over Financial Reporting

We have audited the accompanying consolidated balance sheets of China Petroleum & Chemical Corporation and its subsidiaries (the Company) as of December 31, 2017 and 2016, and the related consolidated statements of income, comprehensive income, changes in equity and cash flows for each of the three years in the period ended December 31, 2017, including the related notes (collectively referred to as the consolidated financial statements). We also have audited the Company s internal control over financial reporting as of December 31, 2017, based on criteria established in *Internal Control - Integrated Framework* (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of the Company as of December 31, 2017 and 2016, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2017 in conformity with International Financial Reporting Standards as issued by the International Accounting Standards Board. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2017, based on criteria established in *Internal Control - Integrated Framework (2013)* issued by the COSO.

Basis for Opinions

The Company s management is responsible for these consolidated financial statements, for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting, included in Management s Annual Report on Internal Control over Financial Reporting appearing in Item 15 of the 2017 Form 20-F. Our responsibility is to express opinions on the Company s consolidated financial statements and on the Company s internal control over financial reporting based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud, and whether effective internal control over financial reporting was maintained in all material respects.

Our audits of the consolidated financial statements included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

Table of Contents

Definition and Limitations of Internal Control over Financial Reporting

A company s internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company s internal control over financial reporting includes those policies and procedures that (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.

/s/ PricewaterhouseCoopers Zhong Tian LLP
PricewaterhouseCoopers Zhong Tian LLP

Shanghai, the People s Republic of China

23 March, 2018

We have served as the Company s auditor since 2013.

Table of Contents

CHINA PETROLEUM & CHEMICAL CORPORATION AND SUBSIDIARIES

CONSOLIDATED STATEMENT OF INCOME

FOR THE YEARS ENDED DECEMBER 31, 2015, 2016 AND 2017

(Amounts in million, except per share data)

	Note	Years ended December 31, 2015 RMB	2016 RMB	2017 RMB
Operating revenues				
Sales of goods		1,977,877	1,880,190	2,300,470
Other operating revenues	3	42,498	50,721	59,723
		2,020,375	1,930,911	2,360,193
Operating expenses				
Purchased crude oil, products and operating supplies and expenses		(1,494,046)	(1,379,691)	(1,770,651)
Selling, general and administrative expenses	4	(69,491)	(64,360)	(64,973)
Depreciation, depletion and amortization		(96,460)	(108,425)	(115,310)
Exploration expenses, including dry holes		(10,459)	(11,035)	(11,089)
Personnel expenses	5	(56,619)	(63,887)	(74,854)
Taxes other than income tax	6	(236,349)	(232,006)	(235,292)
Other operating (expenses)/ income, net	7	(129)	5,686	(16,554)
Total operating expenses		(1,963,553)	(1,853,718)	(2,288,723)
Operating income		56,822	77,193	71,470
Finance costs				
Interest expense	8	(8,133)	(9,219)	(7,146)
Interest income		3,010	3,218	5,254
Loss on embedded derivative component of the convertible bonds	39(g)	(259)		
Net foreign currency exchange (loss)/gain		(3,857)	(610)	332
Net finance costs		(9,239)	(6,611)	(1,560)
Investment income		466	263	262
Share of profits less losses from associates and joint ventures		8,362	9,306	16,525
Earnings before income tax		56,411	80,151	86,697
Tax expense	9	(12,613)	(20,707)	(16,279)
Net income		43,798	59,444	70,418
Attributable to:				
Owners of the Company		32,512	46,672	51,244
Non-controlling interests		11,286	12,772	19,174
Net income		43,798	59,444	70,418
Earnings per share:				
Basic	11	0.27	0.39	0.42
Diluted	11	0.27	0.39	0.42

See accompanying notes to consolidated financial statements.

Table of Contents

CHINA PETROLEUM & CHEMICAL CORPORATION AND SUBSIDIARIES

CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME

FOR THE YEARS ENDED DECEMBER 31, 2015, 2016 AND 2017

(Amounts in million)

	Note	Years ended December 31, 2015 RMB	2016 RMB	2017 RMB
Net income		43,798	59,444	70,418
Other comprehensive income:	10			
Items that may be reclassified subsequently to profit or loss (net of tax and after reclassification adjustments):				
Cash flow hedges		3,163	2,014	(1,580)
Available-for-sale securities		62	(24)	(57)
Share of other comprehensive (loss)/income of associates and joint ventures		(5,356)	45	1,053
Foreign currency translation differences		2,268	4,298	(3,792)
Total items that may be reclassified subsequently to profit or loss		137	6,333	(4,376)
Total other comprehensive income		137	6,333	(4,376)
Total comprehensive income for the year		43,935	65,777	66,042
Attributable to:				
Owners of the Company		31,789	53,724	47,763
Non-controlling interests		12,146	12,053	18,279
Total comprehensive income for the year		43,935	65,777	66,042

See accompanying notes to consolidated financial statements.

Table of Contents

CHINA PETROLEUM & CHEMICAL CORPORATION AND SUBSIDIARIES

CONSOLIDATED BALANCE SHEET

AS OF DECEMBER 31, 2016 AND 2017

(Amounts in million)

	Note	December 31, 2016 RMB	December 31, 2017 RMB
ASSETS			
Current assets			
Cash and cash equivalents		124,468	113,218
Time deposits with financial institutions		18,029	51,786
Financial assets at fair value through profit or loss	12		51,196
Trade accounts receivable, net	13	50,289	68,494
Bills receivable		13,197	16,207
Inventories	14	156,511	186,693
Prepaid expenses and other current assets	15	49,767	41,455
Total current assets		412,261	529,049
Non-current assets			
Property, plant and equipment, net	16	690,594	650,774
Construction in progress	17	129,581	118,645
Goodwill	18	6,353	8,634
Interest in associates	19	66,116	79,726
Interest in joint ventures	20	50,696	51,361
Available-for-sale financial assets	21	11,408	1,676
Deferred tax assets	22	7,214	15,131
Lease prepayments	23	54,241	58,526
Long-term prepayments and other assets	24	70,145	81,982
Total non-current assets		1,086,348	1,066,455
Total assets		1,498,609	1,595,504
LIABILITIES AND EQUITY			
Current liabilities			
Short-term debts	25	56,239	55,338
Loans from Sinopec Group Company and fellow subsidiaries	25	18,580	25,311
Trade accounts payable	26	174,301	200,073
Bills payable	26	5,828	6,462
Accrued expenses and other payables	27	224,544	279,247
Income tax payable		6,051	13,015
Total current liabilities		485,543	579,446
Non-current liabilities			
Long-term debts	25	72,674	55,804
Loans from Sinopec Group Company and fellow subsidiaries	25	44,772	43,320
Deferred tax liabilities	22	7,661	6,466
Provisions	28	39,298	39,958
Other long-term liabilities		17,426	17,620
Total non-current liabilities		181,831	163,168
Total liabilities		667,374	742,614
Equity			

Share capital	29	121,071	121,071
Reserves	39	589,923	605,049
Total equity attributable to owners of the Company		710,994	726,120
Non-controlling interests		120,241	126,770
Total equity		831,235	852,890
Total liabilities and equity		1,498,609	1,595,504

See accompanying notes to consolidated financial statements.

Table of Contents

CHINA PETROLEUM & CHEMICAL CORPORATION AND SUBSIDIARIES

CONSOLIDATED STATEMENT OF CHANGES IN EQUITY

FOR THE YEARS ENDED DECEMBER 31, 2015, 2016 AND 2017

(Amounts in million)

	Share capital RMB	Capital reserve RMB	Share premium RMB	Statutory surplus reserve RMB	Dis-cretionary surplus reserve RMB	Other reserves RMB	Retained earnings RMB	Total equity attributable to owners of the Company RMB	Non-controlling interests RMB	Total equity RMB
Balance as of December 31, 2014	118,280	(30,497)	41,824	76,552	117,000	(6,179)	276,061	593,041	52,536	645,577
Contribution from SAMC in the Acquisition of Gaoqiao Branch of SAMC (Note 31)		2,214						2,214	1,811	4,025
Balance as of January 1, 2015	118,280	(28,283)	41,824	76,552	117,000	(6,179)	276,061	595,255	54,347	649,602
Net income							32,512	32,512	11,286	43,798
Other comprehensive income (Note 10)						(1,169)		(1,169)	1,306	137
Total comprehensive income for the year						(1,169)	32,512	31,343	12,592	43,935
Transactions with owners, recorded directly in equity:										
Contributions by and distributions to owners:										
Conversion of the 2011 Convertible Bonds (Note 39(g))	2,791		14,026					16,817		16,817
Final dividend for 2014							(13,318)	(13,318)		(13,318)
Interim dividend for 2015							(10,896)	(10,896)		(10,896)
Appropriation (Note 39 (c))				3,088			(3,088)			
Contributions to subsidiaries from non-controlling interests		56,224				446		56,670	48,807	105,477
Distributions to non-controlling interests									(3,389)	(3,389)
Profit distribution to SAMC (Note 31)							(74)	(74)	(60)	(134)
Total contributions by and distributions to owners	2,791	56,224	14,026	3,088		446	(27,376)	49,199	45,358	94,557
Changes in ownership interests in subsidiaries that do not result in a loss of control:										
Transaction with non-controlling interests		326						326	(326)	
Total changes in ownership interests in subsidiaries that do not result in a loss of control		326						326	(326)	
Total transactions with owners	2,791	56,550	14,026	3,088		446	(27,376)	49,525	45,032	94,557
Others		74				121	(121)	74	(7)	67
Balance as of December 31, 2015	121,071	28,341	55,850	79,640	117,000	(6,781)	281,076	676,197	111,964	788,161

See accompanying notes to consolidated financial statements.

Table of Contents

CHINA PETROLEUM & CHEMICAL CORPORATION AND SUBSIDIARIES

CONSOLIDATED STATEMENT OF CHANGES IN EQUITY (CONTINUED)

FOR THE YEARS ENDED DECEMBER 31, 2015, 2016 AND 2017

(Amounts in million)

	Share capital RMB	Capital reserve RMB	Share premium RMB	Statutory surplus reserve RMB	Dis-cretionary surplus reserve RMB	Other reserves RMB	Retained earnings RMB	Total equity attributable to owners of the Company RMB	Non-controlling interests RMB	Total equity RMB
Balance as of January 1, 2016	121,071	28,341	55,850	79,640	117,000	(6,781)	281,076	676,197	111,964	788,161
Net income							46,672	46,672	12,772	59,444
Other comprehensive income (Note 10)						7,052		7,052	(719)	6,333
Total comprehensive income for the year						7,052	46,672	53,724	12,053	65,777
Transactions with owners, recorded directly in equity:										
Contributions by and distributions to owners:										
Final dividend for 2015							(7,264)	(7,264)		(7,264)
Interim dividend for 2016							(9,565)	(9,565)		(9,565)
Appropriation (Note 39 (c))										
Distributions to non-controlling interests									(6,146)	(6,146)
Profit distribution to SAMC (Note 31)							(47)	(47)	(39)	(86)
Distribution to SAMC in the Acquisition of Gaoqiao Branch of SAMC (Note 31)		(2,137)						(2,137)	2,137	
Total contributions by and distributions to owners		(2,137)					(16,876)	(19,013)	(4,048)	(23,061)
Changes in ownership interests in subsidiaries that do not result in a loss of control:										
Transaction with non-controlling interests		(30)						(30)	263	233
Total changes in ownership interests in subsidiaries that do not result in a loss of control		(30)						(30)	263	233
Total transactions with owners		(2,167)					(16,876)	(19,043)	(3,785)	(22,828)
Others		116				153	(153)	116	9	125
Balance as of December 31, 2016	121,071	26,290	55,850	79,640	117,000	424	310,719	710,994	120,241	831,235

See accompanying notes to consolidated financial statements.

Table of Contents

CHINA PETROLEUM & CHEMICAL CORPORATION AND SUBSIDIARIES

CONSOLIDATED STATEMENT OF CHANGES IN EQUITY (CONTINUED)

FOR THE YEARS ENDED DECEMBER 31, 2015, 2016 AND 2017

(Amounts in million)

	Share capital RMB	Capital reserve RMB	Share premium RMB	Statutory surplus reserve RMB	Dis-cretionary surplus reserve RMB	Other reserves RMB	Retained earnings RMB	Total equity attributable to owners of the Company RMB	Non-controlling interests RMB	Total equity RMB
Balance as of January 1, 2017	121,071	26,290	55,850	79,640	117,000	424	310,719	710,994	120,241	831,235
Net income							51,244	51,244	19,174	70,418
Other comprehensive income (Note 10)						(3,481)		(3,481)	(895)	(4,376)
Total comprehensive income for the year						(3,481)	51,244	47,763	18,279	66,042
Transactions with owners, recorded directly in equity:										
Contributions by and distributions to owners:										
Final dividend for 2016							(20,582)	(20,582)		(20,582)
Interim dividend for 2017							(12,107)	(12,107)		(12,107)
Appropriation (Note 39 (c))				3,042			(3,042)			
Distributions to non-controlling interests									(12,501)	(12,501)
Total contributions by and distributions to owners				3,042			(35,731)	(32,689)	(12,501)	(45,190)
Changes in ownership interests in subsidiaries that do not result in a loss of control:										
Transaction with non-controlling interests		(13)						(13)	724	711
Total changes in ownership interests in subsidiaries that do not result in a loss of control		(13)						(13)	724	711
Total transactions with owners		(13)		3,042			(35,731)	(32,702)	(11,777)	(44,479)
Others		49				123	(107)	65	27	92
Balance as of December 31, 2017	121,071	26,326	55,850	82,682	117,000	(2,934)	326,125	726,120	126,770	852,890

See accompanying notes to consolidated financial statements.

Table of Contents

CHINA PETROLEUM & CHEMICAL CORPORATION AND SUBSIDIARIES

CONSOLIDATED STATEMENT OF CASH FLOWS

FOR THE YEARS ENDED DECEMBER 31, 2015, 2016 AND 2017

(Amounts in million)

	Note	Years ended December 31, 2015 RMB	2016 RMB	2017 RMB
Net cash generated from operating activities	(a)	165,740	214,543	190,935
Investing activities				
Capital expenditure		(95,495)	(65,467)	(63,541)
Exploratory wells expenditure		(7,203)	(7,380)	(7,407)
Purchase of investments, investments in associates and investments in joint ventures	19,20	(23,351)	(16,389)	(57,627)
Payment for acquisition of subsidiary, net of cash acquired		(89)		(1,288)
Proceeds from disposal of investments and investments in associates		3,353	33,516	4,809
Proceeds from disposal of property, plant, equipment and other non-current assets		427	440	1,313
Increase in time deposits with maturities over three months		(3,571)	(17,896)	(82,577)
Decrease in time deposits with maturities over three months		3,583	600	48,820
Interest received		2,228	2,331	3,669
Investment and dividend income received		3,399	4,028	8,506
Net cash used in investing activities		(116,719)	(66,217)	(145,323)
Financing activities				
Proceeds from bank and other loans		1,090,241	506,097	524,843
Repayments of bank and other loans		(1,152,837)	(569,091)	(536,380)
Contributions to subsidiaries from non-controlling interests		105,529	343	946
Dividends paid by the Company		(24,214)	(16,876)	(32,689)
Distributions by subsidiaries to non-controlling interests		(1,481)	(6,553)	(7,539)
Interest paid		(8,145)	(6,967)	(5,535)
Finance lease payment				(155)
Net cash generated from/(used in) financing activities		9,093	(93,047)	(56,509)
Net increase/(decrease) in cash and cash equivalents		58,114	55,279	(10,897)
Cash and cash equivalents as of January 1		10,526	68,933	124,468
Effect of foreign currency exchange rate changes		293	256	(353)
Cash and cash equivalents as of December 31		68,933	124,468	113,218

See accompanying notes to consolidated financial statements.

Table of Contents

CHINA PETROLEUM & CHEMICAL CORPORATION AND SUBSIDIARIES

NOTES TO CONSOLIDATED STATEMENT OF CASH FLOWS

FOR THE YEARS ENDED DECEMBER 31, 2015, 2016 AND 2017

(Amounts in million)

(a) Reconciliation of earnings before income tax to net cash generated from operating activities

	Years ended December 31,		
	2015 RMB	2016 RMB	2017 RMB
Operating activities			
Earnings before income tax	56,411	80,151	86,697
Adjustment for:			
Depreciation, depletion and amortization	96,460	108,425	115,310
Dry hole costs written off	6,099	7,467	6,876
Income from associates and joint ventures	(8,362)	(9,306)	(16,525)
Investment income	(466)	(263)	(262)
Gain on dilution and remeasurement of interests in the Pipeline Ltd		(20,562)	
Gain on remeasurement of interests in the Shanghai SECCO (Note 31)			(3,941)
Interest income	(3,010)	(3,218)	(5,254)
Interest expense	8,133	9,219	7,146
Loss/(gain) on foreign currency exchange rate changes and derivative financial instruments	3,085	86	(1,547)
Loss on disposal of property, plant, equipment and other non-currents assets, net	748	1,528	1,518
Impairment losses on assets	8,767	17,076	21,791
Loss on embedded derivative component of the convertible bonds	259		
	168,124	190,603	211,809
Net charges from:			
Accounts receivable and other current assets	40,910	(22,549)	(31,151)
Inventories	39,136	(11,364)	(28,903)
Accounts payable and other current liabilities	(68,431)	81,089	59,210
	179,739	237,779	210,965
Income tax paid	(13,999)	(23,236)	(20,030)
Net cash generated from operating activities	165,740	214,543	190,935

See accompanying notes to consolidated financial statements.

Table of Contents

1 PRINCIPAL ACTIVITIES, ORGANIZATION AND BASIS OF PRESENTATION

Principal activities

China Petroleum & Chemical Corporation (the Company) is an energy and chemical company that, through its subsidiaries (hereinafter collectively referred to as the Group), engages in oil and gas and chemical operations in the People s Republic of China (the PRC). Oil and gas operations consist of exploring for, developing and producing crude oil and natural gas; transporting crude oil and natural gas by pipelines; refining crude oil into finished petroleum products; and marketing crude oil, natural gas and refined petroleum products. Chemical operations include the manufacture and marketing of a wide range of chemicals for industrial uses.

Organization

The Company was established in the PRC on February 25, 2000 as a joint stock limited company as part of the reorganization (the Reorganization) of China Petrochemical Corporation (Sinopec Group Company), the ultimate holding company of the Group and a ministry-level enterprise under the direct supervision of the State Council of the PRC. Prior to the incorporation of the Company, the oil and gas and chemical operations of the Group were carried on by oil administration bureaux, petrochemical and refining production enterprises and sales and marketing companies of Sinopec Group Company.

As part of the Reorganization, certain of Sinopec Group Company s core oil and gas and chemical operations and businesses together with the related assets and liabilities were transferred to the Company. On February 25, 2000, in consideration for Sinopec Group Company transferring such oil and gas and chemical operations and businesses and the related assets and liabilities to the Company, the Company issued 68.8 billion domestic state-owned ordinary shares with a par value of RMB 1.00 each to Sinopec Group Company. The shares issued to Sinopec Group Company on February 25, 2000 represented the entire registered and issued share capital of the Company as of that date. The oil and gas and chemical operations and businesses transferred to the Company were related to (i) the exploration, development and production of crude oil and natural gas, (ii) the refining, transportation, storage and marketing of crude oil and petroleum products, and (iii) the production and sales of chemicals.

Basis of preparation

The accompanying consolidated financial statements have been prepared in accordance with applicable International Financial Reporting Standards (IFRS) as issued by the International Accounting Standards Board (IASB). IFRS includes International Accounting Standards (IAS) and related interpretations (IFRIC). A summary of the significant accounting policies adopted by the Group are set out in Note 2. The accompanying financial statements were authorized for issue by the Board of Directors on March 23, 2018.

(a) New and amended standards and interpretations adopted by the Group

The following relevant IFRS, amendments to existing IFRS and interpretation of IFRS have been published and are mandatory for the year beginning on January 1, 2017 and have been adopted by the Group in current accounting period:

Amendments to IAS 7, Statement of cash flows , the IASB has issued an amendment to IAS 7 introducing an additional disclosure that will enable users of financial statements to evaluate changes in liabilities arising from financing activities. The amendment is part of the IASB s Disclosure Initiative, which continues to explore how financial statement disclosure can be improved. Amendments to IAS 7 are effective for annual periods beginning on January 1, 2017.

Amendments to IAS 12, Income taxes , the IASB has issued amendments to IAS 12, Income taxes . These amendments on the recognition of deferred tax assets for unrealized losses clarify how to account for deferred tax assets related to debt instruments measured at fair value. Amendments to IAS 12 are effective for annual periods beginning on January 1, 2017.

There have been no significant changes to the accounting policies applied in these financial statements for the periods presented as a result of these developments.

The Group has not early adopted any new standard or interpretation that is not yet effective for the current accounting period.

Table of Contents

(b) New and amended standards and interpretations not yet adopted by the Group

The following relevant IFRS, amendments to existing IFRS and interpretation of IFRS have been published and are mandatory for accounting periods beginning on or after January 1, 2018 or later periods and have not been early adopted by the Group. Management is in the process of making an assessment of what the impact of these amendments, new standards and new interpretations is expected to be in the period of initial application and has so far concluded that, except for IFRS 16, the adoption of these amendments, new standards and new interpretations is unlikely to have a significant impact on the Group s results of operations and financial position.

IFRS 9, Financial instruments , addresses the classification, measurement and recognition of financial assets and financial liabilities. The complete version of IFRS 9 was issued in July 2014. It replaces the whole of IAS 39. IFRS 9 introduces a new model for the recognition of impairment losses - the expected credit losses model, which constitutes a change from the incurred loss model in IAS 39. IFRS 9 applies to all hedging relationships, with the exception of portfolio fair value hedges of interest rate risk. The new guidance better aligns hedge accounting with the risk management activities of an entity and provides relief from the more rule based approach of IAS 39. IFRS 9 is effective for annual periods beginning on January 1, 2018. Earlier application is permitted.

IFRS 15, Revenue from contracts with customers , establishes a comprehensive framework for determining when to recognize revenue and how much revenue to recognize through a 5-step approach. IFRS 15 provides specific guidance on capitalization of contract cost and license arrangements. It also includes a cohesive set of disclosure requirements about the nature, amount, timing and uncertainty of revenue and cash flows arising from the entity s contracts with customers. The core principle is that a company should recognize revenue to depict the transfer of promised goods or services to the customer in an amount that reflects the consideration to which the company expects to be entitled in exchange for those goods or services. IFRS 15 replaces the previous revenue standards: IAS 18 Revenue and IAS 11 Construction Contracts and the related Interpretations on revenue recognition: IFRIC 13 Customer Loyalty Programmes , IFRIC 15 Agreements for the Construction of Real Estate , IFRIC 18 Transfers of Assets from Customers and SIC-31 Revenue-Barter Transactions Involving Advertising Services . IFRS 15 is effective for annual reporting periods beginning on January 1, 2018. Earlier application is permitted.

IFRS 16, Leases , provides updated guidance on the definition of leases, and the guidance on the combination and separation of contracts. Under IFRS 16, a contract is, or contains, a lease if the contract conveys the right to control the use of an identified asset for a period of time in exchange for consideration. IFRS 16 requires lessees to recognize lease liability reflecting future lease payments and a right-of-use-asset for almost all lease contracts, with an exemption for certain short-term leases and leases of low-value assets. The lessors accounting stays almost the same as under IAS 17 Leases . IFRS 16 is effective for annual reporting periods beginning on January 1, 2019. Earlier application is permitted if IFRS 15 is also applied.

Amendments to IFRS 10 and IAS 28 on sale or contribution of assets between an investor and its associate or joint venture. The amendments address an inconsistency between IFRS 10 and IAS 28 in the sale and contribution of assets between an investor and its associate or joint venture. A full gain or loss is recognized when a transaction involves a business. A partial gain or loss is recognized when a transaction involves assets that do not constitute a business, even if those assets are in a subsidiary. The amendments were originally intended to be effective for annual periods beginning on or after January 1, 2016. The effective date has now been deferred/removed. Early application of the amendments continues to be permitted.

The accompanying consolidated financial statements are prepared on the historical cost basis except for the remeasurement of available-for-sale securities (Note 2(k)), securities held for trading (Note 2(k)) and derivative financial instruments (Note 2(l) and (n)) to their fair values.

Table of Contents

The preparation of the consolidated financial statements in accordance with IFRS requires management to make judgements, estimates and assumptions that affect the application of policies and reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the consolidated financial statements and the reported amounts of revenues and expenses during the period. The estimates and associated assumptions are based on historical experience and various other factors that are believed to be reasonable under the circumstances, the results of which form the basis of making the judgements about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results could differ from those estimates.

The estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognized in the period in which the estimate is revised if the revision affects only that period, or in the period of the revision and future periods if the revision affects both current and future periods.

Key assumptions and estimation made by management in the application of IFRS that have significant effect on the consolidated financial statements and the major sources of estimation uncertainty are disclosed in Note 37.

2 SIGNIFICANT ACCOUNTING POLICIES

(a) Basis of consolidation

The consolidated financial statements comprise the Company and its subsidiaries, and interest in associates and joint ventures.

(i) Subsidiaries and non-controlling interests

Subsidiaries are those entities controlled by the Group. The Group controls an entity when the Group is exposed to, or has rights to, variable returns from its involvement with the entity and has the ability to affect those returns through its power over the entity.

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

Non-controlling interests at the balance sheet date, being the portion of the net assets of subsidiaries attributable to equity interests that are not owned by the Company, whether directly or indirectly through subsidiaries, are presented in the consolidated balance sheet and consolidated statement of changes in equity within equity, separately from equity attributable to the owners of the Company. Non-controlling interests in the results of the Group are presented on the face of the consolidated statement of income and the consolidated statement of comprehensive income as an allocation of the total profit or loss and total comprehensive income for the year between

non-controlling interests and the owners of the Company.

Changes in the Group s interests in a subsidiary that do not result in a loss of control are accounted for as equity transactions, whereby adjustments are made to the amounts of controlling and non-controlling interests within consolidated equity to reflect the change in relative interests, but no adjustments are made to goodwill and no gain or loss is recognized.

If a business combination involving entities not under common control is achieved in stages, the acquisition date carrying value of the acquirer s previously held equity interest in the acquiree is remeasured to fair value at the acquisition date. Any gains or losses arising from such remeasurement are recognized in the consolidated statement of income.

When the Group loses control of a subsidiary, it is accounted for as a disposal of the entire interest in that subsidiary, with a resulting gain or loss being recognized in profit or loss. Any interest retained in that former subsidiary at the date when control is lost is recognized at fair value and this amount is regarded as the fair value on initial recognition of a financial asset (Note 2(k)) or, when appropriate, the cost on initial recognition of an investment in an associate or joint venture (Note 2(a)(ii)).

Table of Contents

The particulars of the Group s principal subsidiaries are set out in Note 35.

(ii) Associates and joint ventures

An associate is an entity, not being a subsidiary, in which the Group exercises significant influence over its management. Significant influence is the power to participate in the financial and operating policy decisions of the investee but is not control or joint control over those policies.

The investments in joint arrangements are classified as either joint operations or joint ventures depending on the contractual rights and obligations each investor has rather than the legal structure of the joint arrangement. A joint venture is a joint arrangement whereby the parties that have joint control of the arrangement have rights to the net assets of the arrangement.

Investments in associates and joint ventures are accounted for in the consolidated financial statements using the equity method from the date that significant influence or joint control commences until the date that significant influence or joint control ceases. Under the equity method, the investment is initially recorded at cost and adjusted thereafter for the post acquisition change in the Group s share of the investee s net assets and any impairment loss relating to the investment (Note 2(j) and (o)).

The Group s share of the post-acquisition, post-tax results of the investees and any impairment losses for the year are recognized in the consolidated statement of income, whereas the Group s share of the post-acquisition post-tax items of the investees other comprehensive income is recognized in the consolidated statement of comprehensive income.

When the Group ceases to have significant influence over an associate or joint control over a joint venture, it is accounted for as a disposal of the entire interest in that investee, with a resulting gain or loss being recognized in profit or loss. Any interest retained in that former investee at the date when significant influence or joint control is lost is recognized at fair value and this amount is regarded as the fair value on initial recognition of a financial asset (see Note 2(k)) or, when appropriate, the cost on initial recognition of an investment in an associate (see Note 2(a) (ii)).

(iii) Transactions eliminated on consolidation

Inter-company balances and transactions and any unrealized gains arising from inter company transactions are eliminated on consolidation. Unrealized gains arising from transactions with associates and joint ventures are eliminated to the extent of the Group s interest in the entity. Unrealized losses are eliminated in the same way as unrealized gains, but only to the extent that there is no evidence of impairment.

(iv) Merger accounting for common control combination

The consolidated financial statements incorporate the financial statements of the combining entities or businesses in which the common control combination occurs as if they had been combined from the date when the combining entities or businesses first came under the control of the controlling party. The net assets of the combining entities or businesses are combined using the existing book values from the controlling parties perspective. No amount is recognized as consideration for goodwill or excess of acquirers interest in the net fair value of acquiree s identifiable assets, liabilities and contingent liabilities over cost at the time of common control combination, to the extent of the continuation of the controlling party s interest.

The consolidated statement of income includes the results of each of the combining entities or businesses from the earliest date presented or since the date when the combining entities or businesses first came under the common control, where there is a shorter period, regardless of the date of the common control combination. The comparative amounts in the consolidated financial statements are presented as if the entities or businesses had been combined at the previous balance sheet date or when they first came under common control, whichever is shorter.

Table of Contents

A uniform set of accounting policies is adopted by those entities. All intra group transactions, balances and unrealized gains on transactions between combining entities or businesses are eliminated on consolidation. Transaction costs, including professional fees, registration fees, costs of furnishing information to shareholders, costs or losses incurred in combining operations of the previously separate businesses, etc., incurred in relation to the common control combination that is to be accounted for by using merger accounting is recognized as an expense in the period in which it is incurred.

(b) Translation of foreign currencies

The presentation currency of the Group is Renminbi. Foreign currency transactions during the year are translated into Renminbi at the applicable rates of exchange quoted by the People s Bank of China (PBOC) prevailing on the transaction dates. Foreign currency monetary assets and liabilities are translated into Renminbi at the PBOC s rates at the balance sheet date.

Exchange differences, other than those capitalized as construction in progress, are recognized as income or expenses in the finance costs section of the consolidated statement of income.

The results of foreign operations are translated into Renminbi at the applicable rates quoted by the PBOC prevailing on the transaction dates. Balance sheet items, including goodwill arising on consolidation of foreign operations are translated into Renminbi at the closing foreign exchange rates at the balance sheet date. The income and expenses of foreign operations are translated into Renminbi at the spot exchange rates or an exchange rate that approximates the spot exchange rates on the transaction dates. The resulting exchange differences are recognized in other comprehensive income and accumulated in equity in the other reserves.

On disposal of a foreign operation, the cumulative amount of the exchange differences relating to that foreign operation is reclassified from equity to the consolidated statement of income when the profit or loss on disposal is recognized.

(c) Cash and cash equivalents

Cash equivalents consist of time deposits with financial institutions with an initial term of less than three months when purchased. Cash equivalents are stated at cost, which approximates fair value.

(d) Trade, bills and other receivables

Trade, bills and other receivables are initially recognized at fair value and thereafter stated at amortized cost using the effective interest method, less impairment losses for bad and doubtful debts (Note 2(o)). Trade, bills and other receivables are derecognized if the Group s contractual

rights to the cash flows from these financial assets expire or if the Group transfers these financial assets to another party without retaining control or substantially all risks and rewards of the assets.

(e) Inventories

Inventories are stated at the lower of cost and net realizable value. Cost includes the cost of purchase computed using the weighted average method and, in the case of work in progress and finished goods, direct labor and an appropriate proportion of production overheads. Net realizable value is the estimated selling price in the ordinary course of business, less the estimated costs of completion and the estimated costs necessary to make the sale.

Table of Contents

(f) Property, plant and equipment

An item of property, plant and equipment is initially recorded at cost, less accumulated depreciation and impairment losses (Note 2(o)). The cost of an asset comprises its purchase price, any directly attributable costs of bringing the asset to working condition and location for its intended use. The Group recognizes in the carrying amount of an item of property, plant and equipment the cost of replacing part of such an item when that cost is incurred when it is probable that the future economic benefits embodied with the item will flow to the Group and the cost of the item can be measured reliably. All other expenditure is recognized as an expense in the consolidated statement of income in the year in which it is incurred.

Gains or losses arising from the retirement or disposal of an item of property, plant and equipment, other than oil and gas properties, are determined as the difference between the net disposal proceeds and the carrying amount of the item and are recognized as income or expense in the consolidated statement of income on the date of retirement or disposal.

Depreciation is provided to write off the cost amount of items of property, plant and equipment, other than oil and gas properties, over its estimated useful life on a straight-line basis, after taking into account its estimated residual value, as follows:

	Estimated usage period	Estimated residuals rate
Buildings	12 to 50 years	3%
Equipment, machinery and others	4 to 30 years	3%

Where parts of an item of property, plant and equipment have different useful lives, the cost of the item is allocated on a reasonable basis between the parts and each part is depreciated separately. Both the useful life of an asset and its residual value, if any, are reassessed annually.

(g) Oil and gas properties

The Group uses the successful efforts method of accounting for its oil and gas producing activities. Under this method, costs of development wells, the related supporting equipment and proved mineral interests in properties are capitalized. The cost of exploratory wells is initially capitalized as construction in progress pending determination of whether the well has found proved reserves. The impairment of exploratory well costs occurs upon the determination that the well has not found proved reserves. The exploratory well costs are usually not carried as an asset for more than one year following completion of drilling, unless (i) the well has found a sufficient quantity of reserves to justify its completion as a producing well if the required capital expenditure is made; (ii) drilling of the additional exploratory wells is under way or firmly planned for the near future; or (iii) other activities are being undertaken to sufficiently progress the assessing of the reserves and the economic and operating viability of the project. All other exploration costs, including geological and geophysical costs, other dry hole costs and annual lease rentals, are expensed as incurred. Capitalized costs of proved oil and gas properties are amortized on a unit-of-production method based on volumes produced and reserves.

Management estimates future dismantlement costs for oil and gas properties with reference to engineering estimates after taking into consideration the anticipated method of dismantlement required in accordance with the industry practices and the future cash flows are adjusted to reflect such risks specific to the liability, as appropriate. These estimated future dismantlement costs are discounted at a pre-tax risk-free rate and are capitalized as oil and gas properties, which are subsequently amortized as part of the costs of the oil and gas properties.

(h) Lease prepayments

Lease prepayments represent land use rights paid to the relevant government authorities. Land use rights are carried at cost less the accumulated amount charged to expense and impairment losses (Note 2(o)). The cost of lease prepayments is charged to expense on a straight-line basis over the respective periods of the rights.

Table of Contents

(i) Construction in progress

Construction in progress represents buildings, oil and gas properties, various plant and equipment under construction and pending installation, and is stated at cost less impairment losses (Note 2(o)). Cost comprises direct costs of construction as well as interest charges, and foreign exchange differences on related borrowed funds to the extent that they are regarded as an adjustment to interest charges, during the periods of construction.

Construction in progress is transferred to property, plant and equipment when the asset is substantially ready for its intended use.

No depreciation is provided in respect of construction in progress.

(j) Goodwill

Goodwill represents amounts arising on acquisition of subsidiaries, associates or joint ventures. Goodwill represents the difference between the cost of acquisition and the fair value of the net identifiable assets acquired.

Prior to January 1, 2008, the acquisition of the non-controlling interests of a consolidated subsidiary was accounted for using the acquisition method whereby the difference between the cost of acquisition and the fair value of the net identifiable assets acquired (on a proportionate share) was recognized as goodwill. From January 1, 2008, any difference between the amount by which the non-controlling interest is adjusted (such as through an acquisition of the non-controlling interests) and the cash or other considerations paid is recognized in equity.

Goodwill is stated at cost less accumulated impairment losses. Goodwill arising on a business combination is allocated to each cash-generating unit, or groups of cash-generating units, that is expected to benefit the synergies of the combination and is tested annually for impairment (Note 2(o)). In respect of associates or joint ventures, the carrying amount of goodwill is included in the carrying amount of the interest in the associates or joint ventures and the investment as a whole is tested for impairment whenever there is objective evidence of impairment (Note 2(o)).

(k) Available-for-sale financial assets

Investments in available-for-sale securities are carried at fair value with any change in fair value recognized in other comprehensive income and accumulated separately in equity in other reserves. When these investments are

derecognized or impaired, the cumulative gain or loss is reclassified from equity to the consolidated statement of income. Investments in equity securities, other than investments in associates and joint ventures, that do not have a quoted market price in an active market and whose fair value cannot be reliably measured are recognized in the balance sheet at cost less impairment losses (Note 2(o)).

Investments in securities held for trading are classified as current assets. Any attributable transaction costs are recognized in the consolidated statement of income as incurred. At each balance sheet date, the fair value is remeasured, with any resultant gain or loss being recognized in the consolidated statement of income.

(l) Derivative financial instruments

Derivative financial instruments are recognized initially at fair value. At each balance sheet date, the fair value is remeasured. The gain or loss on remeasurement to fair value is recognized immediately in other operating (expense)/income, net, except where the derivatives qualify for cash flow hedge accounting or the hedge of net investment in a foreign operation, in which case recognition of any resulting gain or loss depends on the nature of the item being hedged (Note 2(n)).

Table of Contents

(m) Offsetting financial instruments

Financial assets and liabilities are presented respectively in the consolidated balance sheet, without any offset. However, they are offset and reported in the balance sheet when satisfied the following: (i) There is a legally enforceable right to offset the recognized amounts. (ii) There is an intention to settle on a net basis or realize the asset and settle the liability simultaneously. The legally enforceable right must not be contingent on future events and must be enforceable in the normal course of business and in the event of default, insolvency or bankruptcy of the Company or the counterparty.

(n) Hedging

(i) Cash flow hedges

Where a derivative financial instrument is designated as a hedge of the variability in cash flows of a recognized asset or liability or a highly probable forecast transaction or the foreign currency risk of a committed future transaction, the effective portion of any gains or losses on remeasurement of the derivative financial instrument to fair value are recognized in other comprehensive income and accumulated separately in equity in other reserves. The ineffective portion of any gain or loss is recognized immediately in the consolidated statement of income.

If a hedge of a forecast transaction subsequently results in the recognition of a non-financial asset, the associated gain or loss is reclassified from equity to be included in the initial cost or other carrying amount of the non-financial asset.

If a hedge of a forecast transaction subsequently results in the recognition of a financial asset or a financial liability, the associated gain or loss is reclassified from equity to the consolidated statement of income in the same period or periods during which the asset acquired or liability assumed affects the consolidated statement of income (such as when interest income or expense is recognized).

For cash flow hedges, other than those covered by the preceding two policy statements, the associated gain or loss is reclassified from equity to the consolidated statement of income in the same period or periods during which the hedged forecast transaction affects the consolidated statement of income.

When a hedging instrument expires or is sold, terminated, exercised, or the entity revokes designation of the hedge relationship but the hedged forecast transaction is still expected to occur, the cumulative gain or loss at that point remains in equity until the transaction occurs and it is recognized in accordance with the above policy. If the hedged transaction is no longer expected to take place, the cumulative unrealized gain or loss is reclassified from equity to the consolidated statement of income immediately.

(ii) Fair value hedges

A fair value hedge is a hedge of the exposure to changes in fair value of a recognized asset or liability or an unrecognized firm commitment, or an identified portion of such an asset, liability or unrecognized firm commitment.

The gain or loss from remeasuring the hedging instrument at fair value is recognized in the consolidated statement of income. The gain or loss on the hedged item attributable to the hedged risk adjusts the carrying amount of the hedged item and is recognized in the consolidated statement of income.

When a hedging instrument expires or is sold, terminated or exercised, or no longer meets the criteria for hedge accounting, the Group discontinues prospectively the hedge accounting treatments. If the hedged item is a financial instrument measured at amortized cost, any adjustment to the carrying amount of the hedged item is amortized to profit or loss from the adjustment date to the maturity date using the recalculated effective interest rate at the adjustment date.

Table of Contents

(iii) Hedge of net investments in foreign operations

The portion of the gain or loss on remeasurement to fair value of an instrument used to hedge a net investment in a foreign operation that is determined to be an effective hedge is recognized in other comprehensive income and accumulated separately in equity in the other reserve until the disposal of the foreign operation, at which time the cumulative gain or loss is reclassified from equity to the consolidated statement of income. The ineffective portion is recognized immediately in the consolidated statement of income. No hedge of net investment in foreign operations was hold by the Group for the year ended December 31, 2017.

(o) Impairment of assets

(i) Trade accounts receivable, other receivables and investment in equity securities that do not have a quoted market price in an active market are reviewed at each balance sheet date to determine whether there is objective evidence of impairment. If any such evidence exists, an impairment loss is determined and recognized.

The impairment loss is measured as the difference between the asset s carrying amount and the estimated future cash flows, discounted at the current market rate of return for a similar financial asset where the effect of discounting is material, and is recognized as an expense in the consolidated statement of income. Impairment losses for trade and other receivables are reversed through the consolidated statement of income if in a subsequent period the amount of the impairment losses decreases. Impairment losses for equity securities carried at cost are not reversed.

For investments in associates and joint ventures accounted under the equity method (Note 2(a)(ii)), the impairment loss is measured by comparing the recoverable amount of the investment as a whole with its carrying amount in accordance with the accounting policy set out in Note 2(o)(ii). The impairment loss is reversed if there has been a favorable change in the estimates used to determine the recoverable amount in accordance with the accounting policy set out in Note 2(o)(ii).

(ii) Impairment of other long-lived assets is accounted as follows:

The carrying amounts of other long-lived assets, including property, plant and equipment, construction in progress, lease prepayments and other assets, are reviewed at each balance sheet date to identify indicators that the assets may be impaired. These assets are tested for impairment whenever events or changes in circumstances indicate that their recorded carrying amounts may not be recoverable. When such a decline has occurred, the carrying amount is reduced to the recoverable amount. For goodwill, the recoverable amount is estimated at each balance sheet date.

The recoverable amount is the greater of the fair value less costs to disposal and the value in use. In determining the value in use, expected future cash flows generated by the asset are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset. Where an asset does not generate cash inflows largely independent of those from other assets, the recoverable amount is determined for the smallest group of assets that generates cash inflows independently (i.e. a

cash-generating unit).

The amount of the reduction is recognized as an expense in the consolidated statement of income. Impairment losses recognized in respect of cash-generating units are allocated first to reduce the carrying amount of any goodwill allocated to the cash-generating unit and then, to reduce the carrying amount of the other assets in the unit on a pro rata basis, except that the carrying value of an asset will not be reduced below its individual fair value less costs to disposal, or value in use, if determinable.

Table of Contents

Management assesses at each balance sheet date whether there is any indication that an impairment loss recognized for a long-lived asset, except in the case of goodwill, in prior years may no longer exist. An impairment loss is reversed if there has been a favorable change in the estimates used to determine the recoverable amount. A subsequent increase in the recoverable amount of an asset, when the circumstances and events that led to the write-down or write-off cease to exist, is recognized as an income. The reversal is reduced by the amount that would have been recognized as depreciation had the write-down or write-off not occurred. An impairment loss in respect of goodwill is not reversed.

(p) Trade, bills and other payables

Trade, bills and other payables are initially recognized at fair value and thereafter stated at amortized cost unless the effect of discounting would be immaterial, in which case they are stated at cost.

(q) Interest-bearing borrowings

Interest-bearing borrowings are recognized initially at fair value less attributable transaction costs. Subsequent to initial recognition, interest-bearing borrowings are stated at amortized cost with any difference between cost and redemption value being recognized in the consolidated statement of income over the period of borrowings using the effective interest method.

(r) Convertible bonds

(i) Convertible bonds that contain an equity component

Convertible bonds that can be converted to equity share capital at the option of the holder, where the number of shares that would be issued on conversion and the value of the consideration that would be received at that time do not vary, are accounted for as compound financial instruments that contain both a liability component and an equity component.

At initial recognition, the liability component of the convertible bonds is measured as the present value of the future interest and principal payments, discounted at the market rate of interest applicable at the time of initial recognition to similar liabilities that do not have a conversion option. Any excess of proceeds over the amount initially recognized as the liability component is recognized as the equity component. Transaction costs that relate to the issuance of the convertible bonds are allocated to the liability and equity components in proportion to the allocation of proceeds.

The liability component is subsequently carried at amortized cost. The interest expense on the liability component is calculated using the effective interest method. The equity component is recognized in the capital reserve until the bond is converted or redeemed.

If the bond is converted, the capital reserve, together with the carrying amount of the liability component at the time of conversion, is transferred to share capital and share premium as consideration for the shares issued. If the bond is redeemed, the capital reserve is transferred to share premium.

(ii) Other convertible bonds

Convertible bonds issued with a cash settlement option and other embedded derivative features are accounted for as compound financial instruments that contain a liability component and a derivative component.

Table of Contents

At initial recognition, the derivative component of the convertible bonds is measured at fair value. Any excess of proceeds over the amount initially recognized as the derivative component is recognized as the liability component. Transaction costs that relate to the issuance of the convertible bonds are allocated to the liability and derivative components in proportion to the allocation of proceeds. The portion of the transaction costs relating to the liability component is recognized initially as part of the liability. The portion relating to the derivative component is recognized immediately as an expense in the consolidated statement of income.

The derivative component is subsequently remeasured at each balance sheet date and any gains or losses arising from change in the fair value are recognized in the consolidated statement of income. The liability component is subsequently carried at amortized cost until extinguished on conversion or redemption. The interest expense recognized in the consolidated statement of income on the liability component is calculated using the effective interest method. Both the liability and the related derivative components are presented together for financial statements reporting purposes (Note 39(g)).

If the convertible bonds are converted, the carrying amounts of the derivative and liability components are transferred to share capital and share premium as consideration for the shares issued. If the convertible bonds are redeemed, any difference between the amount paid and the carrying amounts of both components is recognized in the consolidated statement of income.

(s) Provisions and contingent liability

A provision is recognized for liability of uncertain timing or amount when the Group has a legal or constructive obligation arising as a result of a past event, when it is probable that an outflow of economic benefits will be required to settle the obligation and a reliable estimate can be made.

When it is not probable that an outflow of economic benefits will be required, or the amount cannot be estimated reliably, the obligation is disclosed as a contingent liability, unless the probability of outflow of economic benefits is remote. Possible obligations, whose existence will only be confirmed by the occurrence or non-occurrence of one or more future events are also disclosed as contingent liabilities unless the probability of outflow of economic benefits is remote.

Provisions for future dismantlement costs are initially recognized based on the present value of the future costs expected to be incurred in respect of the Group s expected dismantlement and abandonment costs at the end of related oil and gas exploration and development activities. Any subsequent change in the present value of the estimated costs, other than the change due to passage of time which is regarded as interest cost, is reflected as an adjustment to the provision and oil and gas properties.

(t) Revenue recognition

Revenues associated with the sale of crude oil, natural gas, petroleum and chemical products and ancillary materials are recorded when the customer accepts the goods and the significant risks and rewards of ownership and title have been transferred to the buyer. Revenue from the rendering of services is recognized in the consolidated statement of income upon performance of the services. No revenue is

recognized if there are significant uncertainties regarding recovery of the consideration due, the possible return of goods, or when the amount of revenue and the costs incurred or to be incurred in respect of the transaction cannot be measured reliably.

Interest income is recognized on a time apportioned basis that takes into account the effective yield on the asset.

A government grant that becomes receivable as compensation for expenses or losses already incurred with no future related costs is recognized as income in the period in which it becomes receivable.

Table of Contents

(u) Borrowing costs

Borrowing costs are expensed in the consolidated statements of income in the period in which they are incurred, except to the extent that they are capitalized as being attributable to the construction of an asset which necessarily takes a period of time to get ready for its intended use.

(v) Repairs and maintenance expenditure

Repairs and maintenance expenditure is expensed as incurred.

(w) Environmental expenditures

Environmental expenditures that relate to current ongoing operations or to conditions caused by past operations are expensed as incurred.

Liabilities related to future remediation costs are recorded when environmental assessments and/or cleanups are probable and the costs can be reliably estimated. As facts concerning environmental contingencies become known to the Group, the Group reassesses its position both with respect to accrued liabilities and other potential exposures.

(x) Research and development expense

Research and development expenditures that cannot be capitalized are expensed in the period in which they are incurred. Research and development expense amounted to RMB 5,654, RMB 5,941 and RMB 6,423 for the years ended December 31, 2015, 2016 and 2017, respectively.

(y) Operating leases

Operating lease payments are charged to the consolidated statement of income on a straight-line basis over the period of the respective leases.

(z) Employee benefits

The contributions payable under the Group s retirement plans are recognized as an expense in the consolidated statement of income as incurred and according to the contribution determined by the plans. Further information is set out in Note 33.

Termination benefits, such as employee reduction expenses, are recognized when, and only when, the Group demonstrably commits itself to terminate employment or to provide benefits as a result of voluntary redundancy by having a detailed formal plan which is without realistic possibility of withdrawal.

(aa) Income tax

Income tax comprises current and deferred tax. Current tax is calculated on taxable income by applying the applicable tax rates. Deferred tax is provided using the balance sheet liability method on all temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for taxation purposes only to the extent that it is probable that future taxable income will be available against which the assets can be utilized. Deferred tax is calculated on the basis of the enacted tax rates or substantially enacted tax rates that are expected to apply in the period when the asset is realized or the liability is settled. The effect on deferred tax of any changes in tax rates is charged or credited to the consolidated statement of income, except for the effect of a change in tax rate on the carrying amount of deferred tax assets and liabilities which were previously charged or credited to other comprehensive income or directly in equity.

Table of Contents

The tax value of losses expected to be available for utilization against future taxable income is set off against the deferred tax liability within the same legal tax unit and jurisdiction to the extent appropriate, and is not available for set off against the taxable profit of another legal tax unit. The carrying amount of a deferred tax asset is reviewed at each balance sheet date and is reduced to the extent that it is no longer probable that the related tax benefit will be realized.

(bb) Dividends

Dividends and distributions of profits proposed in the profit appropriation plan which will be authorized and declared after the balance sheet date, are not recognized as a liability at the balance sheet date and are separately disclosed in the notes to the financial statements. Dividends are recognized as a liability in the period in which they are declared.

(cc) Segment reporting

Operating segments, and the amounts of each segment item reported in the consolidated financial statements, are identified from the financial information provided regularly to the Group s chief operating decision maker for the purposes of allocating resources to, and assessing the performance of the Group s various lines of business.

3. OTHER OPERATING REVENUES

	Years ended December 31,		
	2015 RMB	2016 RMB	2017 RMB
Sale of materials, service and others	41,524	49,812	58,930
Rental income	974	909	793
	42,498	50,721	59,723

4. SELLING, GENERAL AND ADMINISTRATIVE EXPENSES

The following items are included in selling, general and administrative expenses:

	Years ended December 31,		
	2015 RMB	2016 RMB	2017 RMB

Operating lease charges	14,384	14,410	12,104
Impairment losses			
- trade accounts receivable	40	230	(51)
- other receivables	49	(12)	159
- accounts prepayments	(25)	13	2

Table of Contents

5. PERSONNEL EXPENSES

	Years ended December 31,		
	2015 RMB	2016 RMB	2017 RMB
Salaries, wages and other benefits	48,741	55,502	65,873
Contributions to retirement schemes (Note 33)	7,878	8,385	8,981
	56,619	63,887	74,854

6. TAXES OTHER THAN INCOME TAX

	Years ended December 31,		
	2015 RMB	2016 RMB	2017 RMB
Consumption tax (i)	198,754	193,836	192,907
Special oil income levy	6		8
City construction tax (ii)	18,195	18,155	18,274
Education surcharge	13,686	13,695	13,811
Resources tax	4,853	3,871	4,841
Other	855	2,449	5,451
	236,349	232,006	235,292

Note:

(i) Consumption tax was levied based on sales quantities of taxable products, tax rate of products is presented as below:

Products	Effective from December 13, 2014 RMB/Ton	Effective from January 13, 2015 RMB/Ton
Gasoline	1,943.20	2,109.76
Diesel	1,293.60	1,411.20
Naphtha	1,939.00	2,105.20
Solvent oil	1,794.80	1,948.64
Lubricant oil	1,576.40	1,711.52
Fuel oil	1,116.50	1,218.00
Jet fuel oil	1,370.60	1,495.20

(ii) City construction tax is levied on an entity based on its total paid amount of value-added tax, consumption tax and business tax. Pursuant to the Circular on the Overall Promotion of Pilot Program of Levying VAT in place of

Business Tax (Cai Shui [2016] 36) jointly issued by the Ministry of Finance and the State Administration of Taxation, revenue from modern service of the subsidiaries of the Group, are subject to VAT from May 1, 2016, and the applicable tax rate is 6%. Before May 1, 2016, revenue from modern service of the subsidiaries of the Group, are subject to the business tax with a tax rate of 3% to 5%.

Table of Contents

7. OTHER OPERATING (EXPENSE)/INCOME, NET

	Years ended December 31,		
	2015 RMB	2016 RMB	2017 RMB
Fines, penalties and compensations	(90)	(152)	(89)
Donations	(112)	(133)	(152)
Loss on disposal of property, plant, equipment and other non-currents assets, net	(692)	(1,489)	(1,518)
Impairment losses on long-lived assets (Note i)	(5,146)	(16,425)	(21,258)
Net realized and unrealized gain on derivative financial instruments not qualified as hedging	870	195	(909)
Ineffective portion of change in fair value of cash flow hedges	165	304	(813)
Government grants (Note ii)	5,131	4,101	4,893
Gain on dilution and remeasurement of interests in the Pipeline Ltd		20,562	
Gain on remeasurement of interests in the Shanghai SECCO (Note 31)			3,941
Others	(255)	(1,277)	(649)
	(129)	5,686	(16,554)

Note:

(i) Impairment losses recognized on long-term assets of the exploration and production (E&P) segments were RMB 4,864, RMB 11,605 and RMB 13,556 for the years ended December 31, 2015, 2016 and 2017, respectively. The impairment comprised RMB 4,213, RMB 10,594 and RMB 12,611 on property, plant and equipment for the three years respectively, RMB 651 on investment in associates for the year ended December 31, 2015, RMB 907 on investment in joint venture for the year ended December 31, 2017, RMB 1,005 and RMB 21 on construction in progress for the years ended December 31, 2016 and 2017, RMB 6 on goodwill for the year ended December 31, 2016, and RMB 17 on available for sale financial assets for the year ended December 31, 2017. The primary factors resulting in the E&P segment impairment loss for the years ended December 31, 2016 and 2017 were downward revision of oil and gas reserve due to price change and high operating and development cost for certain oil fields. The carrying values of these E&P properties were written down to respective recoverable amounts which were determined based on the present values of the expected future cash flows of the asset using a pre-tax discount rate of 10.80%, 10.47% and 10.47% for the years ended December 31, 2015, 2016 and 2017, respectively. Further future downward revisions to the Group s oil price would lead to further impairments which, in aggregate, are likely to be material. It is estimated that a general decrease of 5% in oil price, with all other variables held constant, would result in additional impairment loss on the Group s properties, plant and equipment relating to oil and gas producing activities by approximately RMB 3,145. It is estimated that a general increase of 5% in operating cost, with all other variables held constant, would result in additional impairment loss on the Group s properties, plant and equipment relating to oil and gas producing activities by approximately RMB 2,659. It is estimated that a general increase of 5% in discount rate, with all other variables held constant, would result in additional impairment loss on the Group s properties, plant and equipment relating to oil and gas producing activities by approximately RMB 461. The primary factors resulting in the E&P segment impairment losses for the years ended December 31, 2015 were unsuccessful development drilling and high operating and development costs for certain oil fields.

Table of Contents

Impairment losses recognized for the chemicals segment were RMB 142, RMB 2,898 and RMB 4,922 for the years ended December 31, 2015, 2016 and 2017, respectively, and comprised of impairment losses of RMB 142, RMB 2,840 and RMB 4,779 on property, plant and equipment for the years ended December 31, 2015, 2016 and 2017, respectively, and RMB 58 and RMB 143 on construction in progress for the years ended December 31, 2016 and 2017, respectively. Impairment losses recognized for the refining segment were RMB 9, RMB 1,655 and RMB 1,894 for the years ended December 31, 2015, 2016 and 2017, respectively, and comprised of impairment losses of RMB 9, RMB 1,245 and RMB 1,836 on property, plant and equipment for the years ended December 31, 2015, 2016 and 2017, respectively, RMB 410 and RMB 47 on construction in progress for the years ended December 31, 2016 and 2017, respectively, RMB 1 on intangible assets and RMB 10 for investment in associates for the year ended December 31, 2017. These impairment losses relate to certain refining and chemicals production facilities that are held for use for the years ended December 31, 2015, 2016 and 2017. The carrying values of these facilities were written down to their recoverable amounts that were primarily determined based on the asset held for use model using the present value of estimated future cash flows of the production facilities using the pre-tax discount rates for the years ended December 31, 2015, 2016 and 2017, respectively. The primary factor resulting in the impairment losses on long-lived assets of the refining for the years ended December 31, 2015, 2016 and 2017, and of the chemicals segment for the year ended December 31, 2015 and 2016 was due to the suspension of operations of certain production facilities. Evidence indicates the economic performance of certain production facilities are worse than expected also contributed to the written down of assets in the chemical segments for the year ended December 31, 2017.

Impairment losses recognized on long-lived assets of the marketing and distribution segment were RMB 19, RMB 267 and RMB 675 for the years ended December 31, 2015, 2016 and 2017 respectively. The impairment comprised of impairment losses of RMB 10, RMB 242 and RMB 597 on property, plant and equipment for the years ended December 31, 2015, 2016 and 2017, respectively, impairment losses of RMB 2, RMB 1 and RMB 19 on investments in associates and joint ventures for the years ended December 31, 2015, 2016 and 2017, respectively, impairment losses of RMB 13 and RMB 41 on construction in progress for the year ended December 31, 2016 and 2017, impairment losses of RMB 7, RMB 11 and RMB 12 on lease prepayments for the year ended December 31, 2015, 2016 and 2017, and impairment losses of RMB 6 on intangible assets for the year ended December 31, 2017, primarily relate to certain service stations and certain construction in progress that were closed or abandoned during respective years. In measuring the amounts of impairment charges, the carrying amounts of these assets were compared to the present value of the expected future cash flows of the assets, as well as information about sales and purchases of similar properties in the same geographic area.

Impairment loss recognized on long-lived assets of the corporate and others segment was RMB 112 and RMB 211 for the years ended December 31, 2015 and 2017. The impairment comprised of impairment loss of RMB 1 and RMB 13 on property, plant and equipment for the years ended December 31, 2015 and 2017, impairment of RMB 111 on construction in progress for the year ended December 31, 2015, and impairment of RMB 198 on goodwill for the year ended December 31, 2017.

(ii) Government grants for the years ended December 31, 2015, 2016 and 2017 primarily represent financial appropriation income and non-income tax refunds received from respective government agencies without conditions or other contingencies attached to the receipts of the grants.

8. INTEREST EXPENSE

	Years ended December 31,		
	2015 RMB	2016 RMB	2017 RMB
Interest expense incurred	8,273	9,021	6,368
Less: Interest expense capitalized*	(1,221)	(859)	(723)
	7,052	8,162	5,645
Accretion expenses (Note 28)	1,081	1,057	1,501
Interest expense	8,133	9,219	7,146
* Interest rates per annum at which borrowing costs were capitalized for construction in progress	2.6% to 5.9%	2.65% to 4.82%	2.37% to 4.41%

Table of Contents

9. TAX EXPENSE

Tax expense in the consolidated statement of income represents:

	Years ended December 31,		
	2015 RMB	2016 RMB	2017 RMB
Current tax			
- Provision for the year	13,677	21,313	26,668
- Adjustment of prior years	279	228	(72)
Deferred taxation (Note 22)	(1,343)	(834)	(10,317)
	12,613	20,707	16,279

Reconciliation between actual income tax expense and the expected income tax expense at applicable statutory tax rates is as follows:

	Years ended December 31,		
	2015 RMB	2016 RMB	2017 RMB
Earnings before income tax	56,411	80,151	86,697
Expected PRC income tax expense at a statutory tax rate of 25%	14,103	20,038	21,674
Tax effect of preferential tax rate (Note i)	(1,033)	83	(793)
Effect of income taxes at foreign operations (Note ii)	391	299	(1,394)
Tax effect of non-deductible expenses	788	1,529	1,905
Tax effect of non-taxable income	(2,583)	(2,786)	(5,939)
Tax effect of utilization of previously unrecognized tax losses and temporary differences	(235)	(453)	(613)
Tax effect of tax losses not recognized	828	958	1,485
Write-down of deferred tax assets	75	811	26
Adjustment of prior years	279	228	(72)
Actual income tax expense	12,613	20,707	16,279

Note:

(i) The provision for PRC current income tax is based on a statutory income tax rate of 25% of the assessable income of the Group as determined in accordance with the relevant income tax rules and regulations of the PRC, except for certain entities of the Group in western regions in the PRC are taxed at preferential income tax rate of 15% through the year 2020.

(ii) It is mainly due to the foreign operation in the Republic of Angola (Angola) calculated the assessable income in accordance with the relevant income tax rules and regulations of Angola, and taxed at 50% of the assessable income as determined.

Table of Contents

10. OTHER COMPREHENSIVE INCOME

	Years ended December 31,								
	2015			2016			2017		
	Before-tax amount RMB	Tax effect RMB	Net-of-tax amount RMB	Before-tax amount RMB	Tax effect RMB	Net-of-tax amount RMB	Before-tax amount RMB	Tax effect RMB	Net-of-tax amount RMB
Cash flow hedges:									
Effective portion of changes in fair value of hedging instruments recognized during the year	2,881	(405)	2,476	(3,813)	652	(3,161)	(1,314)	240	(1,074)
Amounts transferred to initial carrying amount of hedged items	(1,354)	223	(1,131)	13	(2)	11	(4)	1	(3)
Amounts transferred to the consolidated statement of income	2,273	(455)	1,818	6,279	(1,115)	5,164	(575)	72	(503)
Net movement during the year recognized in other comprehensive income	**3,800**	**(637)**	**3,163**	**2,479**	**(465)**	**2,014**	**(1,893)**	**313**	**(1,580)**
Available-for-sale securities:									
Changes in fair value recognized during the year	66	(4)	62	(17)	(7)	(24)	(57)		(57)
Net movement during the year recognized in other comprehensive income	**66**	**(4)**	**62**	**(17)**	**(7)**	**(24)**	**(57)**		**(57)**
Share of other comprehensive (loss)/profit of associates and joint ventures	(5,356)		(5,356)	45		45	1,053		1,053
Foreign currency translation differences	2,268		2,268	4,298		4,298	(3,792)		(3,792)
Other comprehensive income	**778**	**(641)**	**137**	**6,805**	**(472)**	**6,333**	**(4,689)**	**313**	**(4,376)**

11. BASIC AND DILUTED EARNINGS PER SHARE

The calculation of basic earnings per share for the years ended December 31, 2015, 2016 and 2017 is based on the net income attributable to ordinary owners of the Company of RMB 32,512, RMB 46,672 and RMB 51,244, respectively, and the weighted average number of shares of 120,852,547,200, 121,071,209,646 and 121,071,209,646, respectively.

The calculation of diluted earnings per share for the years ended December 31, 2015, 2016 and 2017 is based on the net income attributable to ordinary owners of the Company (diluted) of RMB 32,510 , RMB 46,669 and RMB 51,242, respectively, and the weighted average number of shares (diluted) of 120,852,547,200, 121,071,209,646 and 121,071,209,646, respectively, calculated as follows:

(i) Net income attributable to ordinary owners of the Company (diluted)

	2015 RMB	2016 RMB	2017 RMB
Net income attributable to ordinary owners of the Company	32,512	46,672	51,244
After tax effect of employee share option scheme of Shanghai Petrochemical	(2)	(3)	(2)
Net income attributable to ordinary owners of the Company (diluted)	32,510	46,669	51,242

(ii) Weighted average number of shares (diluted)

	2015 Number of shares	2016 Number of shares	2017 Number of shares
Weighted average number of shares as of December 31	120,852,547,200	121,071,209,646	121,071,209,646
Weighted average number of shares (diluted) as of December 31	120,852,547,200	121,071,209,646	121,071,209,646

Table of Contents

12. FINANCIAL ASSETS AT FAIR VALUE THROUGH PROFIT OR LOSS

	December 31,	
	2016 RMB	2017 RMB
Current assets		
Structured deposit		51,196
		51,196

The financial assets are the structured deposit with financial institution and cannot be readily convertible to known amounts of cash, which are presented as current assets since they are expected to be expired within 12 months from the end of the reporting period.

The changes in the financial assets at fair value through profit or loss for the years ended December 31, 2016 and 2017 amounted to RMB nil and RMB 196, respectively, which has been recorded in other operating (expense)/income, net.

13. TRADE ACCOUNTS RECEIVABLE, NET

	December 31,	
	2016 RMB	2017 RMB
Amounts due from third parties	39,994	56,203
Amounts due from Sinopec Group Company and fellow subsidiaries	6,398	7,941
Amounts due from associates and joint ventures	4,580	4,962
	50,972	69,106
Less: Impairment losses for bad and doubtful debts	(683)	(612)
Trade accounts receivable, net	50,289	68,494

Impairment losses for bad and doubtful debts are analyzed as follows:

	2015 RMB	2016 RMB	2017 RMB
Balance as of January 1	530	525	683
Provision for the year	40	238	49
Written back for the year	(13)	(8)	(100)
Written off for the year	(38)	(72)	(21)
Others	6		1
Balance as of December 31	525	683	612

Sales are generally on a cash term. Credit is generally only available for major customers with well-established trading records. Amounts due from Sinopec Group Company and fellow subsidiaries are repayable under the same terms.

Trade accounts receivable (net of impairment losses for bad and doubtful debts) primarily represents receivables that are neither past due nor impaired. These receivables relate to a wide range of customers for whom there is no recent history of default.

Table of Contents

14. INVENTORIES

	December 31,	
	2016 RMB	2017 RMB
Crude oil and other raw materials	75,680	85,975
Work in progress	14,141	14,774
Finished goods	65,772	84,448
Spare parts and consumables	1,838	2,651
	157,431	187,848
Less: Allowance for diminution in value of inventories	(920)	(1,155)
	156,511	186,693

Allowance for diminution in value of inventories is analyzed as follows:

	2015 RMB	2016 RMB	2017 RMB
Balance as of January 1	3,603	4,402	920
Allowance for the year	3,687	430	436
Reversal of allowance on disposal	(34)	(10)	(13)
Written off	(2,931)	(4,021)	(190)
Other increase	77	119	2
Balance as of December 31	4,402	920	1,155

During the years ended December 31, 2015, 2016 and 2017, costs of inventories recognized as an expense in the consolidated statement of income were RMB 1,572,798, RMB 1,461,285, and RMB 1,854,629, respectively. Such costs include the write-down of inventories of RMB 3,687, RMB 430, and RMB 436, respectively, and the reversal of write-down of inventories of RMB 34, RMB 10 and RMB 13, respectively. The write-down of inventories and the reversal of write-down of inventories were recorded in purchased crude oil, products and operating supplies and expenses in the consolidated statement of income. The write-down of inventories which were realized primarily with the sales of inventories for the year ended December 31, 2015, 2016 and 2017 were RMB 2,931, RMB 4,021and RMB 190. The write-down of inventories for the year ended December 31, 2017 is mainly related to the spare parts and consumables in refining segment and chemical segment.

15. PREPAID EXPENSES AND OTHER CURRENT ASSETS

	December 31,	
	2016 RMB	2017 RMB
Other receivables	26,056	17,704

Advances to suppliers	3,749	4,901
Value-added input tax to be deducted	18,055	17,926
Prepaid income tax	1,145	398
Derivative financial instruments	762	526
	49,767	41,455

Table of Contents

16. PROPERTY, PLANT AND EQUIPMENT

	Plants and buildings RMB	Oil and gas properties RMB	Equipment, machinery and others RMB	Total RMB
Cost:				
Balance as of January 1, 2016	107,873	613,134	880,711	1,601,718
Additions	277	3,420	626	4,323
Transferred from construction in progress	5,901	31,473	50,025	87,399
Reclassifications	1,426	(115)	(1,311)	
Reclassification to lease prepayments and other long-term assets	(130)		(2,202)	(2,332)
Disposals	(509)	(27)	(35,100)	(35,636)
Exchange adjustments	82	2,800	187	3,069
Balance as of December 31, 2016	**114,920**	**650,685**	**892,936**	**1,658,541**
Balance as of January 1, 2017	114,920	650,685	892,936	1,658,541
Additions	854	1,627	11,983	14,464
Transferred from construction in progress	6,789	19,881	54,605	81,275
Reclassifications	(673)	(50)	723	
Reclassification to lease prepayments and other long-term assets	(859)	(1,702)	(8,751)	(11,312)
Disposals	(878)	(211)	(10,985)	(12,074)
Exchange adjustments	(140)	(2,573)	(199)	(2,912)
Balance as of December 31, 2017	**120,013**	**667,657**	**940,312**	**1,727,982**
Accumulated depreciation:				
Balance as of January 1, 2016	44,469	374,191	449,609	868,269
Depreciation for the year	3,815	49,005	47,914	100,734
Impairment losses for the year	440	10,580	3,901	14,921
Reclassifications	369	(58)	(311)	
Reclassification to lease prepayments and other long-term assets	(14)		(316)	(330)
Written back on disposals	(534)	(22)	(17,067)	(17,623)
Exchange adjustments	27	1,865	84	1,976
Balance as of December 31, 2016	**48,572**	**435,561**	**483,814**	**967,947**
Balance as of January 1, 2017	48,572	435,561	483,814	967,947
Depreciation for the year	4,075	55,057	46,585	105,717
Impairment losses for the year	554	8,832	10,450	19,836
Reclassifications	(122)	(77)	199	
Reclassification to lease prepayments and other long-term assets	(238)	(1,305)	(2,682)	(4,225)
Written back on disposals	(584)	(195)	(9,079)	(9,858)
Exchange adjustments	(57)	(2,056)	(96)	(2,209)
Balance as of December 31, 2017	52,200	495,817	529,191	1,077,208
Net book value:				
Balance as of January 1, 2016	63,404	238,943	431,102	733,449
Balance as of December 31, 2016	**66,348**	**215,124**	**409,122**	**690,594**
Balance as of December 31, 2017	**67,813**	**171,840**	**411,121**	**650,774**

Note:

The additions to the oil and gas properties of the Group for the years ended December 31, 2016 and 2017 included RMB 3,420 and RMB 1,627 respectively, of the estimated dismantlement costs for site restoration (Note 28).

Table of Contents

17. CONSTRUCTION IN PROGRESS

	2016 RMB	2017 RMB
Balance as of January 1	152,325	129,581
Additions	81,837	85,552
Dry hole costs written off	(7,467)	(6,876)
Transferred to property, plant and equipment	(87,399)	(81,229)
Reclassification to lease prepayments and other long-term assets	(6,900)	(7,773)
Impairment losses for the year	(1,486)	(252)
Disposals	(1,445)	(315)
Exchange adjustments	116	(43)
Balance as of December 31	129,581	118,645

Net changes in capitalized cost of exploratory wells included in the Group s construction in progress in the E&P segment are analyzed as follows:

	2015 RMB	2016 RMB	2017 RMB
At beginning of year	19,286	16,772	12,192
Additions, net of amount that were capitalized and subsequently expensed in the same year, pending the determination of proved reserves	5,901	6,321	5,567
Transferred to oil and gas properties based on the determination of proved reserves	(2,615)	(3,716)	(1,839)
Dry hole costs written off	(5,800)	(7,185)	(6,183)
At end of year	16,772	12,192	9,737

Aging of capitalized exploratory well costs based on the date the drilling was completed are analyzed as follows:

	December 31,		
	2015 RMB	2016 RMB	2017 RMB
One year or less	8,074	4,731	4,917
Over one year	8,698	7,461	4,820
	16,772	12,192	9,737

Capitalized exploratory wells costs aged over one year are related to wells for which the drilling results are being further evaluated or the development plans are being formulated.

The geological and geophysical costs paid during the years ended December 31, 2015, 2016 and 2017 amounted to RMB 4,347, RMB 2,899 and RMB 3,710, respectively.

Table of Contents

18. GOODWILL

	December 31,	
	2016 RMB	2017 RMB
Cost	14,016	16,495
Less: accumulated impairment losses	(7,663)	(7,861)
	6,353	8,634

Impairment tests for cash-generating units containing goodwill

Goodwill is allocated to the following Group s cash-generating units:

	Principal activities	December 31, 2016 RMB	December 31, 2017 RMB
Sinopec Beijing Yanshan Petrochemical Branch (Sinopec Yanshan)	Manufacturing of intermediate petrochemical products and petroleum products	1,157	1,004
Sinopec Zhenhai Refining and Chemical Branch (Sinopec Zhenhai)	Manufacturing of intermediate petrochemical products and petroleum products	4,043	4,043
Shanghai SECCO Petrochemical Company Limited (Shanghai SECCO)(Note 31)	Production and sale of petrochemical products		2,541
Sinopec (Hong Kong) Limited	Trading of petrochemical products	941	879
Multiple units without individually significant goodwill		212	167
		6,353	8,634

Goodwill represents the excess of the cost of purchase over the fair value of the underlying assets and liabilities. The recoverable amounts of the above cash-generating units are determined based on value in use calculations. These calculations use cash flow projections based on financial budgets approved by management covering a one-year period and pre-tax discount rates primarily ranging from 10.4% to 11.0% and 10.8% to 11.4% for the years ended December 31, 2016 and 2017, respectively. Cash flows beyond the one-year period are maintained constant. Based on the estimated recoverable amount, no major impairment loss was recognized.

Key assumptions used for cash flow forecasts for these entities are the gross margin and sales volume. Management determined the budgeted gross margin based on the gross margin achieved in the period immediately before the budget period and management s expectation on the future trend of the prices of crude oil and petrochemical products. The sales volume was based on the production capacity and/or the sales volume in the period immediately before the budget period.

Table of Contents

19. INTEREST IN ASSOCIATES

The Group s investments in associates are with companies primarily engaged in the oil and gas, petrochemical, and marketing and distribution operations in the PRC.

The Group s principal associates are as follows:

Name of company	Form of business structure	Particulars of issued and paid up capital	Percentage of equity held by the Company %	Percentage of equity held by the Company s subsidiaries %	Principal activities	Country of incorporation	Principal place of business
Sinopec Sichuan to East China Gas Pipeline Co., Ltd. (Pipeline Ltd)	Incorporated	Registered capital RMB 200 million		50.00	Operation of natural gas pipelines and auxiliary facilities	PRC	PRC
Sinopec Finance Company Limited (Sinopec Finance)	Incorporated	Registered capital RMB 18,000 million	49.00		Provision of non-banking financial services	PRC	PRC
PAO SIBUR Holding(SIBUR)	Incorporated	Registered capital RUB 21,784 million		10.00	Processing natural gas and manufacturing petrochemical products	Russia	Russia
Zhongtian Synergetic Energy Company Limited (Zhongtian Synergetic Energy)	Incorporated	Registered capital RMB 17,516 million		38.75	Mining coal and manufacturing of coal-chemical products	PRC	PRC
Caspian Investments Resources Ltd. (CIR)	Incorporated	Registered capital USD 10,000		50.00	Crude oil and natural gas extraction	British Virgin Islands	The Republic of Kazakhstan

Summarized financial information and reconciliation to their carrying amounts in respect of the Group s principal associates:

	Pipeline Ltd December 31,		Sinopec Finance December 31,		SIBUR (i) December 31,	Zhongtian Synergetic Energy December 31,		CIR December 31,	
	2016 RMB	2017 RMB	2016 RMB	2017 RMB	2017 RMB	2016 RMB	2017 RMB	2016 RMB	2017 RMB
Current assets	11,835	11,317	149,457	161,187	20,719	7,292	8,232	5,120	5,612
Non-current assets	42,124	40,972	16,478	17,782	158,938	50,301	51,553	3,842	1,673
Current liabilities	(5,009)	(933)	(142,386)	(154,212)	(20,554)	(8,078)	(10,668)	(928)	(908)
Non-current liabilities	(3,350)	(3,176)	(88)	(6)	(61,771)	(32,137)	(31,494)	(883)	(170)

Net assets	45,600	48,180	23,461	24,751	97,332	17,378	17,623	7,151	6,207
Net assets attributable to owners of the Company	45,600	48,180	23,461	24,751	96,761	17,378	17,623	7,151	6,207
Net assets attributable to non-controlling interests					571				
Share of net assets from associates	22,800	24,090	11,496	12,128	9,676	6,734	6,829	3,576	3,104
Carrying Amounts	22,800	24,090	11,496	12,128	9,676	6,734	6,829	3,576	3,104

Table of Contents

Summarized statement of comprehensive income

Year ended December 31	Pipeline Ltd (ii)		Sinopec Finance			SIBUR(i)	Zhongtian Synergetic Energy			CIR(iii)		
	2016 RMB	2017 RMB	2015 RMB	2016 RMB	2017 RMB	2017 RMB	2015 RMB	2016 RMB	2017 RMB	2015 RMB	2016 RMB	2017 RMB
Operating revenues	191	5,644	2,533	2,442	3,542	52,496			3,569	687	2,205	2,563
Net income/(loss) for the year	51	2,543	3,484	1,526	1,536	9,601			123	(90)	(3,518)	(610)
Other comprehensive income/(loss)			28	(175)	(246)	(260)				(4,017)	662	(334)
Total comprehensive income/(loss)	51	2,543	3,512	1,351	1,290	9,341			123	(4,107)	(2,856)	(944)
Dividends declared by associates	23					221						
Share of net income/(loss) from associates	26	1,272	1,707	748	753	960			48	(45)	(1,759)	(305)
Share of other comprehensive income/(loss) from associates (iv)			14	(86)	(121)	(26)				(2,009)	331	(167)

The share of net income for years ended December 31, 2015, 2016 and 2017 in all individually immaterial associates accounted for using equity method in aggregate were RMB 1,913, RMB 2,869 and RMB 3,182, respectively.

The share of other comprehensive (loss)/income for the years ended December 31, 2015, 2016 and 2017 in all individually immaterial associates accounted for using equity method in aggregate were a loss of RMB 632, a loss of RMB 384 and a gain of RMB 569, respectively.

The carrying amount as of December 31, 2016 and 2017 of all individually immaterial associates accounted for using equity method in aggregate were RMB 21,510 and RMB 23,899, respectively.

Note:

(i) Sinopec is able to exercise significant influence in SIBUR since Sinopec has a member in SIBUR s Board of Director and has a member in SIBUR s Management Board.

(ii) The summarized statement of comprehensive income for the year 2016 of Piepline Ltd presents the operating results from the date when the Group lost control to December 31, 2016.

(iii) In August 2015, one of the subsidiaries of Sinopec Group Company completed the acquisition from LUKOIL OVERSEAS WEST PROJECT Ltd. a 50% equity interests in CIR and revised CIR s Articles of Association subsequently. According to the revised CIR s Articles of Association, the Group retained significant influences over CIR. As a result, the Group reclassified the investment interest in CIR from joint ventures to associates. The summarized statement of comprehensive income for the year ended December 31, 2015 of CIR represents the operating result for the period from the date when the Group reclassified the investment interest in CIR from joint ventures to associates to December 31, 2015.

(iv) Including foreign currency translation differences.

Table of Contents

20. INTEREST IN JOINT VENTURES

The Group s principal interests in joint ventures which are incorporated companies are as follows:

Name of company	Country of incorporation	Particulars of issued and paid up capital	Percentage of equity held by the Company %	Percentage of equity held by the Company s subsidiaries %	Principal activities	Principal place of business
Fujian Refining & Petrochemical Company Limited (FREP)	PRC	Registered capital RMB 14,758 million		50.00	Manufacturing refining oil products	PRC
BASF-YPC Company Limited (BASF-YPC)	PRC	Registered capital RMB 12,547 million	30.00	10.00	Manufacturing and distribution of petrochemical products	PRC
Taihu Limited (Taihu)	Cyprus	Registered capital USD 25,000		49.00	Crude oil and natural gas extraction	Russia
Yanbu Aramco Sinopec Refining Company Ltd. (YASREF)	Saudi Arabia	Registered capital USD 1,560 million		37.50	Petroleum refining and processing business	Saudi Arabia
Sinopec SABIC Tianjin Petrochemical Company Limited (Sinopec SABIC Tianjin)	PRC	Registered capital RMB 9,796 million		50.00	Manufacturing and distribution of petrochemical products	PRC

Summarized balance sheet and reconciliation to their carrying amounts in respect of the Group s principal joint ventures:

	FREP December 31,		BASF-YPC December 31,		Taihu December 31,		YASREF December 31,		Sinopec SABIC Tianjin December 31,	
	2016 RMB	2017 RMB	2016 RMB	2017 RMB	2016 RMB	2017 RMB	2016 RMB	2017 RMB	2016 RMB	2017 RMB
Current assets										
Cash and cash equivalents	8,172	5,772	1,394	1,800	1,165	2,352	1,259	4,916	3,634	6,524
Other current assets	10,269	11,013	4,852	5,335	1,616	2,462	6,826	10,816	1,886	2,709
Total current assets	18,441	16,785	6,246	7,135	2,781	4,814	8,085	15,732	5,520	9,233
Non-current assets	21,903	19,740	13,530	12,075	8,279	7,978	57,054	51,553	14,003	13,248
Current liabilities										
Current financial liabilities (i)	(1,781)	(1,135)	(783)	(233)	(334)	(20)	(1,187)	(5,407)		(1,236)
Other current liabilities	(4,643)	(5,049)	(2,107)	(1,982)	(1,616)	(1,914)	(6,466)	(11,864)	(2,657)	(4,546)
Total current liabilities	(6,424)	(6,184)	(2,890)	(2,215)	(1,950)	(1,934)	(7,653)	(17,271)	(2,657)	(5,782)
Non-current liabilities										
Non-current financial liabilities (ii)	(19,985)	(13,654)	(1,492)	(955)	(49)	(72)	(43,028)	(35,619)	(5,337)	(4,101)
Other non-current liabilities	(252)	(236)	(10)	(19)	(2,130)	(2,686)	(1,004)	(890)	(32)	(41)
Total non-current liabilities	(20,237)	(13,890)	(1,502)	(974)	(2,179)	(2,758)	(44,032)	(36,509)	(5,369)	(4,142)
Net assets	13,683	16,451	15,384	16,021	6,931	8,100	13,454	13,505	11,497	12,557
	13,683	16,451	15,384	16,021	6,690	7,818	13,454	13,505	11,497	12,557

Net assets attributable to owners of the company										
Net assets attributable to non-controlling interests					241	282				
Share of net assets from joint ventures	6,842	8,226	6,154	6,409	3,278	3,831	5,045	5,064	5,749	6,279
Other (iii)					743					
Carrying Amounts	6,842	8,226	6,154	6,409	4,021	3,831	5,045	5,064	5,749	6,279

Table of Contents

Summarized statement of comprehensive income

	FREP			BASF-YPC			Taihu			YASREF(i)			Sinopec SABIC Tianjin		
Year ended December 31,	**2015 RMB**	**2016 RMB**	**2017 RMB**	**2015 RMB**	**2016 RMB**	**2017 RMB**	**2015 RMB**	**2016 RMB**	**2017 RMB**	**2015 RMB**	**2016 RMB**	**2017 RMB**	**2015 RMB**	**2016 RMB**	**2017 RMB**
Operating revenues	48,758	41,764	49,356	15,430	17,323	21,020	10,725	9,658	12,520	31,823	41,286	61,587	18,868	16,337	22,286
Depreciation, depletion and amortization	(53)	(52)	(16)	(2,312)	(2,275)	(1,793)	(1,279)	(1,043)	(715)	(1,915)	(2,754)	(2,763)	(32)	(33)	(36)
Interest income	33	130	208	29	19	36		40	142	13	33	45	36	30	104
Interest expense	(1,130)	(929)	(857)	(239)	(173)	(71)	(119)	(113)	(142)	(721)	(1,216)	(1,382)	(458)	(245)	(223)
Earning/(loss) before income tax	3,857	6,476	6,977	214	2,606	4,565	3,455	2,411	1,697	(259)	28	548	2,719	3,184	5,113
Tax expense	(918)	(1,574)	(1,699)	(56)	(648)	(1,151)	(733)	(518)	(553)	13	56	57	(522)	(783)	(1,279)
Net income/(loss) for the year	2,939	4,902	5,278	158	1,958	3,414	2,722	1,893	1,144	(246)	84	605	2,197	2,401	3,834
Other comprehensive (loss)/income							(2,633)	1,851	25	738	647	(554)			
Total comprehensive income	**2,939**	**4,902**	**5,278**	**158**	**1,958**	**3,414**	**89**	**3,744**	**1,169**	**492**	**731**	**51**	**2,197**	**2,401**	**3,834**
Dividends declared by joint ventures			1,250	470	155	1,109							225	300	1,375
Share of net income/(loss) from joint ventures	1,470	2,451	2,639	63	783	1,366	1,287	895	541	(92)	31	227	1,099	1,201	1,917
Share of other comprehensive (loss)/income from joint ventures (iv)							(1,245)	875	12	277	243	(208)			

The share of net income for the years ended December 31, 2015, 2016 and 2017 in all individually immaterial joint ventures accounted for using equity method in aggregate were RMB 960, RMB 2,061 and RMB 3,925, respectively.

The share of other comprehensive (loss)/income for the years ended December 31, 2015, 2016 and 2017 in all individually immaterial joint ventures accounted for using equity method in aggregate were a loss of RMB 1,761, a loss of RMB 934 and a gain of RMB 994, respectively.

The carrying amount as of year ended December 31, 2016 and 2017 of all individually immaterial joint ventures accounted for using equity method in aggregate were RMB 22,885 and RMB 21,552, respectively.

Note:

(i) Excluding trade accounts payable and other payables.

(ii) Excluding provisions.

(iii) Other reflects the excess of fair value of the consideration transferred over the Group s share of the fair value of the investee s identifiable assets and liabilities as of the acquisition date.

(iv) Including foreign currency translation differences.

Table of Contents

21. AVAILABLE-FOR-SALE FINANCIAL ASSETS

	December 31,	
	2016 RMB	2017 RMB
Equity securities, listed and at quoted market price	262	178
Other investment, unlisted and at cost	11,175	1,544
	11,437	1,722
Less: Impairment losses for investments	(29)	(46)
	11,408	1,676

Other investment, unlisted and at cost, represents the Group s interests in privately owned enterprises which are mainly engaged in oil and natural gas activities and chemical production.

The impairment losses relating to investments for the years ended December 31, 2016 and 2017 amounted to RMB nil and RMB 17, respectively.

22. DEFERRED TAX ASSETS AND LIABILITIES

Deferred tax assets and deferred tax liabilities before offset are attributable to the items detailed in the table below:

	Assets December 31,		Liabilities December 31,	
	2016 RMB	2017 RMB	2016 RMB	2017 RMB
Receivables and inventories	87	381		
Accruals	391	1,925		
Cash flow hedges	27	165	(242)	(50)
Property, plant and equipment	11,264	14,150	(14,615)	(9,928)
Tax losses carried forward	2,477	2,325		
Available-for-sale securities		117		
Intangible assets	260	227		(563)
Others	133	180	(229)	(264)
Deferred tax assets/(liabilities)	14,639	19,470	(15,086)	(10,805)

As of December 31, 2016 and 2017, certain subsidiaries of the Company did not recognize deferred tax of deductible loss carried forward of RMB 19,194 and RMB 20,821, respectively, of which RMB 3,833 and RMB 5,938 were incurred for the years ended December 31, 2016 and 2017, respectively, because it was not probable that the related tax benefit will be realized. Those deductible tax losses carried forward of RMB 2,508, RMB 4,462, RMB 4,080,

RMB 3,833 and RMB 5,938 will expire in 2018, 2019, 2020, 2021, 2022 and after, respectively.

Periodically, management performed assessment on the probability that future taxable profit will be available over the period which the deferred tax assets can be realized or utilized. In assessing the probability, both positive and negative evidence was considered, including whether it is probable that the operations will have sufficient future taxable profits over the periods which the deferred tax assets are deductible or utilized and whether the tax losses result from identifiable causes which are unlikely to recur. During the years ended December 31, 2016 and 2017, write-down of deferred tax assets amounted to RMB 811 and RMB 26 (Note 9) .

Table of Contents

Movements in deferred tax assets and liabilities are as follows:

	Balance as of January 1, 2015 RMB	Recognized in consolidated statement of income RMB	Recognized in other comprehensive income RMB	Others RMB	Balance as of December 31, 2015 RMB
Receivables and inventories	2,677	(1,128)	3		1,552
Accruals	258	155			413
Cash flow hedges	887		(637)		250
Property, plant and equipment	(8,635)	(113)	(383)		(9,131)
Tax losses carried forward	3,474	2,398	11		5,883
Embedded derivative component of the convertible bonds	282			(282)	
Available-for-sale securities	3	1	(4)		
Intangible assets	206	(3)			203
Others	7	33			40
Net deferred tax (liabilities)/assets	(841)	1,343	(1,010)	(282)	(790)

	Balance as of January 1, 2016 RMB	Recognized in consolidated statement of income RMB	Recognized in other comprehensive income RMB	Others RMB	Balance as of December 31, 2016 RMB
Receivables and inventories	1,552	(1,505)	6	34	87
Accruals	413	(22)			391
Cash flow hedges	250		(465)		(215)
Property, plant and equipment	(9,131)	6,063	(392)	109	(3,351)
Tax losses carried forward	5,883	(3,426)	20		2,477
Available-for-sale securities		(139)	(7)	146	
Intangible assets	203	(1)		58	260
Others	40	(136)			(96)
Net deferred tax (liabilities)/assets	(790)	834	(838)	347	(447)

	Balance as of January 1, 2017 RMB	Recognized in consolidated statement of income RMB	Recognized in other comprehensive income RMB	Others RMB	Acquisition of Shanghai SECCO RMB	Balance as of December 31, 2017 RMB
Receivables and inventories	87	300	(5)	(1)		381
Accruals	391	1,534				1,925
Cash flow hedges	(215)	9	313	8		115
Property, plant and equipment	(3,351)	8,475	287	(8)	(1,181)	4,222
Tax losses carried forward	2,477	(135)	(17)			2,325
Available-for-sale securities		117				117
Intangible assets	260	(27)			(569)	(336)
Others	(96)	44	4		(36)	(84)
Net deferred tax (liabilities)/assets	(447)	10,317	582	(1)	(1,786)	8,665

Table of Contents

23. LEASE PREPAYMENTS

	2016 RMB	2017 RMB
Cost:		
Balance as of January 1	63,324	68,467
Additions	300	2,614
Transferred from construction in progress	4,279	4,151
Transferred from other long-term assets	994	3,987
Reclassification to other assets	(229)	(2,603)
Disposals	(422)	(531)
Exchange adjustments	221	(357)
Balance as of December 31	68,467	75,728
Accumulated amortization:		
Balance as of January 1	12,275	14,226
Amortization charge for the year	1,840	2,076
Transferred from other long-term assets	132	2,027
Reclassification to other assets	(12)	(770)
Written back on disposals	(83)	(266)
Exchange adjustments	74	(91)
Balance as of December 31	14,226	17,202
Net book value:	54,241	58,526

24. LONG-TERM PREPAYMENTS AND OTHER ASSETS

	December 31,	
	2016 RMB	2017 RMB
Operating rights of service stations	26,896	34,268
Long-term receivables from and prepayment to Sinopec Group Company and fellow subsidiaries	20,385	20,726
Prepayments for construction projects to third parties	2,234	4,999
Others (i)	20,630	21,989
Balance as of December 31	70,145	81,982

Note:

(i) Others mainly comprise prepaid operating lease charges over one year and catalyst expenditures.

The cost of operating rights of service stations is charged to expense on a straight-line basis over the respective periods of the rights. The movement of operating rights of service stations is as follows:

	2016 RMB	2017 RMB
Operating rights of service stations		
Cost:		
Balance as of January 1	34,407	36,908
Additions	2,670	11,837
Decreases	(169)	(132)
Balance as of December 31	36,908	48,613
Accumulated amortization:		
Balance as of January 1	8,310	10,012
Additions	1,777	4,361
Decreases	(75)	(28)
Balance as of December 31	10,012	14,345
Net book value as of December 31	26,896	34,268

Table of Contents

25. SHORT-TERM AND LONG-TERM DEBTS AND LOANS FROM SINOPEC GROUP COMPANY AND FELLOW SUBSIDIARIES

Short-term debts represent:

	December 31,	
	2016 RMB	2017 RMB
Third parties debts		
Short-term bank loans	11,944	31,105
RMB denominated	10,931	23,685
US Dollar denominated	1,013	7,420
Short-term other loans		299
RMB denominated		299
Current portion of long-term bank loans	8,795	1,402
RMB denominated	8,753	1,379
US Dollar denominated	42	23
Current portion of long-term corporate bonds	29,500	22,532
RMB denominated	29,500	16,000
US Dollar denominated		6,532
	38,295	23,934
Corporate bonds (i)	6,000	
	56,239	55,338
Loans from Sinopec Group Company and fellow subsidiaries		
Short-term loans	18,430	23,297
RMB denominated	2,858	1,706
US Dollar denominated	13,577	19,668
Hong Kong Dollar denominated	1,969	1,903
Euro denominated	5	
Singapore Dollar denominated	21	20
Current portion of long-term loans	150	2,014
RMB denominated	150	2,014
	18,580	25,311
	74,819	80,649

The Group s weighted average interest rates on short-term loans were 2.42% and 2.72% as of December 31, 2016 and 2017, respectively. The above borrowings are unsecured.

Table of Contents

Long-term debts represent:

	Interest rate and final maturity	December 31, 2016 RMB	December 31, 2017 RMB
Third parties debts			
Long-term bank loans			
RMB denominated	Interest rates ranging from 1.08% to 4.66% per annum as of December 31, 2017 with maturities through 2030	26,058	25,644
US Dollar denominated	Interest rates ranging from 1.55% to 4.29% per annum as of December 31, 2017 with maturities through 2031	426	192
		26,484	25,836
Corporate bonds(ii)			
RMB denominated	Fixed interest rates ranging from 3.30% to 5.68% per annum as of December 31, 2017 with maturities through 2022	65,500	36,000
US Dollar denominated	Fixed interest rates ranging from 1.88% to 4.25% per annum as of December 31, 2017 with maturities through 2043	18,985	17,902
		84,485	53,902
Total third parties long-term debts		110,969	79,738
Less: Current portion		(38,295)	(23,934)
		72,674	55,804
Long-term loans from Sinopec Group Company and fellow subsidiaries			
RMB denominated	Interest rates ranging from interest free to 4.99% per annum as of December 31, 2017 with maturities through 2022	44,922	45,334
Less: Current portion		(150)	(2,014)
		44,772	43,320
		117,446	99,124

Short-term and long-term bank loans, short-term other loans and loans from Sinopec Group Company and fellow subsidiaries are primarily unsecured and carried at amortized cost.

Note:

(i) The Company issued 182-day corporate bonds of face value RMB 6 billion to corporate investors in the PRC debenture market on September 12, 2016 at par value of RMB 100. The effective cost of the 182-day corporate bonds is 2.54% per annum. The short-term bonds were due on March 14, 2017 and have been fully paid by the Group at maturity.

(ii) These corporate bonds are carried at amortized cost. As of December 31, 2017, RMB 17,902 (US Dollar denominated corporate bonds) are guaranteed by Sinopec Group Company.

Table of Contents

26. TRADE ACCOUNTS AND BILLS PAYABLE

	December 31,	
	2016 RMB	2017 RMB
Amounts due to third parties	154,882	177,224
Amounts due to Sinopec Group Company and fellow subsidiaries	13,168	13,350
Amounts due to associates and joint ventures	6,251	9,499
	174,301	200,073
Bills payable	5,828	6,462
Trade accounts and bills payable measured at amortized cost	180,129	206,535

27. ACCRUED EXPENSES AND OTHER PAYABLES

	December 31,	
	2016 RMB	2017 RMB
Salaries and welfare payable	1,618	7,162
Interest payable	1,396	723
Payables for constructions	52,827	60,010
Other payables	21,468	29,022
Financial liabilities carried at amortized costs	77,309	96,917
Taxes other than income tax	46,835	58,925
Receipts in advance	95,928	120,734
Derivative financial instruments	4,472	2,671
	224,544	279,247

28. PROVISIONS

Provisions primarily represent provision for future dismantlement costs of oil and gas properties. The Group has mainly committed to the PRC government to establish certain standardized measures for the dismantlement of its oil and gas properties by making reference to the industry practices and is thereafter constructively obligated to take dismantlement measures of its oil and gas properties.

Movement of provision of the Group s obligations for the dismantlement of its oil and gas properties is as follows:

	2015 RMB	2016 RMB	2017 RMB
Balance as of January 1	29,613	33,115	36,918
Provision for the year	2,899	3,420	1,627

Accretion expenses	1,081	1,057	1,501
Utilized for the year	(599)	(843)	(467)
Exchange adjustments	121	169	(172)
Balance as of December 31	33,115	36,918	39,407

Table of Contents

29. SHARE CAPITAL

	December 31,	
	2016 RMB	2017 RMB
Registered, issued and fully paid		
95,557,771,046 listed A shares (2016: 95,557,771,046) of RMB 1.00 each	95,558	95,558
25,513,438,600 listed H shares (2016: 25,513,438,600) of RMB 1.00 each	25,513	25,513
	121,071	121,071

The Company was established on February 25, 2000 with a registered capital of 68.8 billion domestic state-owned shares with a par value of RMB 1.00 each. Such shares were issued to Sinopec Group Company in consideration for the assets and liabilities of the Predecessor Operations transferred to the Company (Note 1).

Pursuant to the resolutions passed at an Extraordinary General Meeting held on July 25, 2000 and approvals from relevant government authorities, the Company is authorized to increase its share capital to a maximum of 88.3 billion shares with a par value of RMB 1.00 each and offer not more than 19.5 billion shares with a par value of RMB 1.00 each to investors outside the PRC. Sinopec Group Company is authorized to offer not more than 3.5 billion shares of its shareholdings in the Company to investors outside the PRC. The shares sold by Sinopec Group Company to investors outside the PRC would be converted into H shares.

In October 2000, the Company issued 15,102,439,000 H shares with a par value of RMB 1.00 each, representing 12,521,864,000 H shares and 25,805,750 American Depositary Shares (ADSs , each representing 100 H shares), at prices of HKD 1.59 per H share and USD 20.645 per ADS, respectively, by way of a global initial public offering to Hong Kong and overseas investors. As part of the global initial public offering, 1,678,049,000 state-owned ordinary shares of RMB 1.00 each owned by Sinopec Group Company were converted into H shares and sold to Hong Kong and overseas investors.

In July 2001, the Company issued 2.8 billion listed A shares with a par value of RMB 1.00 each at RMB 4.22 by way of a public offering to natural persons and institutional investors in the PRC.

During the year ended December 31, 2010, the Company issued 88,774 listed A shares with a par value of RMB 1.00 each, as a result of exercise of 188,292 warrants entitled to the Bonds with Warrants.

During the year ended December 31, 2011, the Company issued 34,662 listed A shares with a par value of RMB 1.00 each, as a result of conversion by the holders of the 2011 Convertible Bonds.

During the year ended December 31, 2012, the Company issued 117,724,450 listed A shares with a par value of RMB 1.00 each, as a result of conversion by the holders of the 2011 Convertible Bonds.

On February 14, 2013, the Company issued 2,845,234,000 listed H shares (the Placing) with a par value of RMB 1.00 each at the Placing Price of HKD 8.45 per share. The aggregate gross proceeds from the Placing amounted to approximately HKD 24,042,227,300.00 and the aggregate net proceeds (after deduction of the commissions and estimated expenses) amounted to approximately HKD 23,970,100,618.00.

In June 2013, the Company issued 21,011,962,225 listed A shares and 5,887,716,600 listed H shares as a result of bonus issues of 2 shares converted from the retained earnings pursuant to the shareholders approval at the Annual General Meeting on May 29, 2013, and 1 share transferred from the share premium for every 10 existing shares.

During the year ended December 31, 2013, the Company issued 114,076 listed A shares with a par value of RMB 1.00 each, as a result of conversion by the holders of the 2011 Convertible Bonds.

During the year ended December 31, 2014, the Company issued 1,715,081,853 listed A shares with a par value of RMB 1.00 each, as a result of conversion by the holders of the 2011 Convertible Bonds.

During the year ended December 31, 2015, the Company issued 2,790,814,006 listed A shares with a par value of RMB 1.00 each, as a result of conversion by the holders of the 2011 Convertible Bonds (Note 39(g)).

All A shares and H shares rank pari passu in all material aspects.

Table of Contents

Capital management

Management optimizes the structure of the Group s capital, which comprises of equity and debts. In order to maintain or adjust the capital structure of the Group, management may cause the Group to issue new shares, adjust the capital expenditure plan, sell assets to reduce debt, or adjust the proportion of short-term and long-term loans. Management monitors capital on the basis of debt-to-capital ratio, which is calculated by dividing long-term loans (excluding current portion), including long-term debts and loans from Sinopec Group Company and fellow subsidiaries, by the total equity attributable to owners of the Company and long-term loans (excluding current portion), and liability-to-asset ratio, which is calculated by dividing total liabilities by total assets. Management s strategy is to make appropriate adjustments according to the Group s operating and investment needs and the changes of market conditions, and to maintain the debt-to-capital ratio and the liability-to-asset ratio of the Group at a range considered reasonable. The debt-to-capital ratio of the Group was 14.2% and 12.0% as of December 31, 2016 and 2017, respectively. The liability-to-asset ratio of the Group was 44.5% and 46.5% as of December 31, 2016 and 2017, respectively.

The schedules of the contractual maturities of loans and commitments are disclosed in Notes 25 and 30, respectively.

There were no changes in the management s approach to capital management of the Group during the year. Neither the Company nor any of its subsidiaries is subject to externally imposed capital requirements.

30. COMMITMENTS AND CONTINGENT LIABILITIES

Operating lease commitments

The Group leases land and buildings, service stations and other equipment through non-cancellable operating leases. These operating leases do not contain provisions for contingent lease rentals. None of the rental agreements contain escalation provisions that may require higher future rental payments.

As of December 31, 2016 and 2017, the future minimum lease payments under operating leases are as follows:

	December 31,	
	2016	**2017**
	RMB	**RMB**

Within one year	14,917	11,114
Between one and two years	14,228	11,492
Between two and three years	13,966	10,730
Between three and four years	13,217	10,552
Between four and five years	12,980	10,428
Thereafter	275,570	202,806
	344,878	257,122

Capital commitments

As of December 31, 2016 and 2017, capital commitments are as follows:

	December 31,	
	2016 RMB	**2017 RMB**
Authorized and contracted for (i)	116,379	120,386
Authorized but not contracted for	31,720	57,997
	148,099	178,383

These capital commitments relate to oil and gas exploration and development, refining and petrochemical production capacity expansion projects, the construction of service stations and oil depots and investment commitments.

Table of Contents

Note:

(i) The investment commitments for the year ended December 31, 2016 and 2017 of the Group were RMB 4,173 and RMB 3,364, respectively.

Commitments to joint ventures

Pursuant to certain of the joint venture agreements entered into by the Group, the Group is obliged to purchase products from the joint ventures based on market prices.

Exploration and production licenses

Exploration licenses for exploration activities in the PRC are registered with the Ministry of Land and Resources. The maximum term of the Group s exploration licenses is 7 years, and may be renewed twice within 30 days prior to expiration of the original term with each renewal being for a two-year term. The Group is obligated to make progressive annual exploration investment relating to the exploration blocks in respect of which the license is issued. The Ministry of Land and Resources also issues production licenses to the Group on the basis of the reserve reports approved by relevant authorities. The maximum term of a full production license is 30 years unless a special dispensation is given by the State Council. The maximum term of production licenses issued to the Group is 80 years as a special dispensation was given to the Group by the State Council. The Group s production license is renewable upon application by the Group 30 days prior to expiration.

The Group is required to make payments of exploration license fees and production right usage fees to the Ministry of Land and Resources annually which are expensed. Payments incurred were approximately RMB 372, RMB 333 and RMB 308 for the years ended December 31, 2015, 2016 and 2017, respectively.

Estimated future annual payments are as follows:

	December 31,	
	2016 RMB	**2017 RMB**
Within one year	263	205
Between one and two years	123	83
Between two and three years	25	32
Between three and four years	24	28

Between four and five years	25	28
Thereafter	867	882
	1,327	1,258

Contingent liabilities

As of December 31, 2016 and 2017, guarantees by the group in respect of facilities granted to the parties below are as follows:

	December 31,	
	2016 RMB	**2017 RMB**
Joint ventures	658	940
Associates (ii)	11,545	13,520
Others	10,669	9,732
	22,872	24,192

Management monitors the conditions that are subject to the guarantees to identify whether it is probable that a loss will occur, and recognizes any such losses under guarantees when those losses are estimable. As of December 31, 2016 and 2017, it was not probable that the Group will be required to make payments under the guarantees. Thus no liability has been accrued for a loss related to the Group s obligation under these guarantee arrangements.

Table of Contents

Note:

(ii) The Group provided a guarantee in respect to standby credit facilities granted to Zhongtian Synergetic Energy by banks amount to RMB 17,050. As of December 31, 2017, the amount withdrawn by Zhongtian Synergetic Energy and guaranteed by the Group was RMB 13,520.

Environmental contingencies

Under existing legislation, management believes that there are no probable liabilities that will have a material adverse effect on the financial position or operating results of the Group. The PRC government, however, has moved, and may move further towards more rigorous enforcement of applicable laws, and towards the adoption of more stringent environmental standards. Environmental liabilities are subject to considerable uncertainties which affect management s ability to estimate the ultimate cost of remediation efforts. These uncertainties include i) the exact nature and extent of the contamination at various sites including, but not limited to refineries, oil fields, service stations, terminals and land development areas, whether operating, closed or sold, ii) the extent of required cleanup efforts, iii) varying costs of alternative remediation strategies, iv) changes in environmental remediation requirements, and v) the identification of new remediation sites. The amount of such future cost is indeterminable due to such factors as the unknown magnitude of possible contamination and the unknown timing and extent of the corrective actions that may be required. Accordingly, the outcome of environmental liabilities under proposed or future environmental legislation cannot reasonably be estimated at present, and could be material.

The Group paid normal routine pollutant discharge fees of approximately RMB 5,813, RMB 6,358 and RMB 7,851 in the consolidated financial statements for the years ended December 31, 2015, 2016 and 2017, respectively.

Legal contingencies

The Group is a defendant in certain lawsuits as well as the named party in other proceedings arising in the ordinary course of business. Management has assessed the likelihood of an unfavourable outcome of such contingencies, lawsuits or other proceedings and believes that any resulting liabilities will not have a material adverse effect on the financial position, operating results or cash flows of the Group.

Table of Contents

31. BUSINESS COMBINATION

(a) Acquisition of Shanghai SECCO

On October 26, 2017, a subsidiary of the Company, Gaoqiao Petrochemical Co., Ltd., purchased 50% equity interest in Shanghai SECCO from BP Chemicals East China Investment Limited with a cash consideration of RMB 10,135 (the Transaction). Before the Transaction, the Company and one of its subsidiaries held 30% and 20% equity interest in Shanghai SECCO, respectively. After the Transaction, the Company, together with its subsidiaries, hold 100% equity interest of Shanghai SECCO, which became a subsidiary of the Company.

Shanghai SECCO is principally engaged in the production and sale of petrochemical products including acrylonitrile, polystyrene, polyethylene, etc.

Based on the purchase price allocation performed, details of the purchase consideration, the net assets acquired and goodwill are as follows:

	RMB
Purchase consideration	
Acquisition date (October 26, 2017)	
-Cash consideration for the purchase of 50% equity interest acquired	10,135
-Acquisition-date fair value of the 50% equity interest held before the acquisition	10,135
Total purchase consideration	20,270

The assets and liabilities recognized as a result of the acquisition are as follows:

	Fair value RMB
Cash and cash equivalents	5,653
Trade accounts receivable, net	538
Bills receivable	641
Inventories	1,702
Prepaid expenses and other current assets	2,130
Total current assets	10,664
Property, plant and equipment, net	9,587
Construction in progress	231
Deferred tax assets	11
Lease prepayments	1,920
Long-term prepayments and other assets	1,134
Total non-current assets	12,883
Total assets	23,547

Trade accounts payables	(2,092)
Accrued expenses and other payables	(1,517)
Income tax payable	(423)
Total current liabilities	(4,032)
Deferred tax liabilities (Note 22)	(1,786)
Net assets acquired	17,729
Goodwill (Note 18)	2,541

Table of Contents

The goodwill is attributable to the high profitability of the acquired business and synergy to be achieved post the Transaction among Shanghai SECCO and the Group s existing petrochemical operations located in eastern China.

As of Acquisition Date, the gain of RMB 3,941 was recognized as a result of remeauring the 50% equity interest held before the acquisition to its fair value, which is included in other operating (expense)/income in the Group s consolidated statement of income for the year ended December 31, 2017.

Shanghai SECCO contributed revenue of RMB 5,222 and net profit of RMB 726 to the Group for the period from the Acquisition Date to December 31, 2017.

If the acquisition had occurred on January 1, 2017, consolidated pro-forma revenue and profit for the year ended December 31, 2017 would have been RMB 2,365,632 and RMB 74,930 respectively. These amounts have been calculated using the subsidiary s results and adjusting them for the additional depreciation and amortization that would have been charged assuming the fair value adjustments to property, plant and equipment and intangible assets had applied from January 1, 2017, together with the consequential tax effects.

(b) Acquisition of Gaoqiao Branch of SAMC

Pursuant to the resolution passed at the Directors meeting on October 29, 2015, the Company entered into the JV Agreement with Sinopec Assets Management Corporation (SAMC) in relation to the formation of the Gaoqiao Petrochemical Co., Ltd. According to the JV Agreement, the Company and SAMC jointly set up Gaoqiao Petrochemical Co., Ltd. for RMB 100 in cash in 2016. Subsequently, the Company subscribed capital contribution with the net assets of Gaoqiao Branch of the Company and SAMC subscribed capital contribution with the net assets of Gaoqiao Branch of SAMC. The capital contribution was completed on June 1, 2016, after which the Company held 55% of Gaoqiao Petrochemical Co., Ltd. s voting rights and became the parent company of Gaoqiao Petrochemical Co., Ltd.

As Sinopec Group Company controls both the Group and SAMC, the non-cash transaction described above between Sinopec and SAMC has been accounted as business combination under the common control and it has been reflected in the accompanying consolidated financial statements as combination of entities under common control in a manner of predecessor value accounting. Accordingly, the assets and liabilities of Gaoqiao Branch of SAMC have been accounted for at historical cost, and the consolidated financial statements of the Group prior to these acquisitions have been restated to include the results of operation and the assets and liabilities of Gaoqiao Branch of SAMC on a combined basis.

At the completion date, the non-controlling interests amount to RMB 2,137 was recognized in relation to SAMC s 45% interest in Gaoqiao Branch of the Company.

Table of Contents

32. RELATED PARTY TRANSACTIONS

Parties are considered to be related to the Group if the Group has the ability, directly or indirectly, to control or jointly control the party or exercise significant influence over the party in making financial and operating decisions, or vice versa, or where the Group and the party are subject to control or common control. Related parties may be individuals (being members of key management personnel, significant shareholders and/or their close family members) or other entities and include entities which are under the significant influence of related parties of the Group where those parties are individuals, and post-employment benefit plans which are for the benefit of employees of the Group or of any entity that is a related party of the Group.

(a) Transactions with Sinopec Group Company and fellow subsidiaries, associates and joint ventures

The Group is part of a larger group of companies under Sinopec Group Company, which is controlled by the PRC government, and has significant transactions and relationships with Sinopec Group Company and fellow subsidiaries. Because of these relationships, it is possible that the terms of these transactions are not the same as those that would result from transactions among wholly unrelated parties.

The principal related party transactions with Sinopec Group Company and fellow subsidiaries, associates and joint ventures, which were carried out in the ordinary course of business are as follows:

		Years ended December 31,		
	Note	2015 RMB	2016 RMB	2017 RMB
Sales of goods	(i)	211,197	194,179	244,211
Purchases	(ii)	92,627	118,242	165,993
Transportation and storage	(iii)	1,299	1,333	7,716
Exploration and development services	(iv)	37,444	27,201	21,210
Production related services	(v)	10,880	10,816	20,824
Ancillary and social services	(vi)	6,754	6,584	6,653
Operating lease charges for land	(vii)	10,618	10,474	8,015
Operating lease charges for buildings	(vii)	462	449	510
Other operating lease charges	(vii)	302	456	626
Agency commission income	(viii)	116	129	127
Interest income	(ix)	207	209	807
Interest expense	(x)	1,194	996	554
Net deposits placed with related parties	(ix)	(14,082)	(21,770)	(7,441)
Net loans (repaid to)/ obtained from to related parties	(xi)	(57,881)	(24,877)	5,279

The amounts set out in the table above in respect of each of the years in the three-year period ended December 31, 2017 represent the relevant costs and income as determined by the corresponding contracts with the related parties.

There was no guarantee given to banks by the Group in respect of banking facilities to related parties as of December 31, 2016 and 2017, except for the guarantees disclosed in Note 30.

The directors of the Company are of the opinion that the above transactions with related parties were conducted in the ordinary course of business and on normal commercial terms or in accordance with the agreements governing such transactions, and this has been confirmed by the independent non-executive directors.

Notes:

(i) Sales of goods represent the sale of crude oil, intermediate petrochemical products, petroleum products and ancillary materials.

(ii) Purchases represent the purchase of materials and utility supplies directly related to the Group s operations such as the procurement of raw and ancillary materials and related services, supply of water, electricity and gas.

(iii) Transportation and storage represent the cost for the use of railway, road and marine transportation services, pipelines, loading, unloading and storage facilities.

Table of Contents

(iv) Exploration and development services comprise direct costs incurred in the exploration and development such as geophysical, drilling, well testing and well measurement services.

(v) Production related services represent ancillary services rendered in relation to the Group s operations such as equipment repair and general maintenance, insurance premium, technical research, communications, firefighting, security, product quality testing and analysis, information technology, design and engineering, construction of oilfield ground facilities, refineries and chemical plants, manufacture of replacement parts and machinery, installation, project management and environmental protection.

(vi) Ancillary and social services represent expenditures for social welfare and support services such as educational facilities, media communication services, sanitation, accommodation, canteens, property maintenance and management services.

(vii) Operating lease charges represent the rental paid to Sinopec Group Company for operating leases in respect of land, buildings and equipment.

(viii) Agency commission income represents commission earned for acting as an agent in respect of sales of products and purchase of materials for certain entities owned by Sinopec Group Company.

(ix) Interest income represents interest received from deposits placed with Sinopec Finance Company Limited and Sinopec Century Bright Capital Investment Limited, finance companies controlled by Sinopec Group Company. The applicable interest rate is determined in accordance with the prevailing saving deposit rate. The balance of deposits as of December 31, 2016 and 2017 were RMB 40,073 and RMB 47,514, respectively.

(x) Interest expense represents interest charges on the loans and advances obtained from Sinopec Group Company and fellow subsidiaries.

Table of Contents

(xi) The Group obtained or repaid loans from or to Sinopec Group Company and fellow subsidiaries.

In connection with the Reorganization, the Company and Sinopec Group Company entered into a number of agreements under which 1) Sinopec Group Company will provide goods and products and a range of ancillary, social and supporting services to the Group and 2) the Group will sell certain goods to Sinopec Group Company. These agreements impacted the operating results of the Group for the year ended December 31, 2017. The terms of these agreements are summarized as follows:

- The Company has entered into a non-exclusive Agreement for Mutual Provision of Products and Ancillary Services (Mutual Provision Agreement) with Sinopec Group Company effective from January 1, 2000 in which Sinopec Group Company has agreed to provide the Group with certain ancillary production services, construction services, information advisory services, supply services and other services and products. While each of Sinopec Group Company and the Company is permitted to terminate the Mutual Provision Agreement upon giving at least six months notice, Sinopec Group Company has agreed not to terminate the agreement if the Group is unable to obtain comparable services from a third party. The pricing policy for these services and products provided by Sinopec Group Company to the Group is as follows:

(1) the government-prescribed price;

(2) where there is no government-prescribed price, the government-guidance price;

(3) where there is neither a government-prescribed price nor a government-guidance price, the market price; or

(4) where none of the above is applicable, the price to be agreed between the parties, which shall be based on a reasonable cost incurred in providing such services plus a profit margin not exceeding 6%.

- The Company has entered into a non-exclusive Agreement for Provision of Cultural and Educational, Health Care and Community Services with Sinopec Group Company effective from January 1, 2000 in which Sinopec Group Company has agreed to provide the Group with certain cultural, educational, health care and community services on the same pricing terms and termination conditions as described in the above Mutual Provision Agreement.

- The Company has entered into a series of lease agreements with Sinopec Group Company to lease certain lands and buildings effective on January 1, 2000. The lease term is 40 or 50 years for lands and 20 years for buildings,

respectively. The Company and Sinopec Group Company can renegotiate the rental amount every three years for land. The Company and Sinopec Group Company can renegotiate the rental amount for buildings every year. However such amount cannot exceed the market price as determined by an independent third party.

- The Company has entered into agreements with Sinopec Group Company effective from January 1, 2000 under which the Group has been granted the right to use certain trademarks, patents, technology and computer software developed by Sinopec Group Company.

- The Company has entered into a service stations franchise agreement with Sinopec Group Company effective from January 1, 2000 under which its service stations and retail stores would exclusively sell the refined products supplied by the Group.

Table of Contents

Amounts due from/to Sinopec Group Company and fellow subsidiaries, associates and joint ventures included in the following accounts captions are summarized as follows:

	December 31,	
	2016 RMB	2017 RMB
Trade accounts receivable	10,978	12,903
Other receivable	12,860	5,444
Prepaid expenses and other current assets	570	189
Long-term prepayments and other assets	20,385	20,726
Total	44,793	39,262
Trade accounts payable	19,419	22,849
Accrued expenses and other payables	21,590	20,990
Other long-term liabilities	9,998	10,165
Short-term loans and current portion of long-term loans from Sinopec Group Company and fellow subsidiaries	18,580	25,311
Long-term loans excluding current portion from Sinopec Group Company and fellow subsidiaries	44,772	43,320
Total	114,359	122,635

Amounts due from/to Sinopec Group Company and fellow subsidiaries, associates and joint ventures, other than short-term loans and long-term loans, bear no interest, are unsecured and are repayable in accordance with normal commercial terms. The terms and conditions associated with short-term loans and long-term loans payable to Sinopec Group Company and fellow subsidiaries are set out in Note 25.

The long-term borrowings mainly include an interest-free loan with a maturity period of 20 years amounting to RMB 35,560 from the Sinopec Group Company (a state-owned enterprise) through the Sinopec Finance. This borrowing is a special arrangement to reduce financing costs and improve liquidity of the Company during its initial global offering in 2000.

As of and for the years ended December 31, 2016 and 2017, no individually significant impairment losses for bad and doubtful debts were recognized in respect of amounts due from Sinopec Group Company and fellow subsidiaries, associates and joint ventures.

(b) Key management personnel emoluments

Key management personnel are those persons having authority and responsibility for planning, directing and controlling the activities of the Group, directly or indirectly, including directors and supervisors of the Group. The key management personnel compensation is as follows:

	Years ended December 31,		
	2015 RMB 000	2016 RMB 000	2017 RMB 000
Short-term employee benefits	5,225	5,648	5,344
Retirement scheme contributions	510	499	424
	5,735	6,147	5,768

Table of Contents

(c) Contributions to defined contribution retirement plans

The Group participates in various defined contribution retirement plans organized by municipal and provincial governments for its staff. The details of the Group s employee benefits plan are disclosed in Note 33. As of December 31, 2016 and 2017, the accrual for the contribution to post-employment benefit plans was not material.

(d) Transactions with other state-controlled entities in the PRC

The Group is a state-controlled energy and chemical enterprise and operates in an economic regime currently dominated by entities directly or indirectly controlled by the PRC government through its government authorities, agencies, affiliations and other organizations (collectively referred as state-controlled entities).

Apart from transactions with Sinopec Group Company and fellow subsidiaries, the Group has transactions with other state-controlled entities, include but not limited to the following:

- sales and purchases of goods and ancillary materials;
- rendering and receiving services;
- lease of assets;
- depositing and borrowing money; and
- use of public utilities.

These transactions are conducted in the ordinary course of the Group s business on terms comparable to those with other entities that are not state-controlled.

33. EMPLOYEE BENEFITS PLAN

As stipulated by the regulations of the PRC, the Group participates in various defined contribution retirement plans organized by municipal and provincial governments for its staff. The Group is required to make contributions to the retirement plans at rates ranging from 15.0% to 20.0% of the salaries, bonuses and certain allowances of its staff. In addition, the Group provides a supplementary

retirement plan for its staff at rates not exceeding 5% of the salaries. The Group has no other material obligation for the payment of pension benefits associated with these plans beyond the annual contributions described above. The Group s contributions for the years ended December 31, 2015, 2016 and 2017 were RMB 7,878, RMB 8,385 and RMB 8,981, respectively.

Table of Contents

34. SEGMENT REPORTING

Segment information is presented in respect of the Group s business segments. The format is based on the Group s management and internal reporting structure.

In a manner consistent with the way in which information is reported internally to the Group s chief operating decision maker for the purposes of resource allocation and performance assessment, the Group has identified the following five reportable segments. No operating segments have been aggregated to form the following reportable segments.

(i) Exploration and production, which explores and develops oil fields, produces crude oil and natural gas and sells such products to the refining segment of the Group and external customers.

(ii) Refining, which processes and purifies crude oil, that is sourced from the exploration and production segment of the Group and external suppliers, and manufactures and sells petroleum products to the chemicals and marketing and distribution segments of the Group and external customers.

(iii) Marketing and distribution, which owns and operates oil depots and service stations in the PRC, and distributes and sells refined petroleum products (mainly gasoline and diesel) in the PRC through wholesale and retail sales networks.

(iv) Chemicals, which manufactures and sells petrochemical products, derivative petrochemical products and other chemical products mainly to external customers.

(v) Corporate and others, which largely comprise the trading activities of the import and export companies of the Group and research and development undertaken by other subsidiaries.

The segments were determined primarily because the Group manages its exploration and production, refining, marketing and distribution, chemicals, and corporate and others businesses separately. The reportable segments are each managed separately because they manufacture and/or distribute distinct products with different production processes and due to their distinct operating and gross margin characteristics.

(1) Information of reportable segmental revenues, profits or losses, assets and liabilities

The Group s chief operating decision maker evaluates the performance and allocates resources to its operating segments on an operating profit basis, without considering the effects of finance costs or investment income. Inter-segment transfer pricing is based on the market price or cost plus an appropriate margin, as specified by the Group s policy.

Assets and liabilities dedicated to a particular segment s operations are included in that segment s total assets and liabilities. Segment assets include all tangible and intangible assets, except for interest in associates and joint ventures, investments, deferred tax assets, cash and cash

equivalents, time deposits with financial institutions and other unallocated assets. Segment liabilities exclude short-term, income tax payable, long-term debts, loans from Sinopec Group Company and fellow subsidiaries, deferred tax liabilities and other unallocated liabilities.

Table of Contents

Information on the Group s reportable segments is as follows:

	Years ended December 31,		
	2015 RMB	2016 RMB	2017 RMB
Sales of goods			
Exploration and production			
External sales	57,740	47,443	69,168
Inter-segment sales	71,019	58,954	77,804
	128,759	106,397	146,972
Refining			
External sales	120,650	102,983	132,478
Inter-segment sales	800,962	747,317	874,271
	921,612	850,300	1,006,749
Marketing and distribution			
External sales	1,086,098	1,027,373	1,191,902
Inter-segment sales	3,056	3,480	3,962
	1,089,154	1,030,853	1,195,864
Chemicals			
External sales	276,640	284,289	373,814
Inter-segment sales	43,814	38,614	49,615
	320,454	322,903	423,429
Corporate and others			
External sales	436,749	418,102	533,108
Inter-segment sales	345,454	320,367	440,303
	782,203	738,469	973,411
Elimination of inter-segment sales	(1,264,305)	(1,168,732)	(1,445,955)
Sales of goods	1,977,877	1,880,190	2,300,470
Other operating revenues			
Exploration and production	9,894	9,542	10,533
Refining	5,004	5,486	5,104
Marketing and distribution	17,512	22,004	28,333
Chemicals	8,417	12,211	14,314
Corporate and others	1,671	1,478	1,439
Other operating revenues	42,498	50,721	59,723
Sales of goods and other operating revenues	2,020,375	1,930,911	2,360,193

Table of Contents

	Years ended December 31,		
	2015 RMB	2016 RMB	2017 RMB
Result			
Operating (loss)/income			
By segment			
- Exploration and production	(17,418)	(36,641)	(45,944)
- Refining	20,959	56,265	65,007
- Marketing and distribution	28,855	32,153	31,569
- Chemicals	19,476	20,623	26,977
- Corporate and others	384	3,212	(4,484)
- Elimination	4,566	1,581	(1,655)
Total segment operating income	56,822	77,193	71,470
Share of profits/(losses) from associates and joint ventures			
- Exploration and production	633	(1,203)	1,449
- Refining	725	1,075	989
- Marketing and distribution	1,379	2,362	2,945
- Chemicals	3,343	5,696	9,621
- Corporate and others	2,282	1,376	1,521
Aggregate share of profits from associates and joint ventures	8,362	9,306	16,525
Investment income/(losses)			
- Exploration and production	835	24	40
- Refining	(8)	(4)	28
- Marketing and distribution	70	90	90
- Chemicals	41	119	86
- Corporate and others	350	34	18
- Elimination	(822)		
Aggregate investment income	466	263	262
Net finance costs	(9,239)	(6,611)	(1,560)
Earnings before income tax	56,411	80,151	86,697

Table of Contents

	December 31,		
	2015 RMB	2016 RMB	2017 RMB
Assets			
Segment assets			
- Exploration and production	447,307	402,476	343,404
- Refining	264,573	260,903	273,123
- Marketing and distribution	283,416	292,328	309,727
- Chemicals	151,646	144,371	158,472
- Corporate and others	108,921	95,263	170,045
Total segment assets	1,255,863	1,195,341	1,254,771
Interest in associates and joint ventures	84,293	116,812	131,087
Available-for-sale financial assets	10,964	11,408	1,676
Deferred tax assets	7,469	7,214	15,131
Cash and cash equivalents and time deposits with financial institutions	69,666	142,497	165,004
Other unallocated assets	19,013	25,337	27,835
Total assets	1,447,268	1,498,609	1,595,504
Liabilities			
Segment liabilities			
- Exploration and production	96,773	95,944	99,568
- Refining	58,578	82,170	101,429
- Marketing and distribution	118,897	133,303	164,101
- Chemicals	27,243	32,072	35,293
- Corporate and others	104,194	97,080	117,781
Total segment liabilities	405,685	440,569	518,172
Short-term debts	41,517	56,239	55,338
Income tax payable	1,048	6,051	13,015
Long-term debts	95,446	72,674	55,804
Loans from Sinopec Group Company and fellow subsidiaries	88,229	63,352	68,631
Deferred tax liabilities	8,259	7,661	6,466
Other unallocated liabilities	18,923	20,828	25,188
Total liabilities	659,107	667,374	742,614

Table of Contents

	Years ended December 31,		
	2015 RMB	2016 RMB	2017 RMB
Capital expenditure			
Exploration and production	54,710	32,187	31,344
Refining	15,132	14,347	21,075
Marketing and distribution	22,115	18,493	21,539
Chemicals	17,634	8,849	23,028
Corporate and others	2,821	2,580	2,398
	112,412	76,456	99,384
Depreciation, depletion and amortization			
Exploration and production	52,155	61,929	66,843
Refining	16,557	17,209	18,408
Marketing and distribution	14,075	14,540	15,463
Chemicals	12,088	12,654	12,873
Corporate and others	1,585	2,093	1,723
	96,460	108,425	115,310
Impairment losses on long-lived assets			
Exploration and production	4,864	11,605	13,556
Refining	9	1,655	1,894
Marketing and distribution	19	267	675
Chemicals	142	2,898	4,922
Corporate and others	112		211
	5,146	16,425	21,258

(2) Geographical information

The following tables set out information about the geographical information of the Group s external sales and the Group s non-current assets, excluding financial instruments and deferred tax assets. In presenting information on the basis of geographical segments, segment revenue is based on the geographical location of customers, and segment assets are based on the geographical location of the assets.

	Years ended December 31,		
	2015 RMB	2016 RMB	2017 RMB
External sales			
Mainland China	1,580,856	1,488,117	1,758,365
Singapore	147,090	152,068	269,349
Others	292,429	290,726	332,479
	2,020,375	1,930,911	2,360,193

	December31,		
	2015 RMB	2016 RMB	2017 RMB
Non-current assets			
Mainland China	1,029,318	1,000,209	979,329
Others	56,081	45,887	48,572
	1,085,399	1,046,096	1,027,901

Table of Contents

35. PRINCIPAL SUBSIDIARIES

As of December 31, 2017, the following list contains the particulars of subsidiaries which principally affected the results, assets and liabilities of the Group.

Name of Company	Particulars of issued capital		Interests held by the Company %	Interests held by non-controlling interests %	Principal activities
Sinopec International Petroleum Exploration and Production Limited (SIPL)	RMB	8,000	100.00		Investment in exploration, production and sale of petroleum and natural gas
Sinopec Great Wall Energy & Chemical Company Limited	RMB	22,761	100.00		Coal chemical industry investment management, production and sale of coal chemical products
Sinopec Yangzi Petrochemical Company Limited	RMB	13,203	100.00		Manufacturing of intermediate petrochemical products and petroleum products
Sinopec Pipeline Storage & Transportation Company Limited	RMB	12,000	100.00		Pipeline storage and transportation of crude oil
Sinopec Yizheng Chemical Fibre Limited Liability Company	RMB	4,000	100.00		Production and sale of polyester chips and polyester fibres
Sinopec Lubricant Company Limited	RMB	3,374	100.00		Production and sale of refined petroleum products, lubricant base oil, and petrochemical materials
Sinopec Qingdao Petrochemical Company Limited	RMB	1,595	100.00		Manufacturing of intermediate petrochemical products and petroleum products
Sinopec Chemical Sales Company Limited	RMB	1,000	100.00		Marketing and distribution of petrochemical products
China International United Petroleum and Chemical Company Limited	RMB	3,000	100.00		Trading of crude oil and petrochemical products
Sinopec Overseas Investment Holding Limited (SOIH)	US Dollar	1,638	100.00		Investment holding
Sinopec Catalyst Company Limited	RMB	1,500	100.00		Production and sale of catalyst products
China Petrochemical International Company Limited	RMB	1,400	100.00		Trading of petrochemical products
Sinopec Beihai Refining and Chemical Limited Liability Company	RMB	5,294	98.98	1.02	Import and processing of crude oil, production, storage and sale of petroleum products and petrochemical products
Sinopec Qingdao Refining and Chemical Company Limited	RMB	5,000	85.00	15.00	Manufacturing of intermediate petrochemical products and petroleum products
Sinopec Zhanjiang Dongxing Petrochemical Company Limited	RMB	4,397	75.00	25.00	Manufacturing of intermediate petrochemical products and petroleum products
Sinopec Hainan Refining and Chemical Company Limited	RMB	3,986	75.00	25.00	Manufacturing of intermediate petrochemical products and petroleum products

Sinopec Marketing Company Limited (Marketing Company)	RMB	28,403	70.42	29.58	Marketing and distribution of refined petroleum products
Shanghai SECCO Petrochemical Company Limited (Shanghai SECCO) (Note 31)	RMB	7,801	67.60	32.40	Production and sale of petrochemical products
Sinopec SK (Wuhan) Petrochemical Company Limited (Zhonghan Wuhan)	RMB	6,270	65.00	35.00	Production, sale, research and development of ethylene and downstream byproducts
Sinopec Kantons Holdings Limited (Sinopec Kantons)	HKD	248	60.34	39.66	Trading of crude oil and petroleum products
Gaoqiao Petrochemical Company Limited (Note 31)	RMB	10,000	55.00	45.00	Manufacturing of intermediate petrochemical products and petroleum products
Sinopec Shanghai Petrochemical Company Limited (Shanghai Petrochemical)	RMB	10,814	50.49	49.51	Manufacturing of synthetic fibres, resin and plastics, intermediate petrochemical products and petroleum products
Fujian Petrochemical Company Limited (Fujian Petrochemical) (i)	RMB	6,898	50.00	50.00	Manufacturing of plastics, intermediate petrochemical products and petroleum products

Table of Contents

Except for Sinopec Kantons and SOIH, which are incorporated in Bermuda and Hong Kong respectively, all of the above principal subsidiaries are incorporated and operate their businesses principally in the PRC. All of the above principal subsidiaries are limited companies.

Note:

(i) The Group consolidated the financial statements of the entity because it is exposed to, or has rights to, variable returns from its involvement with the entity and has the ability to affect those returns through its power over the entity.

Summarized financial information on subsidiaries with material non-controlling interests

Set out below are the summarized financial information which the amount before inter-company eliminations for each subsidiary that has non-controlling interests that are material to the Group.

Summarized consolidated balance sheet

	Marketing Company December 31,		SIPL December 31,		Shanghai Petrochemical December 31,		Fujian Petrochemical December 31,		Sinopec Kantons December 31,		Shanghai SECCO December 31,	Zhonghan December 31,	Wuhan December 31,
	2016 RMB	2017 RMB	2016 RMB	2017 RMB	2016 RMB	2017 RMB	2016 RMB	2017 RMB	2016 RMB	2017 RMB	2017 RMB	2016 RMB	2017 RMB
Current assets	121,260	156,494	18,116	19,555	14,876	19,866	926	992	1,352	1,196	11,602	1,489	1,636
Current liabilities	(168,366)	(212,620)	(824)	(7,118)	(8,942)	(10,922)	(812)	(376)	(2,891)	(2,351)	(4,174)	(7,521)	(3,975)
Net current (liabilities)/assets	(47,106)	(56,126)	17,292	12,437	5,934	8,944	114	616	(1,539)	(1,155)	7,428	(6,032)	(2,339)
Non current assets	246,514	253,455	40,067	34,769	19,070	19,577	7,845	9,925	13,228	13,089	12,797	14,686	13,598
Non current liabilities	(1,460)	(1,774)	(39,322)	(28,523)		(6)	(721)	(681)	(3,101)	(2,430)	(1,740)		
Net non current assets	245,054	251,681	745	6,246	19,070	19,571	7,124	9,244	10,127	10,659	11,057	14,686	13,598
Net assets	197,948	195,555	18,037	18,683	25,004	28,515	7,238	9,860	8,588	9,504	18,485	8,654	11,259
Attributable to owners of the Company	134,393	132,549	2,784	3,468	12,500	14,253	3,619	4,930	5,162	5,716	12,496	5,625	7,318
Attributable to non controlling interests	63,555	63,006	15,253	15,215	12,504	14,262	3,619	4,930	3,426	3,788	5,989	3,029	3,941

Table of Contents

Summarized consolidated statement of comprehensive income

Year ended December 31,	Marketing Company 2015 RMB	Marketing Company 2016 RMB	Marketing Company 2017 RMB	SIPL 2015 RMB	SIPL 2016 RMB	SIPL 2017 RMB	Shanghai Petrochemical 2015 RMB	Shanghai Petrochemical 2016 RMB	Shanghai Petrochemical 2017 RMB	Fujian Petrochemical 2015 RMB	Fujian Petrochemical 2016 RMB	Fujian Petrochemical 2017 RMB	Sinopec Kantons 2015 RMB	Sinopec Kantons 2016 RMB	Sinopec Kantons 2017 RMB	Shanghai SECCO (ii) 2017 RMB	Zhonghan Wuha 2015 RMB	Zhonghan Wuha 2016 RMB	Zhonghan Wuha 20 RM
Operating revenues	1,103,934	1,050,294	1,221,530	6,557	4,016	6,136	80,748	77,843	91,962	5,532	4,968	6,068	1,642	1,512	1,498	5,222	14,077	11,703	16
Net income/ (loss) for the year	23,684	26,461	27,520	(222)	(4,604)	1,075	3,310	5,981	6,154	1,456	2,513	2,726	825	860	1,046	726	1,738	1,558	2
Total Comprehensive income/ (loss)	24,391	27,385	26,986	(4,257)	(2,481)	396	3,310	6,000	6,153	1,456	2,513	2,726	302	879	1,146	726	1,738	1,558	2
Comprehensive income/(loss) attributable to non-controlling interests	7,755	9,028	9,033	(1,218)	(3,279)	(38)	1,655	2,964	3,052	728	1,256	1,363	120	349	433	235	608	545	
Dividends paid to non-controlling interests	7,356	4,932	9,544				10	563	1,344			625	40	51	70				

Summarized statement of cash flows

Year ended December 31,	Marketing Company 2015 RMB	Marketing Company 2016 RMB	Marketing Company 2017 RMB	SIPL 2015 RMB	SIPL 2016 RMB	SIPL 2017 RMB	Shanghai Petrochemical 2015 RMB	Shanghai Petrochemical 2016 RMB	Shanghai Petrochemical 2017 RMB	Fujian Petrochemical 2015 RMB	Fujian Petrochemical 2016 RMB	Fujian Petrochemical 2017 RMB	Sinopec Kantons 2015 RMB	Sinopec Kantons 2016 RMB	Sinopec Kantons 2017 RMB	Shanghai SECCO (ii) 2017 RMB	Zhonghan Wuhan 2015 RMB	Zhonghan Wuhan 2016 RMB	Zhonghan Wuhan 2017 RMB
Net cash generated from/(used in) operating activities	33,196	50,840	51,038	4,059	2,576	2,758	4,933	7,182	7,061	(179)	617	(558)	1,185	505	968	1,639	4,223	3,636	2,976
Net cash generated from/(used in) investing activities	21,180	(31,573)	(35,738)	(4,052)	2,729	(2,211)	(439)	(190)	(2,401)	76	54	225	(504)	261	193	5,567	(4,869)	(3,080)	(2,415)
Net cash (used in)/generated from financing activities	(42,777)	(20,424)	(16,499)	637	(4,414)	243	(3,696)	(2,637)	(2,590)	(176)	(55)	(158)	(443)	(1,338)	(1,093)		588	(682)	(631)
Net increase /(decrease) in cash and cash equivalents	11,599	(1,157)	(1,199)	644	891	790	798	4,355	2,070	(279)	616	(491)	238	(572)	68	7,206	(58)	(126)	(70)
Cash and cash equivalents as of January 1	2,682	14,914	14,373	1,327	2,042	3,045	279	1,077	5,441	380	101	717	630	886	289		337	260	134
Effect of foreign currency	633	616	(253)	71	112	(230)		9	(7)				18	(25)	(14)	(1)	(19)		

exchange rate changes																			
Cash and cash equivalents as of December 31	14,914	14,373	12,921	2,042	3,045	3,605	1,077	5,441	7,504	101	717	226	886	289	343	7,205	260	134	64

(ii) The summarized consolidated statement of comprehensive income and the summarized statement of cash flow of Shanghai SECCO present the results from the acquisition date to December 31, 2017.

Table of Contents

36. FINANCIAL RISK MANAGEMENT AND FAIR VALUES

Overview

Financial assets of the Group include cash and cash equivalents, time deposits with financial institutions, investments, financial assets at fair value through profit or loss, trade accounts receivable, bills receivable, amounts due from Sinopec Group Company and fellow subsidiaries, amounts due from associates and joint ventures, available-for-sale financial assets, derivative financial instruments and other receivables. Financial liabilities of the Group include short-term and long-term debts, loans from Sinopec Group Company and fellow subsidiaries, trade accounts payable, bills payable, amounts due to Sinopec Group Company and fellow subsidiaries, derivative financial instruments and other payables.

The Group has exposure to the following risks from its uses of financial instruments:

- credit risk;
- liquidity risk;
- market risk.

The Board of Directors has overall responsibility for the establishment, oversight of the Group s risk management framework, and developing and monitoring the Group s risk management policies.

The Group s risk management policies are established to identify and analyze the risks faced by the Group, and set appropriate risk limits and controls to monitor risks and adherence to limits. Risk management policies and systems are reviewed regularly to reflect changes in market conditions and the Group s activities. The Group, through its training and management controls and procedures, aims to develop a disciplined and constructive control environment in which all employees understand their roles and obligations. Internal audit department undertakes both regular and ad hoc reviews of risk management controls and procedures, the results of which are reported to the Group s audit committee.

Credit risk

Credit risk is the risk of financial loss to the Group if a customer or counterparty to a financial instrument fails to meet its contractual obligations, and arises principally from the Group s deposits placed with financial institutions (including structured deposit) and receivables from customers. To limit exposure to credit risk relating to deposits, the Group primarily places cash deposits only with large financial institutions in

the PRC with acceptable credit ratings. The majority of the Group s trade accounts receivable relate to sales of petroleum and chemical products to related parties and third parties operating in the petroleum and chemical industries. No single customer accounted for greater than 10% of total accounts receivable as of December 31, 2017, except the amounts due from Sinopec Group Company and fellow subsidiaries. Management performs ongoing credit evaluations of the Group s customers financial condition and generally does not require collateral on trade accounts receivable. The Group maintains an impairment loss for doubtful accounts and actual losses have been within management s expectations.

The carrying amounts of cash and cash equivalents, time deposits with financial institutions, trade accounts and bills receivables, derivative financial instruments, financial assets at fair value through profit or loss and other receivables, represent the Group s maximum exposure to credit risk in relation to financial assets.

Liquidity risk

Liquidity risk is the risk that the Group will not be able to meet its financial obligations as they fall due. The Group s approach in managing liquidity is to ensure, as far as possible, that it will always have sufficient liquidity to meet its liabilities when due, under both normal and stressed capital conditions, without incurring unacceptable losses or risking damage to the Group s reputation. Management prepares monthly cash flow budget to ensure that the Group will always have sufficient liquidity to meet its financial obligations as they fall due. The Group arranges and negotiates financing with financial institutions and maintains a certain level of standby credit facilities to reduce the Group s liquidity risk.

Table of Contents

As of December 31, 2016 and 2017, the Group has standby credit facilities with several PRC financial institutions which provide borrowings up to RMB 256,375 and RMB 361,852 on an unsecured basis, at a weighted average interest rate of 3.57% and 3.40 % per annum, respectively. As of December 31, 2016 and 2017, the Group s outstanding borrowings under these facilities were RMB 36,933 and RMB 56,567 and were included in debts, respectively.

The following table sets out the remaining contractual maturities at the balance sheet date of the Group s financial liabilities, which are based on contractual undiscounted cash flows (including interest payments computed using contractual rates or, if floating, based on prevailing rates current at the balance sheet date) and the earliest date the Group would be required to repay:

	December 31, 2016					
	Carrying amount RMB	Total contractual undiscounted cash flow RMB	Within 1 year or on demand RMB	More than 1 year but less than 2 years RMB	More than 2 years but less than 5 years RMB	More than 5 years RMB
Short-term debts	56,239	57,515	57,515			
Long-term debts	72,674	85,021	2,672	27,277	30,535	24,537
Loans from Sinopec Group Company and fellow subsidiaries	63,352	63,678	18,790	2,092	42,796	
Trade accounts payable	174,301	174,301	174,301			
Bills payable	5,828	5,828	5,828			
Accrued expenses and other payables	81,781	81,781	81,781			
	454,175	**468,124**	**340,887**	**29,369**	**73,331**	**24,537**

	December 31, 2017					
	Carrying amount RMB	Total contractual undiscounted cash flow RMB	Within 1 year or on demand RMB	More than 1 year but less than 2 years RMB	More than 2 years but less than 5 years RMB	More than 5 years RMB
Short-term debts	55,338	56,562	56,562			
Long-term debts	55,804	66,202	2,166	14,477	32,316	17,243
Loans from Sinopec Group Company and fellow subsidiaries	68,631	68,950	25,504	4,439	39,007	
Trade accounts payable	200,073	200,073	200,073			
Bills payable	6,462	6,462	6,462			
Accrued expenses and other payables	99,588	99,588	99,588			
	485,896	**497,837**	**390,355**	**18,916**	**71,323**	**17,243**

Management believes that the Group s current cash on hand, expected cash flows from operations and available standby credit facilities from financial institutions will be sufficient to meet the Group s short-term and long-term capital requirements.

Market risk

Market risk is the risk that changes in market prices, such as foreign exchange rates and interest rates. The objective of market risk management is to manage and control market risk exposures within acceptable parameters, while optimizing the return on risk.

Table of Contents

Currency risk

Currency risk arises on financial instruments that are denominated in a currency other than the functional currency in which they are measured. The Group s currency risk exposure primarily relates to short-term and long-term debts and loans from Sinopec Group Company and fellow subsidiaries denominated in US Dollars. The Group enters into foreign exchange contracts to manage its currency risk exposure.

Included in short-term and long-term debts and loans from Sinopec Group Company and fellow subsidiaries of the Group are the following amounts denominated in a currency other than the functional currency of the entity to which they relate:

	December 31,	
	2016	**2017**
Gross exposure arising from loans and borrowings		
US Dollars	126	204

A 5 percent strengthening/weakening of RMB against the following currencies as of December 31, 2016 and 2017 would have increased/decreased net income of the Group by the amounts shown below. This analysis has been determined assuming that the change in foreign exchange rates had occurred at the balance sheet date and had been applied to the foreign currency balances to which the Group has significant exposure as stated above, and that all other variables, in particular interest rates, remain constant. The analysis is performed on the same basis for 2016.

	December 31,	
	2016	**2017**
US Dollars	33	50

Other than the amounts as disclosed above, the amounts of other financial assets and liabilities of the Group are substantially denominated in the functional currency of respective entity within the Group.

Interest rate risk

The Group s interest rate risk exposure arises primarily from its short-term and long-term debts. Debts bearing interest at variable rates and at fixed rates expose the Group to cash flow interest rate risk and fair value interest rate risk respectively. The interest rates of short-term and long-term debts, and loans from Sinopec Group Company and fellow subsidiaries of the Group are disclosed in Note 25.

As of December 31, 2016, it is estimated that a general increase/decrease of 100 basis points in variable interest rates, with all other variables held constant, would decrease/increase the Group s net income by approximately RMB 327. As of December 31, 2017, it is estimated that a general increase/decrease of 100 basis points in variable interest rates, with all other variables held constant, would decrease/increase the Group s net income by approximately RMB 450. This sensitivity analysis has been determined assuming that the change of interest rates was applied to the Group s debts outstanding at the balance sheet date with exposure to cash flow interest rate risk. The analysis is performed on the same basis for 2016.

Commodity price risk

The Group engages in oil and gas operations and is exposed to commodity price risk related to price volatility of crude oil, refined oil products and chemical products. The fluctuations in prices of crude oil, refined oil products and chemical products could have significant impact on the Group. The Group uses derivative financial instruments, including commodity futures and swaps, to manage a portion of this risk. As of December, 31, 2016 and 2017, the Group had certain commodity contracts of crude oil, refined oil product and chemical products designated as qualified cash flow hedges and economic hedges. The fair values of these derivative financial instruments as of December 31, 2016 and 2017 are set out in Notes 15 and 27.

Table of Contents

As of December 31, 2016, it is estimated that a general increase/decrease of USD 10 per barrel in basic price of derivative financial instruments, with all other variables held constant, would impact the fair value of derivative financial instruments, which would decrease/increase the Group s net income by approximately RMB 634 and decrease/increase the Group s other reserves by approximately RMB 4,007. As of December 31, 2017, it is estimated that a general increase/decrease of USD 10 per barrel in basic price of derivative financial instruments, with all other variables held constant, would impact the fair value of derivative financial instruments, which would decrease/increase the Group s net income for the period by approximately RMB 4,049 and decrease/increase the Group s other reserves by approximately RMB 701. This sensitivity analysis has been determined assuming that the change in prices had occurred at the balance sheet date and the change was applied to the Group s derivative financial instruments at that date with exposure to commodity price risk. The analysis is performed on the same basis for 2016.

Table of Contents

Fair values

(i) Financial instruments carried at fair value

The following table presents the carrying value of financial instruments measured at fair value at the balance sheet date across the three levels of the fair value hierarchy defined in IFRS 7, *Financial Instruments: Disclosures*, with the fair value of each financial instrument categorized in its entirety based on the lowest level of input that is significant to that fair value measurement. The levels are defined as follows:

- Level 1 (highest level): fair values measured using quoted prices (unadjusted) in active markets for identical financial instruments.

- Level 2: fair values measured using quoted prices in active markets for similar financial instruments, or using valuation techniques in which all significant inputs are directly or indirectly based on observable market data.

- Level 3 (lowest level): fair values measured using valuation techniques in which any significant input is not based on observable market data.

	December 31, 2016			
	Level 1 RMB	**Level 2 RMB**	**Level 3 RMB**	**Total RMB**
Assets				
Available-for-sale financial assets:				
- Listed	262			262
Derivative financial instruments:				
- Derivative financial assets	29	733		762
	291	**733**		**1,024**
Liabilities				
Derivative financial instruments:				
- Derivative financial liabilities	2,586	1,886		4,472
	2,586	**1,886**		**4,472**

	December 31, 2017			
	Level 1 RMB	**Level 2 RMB**	**Level 3 RMB**	**Total RMB**
Assets				
Financial assets at fair value through profit and loss:				

- Structured deposit			51,196	51,196
Available-for-sale financial assets:				
- Listed	178			178
Derivative financial instruments:				
- Derivative financial assets	343	183		526
	521	**183**	**51,196**	**51,900**
Liabilities				
Derivative financial instruments:				
- Derivative financial liabilities	1,277	1,388		2,665
	1,277	**1,388**		**2,665**

During the years ended December 31, 2016 and 2017, there was no transfers among instruments in Level 1, Level 2 and Level 3.

Management of the Group evaluates the fair value of Level 3 financial assets using discounted cash flow model based on the interest rate and commodity index which were influenced by historical fluctuation and the probability of market fluctuation as input value for evaluating the fair value of the structural deposits.

Table of Contents

(ii) Fair values of financial instruments carried at other than fair value

The disclosures of the fair value estimates, and their methods and assumptions of the Group s financial instruments, are made to comply with the requirements of IFRS 7 and IAS 39 and should be read in conjunction with the Group s consolidated financial statements and related notes. The estimated fair value amounts have been determined by the Group using market information and valuation methodologies considered appropriate. However, considerable judgment is required to interpret market data to develop the estimates of fair value. Accordingly, the estimates presented herein are not necessarily indicative of the amounts the Group could realize in a current market exchange. The use of different market assumptions and/or estimation methodologies may have a material effect on the estimated fair value amounts.

The fair values of the Group s financial instruments carried at other than fair value (other than long-term indebtedness and investments in unquoted equity securities) approximate their carrying amounts due to the short-term maturity of these instruments. The fair values of long-term indebtedness are estimated by discounting future cash flows using current market interest rates offered to the Group that range between 1.06% to 4.90% and 1.79% to 4.90% for the years ended December 31, 2016 and 2017, respectively. The following table presents the carrying amount and fair value of the Group s long-term indebtedness other than loans from Sinopec Group Company and fellow subsidiaries as of December 31, 2016 and 2017:

	December 31,	
	2016 RMB	2017 RMB
Carrying amount	110,969	79,738
Fair value	109,308	78,040

The Group has not developed an internal valuation model necessary to estimate the fair value of loans from Sinopec Group Company and fellow subsidiaries as it is not considered practicable to estimate their fair values because the cost of obtaining discount and borrowing rates for comparable borrowings would be excessive based on the Reorganization, the Group s existing capital structure and the terms of the borrowings.

Investments in unquoted equity securities are individually and in aggregate not material to the Group s financial condition or results of operations. There are no listed market prices for such interests in the PRC and, accordingly, a reasonable estimate of fair value could not be made without incurring excessive costs. The Group intends to hold these unquoted other investments in equity securities for long term purpose.

Except for the above items, the financial assets and liabilities of the Group are carried at amounts not materially different from their fair values as of December 31, 2016 and 2017.

37. ACCOUNTING ESTIMATES AND JUDGMENTS

The Group s financial condition and results of operations are sensitive to accounting methods, assumptions and estimates that underlie the preparation of the consolidated financial statements. Management bases the assumptions and estimates on historical experience and on various other assumptions that it believes to be reasonable and which form the basis for making judgments about matters that are not readily apparent from other sources. On an ongoing basis, management evaluates its estimates. Actual results may differ from those estimates as facts, circumstances and conditions change.

The selection of critical accounting policies, the judgments and other uncertainties affecting application of such policies and the sensitivity of reported results to changes in conditions and assumptions are factors to be considered when reviewing the consolidated financial statements. The significant accounting policies are set forth in Note 2. Management believes the following critical accounting policies involve the most significant judgments and estimates used in the preparation of the consolidated financial statements.

Table of Contents

Oil and gas properties and reserves

The accounting for the exploration and production s oil and gas activities is subject to accounting rules that are unique to the oil and gas industry. There are two methods to account for oil and gas business activities, the successful efforts method and the full cost method. The Group has elected to use the successful efforts method. The successful efforts method reflects the volatility that is inherent in exploring for mineral resources in that costs of unsuccessful exploratory efforts are charged to expense as they are incurred. These costs primarily include dry hole costs, seismic costs and other exploratory costs. Under the full cost method, these costs are capitalized and written-off or depreciated over time.

Engineering estimates of the Group s oil and gas reserves are inherently imprecise and represent only approximate amounts because of the subjective judgments involved in developing such information. There are authoritative guidelines regarding the engineering criteria that have to be met before estimated oil and gas reserves can be designated as proved . Proved and proved developed reserves estimates are updated at least annually and take into account recent production and technical information about each field. In addition, as prices and cost levels change from year to year, the estimate of proved and proved developed reserves also changes. This change is considered a change in estimate for accounting purposes and is reflected on a prospective basis in relation to depreciation rates. Oil and gas reserves have a direct impact on the assessment of the recoverability of the carrying amounts of oil and gas properties reported in the financial statements. If proved reserves estimates are revised downwards, earnings could be affected by changes in depreciation expense or an immediate write-down of the property s carrying amount.

Future dismantlement costs for oil and gas properties are estimated with reference to engineering estimates after taking into consideration the anticipated method of dismantlement required in accordance with industry practices in similar geographic area, including estimation of economic life of oil and gas properties, technology and price level. The present values of these estimated future dismantlement costs are capitalized as oil and gas properties with equivalent amounts recognized as provision for dismantlement costs.

Despite the inherent imprecision in these engineering estimates, these estimates are used in determining depreciation expense, impairment loss and future dismantlement costs. Capitalized costs of proved oil and gas properties are amortized on a unit-of-production method based on volumes produced and reserves.

Impairment for long-lived assets

If circumstances indicate that the net book value of a long-lived asset may not be recoverable, the asset may be considered impaired , and an impairment loss may be recognized in accordance with IAS 36 Impairment of Assets . The carrying amounts of long-lived assets are reviewed periodically in order to assess whether the recoverable amounts have declined below the carrying amounts. These assets are tested for impairment whenever events or changes in circumstances indicate that their recorded carrying amounts may not be recoverable. When such a decline has occurred, the carrying amount is reduced to recoverable amount. For goodwill, the recoverable amount is estimated annually. The recoverable amount is the greater of the net selling price and the value in use. It is difficult to precisely estimate selling price because quoted market prices for the Group s assets or cash-generating units are not readily available. In determining the value in use, expected cash flows generated by the asset or the cash-generating unit are discounted to their present value, which requires significant judgment relating to level of sale volume, selling price, amount of operating costs and discount rate. Management uses all readily available information in determining an amount that is a reasonable approximation of recoverable amount, including estimates based on reasonable and supportable assumptions and projections of sale volume, selling price, amount of operating costs and discount rate.

Depreciation

Property, plant and equipment, other than oil and gas properties, are depreciated on a straight-line basis over the estimated useful lives of the assets, after taking into account the estimated residual value. Management reviews the estimated useful lives of the assets at least annually in order to determine the amount of depreciation expense to be recorded during any reporting period. The useful lives are based on the Group s historical experience with similar assets and take into account anticipated technological changes. The depreciation expense for future periods is adjusted if there are significant changes from previous estimates.

Table of Contents

Impairment for bad and doubtful debts

Management estimates impairment losses for bad and doubtful debts resulting from the inability of the Group s customers to make the required payments. Management bases the estimates on the aging of the accounts receivable balance, customer credit-worthiness, and historical write-off experience. If the financial condition of the customers were to deteriorate, actual write-offs would be higher than estimated.

Allowance for diminution in value of inventories

If the costs of inventories become higher than their net realizable values, an allowance for diminution in value of inventories is recognized. Net realizable value represents the estimated selling price in the ordinary course of business, less the estimated costs of completion and the estimated costs necessary to make the sale. Management bases the estimates on all available information, including the current market prices of the finished goods and raw materials, and historical operating costs. If the actual selling prices were to be lower or the costs of completion were to be higher than estimated, the actual allowance for diminution in value of inventories could be higher than estimated.

38. PARENT AND ULTIMATE HOLDING COMPANY

The directors consider the parent and ultimate holding company of the Group as of December 31, 2017 is Sinopec Group Company, a state-owned enterprise established in the PRC. This entity does not produce financial statements available for public use.

Table of Contents

39. RESERVES

	2016 RMB	2017 RMB
Capital reserve (Note (a))		
Balance as of January 1	28,341	26,290
Distribution to SAMC in the Acquisition of Gaoqiao Branch of SAMC (Note 31)	(2,137)	
Transaction with non-controlling interests	(30)	(13)
Others	116	49
Balance as of December 31	26,290	26,326
Share premium (Note (b))		
Balance as of January 1	55,850	55,850
Balance as of December 31	55,850	55,850
Statutory surplus reserve (Note (c))		
Balance as of January 1	79,640	79,640
Appropriation		3,042
Balance as of December 31	79,640	82,682
Discretionary surplus reserve		
Balance as of January 1	117,000	117,000
Balance as of December 31	117,000	117,000
Other reserves		
Balance as of January 1	(6,781)	424
Other comprehensive income	7,052	(3,481)
Others	153	123
Balance as of December 31	424	(2,934)
Retained earnings (Note (d))		
Balance as of January 1	281,076	310,719
Net income attributable to owners of the Company	46,672	51,244
Final dividend inspect of the previous year, approved and paid during the year (Note (e))	(7,264)	(20,582)
Interim dividend (Note (f))	(9,565)	(12,107)
Appropriation		(3,042)
Profit distribution to SAMC (Note 31)	(47)	
Others	(153)	(107)
Balance as of December 31	310,719	326,125
	589,923	605,049

Table of Contents

Note:

(a) The capital reserve represents (i) the difference between the total amount of the par value of shares issued and the amount of the net assets transferred from Sinopec Group Company in connection with the Reorganization, and (ii) the difference between the considerations paid over or received the amount of the net assets of entities and related operations acquired from or sold to Sinopec Group Company and non-controlling interests.

(b) The application of the share premium account is governed by Sections 167 and 168 of the PRC Company Law.

(c) According to the PRC Company Law and the Company s Articles of Association, the Company is required to transfer 10% of its net income determined in accordance with the accounting policies complying with Accounting Standards for Business Enterprises (ASBE), adopted by the Group to statutory surplus reserve. In the event that the reserve balance reaches 50% of the registered capital, no transfer is needed. The transfer to this reserve must be made before distribution of a dividend to shareholders. Statutory surplus reserve can be used to make good previous years losses, if any, and may be converted into share capital by issuing new shares to shareholders in proportion to their existing shareholdings or by increasing the par value of the shares currently held by them, provided that the balance after such issue is not less than 25% of the registered capital.

During the years ended December 31, 2015, 2016 and 2017, the Company transferred RMB 3,088, RMB nil and RMB 3,042, respectively, being 10% of the net income determined in accordance with the accounting policies complying with ASBE, to this reserve.

(d) As of December 31, 2016 and 2017, the amount of retained earnings available for distribution was RMB 182,440 and RMB 177,049, respectively, being the amount determined in accordance with ASBE. According to the Company s Articles of Association, the amount of retained earnings available for distribution to owners of the Company is the lower of the amount determined in accordance with the accounting policies complying with ASBE and the amount determined in accordance with the accounting policies complying with IFRS.

Pursuant to a resolution passed at the director s meeting on March 23, 2018, final dividends in respect of the year ended December 31, 2017 of RMB 0.40 per share totaling RMB 48,428 were proposed for shareholders approval at the Annual General Meeting. Final cash dividend for the year ended December 31, 2017 proposed after the balance sheet date has not been recognized as a liability at the balance sheet date.

(e) Pursuant to the shareholders approval at the Annual General Meeting on May 18, 2016, a final dividend of RMB 0.06 per share totaling RMB 7,264 according to total shares as of June 23, 2016 was approved. All dividends have been paid in the year ended December 31, 2016.

Pursuant to the shareholders approval at the Annual General Meeting on June 28, 2017, a final dividend of RMB 0.17 per share totaling RMB 20,582 according to total shares as of July 18, 2017 was approved. All dividends have been paid in the year ended December 31, 2017.

(f) Pursuant to the Company s Articles of Association and a resolution passed at the Directors meeting on August 26, 2016, the directors authorized to declare the interim dividend for the year ended December 31, 2016 of RMB 0.079 per share totaling RMB 9,565. Dividends were paid on September 21, 2016.

Pursuant to the Company s Articles of Association and a resolution passed at the Directors meeting on August 25, 2017, the directors authorized to declare the interim dividend for the year ended December 31, 2017 of RMB 0.10 per share totaling RMB 12,107. Dividends were paid on September 20, 2017.

Table of Contents

(g) On March 1, 2011, the Company issued convertible bonds due in 2017 with an aggregate principal amount of RMB 23,000 in the PRC (the 2011 Convertible Bonds). The 2011 Convertible Bonds were issued at par value of RMB 100 and bear a fixed interest rate of 0.5% per annum for the first year, 0.7% for the second year, 1.0% for the third year, 1.3% for the fourth year, 1.8% for the fifth year and 2.0% for the sixth year, payable annually. The holders can convert the 2011 Convertible Bonds into A shares of the Company from August 24, 2011 onwards at an initial conversion price of RMB 9.73 per share, subject to adjustment for, amongst other things, cash dividends, subdivision or consolidation of shares, bonus issues, issue of new shares, rights issues, capital distribution, change of control and other events which have an effect on the issued share capital of the Company (the Conversion Option). Unless previously redeemed, converted or purchased and cancelled, the 2011 Convertible Bonds will be redeemed within 5 trading days after maturity at 107% of the principal amount, including interest for the sixth year. The initial carrying amounts of the liability component and the derivative component, representing the Conversion Option of the 2011 Convertible Bonds, were RMB 19,279 and RMB 3,610, respectively.

During the term of the 2011 Convertible Bonds, the conversion price may be subject to downward adjustment that if the closing prices of the Company s A Shares in any fifteen trading days out of any thirty consecutive trading days are lower than 80% of the prevailing conversion price, the board of directors may propose downward adjustment to the conversion price subject to the shareholders approval. The adjusted conversion price shall be not less than (a) the average trading price of the Company s A Shares for the twenty trading days prior to the shareholders approval, (b) the average trading price of the Company s A Shares on the day immediately before the shareholders approval, (c) the net asset value per share based on the latest audited financial statements prepared under ASBE, and (d) the nominal value per share.

During the term of the 2011 Convertible Bonds, if the closing price of the A Shares of the Company is not lower than 130% of the conversion price in at least fifteen trading days out of any thirty consecutive trading days, the Company has the right to redeem all or part of the 2011 Convertible Bonds based on the nominal value plus the accrued interest (the terms of conditional redemption).

As of January 26, 2015, the terms of conditional redemption of 2011 Convertible Bonds of the Company have been triggered for the first time. At the 22nd meeting of the fifth session of the board of the Company (the Board), the Board has reviewed and approved the proposal for the redemption of 2011 Convertible Bonds, and decided to exercise the right of redemption and to redeem all of the outstanding 2011 Convertible Bonds registered on February 11, 2015.

From January 1, 2015 to February 11, 2015, the 2011 Convertible Bonds with a total nominal value of RMB 13,647 were converted into 2,790,814,006 A shares of the Company with a conversion price of 4.89 per share. As of February 11, 2015, the total share capital of the Company has been increased to 121,071,209,646 shares. The unconverted convertible bonds amounted to RMB 52.78 (527,760 convertible bonds). As at February 17, 2015, the Company has redeemed and fully paid the unconverted portion at RMB 101.261 per convertible bond (including the accrued interest and interest tax accrued thereon).

As of December 31, 2015, the 2011 Convertible bonds have been fully converted or redeemed.

Table of Contents

SUPPLEMENTAL INFORMATION ON OIL AND GAS

PRODUCING ACTIVITIES (UNAUDITED)

(All currency amounts in million)

In accordance with the Accounting Standards Update 2010-03, Extractive Activities - Oil and Gas (Topic 932): Oil and Gas Reserve Estimation and Disclosures (ASU 2010-03), issued by the Financial Accounting Standards Board of the United States, and in accordance with Industrial Information Disclosure Guidelines for Public Company - No.8 Oil and Gas Exploitation , issued by Shanghai Stock Exchange, this section provides supplemental information on oil and gas exploration and producing activities of the Group and its equity method investments at 31 December 2017 and 2016, and for the years then ended in the following six separate tables. Tables I through III provide historical cost information under IFRS pertaining to capitalized costs related to oil and gas producing activities; costs incurred in oil and gas exploration and development; and results of operation related to oil and gas producing activities. Tables IV through VI present information on the Group s and its equity method investments estimated net proved reserve quantities; standardized measure of discounted future net cash flows; and changes in the standardized measure of discounted cash flows.

Tables I to VI of supplemental information on oil and gas producing activities set out below represent information of the Company and its consolidated subsidiaries and equity method investments.

Table I: Capitalized costs related to oil and gas producing activities

	Years ended December 31,								
	2015			2016			2017		
	Total	China	RMB Other countries	Total	China	RMB Other countries	Total	China	RMB Other countries
The Group									
Property cost, wells and related equipments and facilities	613,134	572,446	40,688	650,686	606,493	44,193	667,657	625,621	42,036
Supporting equipments and facilities	204,793	204,773	20	192,877	192,855	22	210,711	210,694	17
Uncompleted wells, equipments and facilities	70,731	69,873	858	52,935	52,931	4	41,397	41,389	8
Total capitalized costs	**888,658**	**847,092**	**41,566**	**896,498**	**852,279**	**44,219**	**919,765**	**877,704**	**42,061**
Accumulated depreciation, depletion, amortization and impairment losses	(465,393)	(438,097)	(27,296)	(528,636)	(495,538)	(33,098)	(601,318)	(565,651)	(35,667)
Net capitalized costs	**423,265**	**408,995**	**14,270**	**367,862**	**356,741**	**11,121**	**318,447**	**312,053**	**6,394**
Equity method investments									
Share of net capitalized costs of associates and joint ventures	**11,296**		**11,296**	**9,337**		**9,337**	**6,357**		**6,357**

Total of the Group s and its equity method investments net capitalized costs	**434,561**	**408,995**	**25,566**	**377,199**	**356,741**	**20,458**	**324,804**	**312,053**	**12,751**

Table of Contents

SUPPLEMENTAL INFORMATION ON OIL AND GAS

PRODUCING ACTIVITIES (UNAUDITED)

(All currency amounts in million)

Table II: Costs incurred in oil and gas exploration and development

	Years ended December 31,								
	2015			2016			2017		
	Total	China	RMB Other countries	Total	China	RMB Other countries	Total	China	RMB Other countries
The Group									
Exploration	11,572	11,572		10,942	10,942		11,589	11,589	
Development	52,229	49,605	2,624	32,280	31,918	362	30,844	30,710	134
Total costs incurred	**63,801**	**61,177**	**2,624**	**43,222**	**42,860**	**362**	**42,433**	**42,299**	**134**
Equity method investments									
Share of costs of exploration and development of associates and joint ventures	**1,218**		**1,218**	**719**		**719**	**724**		**724**
Total of the Group s and its equity method investments exploration and development costs	**65,019**	**61,177**	**3,842**	**43,941**	**42,860**	**1,081**	**43,157**	**42,299**	**858**

Table of Contents

SUPPLEMENTAL INFORMATION ON OIL AND GAS

PRODUCING ACTIVITIES (UNAUDITED)

(All currency amounts in million)

Table III: Results of operations related to oil and gas producing activities

	Years ended December 31,								
	2015			2016			2017		
	Total	China	RMB Other countries	Total	China	RMB Other countries	Total	China	RMB Other countries
The Group									
Revenues									
Sales	52,580	52,580		36,720	36,720		43,644	43,644	
Transfers	70,453	63,900	6,553	58,571	54,555	4,016	73,447	67,311	6,136
	123,033	**116,480**	**6,553**	**95,291**	**91,275**	**4,016**	**117,091**	**110,955**	**6,136**
Production costs excluding taxes	(48,315)	(46,883)	(1,432)	(44,077)	(42,652)	(1,425)	(46,311)	(44,977)	(1,334)
Exploration expenses	(10,459)	(10,459)		(11,035)	(11,035)		(11,089)	(11,089)	
Depreciation, depletion, amortization and impairment losses	(56,293)	(52,216)	(4,077)	(73,534)	(68,594)	(4,940)	(80,399)	(74,856)	(5,543)
Taxes other than income tax	(6,083)	(6,083)		(4,576)	(4,576)		(8,726)	(8,726)	
Earnings before taxation	**1,883**	**839**	**1,044**	**(37,931)**	**(35,582)**	**(2,349)**	**(29,434)**	**(28,693)**	**(741)**
Income tax expense	(1,205)	(210)	(995)	(798)		(798)	1,188		1,188
Results of operation from producing activities	**678**	**629**	**49**	**(38,729)**	**(35,582)**	**(3,147)**	**(28,246)**	**(28,693)**	**447**
Equity method investments									
Revenues									
Sales	7,207		7,207	6,352		6,352	8,080		8,080
	7,207		**7,207**	**6,352**		**6,352**	**8,080**		**8,080**
Production costs excluding taxes	(1,165)		(1,165)	(2,205)		(2,205)	(2,748)		(2,748)
Exploration expenses	(4)		(4)						
Depreciation, depletion, amortization and impairment losses	(2,157)		(2,157)	(2,752)		(2,752)	(1,243)		(1,243)
Taxes other than income tax	(3,036)		(3,036)	(2,570)		(2,570)	(3,628)		(3,628)
Earnings before taxation	**845**		**845**	**(1,175)**		**(1,175)**	**461**		**461**
Income tax expense	(418)		(418)	(195)		(195)	(347)		(347)
Share of net income for producing activities of associates and joint ventures	**427**		**427**	**(1,370)**		**(1,370)**	**114**		**114**
Total of the Group s and its equity method investments results of operations for	**1,105**	**629**	**476**	(40,099)	**(35,582)**	**(4,517)**	**(28,132)**	**(28,693)**	**561**

producing activities

The results of operations for producing activities for the years ended 31 December 2017 and 2016 are shown above. Revenues include sales to unaffiliated parties and transfers (essentially at third party sales prices) to other segments of the Group. Income taxes are based on statutory tax rates, reflecting allowable deductions and tax credits. General corporate overhead and interest income and expense are excluded from the results of operations.

Table of Contents

SUPPLEMENTAL INFORMATION ON OIL AND GAS

PRODUCING ACTIVITIES (UNAUDITED)

(All currency amounts in million)

Table IV: Reserve quantities information

The Group s and its equity method investments estimated net proved underground oil and gas reserves and changes thereto for the years ended 31 December 2017 and 2016 are shown in the following table.

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 regulation before 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. Due to the inherent uncertainties and the limited nature of reservoir data, estimates of underground reserves are subject to change as additional information becomes available.

Proved developed oil and gas reserves are proved reserves that can be expected to be recovered 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.

Net reserves exclude royalties and interests owned by others and reflect contractual arrangements and obligation of rental fee in effect at the time of the estimate.

Table of Contents

SUPPLEMENTAL INFORMATION ON OIL AND GAS

PRODUCING ACTIVITIES (UNAUDITED)

(All currency amounts in million)

	Years ended December 31,								
	2015			2016			2017		
	Total	China	RMB Other countries	Total	China	RMB Other countries	Total	China	RMB Other countries
The Group									
Proved developed and undeveloped reserves (oil) (million barrels)									
Beginning of year	2,772	2,700	72	1,957	1,902	55	1,256	1,216	40
Revisions of previous estimates	(638)	(641)	3	(505)	(509)	4	151	148	3
Improved recovery	99	99		35	35		90	86	4
Extensions and discoveries	41	41		41	41		60	60	
Production	(317)	(297)	(20)	(272)	(253)	(19)	(264)	(249)	(15)
End of year	**1,957**	**1,902**	**55**	**1,256**	**1,216**	**40**	**1,293**	**1,261**	**32**
Non controlling interest in proved developed and undeveloped reserves at the end of year	**25**		**25**	**18**		**18**	**14**		**14**
Proved developed reserves									
Beginning of year	2,529	2,465	64	1,753	1,701	52	1,120	1,080	40
End of year	**1,753**	**1,701**	**52**	**1,120**	**1,080**	**40**	**1,156**	**1,124**	**32**
Proved undeveloped reserves									
Beginning of year	243	235	8	204	201	3	136	136	
End of year	**204**	**201**	**3**	**136**	**136**		**137**	**137**	
Proved developed and undeveloped reserves (gas) (billion cubic feet)									
Beginning of year	6,715	6,715		7,551	7,551		7,160	7,160	
Revisions of previous estimates	(252)	(252)		(170)	(170)		(107)	(107)	
Improved recovery	70	70		66	66		72	72	
Extensions and discoveries	1,749	1,749		475	475		769	769	
Production	(731)	(731)		(762)	(762)		(909)	(909)	
End of year	**7,551**	**7,551**		**7,160**	**7,160**		**6,985**	**6,985**	
Proved developed reserves									
Beginning of year	5,987	5,987		6,439	6,439		6,436	6,436	
End of year	**6,439**	**6,439**		**6,436**	**6,436**		**6,000**	**6,000**	
Proved undeveloped reserves									
Beginning of year	728	728		1,112	1,112		724	724	
End of year	**1,112**	**1,112**		**724**	**724**		**985**	**985**	

Table of Contents

SUPPLEMENTAL INFORMATION ON OIL AND GAS

PRODUCING ACTIVITIES (UNAUDITED)

(All currency amounts in million)

	Years ended December 31,								
	2015			2016			2017		
	Total	China	Other countries	Total	China	Other countries	Total	China	Other countries
Equity method investments									
Proved developed and undeveloped reserves of associates and joint ventures (oil) (million barrels)									
Beginning of year	275		275	286		286	296		296
Revisions of previous estimates	34		34	(2)		(2)	12		12
Improved recovery	1		1	3		3	8		8
Extensions and discoveries	9		9	41		41	20		20
Production	(33)		(33)	(32)		(32)	(30)		(30)
End of year	**286**		**286**	**296**		**296**	**306**		**306**
Proved developed reserves									
Beginning of year	252		252	260		260	273		273
End of year	**260**		**260**	**273**		**273**	**273**		**273**
Proved undeveloped reserves									
Beginning of year	23		23	26		26	23		23
End of year	**26**		**26**	**23**		**23**	**33**		**33**
Proved developed and undeveloped reserves of associates and joint ventures (gas) (billion cubic feet)									
Beginning of year	26		26	19		19	18		18
Revisions of previous estimates	(3)		(3)	3		3	(2)		(2)
Improved recovery									
Extensions and discoveries									
Production	(4)		(4)	(4)		(4)	(4)		(4)
End of year	**19**		**19**	**18**		**18**	**12**		**12**
Proved developed reserves									
Beginning of year	24		24	18		18	18		18
End of year	**18**		**18**	**18**		**18**	**12**		**12**
Proved undeveloped reserves									
Beginning of year	2		2	1		1			
End of year	**1**		**1**						

Total of the Group and its equity method investments									
Proved developed and undeveloped reserves (oil) (million barrels)									
Beginning of year	3,047	2,700	347	2,243	1,902	341	1,552	1,216	336
End of year	**2,243**	**1,902**	**341**	**1,552**	**1,216**	**336**	**1,599**	**1,261**	**338**
Proved developed and undeveloped reserves (gas) (billion cubic feet)									
Beginning of year	6,741	6,715	26	7,570	7,551	19	7,178	7,160	18
End of year	**7,570**	**7,551**	**19**	**7,178**	**7,160**	**18**	**6,997**	**6,985**	**12**

Table of Contents

SUPPLEMENTAL INFORMATION ON OIL AND GAS

PRODUCING ACTIVITIES (UNAUDITED)

(All currency amounts in million)

Table V: Standardized measure of discounted future net cash flows

The standardized measure of discounted future net cash flows, related to the above proved oil and gas reserves, is calculated in accordance with the requirements of ASU 2010-03 and Industrial Information Disclosure Guidelines for Public Company - No.8 Oil and Gas Exploitation . Estimated future cash inflows from production are computed by applying the average, first-day-of-the-month price for oil and gas during the twelve-month period before the ending date of the period covered by the report to year-end quantities of estimated net proved reserves. Future price changes are limited to those provided by contractual arrangements in existence at the end of each reporting year. Future development and production costs are those estimated future expenditures necessary to develop and produce year-end estimated proved reserves based on year-end cost indices, assuming continuation of year-end economic conditions. Estimated future income taxes are calculated by applying appropriate year-end statutory tax rates to estimated future pre tax net cash flows, less the tax basis of related assets. Discounted future net cash flows are calculated using 10% discount factors. This discounting requires a year-by-year estimate of when the future expenditure will be incurred and when the reserves will be produced.

The information provided does not represent management s estimate of the Group s and its equity method investments expected future cash flows or value of proved oil and gas reserves. Estimates of proved reserve quantities are imprecise and change over time as new information becomes available. Moreover, probable and possible reserves, which may become proved in the future, are excluded from the calculations. The arbitrary valuation requires assumptions as to the timing and amount of future development and production costs. The calculations are made for the years ended 31 December 2017 and 2016 and should not be relied upon as an indication of the Group s and its equity method investments future cash flows or value of its oil and gas reserves.

	Years ended December 31,								
	2015			2016			2017		
	Total	China	RMB Other countries	Total	China	RMB Other countries	Total	China	RMB Other countries
The Group									
Future cash flows	931,637	912,898	18,739	603,785	592,389	11,396	639,336	628,187	11,149
Future production costs	(440,079)	(430,695)	(9,384)	(271,650)	(266,549)	(5,101)	(292,789)	(287,914)	(4,875)
Future development costs	(38,669)	(34,092)	(4,577)	(20,241)	(15,615)	(4,626)	(24,999)	(20,314)	(4,685)
Future income tax expenses	(11,139)	(9,779)	(1,360)	(1,405)		(1,405)	(1,374)		(1,374)
Undiscounted future net cash flows	441,750	438,332	3,418	310,489	310,225	264	320,174	319,959	215
10% annual discount for estimated timing of cash flows	(152,031)	(150,855)	(1,176)	(102,342)	(102,332)	(10)	(97,082)	(97,115)	33

Standardized measure of discounted future net cash flows	289,719	287,477	2,242	208,147	207,893	254	223,092	222,844	248
Discounted future net cash flows attributable to non- controlling interests	1,356		1,356	114		114	112		112
Equity method investments									
Future cash flows	41,013		41,013	35,690		35,690	43,587		43,587
Future production costs	(11,665)		(11,665)	(10,783)		(10,783)	(12,131)		(12,131)
Future development costs	(2,996)		(2,996)	(3,444)		(3,444)	(4,692)		(4,692)
Future income tax expenses	(4,159)		(4,159)	(3,303)		(3,303)	(4,406)		(4,406)
Undiscounted future net cash flows	22,193		22,193	18,160		18,160	22,358		22,358
10% annual discount for estimated timing of cash flows	(9,828)		(9,828)	(7,969)		(7,969)	(9,803)		(9,803)
Standardized measure of discounted future net cash flows	12,365		12,365	10,191		10,191	12,555		12,555
Total of the Group s and its equity method investments results of standardized measure of discounted future net cash flows	**302,084**	**287,477**	**14,607**	**218,338**	**207,893**	**10,445**	**235,647**	**222,844**	**12,803**

Table of Contents

SUPPLEMENTAL INFORMATION ON OIL AND GAS

PRODUCING ACTIVITIES (UNAUDITED)

(All currency amounts in million)

Table VI: Changes in the standardized measure of discounted cash flows

	Years ended December 31,		
	2015 RMB	**2016 RMB**	**2017 RMB**
The Group			
Sales and transfers of oil and gas produced, net of production costs	(68,635)	(46,637)	(62,054)
Net changes in prices and production costs	(281,975)	(53,715)	7,487
Net changes in estimated future development cost	(6,873)	6,073	(7,320)
Net changes due to extensions, discoveries and improved recoveries	44,838	15,113	29,799
Revisions of previous quantity estimates	(68,875)	(48,479)	20,608
Previously estimated development costs incurred during the year	18,494	9,370	5,747
Accretion of discount	60,005	30,340	20,909
Net changes in income taxes	79,281	6,363	(231)
Net changes for the year	**(223,740)**	**(81,572)**	**14,945**
Equity method investments			
Sales and transfers of oil and gas produced, net of production costs	(3,006)	(1,577)	(1,704)
Net changes in prices and production costs	(12,987)	(3,952)	2,479
Net changes in estimated future development cost	997	(534)	(856)
Net changes due to extensions, discoveries and improved recoveries	611	1,887	1,205
Revisions of previous quantity estimates	1,520	(92)	688
Previously estimated development costs incurred during the year	1,163	322	206
Accretion of discount	2,681	1,308	967
Net changes in income taxes	1,736	464	(621)
Net changes for the year	**(7,285)**	**(2,174)**	**2,364**
Total of the Group s and its equity method investments results of net changes for the year	**(231,025)**	**(83,746)**	**17,309**