

PETROCHINA CO LTD
Form 20-F
April 26, 2013
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UNITED STATES
SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

Form 20-F

(Mark One)

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

ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the fiscal year ended December 31, 2012.
or

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

SHELL COMPANY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
Date of event requiring this shell company report _____

For the transition period from _____ to _____

Commission File Number 1-15006

(Exact name of Registrant as specified in its charter)

PetroChina Company Limited

(Translation of Registrant's name into English)

The People's Republic of China

(Jurisdiction of incorporation or organization)

9 Dongzhimen North Street

Dongcheng District, Beijing 100007

The People's Republic of China,

(Address of principal executive offices)

Li Hualin

Telephone number: 8610 59986223

Facsimile number: 8610 62099557

Email address: suxinliang@petrochina.com.cn

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

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

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

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

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

None

(Title of Class)

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

None

(Title of Class)

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

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

(1) Includes 158,033,693,528 A Shares held by CNPC and 3,888,384,290 A Shares held by the public shareholders.

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes No

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

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

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

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

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer 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 Accelerated Filer Non-Accelerated Filer

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

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

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

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

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

- * PetroChina's H Shares are listed and traded on The Stock Exchange of Hong Kong Limited.
- ** Not for trading, but only in connection with the registration of American Depositary Shares.
- *** PetroChina's A Shares became listed on the Shanghai Stock Exchange on November 5, 2007.
- **** Includes 1,250,514,300 H Shares represented by American Depositary Shares.

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CERTAIN TERMS AND CONVENTIONS

Conventions Which Apply to this Annual Report

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

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

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

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

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

Conversion Table

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

Certain Oil and Gas Terms

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

acreage	The total area, expressed in acres, over which an entity has interests in exploration or production. Net acreage is the entity's interest, expressed in acres, in the relevant exploration or production area.
condensate	Light hydrocarbon substances produced with natural gas that condense into liquid at normal temperatures and pressures associated with surface production equipment.
crude oil	Crude oil, including condensate and natural gas liquids.
developed reserves	Under the reserve rules of the Securities and Exchange Commission, or SEC, developed reserves are reserves of any category that can be expected to be recovered:

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

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

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

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seen in a well penetration unless geoscience, engineering, or performance data and reliable technology establishes a lower contact with reasonable certainty.

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

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

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

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

reserve-to-production ratio

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

sales gas

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

undeveloped reserves

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

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

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

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

water cut

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

References to:

BOE is to barrels-of-oil equivalent,

Mcf is to thousand cubic feet, and

Bcf is to billion cubic feet.

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FORWARD-LOOKING STATEMENTS

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

the amounts and nature of future exploration, development and other capital expenditures;

future prices and demand for crude oil, natural gas, refined products and chemical products;

development projects;

exploration prospects;

reserves potential;

production of oil and gas and refined and chemical products;

development and drilling potential;

expansion and other development trends of the oil and gas industry;

the planned development of our natural gas operations;

the planned expansion of our refined product marketing network;

the planned expansion of our natural gas infrastructure;

the anticipated benefit from the acquisition of certain overseas assets from CNPC, our parent company;

the plan to continue to pursue attractive business opportunities outside China;

our future overall business development and economic performance;

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

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

other prospects of our business and operations.

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

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

fluctuations in crude oil and natural gas prices;

failure to achieve continued exploration success;

failures or delays in achieving production from development projects;

continued availability of capital and financing;

acquisitions and other business opportunities that we may pursue;

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

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liability for remedial actions under environmental regulations;

the actions of competitors;

wars and acts of terrorism or sabotage;

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

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

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

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

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

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

ITEM 2 OFFER STATISTICS AND EXPECTED TIMETABLE

Not applicable.

ITEM 3 KEY INFORMATION**Exchange Rates**

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

	Noon Buying Rate ⁽¹⁾	
	High	Low
	(RMB per US\$)	
October 2012	6.2877	6.2372
November 2012	6.2454	6.2221
December 2012	6.2502	6.2251
January 2013	6.2303	6.2134
February 2013	6.2438	6.2213
March 2013	6.2246	6.2105
April 2013 (ending as of April 19)	6.2078	6.1720

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

Average Noon Buying Rates⁽¹⁾

The following table sets forth the average noon buying rates between Renminbi and U.S. dollars for each of 2008, 2009, 2010, 2011 and 2012, calculated by averaging the noon buying rates on the last day of each month during the relevant year:

	Average Noon Buying Rate (RMB per US\$)
2008	6.9193
2009	6.8295
2010	6.7603
2011	6.4475
2012	6.2990

(1) For periods prior to January 1, 2009, the exchange rates reflect the noon buying rates as reported by the Federal Reserve Bank of New York. For periods after January 1, 2009, the exchange rates reflect the noon buying rates as set forth in the H.10 statistical release of the Federal Reserve Board.

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You should read the selected historical financial data set forth below in conjunction with the consolidated financial statements of PetroChina and their notes and Item 5 Operating and Financial Review and Prospects included elsewhere in this annual report. The selected historical income statement and cash flow data for the years ended December 31, 2010, 2011 and 2012 and the selected historical statement of financial position data as of December 31, 2011 and 2012 set forth below are derived from our audited consolidated financial statements included elsewhere in this annual report. The selected historical income statement data and cash flow data for the years ended December 31, 2008 and 2009 and the selected statement of financial position data as of December 31, 2008, 2009 and 2010 set forth below are derived from our audited financial statements not included in this annual report. Our consolidated financial statements were prepared in accordance with IFRS as issued by the International Accounting Standards Board. The financial information included in this section may not necessarily reflect our results of operations, financial position and cash flows in the future.

	As at or for the Year Ended December 31, ⁽¹⁾				
	2008 RMB	2009 RMB	2010 RMB	2011 RMB	2012 RMB
	(In millions, except for per share and per ADS data)				
Turnover	1,072,604	1,019,275	1,465,415	2,003,843	2,195,296
Total operating expenses	(913,033)	(875,831)	(1,277,638)	(1,821,382)	(2,020,777)
Profit from operations	159,571	143,444	187,777	182,461	174,519
Profit before income tax expense	162,013	140,032	189,305	184,215	166,811
Income tax expense	(35,211)	(33,473)	(38,513)	(38,256)	(36,191)
Profit for the year	126,802	106,559	150,792	145,959	130,620
Profit for the year attributable to owners of the parent company	114,453	103,387	139,992	132,961	115,326
Non-controlling interest	12,349	3,172	10,800	12,998	15,294
Basic and diluted earnings per share for profit attributable to owners of the parent company ⁽²⁾	0.63	0.56	0.76	0.73	0.63
Basic and diluted net earnings per ADS ⁽³⁾	62.54	56.49	76.49	72.65	63.01
Total current assets	224,946	294,383	286,392	382,711	414,332
Total non-current assets	971,289	1,155,905	1,370,095	1,534,875	1,754,564
Total assets	1,196,235	1,450,288	1,656,487	1,917,586	2,168,896
Total current liabilities	265,651	388,553	429,736	560,038	574,748
Total non-current liabilities	82,744	154,034	216,622	275,002	413,400
Total liabilities	348,395	542,587	646,358	835,040	988,148
Equity attributable to owners of the parent company	790,910	847,223	938,926	1,002,745	1,064,010
Non-controlling interests	56,930	60,478	71,203	79,801	116,738
Total equity	847,840	907,701	1,010,129	1,082,546	1,180,748
Other Financial Data					
Dividend per share	0.28	0.25	0.34	0.33	0.28
Dividend per ADS	28.14	25.42	34.42	32.69	28.36
Capital expenditures	232,377	266,836	276,212	284,391	352,516
Net cash flows from operating activities	177,140	268,017	318,796	290,155	239,288
Net cash flows used for investing activities	(216,472)	(267,498)	(299,302)	(283,638)	(332,226)
Net cash flows from/used for financing activities	3,777	53,077	(60,944)	9,259	75,356
Return on net assets (%)	14.5	12.2	14.9	13.3	10.8

- (1) Due to business combinations under common control completed in 2008 and 2009, the relevant financial statements of the company have been restated in a manner identical to a pooling of interests to reflect the acquisitions.
- (2) As of December 31, 2008, 2009, 2010, 2011 and 2012, respectively, basic and diluted earnings per share were calculated by dividing the profit for the year attributable to owners of the parent company with the number of shares issued for each of these financial years of 183,021 million.
- (3) Each ADS represents 100 H Shares. The basic and diluted earnings per ADS were calculated with the same method as that used for the calculation of the basic and diluted earnings per share.

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Risk Factors

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

Risks Related to Macro Economic Conditions

Our operations may be adversely affected by the international and domestic economic conditions. As the oil and gas industry is sensitive to macro-economic trends, oil and gas prices tend to fluctuate along with the change of macro-economic conditions. We may experience pricing pressure on our refined products in recessionary periods, which would have an adverse effect on our profitability. These factors may also lead to intensified competition for market share, with consequential potential adverse effects on volumes. There has been an uptrend in China's overall inflation rate in recent years. Notwithstanding the measures taken by the PRC government to control inflation, China may continue to experience inflation in the near term and our operating costs may become higher than anticipated. The financial and economic situation may also have a negative impact on third parties with whom we do, or may do, business. Any of these factors may adversely affect our financial condition, results of operations and liquidity.

Risks Related to Competition

The oil, gas and petrochemicals industries are highly competitive. There is strong competition, both within the oil and gas industry and with other industries, in supplying the fuel needs of commercial, industrial and residential markets. Competition puts pressure on product prices, affects oil products marketing and requires continuous management focus on identifying new trends, reducing unit costs and improving efficiency. The implementation of our growth strategy requires continued technological advances and innovation, including advances in exploration, production, refining, petrochemicals manufacturing technology and advances in technology related to energy usage. Our performance could be impeded if competitors developed or acquired intellectual property rights to technology that we required or if our innovation lagged the industry.

The eastern and southern regions of China have a higher demand for refined products and chemical products than the western and northern regions. Most of our refineries and chemical plants are located in the western and northern regions of China. We incur relatively higher transportation costs for delivery of our refined products and chemical products to certain areas of the eastern and southern regions from our refineries and chemical plants in western and northern China. We face strong competition from other domestic oil companies. As a result, we expect that we will continue to encounter difficulty in increasing our sales of refined products and chemical products in these regions.

Risks Related to Outbound Investments

We are subject to various political, legal and regulatory environments in foreign developing countries where we operate, some of which are known to be unstable and differ in certain significant respects from those prevailing in developed countries. Main factors affecting our outbound investments include unstable political situation, unstable tax policies and unstable regulatory regime. CNPC, our controlling shareholder, and its affiliates and subsidiaries may choose to undertake, without our involvement, overseas investments and operations in the oil and gas industry, including exploration and production of oil and gas, refining and transportation and trading and liquefied natural gas, or LNG projects or other business activities. CNPC's overseas asset portfolio includes oil and gas development projects in Sudan, Iran, Cuba and Syria, which countries are the subject of U.S. sanctions. Certain U.S.-based investors may not wish to invest, and have proposed or adopted divestment or similar initiatives regarding investments, in companies that do business with countries that are the subject of U.S. sanctions. These investors may not wish CNPC to make investments or conduct activities in the countries that are the subject of U.S. sanctions, and may divest their investment in us because of our relationship with CNPC and its investments and activities in those countries that are the subject of U.S. sanctions. As a result, the trading prices of our ADSs may be adversely affected.

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In July 2012, the U.S. Treasury Department's Office of Foreign Assets Control, OFAC, added Bank of Kunlun Co., Ltd., or Kunlun Bank, an affiliate of our company due to common control by CNPC, to its List of Foreign Financial Institutions Subject to Part 561 pursuant to the Comprehensive Iran Sanctions, Accountability, and Divestment Act of 2010. OFAC reported that Kunlun Bank provided financial services to at least six Iranian banks that were on OFAC's sanctions list during 2012. These financial services included holding accounts, making transfers, and in particular, transfer of a total of US\$0.1 billion for Bank Tejarat during early 2012, and paying letters of credit on behalf of the designated banks. Kunlun Bank has not informed us the revenue and profit it generated from such activities in relation to Iran and whether it will discontinue such activities. Our company has no involvement in or control over the activities of Kunlun Bank or CNPC and CNPC subsidiaries and affiliates, and we have never received any revenue or profit derived from these activities.

Risks Related to Government Regulation

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

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

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

Risks Related to Controlling Shareholder

As of December 31, 2012, CNPC beneficially owned approximately 86.507% of our share capital. This ownership percentage enables CNPC to elect our entire board of directors without the concurrence of any of our other shareholders. Accordingly, CNPC is in a position to:

control our policies, management and affairs;

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

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

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

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In addition to its relationship with us as our controlling shareholder, CNPC by itself or through its affiliates also provides us with certain services and products necessary for our business activities, such as construction and technical services, production services, materials supply services, various logistics services and financial services. The interests of CNPC and its affiliates as providers of these services and products to us may conflict with our interests.

Risks Related to Pricing and Exchange Rate

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

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

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

We negotiate the actual ex-factory price with natural gas users within the benchmark price and the adjustment range set by the PRC government. When the benchmark price is lower than the international natural gas price, the cost of our imported natural gas will be higher than the selling price of our natural gas, which may reduce our revenues or cause our natural gas assets to suffer impairment losses.

We receive most of our revenues in Renminbi. A portion of our Renminbi revenues must be converted into other currencies to meet our foreign currency obligations. The existing foreign exchange limitations under the PRC laws and regulations could affect our ability to obtain foreign exchange through debt financing, or to obtain foreign exchange for capital expenditures. The value of Renminbi against U.S. dollar and other currencies may fluctuate and is affected by, among other things, changes in China's political and economic conditions. 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. Because most of our purchases of crude oil and our outbound investments are settled in foreign currencies, the exchange rates between RMB and U.S. dollars and any other relevant foreign currencies may have an effect on our crude oil purchase costs and investment costs.

Risks Related to Environmental Protection and Safety

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

A number of provinces in which our oil and gas exploration and production activities are located have promulgated environment protection regulations, which set forth specific abandonment and disposal processes for oil and gas exploration and production activities. We have established standard abandonment procedures in response to the issuance of these provincial regulations. We have included under our asset

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retirement obligations the costs for these abandonment activities and this asset retirement obligation is based on our best estimate of future abandonment expenditures. In addition, PRC central government or other provincial governments may enact similar regulations or stricter environmental protection regulations. Such potential new regulations could increase our asset retirement costs.

The process of gasoline and diesel fuel quality upgrade is gradually accelerating in China. Currently, the China IV standard for auto-use gasoline was officially issued and put into effect in March 2011, and the China IV standard for auto-use diesel fuel was published on July 5, 2012. In addition, the Chinese government imposed new diesel fuel standard to reduce sulfur content in regular diesel fuel from 2000 ppm to 350 ppm starting June 30, 2013. Some local governments have implemented their local gasoline and diesel fuel standards, some of which are in line with the Euro IV standard. New governmental requirements to improve oil quality impose challenges to our refining and chemicals segment and could increase our costs in oil refining.

Exploring for, producing and transporting crude oil and natural gas and producing and transporting refined products and chemical products involve many hazards. These hazards may result in:

fires;

explosions;

spills;

blow-outs; and

other unexpected or dangerous conditions causing personal injuries or death, property damage, environmental damage and interruption of operations.

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

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

Risks Related to Climate Change

In recent years, the oil industry has faced an increasingly severe challenge imposed by the global climate change. Numerous international, domestic and regional treaties and agreements to restrict the emission of greenhouse gas have been executed and become effective. If China or any other country in which we operate business remains committed to the reduction of the emission of greenhouse gas, the legal and regulatory requirements for that purpose may lead to a substantial increase in our capital expenditures and tax expenses and in turn, an increase in our operating costs. As a result, our results of operations and our strategic investment may be adversely affected.

Risks Related to Insurance Coverage

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

Risks Related to Oil and Gas Reserves

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The crude oil and natural gas reserve data in this annual report are only estimates. The reliability of reserve estimates depends on a number of factors, assumptions and variables, such as the quality and quantity of our

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

We are actively pursuing business opportunities outside China to supplement our domestic resources. For instance, we acquired certain overseas crude oil and natural gas assets from CNPC. We cannot assure you, however, 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 materially and adversely affected.

Risks Related to Liquidity

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

Risks Related to Effectiveness of Internal Control over Financial Reporting

SEC, as required by Section 404 of the Sarbanes-Oxley Act of 2002, adopted rules requiring every public company in the United States to include a management report on such company's internal control over financial reporting in its annual report, which contains management's assessment of the effectiveness of the company's internal control over financial reporting. Although our management concluded that our internal control over our financial reporting for the fiscal year ended December 31, 2012 was effective, we may discover other deficiencies in the course of our future evaluation of our internal control over our financial reporting and may be unable to remediate such deficiencies in a timely manner. If we fail to maintain the adequacy of our internal control over financial reporting, we may not be able to conclude that we have effective internal control over financial reporting on an ongoing basis, in accordance with the Sarbanes-Oxley Act. Moreover, effective internal control is necessary for us to produce reliable financial reports and is important to prevent fraud. As a result, our failure to maintain effective internal control over financial reporting could result in the loss of investor confidence in the reliability of our financial statements, which in turn could harm our business and negatively impact the trading prices of our ADSs, H Shares or A Shares.

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

Auditors of companies that are registered with the SEC and publicly traded in the United States, including our independent registered public accounting firm, must be registered with the United States Public Company Accounting Oversight Board, or the PCAOB, and are required by the laws of the United States to undergo regular inspections by the PCAOB to assess their compliance with the laws of the United States and professional standards. Because the auditors of our company are located in the PRC, a jurisdiction where the PCAOB is currently unable to conduct inspections without the approval of the Chinese authorities, the auditors of our company are not currently inspected by the PCAOB. As a result, investors do not have the

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benefits of PCAOB inspections. The inability of the PCAOB to conduct inspections of auditors in the PRC makes it more difficult to evaluate the effectiveness of our auditor's audit procedures or quality control procedures as compared to auditors outside the PRC that are subject to PCAOB inspections.

See also Item 4 Information on our Company Regulatory Matters, Item 5 Operating and Financial Review and Prospects, Item 8 Financial Information and Item 11 Quantitative and Qualitative Disclosures About Market Risk.

ITEM 4 INFORMATION ON THE COMPANY

Introduction

History and Development of Our Company

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

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

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

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

We have increased our efforts to pursue attractive business opportunities outside China as part of our business growth strategy to utilize both domestic and international resources to strengthen our competitiveness. Since 2005, we have acquired interests in various oil and natural gas assets in several countries, which significantly expanded our overseas operations and effectively increased our oil and gas reserves and production volumes. We are currently assessing the feasibility of making further investments in international oil and gas markets. At the same time, we have been gradually increasing the proportion of the imported crude oil.

In the year ended December 31, 2012, we imported approximately 465.6 million barrels of crude oil, as compared to 441.2 million barrels and 359.1 million barrels of crude oil in the years ended December 31, 2011 and 2010, respectively.

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

On April 7, 2000, we completed a global offering of H Shares and ADSs. In September 2005, we completed a follow-on offering of over 3 billion H Shares at the price of HK\$6.00 per share. In October 2007, we issued 4 billion A Shares at an issue price of RMB16.7 per share. The A Shares were listed on the Shanghai Stock Exchange on November 5, 2007. As of December 31, 2012, CNPC beneficially owned 158,325,211,528 shares in PetroChina, which include 291,518,000 H Shares indirectly held by CNPC through Fairy King Investments Limited, an overseas wholly owned subsidiary of CNPC, representing approximately 86.507% of the share capital of PetroChina.

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For a description of our principal subsidiaries, see Note 19 to our consolidated financial statements.

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

Our agent for service of process in the United States is CT Corporation System, located at 111 Eighth Avenue, New York, New York 10011.

Our Corporate Organization Structure

The following chart illustrates our corporate organization structure as of December 31, 2012.

- (1) Indicates approximate shareholding.
- (2) Indicates approximate shareholding, including the 291,518,000 H Shares indirectly held by CNPC as of December 31, 2012 through Fairy King Investments Limited, a wholly owned overseas subsidiary of CNPC.
- (3) Includes PetroChina Planning & Engineering Institute, PetroChina Exploration & Development Research Institute, IT Service Center, PetroChina Petrochemical Research Institute and several other companies.

Acquisitions

On October 16, 2011, we entered into a joint venture agreement with Beijing Enterprises Group Company Limited and Hebei Natural Gas Company Limited for the formation of a joint venture named PetroChina Jingtang LNG Co., Ltd., or Jingtang LNG, in Tangshan City, Hebei Province. Jingtang LNG was incorporated in September 2012 with a registered capital of RMB2,600 million. We will contribute approximately RMB1,326 million to Jingtang LNG for its 51% equity interest. The capital injection will be completed by October 2013.

In addition, we have launched a series of overseas acquisitions, for example:

In May 2012, we, jointly with Shell Canada Limited, Korea Gas Corporation, or KOGAS, and Mitsubishi Corporation invested in a project to build and operate an LNG export terminal with an annual capacity of 12 million tons in Kitimat, British Columbia, Canada. We hold 20% equity interest in the project. Shell Canada Limited has a 40% equity interest in the project while each of KOGAS and Mitsubishi Corporation holds a 20% interest.

On July 25, 2012, we entered into an agreement with Qatar Petroleum and GDF Suez Qatar to acquire 40% of the exploration and production rights from GDF Suez Qatar under Qatar Petroleum's exploration and production sharing agreement for Block 4, an offshore block located north of Qatar Peninsula. GDF Suez Qatar

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will continue to be the operator of the block with its 60% stake. We completed the transaction on July 31, 2012. For the remaining exploration period under the said exploration and production sharing agreement, we will pay GDF Suez Qatar 10% of the drilling costs incurred since the effectiveness of the said exploration and production sharing agreement as consideration of our access to Block 4. Such payment in total shall not exceed US\$10 million.

On August 1, 2012, we entered into an agreement with Molopo Energy to purchase its coal seam gas assets in Queensland for AUD43 million. We completed this transaction on November 1, 2012.

On December 13, 2012, we entered into an agreement with Encana Corp. to form a joint venture to develop unconventional natural gas in the Duvernay property in Alberta, Canada. We will pay a total consideration of C\$2.2 billion for a 49.9% equity interest in the joint venture and Encana will act as the operator.

On February 20, 2013, we entered into a series of agreements with ConocoPhillips to acquire 20% interest in the Poseidon offshore discovery in the Browse Basin and 29% interest in the Goldwyer Shale onshore Canning Basin, for total consideration of US\$369 million. The transaction is subject to relevant government approvals and the consent of the project partners.

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We engage in crude oil and natural gas exploration, development and production. Substantially all of our total estimated proved crude oil and natural gas reserves are located in China, principally in northeastern, northern, southwestern and northwestern China. Meanwhile, we have been further extending our overseas cooperation and our strategic layout in five major overseas oil and gas cooperation regions has been substantially completed. In the year ended December 31, 2012, the crude oil and natural gas produced by us at overseas regions accounted for 12.4% and 5.4% of our total production of crude oil and natural gas, respectively.

We currently hold exploration and exploitation licenses for oil and gas (including coal seam gas) covering a total area of approximately 417.5 million acres, consisting of the exploration licenses covering a total area of approximately 394.9 million acres and the exploitation licenses covering a total area of approximately 22.6 million acres.

To further develop our crude oil and natural gas businesses, we have obtained oil and gas exploration licenses covering an area of 41.76 million acres in South China Sea. The crude oil and natural gas exploration in that area is currently under way.

The following table sets forth the financial and operating data of our exploration and production segment for each of the years ended December 31, 2010, 2011 and 2012:

	Year Ended December 31,		
	2010	2011	2012
Revenue (RMB in millions)	544,884	774,777	789,818
Income from operations (RMB in millions)	153,703	219,539	214,955
Proved developed and undeveloped reserves			
Crude oil (million barrels)	11,277.7	11,128.2	11,018.0
Natural gas (Bcf)	65,502.7	66,653.0	67,581.2
Production			
Crude oil (million barrels)	857.7	886.1	916.5
Natural gas for sale (Bcf)	2,221.2	2,396.4	2,558.8
Reserves			

Our estimated proved reserves as of December 31, 2012 totaled approximately 11,018.0 million barrels of crude oil and approximately 67,581.2 Bcf of natural gas. As of December 31, 2012, proved developed reserves for crude oil and natural gas accounted for 67.1% and 46.8% of our total proved crude oil and natural gas reserves, respectively. Total proved hydrocarbon reserves on a BOE basis increased by 0.2% from approximately 22,237.0 million BOE as of December 31, 2011 to approximately 22,281.5 million BOE as of December 31, 2012, taking account of our overseas crude oil reserves of 799.1 million barrels and overseas natural gas reserves of 1,135.1 Bcf, totaling 988.3 million BOE. Natural gas as a percentage of total proved hydrocarbon reserves increased from 50.0% as of December 31, 2011 to 50.6% as of December 31, 2012.

We prepared our reserve estimates as of December 31, 2010, 2011 and 2012 on the basis of reports prepared by independent engineering consultants, namely DeGolyer and MacNaughton, Gaffney, Cline & Associates (Consultants) Pte Ltd, Gaffney, Cline & Associates, Inc. and McDaniel & Associates Consultants, Ltd. Our reserve estimates include only crude oil and natural gas which we believe can be reasonably produced within the current terms of our production licenses or within the terms of the licenses which we are reasonably certain can be renewed. See [Regulatory Matters](#) [Exploration Licenses and Production Licenses](#) for a discussion of our production licenses. Also see [Item 3 Key Information](#) [Risk Factors](#) for a discussion of the uncertainty inherent in the estimation of proved reserves.

Our reserve data for 2010, 2011 and 2012 were prepared in accordance with the SEC's final rules on [Modernization of Oil and Gas Reporting](#), which became effective on January 1, 2010 and for annual reports for accounting periods ending on or after December 31, 2009.

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Internal Controls Over Reserves Estimates

We have appointed a Reserve Assessment Directing Team, or the RAD Team. The leader of the RAD Team is our Vice President in charge of our upstream business.

We have established a special reserve management department in our exploration and production segment. Each of the officers and employees of that department has over 20 years' experience in oil industry and over 10 years' experience in SEC-guided reserve assessment. Many members of that department have national-level registered qualifications in reserve expertise. Each regional company has established a reserve management committee and a multi-disciplinary reserve research office. Mr. Wu Guogan, the general geologist of our exploration and production segment, is in charge of the reserve estimation of the company. Mr. Wu holds a doctor's degree in petroleum geology. He has over 25 years of working experience in oil and gas exploration and development. He has been working in reserve study and management for many years and is a state-certified reserve valuer. Mr. Wu has been the technical person primarily responsible for overseeing the preparation of the reserves estimates, oil and gas reserve estimation technology and management for several years. The reserve research offices of the regional companies are responsible for the calculation of the newly discovered reserves and updating of the assessment of the existing reserves. The results of our oil and gas reserve assessment are subject to a two-level review by both the regional companies and our exploration and production company and the final examination and approval of the RAD Team.

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

Third-Party Reserve Report

We commissioned DeGolyer and MacNaughton, an independent petroleum engineering consulting firm based in the United States, to carry out an independent assessment of our reserves in China and certain other countries as of December 31, 2010, 2011 and 2012. DeGolyer and MacNaughton does not have any financial interest, including stock ownership, in our company. The fees of DeGolyer and MacNaughton are not contingent on the results of its evaluation.

Mr. R.M. Shuck, the Senior Vice President of DeGolyer and MacNaughton, is primarily responsible for supervising the preparation of our reserve report. Mr. R.M. Shuck is a petroleum engineer and a Registered Professional Engineer in the State of Texas. Mr. R.M. Shuck is also a member of the International Society of Petroleum Engineers and has over 29 years of experience in oil and gas reservoir studies and evaluations.

We also commissioned Gaffney, Cline & Associates (Consultants) Pte Ltd., as independent reserve auditors, to carry out an independent assessment of our reserves estimation and valuation in certain countries such as Algeria, Chad and Kazakhstan as of December 31, 2010, 2011 and 2012. Gaffney, Cline & Associates (Consultants) Pte Ltd's senior partners, officers, and employees have no direct or indirect financial interest in either our company or our affiliated companies. Gaffney, Cline & Associates (Consultants) Pte Ltd's remuneration was not in any way contingent upon reported reserve estimates.

The reserve report of Gaffney, Cline & Associates (Consultants) Pte Ltd has been compiled under the supervision of Mr. David S. Ahye. Mr. Ahye is Gaffney, Cline & Associates (Consultants) Pte Ltd's regional director for the Asia Pacific region. He has over 30 years' experience in the petroleum industry and has managed numerous reserves certification audits. Mr. Ahye holds a Bachelor's Degree (Honors) in Chemical Engineering.

We also commissioned Gaffney, Cline & Associates, Inc. (Houston Office), an independent engineering consultancy based in Houston, to carry out an independent assessment of our reserves estimation and valuation in certain projects in Iraq as of December 31, 2012. Gaffney, Cline & Associates, Inc. offers extensive consulting services to the energy sector as the regional headquarters of northern, central and southern America for Gaffney,

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Cline & Associates. Gaffney, Cline & Associates, Inc. does not have any financial interest, including stock ownership, in our company. The fees of Gaffney, Cline & Associates Inc. (Houston Office) are not contingent on the results of its evaluation.

Mr. Sakowski is the project manager for the Iraq reserves evaluation project of Gaffney, Cline & Associates, Inc. (Houston Office). He is a mechanical engineer and holds a master's degree in project management. Mr. Sakowski is a member of the Society of Petroleum Engineers, or SPE, and Alberta APEGGA. He has nearly 35 years' international experience in the oil and gas industry, and has managed numerous oil field research, reserves evaluation and asset appraisal projects.

We commissioned McDaniel & Associates Consultants Ltd., an independent engineering consulting firm based in Canada specializing in geological studies, reserves evaluations, resource assessments, economic evaluations and petroleum engineering studies, to carry out an independent assessment of our reserves in Kazakhstan as of December 31, 2012. McDaniel & Associates Consultants Ltd. does not have any financial interest, including stock ownership, in our company. The fees of McDaniel & Associates Consultants Ltd. are not contingent on the results of its evaluation.

Mr. Bryan Emslie, the Senior Vice President of McDaniel & Associates Consultants Ltd., is responsible for supervising the preparation of our reserve report. Mr. Bryan Emslie is a member of the Society of Petroleum Evaluation Engineers, or SPEE, and SPE. He has over 30 years' experience in oil and gas reservoir evaluation.

For detailed information about our net proved reserves estimates, please refer to the summary reports of DeGolyer and MacNaughton, Gaffney, Cline & Associates (Consultants) Pte Ltd., Gaffney, Cline & Associates, Inc. (Houston Office), and McDaniel & Associates Consultants Ltd. filed hereto as exhibits 15.1, 15.2, 15.3 and 15.4 of this annual report.

The following table sets forth our estimated proved reserves (including proved developed reserves and proved undeveloped reserves), proved developed reserves and proved undeveloped reserves of crude oil and natural gas as of December 31, 2010, 2011 and 2012.

	Crude Oil (Millions of barrels)	Natural Gas ⁽¹⁾ (Bcf)	Combined (BOE, in millions)
Proved developed and undeveloped reserves			
Reserves as of December 31, 2010	11,277.7	65,502.7	22,194.8
Revisions of previous estimates	(75.7)	(751.5)	(200.8)
Extensions and discoveries	746.1	4,298.3	1,462.4
Improved recovery	66.3		66.3
Sale	(0.1)	(0.1)	(0.1)
Production for the year	(886.1)	(2,396.4)	(1,285.6)
Reserves as of December 31, 2011	11,128.2	66,653.0	22,237.0
Revisions of previous estimates	(16.3)	(2,730.5)	(471.2)
Extensions and discoveries	736.5	6,217.5	1,772.7
Improved recovery	86.1		86.1
Production for the year	(916.5)	(2,558.8)	(1,343.1)
Reserves as of December 31, 2012	11,018.0	67,581.2	22,281.5
Proved developed reserves			
As of December 31, 2010	7,605.4	31,102.4	12,789.1
As of December 31, 2011	7,458.3	32,329.4	12,846.5
As of December 31, 2012	7,395.7	31,606.5	12,663.4
Proved undeveloped reserves			
As of December 31, 2010	3,672.3	34,400.3	9,405.7
As of December 31, 2011	3,669.9	34,323.6	9,390.5
As of December 31, 2012	3,622.3	35,974.7	9,618.1

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

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Our proved undeveloped reserves were 9,618.1 million BOE in 2012. The main changes in our proved undeveloped reserves in 2012 include (i) the conversion of 1,375.9 million BOE of proved undeveloped reserves into proved developed reserves; and (ii) an increase of 1,603.5 million BOE in proved undeveloped reserves through extensions and discoveries as well as revisions of previous data as a result of improved discoveries. In 2012, we spent RMB164,712 million on developing proved undeveloped reserves. The overwhelming majority of our proved undeveloped reserves are situated around the oil fields that are currently producing. The majority of our proved undeveloped reserves are already scheduled for development within five years after initial booking.

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

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

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

The following tables set forth our crude oil and natural gas proved reserves and proved developed reserves by region as of December 31, 2010, 2011 and 2012.

	2010		As of December 31, 2011		2012	
	Proved Developed and Undeveloped	Proved Developed	Proved Developed and Undeveloped (Millions of barrels)	Proved Developed	Proved Developed and Undeveloped	Proved Developed
Crude oil reserves						
Daqing	3,178.1	2,533.4	2,925.2	2,296.3	2,697.1	2,078.1
Changqing	1,946.8	1,310.5	2,097.3	1,439.8	2,257.7	1,623.2
Xinjiang	1,418.6	1,109.6	1,477.0	1,081.5	1,512.5	1,050.2
Other regions ⁽¹⁾	4,734.2	2,651.9	4,628.7	2,640.7	4,550.7	2,644.2
Total	11,277.7	7,605.4	11,128.2	7,458.3	11,018.0	7,395.7

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	2010		As of December 31, 2011		2012	
	Proved Developed and Undeveloped	Proved Developed	Proved Developed and Undeveloped	Proved Developed (bcf)	Proved Developed and Undeveloped	Proved Developed
Natural gas reserves⁽²⁾						
Changqing	21,244.4	10,853.4	22,113.1	11,446.7	22,521.1	11,111.9
Tarim	19,147.7	7,822.9	19,270.8	7,148.3	20,250.4	7,939.3
Sichuan	10,512.5	2,814.8	10,938.1	4,339.7	10,976.7	3,270.3
Other regions ⁽¹⁾	14,598.1	9,611.3	14,331.0	9,394.7	13,833.0	9,285.0
Total	65,502.7	31,102.4	66,653.0	32,329.4	67,581.2	31,606.5

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

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

Exploration and Development

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

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

Year	Daqing	Xinjiang	Changqing	Others ⁽¹⁾	Total
2010					
Net exploratory wells drilled⁽²⁾	157	169	680	634	1,640
Crude oil	146	131	431	342	1,050
Natural gas	1	1	100	61	163
Dry ⁽³⁾	10	37	149	231	427
Net development wells drilled⁽²⁾	5,073	1,323	7,754	3,477	17,627
Crude oil	5,024	1,312	7,106	3,083	16,525
Natural gas	27	11	542	348	928
Dry ⁽³⁾	22		106	46	174
2011					
Net exploratory wells drilled⁽²⁾	258	197	697	643	1,795
Crude oil	231	153	381	344	1,109
Natural gas	7	4	72	96	179
Dry ⁽³⁾	20	40	244	203	507
Net development wells drilled⁽²⁾	4,664	1,554	8,298	3,762	18,278
Crude oil	4,626	1,547	7,076	3,328	16,577
Natural gas	25	7	1,089	403	1,524
Dry ⁽³⁾	13		133	31	177
2012					
Net exploratory wells drilled⁽²⁾	178	129	737	707	1,751
Crude oil	163	84	434	313	994
Natural gas	8		129	229	366
Dry ⁽³⁾	7	45	174	165	391
Net development wells drilled⁽²⁾	4,498	2,018	9,289	4,127	19,932
Crude oil	4,464	2,012	8,098	3,052	17,626
Natural gas	10	6	1,050	1,030	2,096
Dry ⁽³⁾	24		141	45	210

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- (1) Represents the Liaohe, Jilin, Huabei, Dagang, Sichuan, Tarim, Tuha, Qinghai, Jidong, Yumen, Zhejiang, southern and other oil regions.
 (2) Net wells refer to the wells after deducting interests of others. No third parties own any interests in any of our wells.
 (3) Dry wells are wells with insufficient reserves to sustain commercial production.

We had 474 wells in the process of being drilled and 11,118 wells with multiple completions as of December 31, 2012.

Oil-and-Gas Properties

The following table sets forth our interests in developed and undeveloped acreage by oil region and in productive crude oil and natural gas wells as of December 31, 2012.

Oil Region	Acreage ⁽¹⁾					
	Productive Wells ⁽¹⁾		Developed		Undeveloped	
	Crude Oil	Natural Gas	Crude Oil	Natural Gas	Crude Oil	Natural Gas
	(Thousands of acres)					
Daqing	63,382	187	956.40	94.78	600.08	104.11
Changqing	44,624	6,531	755.55	3,013.70	587.59	3,685.30
Xinjiang	25,861	89	371.65	65.10	129.54	18.10
Other regions ⁽²⁾	64,926	3,040	1,416.09	857.18	734.50	1,030.34
Total	198,793	9,847	3,499.69	4,030.76	2,051.71	4,837.85

- (1) Includes all wells and acreage in which we have an interest. No third parties own any interests in any of our wells or acreage.
 (2) Represents the Liaohe, Jilin, Huabei, Dagang, Sichuan, Tarim, Tuha, Qinghai, Jidong, Yumen, Zhejiang, southern and other oil regions.

Table of Contents**Production**

The following table sets forth our historical average net daily crude oil and natural gas production by region and our average sales price for the periods ended December 31, 2010, 2011 and 2012.

	For the Year Ended December 31,			% of 2012 Total
	2010	2011	2012	
Crude oil production⁽¹⁾				
(thousands of barrels per day, except percentages or otherwise indicated)				
Daqing	805.6	804.4	799.3	31.9
Changqing	369.3	405.2	456.4	18.2
Xinjiang	220.5	220.7	222.7	8.9
Other ⁽²⁾	954.3	997.4	1,025.8	41.0
Total	2,349.7	2,427.7	2,504.2	100.0
Annual production (million barrels)	857.7	886.1	916.5	
Average sales price (US\$ per barrel)	72.93	104.20	103.65	
Natural gas production⁽¹⁾⁽³⁾				
(millions of cubic feet per day, except percentages or otherwise indicated)				
Tarim	1,674.2	1,548.7	1,739.2	24.9
Changqing	1,579.8	2,122.9	2,421.5	34.6
Sichuan	1,387.2	1,296.8	1,198.6	17.1
Other ⁽⁴⁾	1,444.2	1,597.1	1,632.1	23.4
Total	6,085.4	6,565.5	6,991.4	100.0
Annual production (Bcf)	2,221.2	2,396.4	2,558.8	
Average realized price (US\$ per Mcf) ⁽⁵⁾	4.00	4.74	5.04	

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

In 2012, we supplied a substantial majority of our total crude oil sales to our refineries. We entered into a crude oil mutual supply framework agreement with Sinopec on January 1, 2013 for the supply of crude oil to each other's refineries in 2013. Under this agreement, we agreed in principle to supply 4.68 million tons of crude oil to Sinopec in 2013. For the years ended December 31, 2010, 2011 and 2012, the average lifting costs of our crude oil and natural gas production were US\$9.97 per BOE, US\$11.23 per BOE and US\$11.74 per BOE, respectively.

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

The Daqing oil region, our largest oil and gas producing property, is located in the Songliao basin and covers an area of approximately one million acres. In 2010, 2011 and 2012, our crude oil production volume in the Daqing oil region was 805.6 thousand barrels per day, 804.4 thousand barrels per day and 799.3 thousand barrels per day, respectively. As of December 31, 2012, we produced crude oil from 37 fields in the Daqing oil region.

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As of December 31, 2012, our proved crude oil reserves in the Daqing oil region were 2,697.1 million barrels, representing 24.5% of our total proved crude oil reserves. As of December 31, 2010 and 2011, the proved crude oil reserves in our Daqing oil region were 3,178.1 million barrels and 2,925.2 million barrels, respectively. In 2012, the crude oil reserve-to-production ratio of the Daqing oil region was 9.1 years.

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

Xinjiang Oil Region

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

As of December 31, 2012, our proved crude oil reserves in the Xinjiang oil region were 1,512.5 million barrels, representing 13.7% of our total proved crude oil reserves. In 2012, our oil fields in the Xinjiang oil region produced an average of 222.7 thousand barrels of crude oil per day, representing approximately 8.9% of our total daily crude oil production. In 2012, the crude oil reserve-to-production ratio at the Xinjiang oil region was 18.6 years.

Sichuan Gas Region

We began natural gas exploration and production in Sichuan in the 1950s. The Sichuan gas region covers a total area of approximately 2.3 million acres. The natural gas reserve-to-production ratio in the Sichuan gas region was approximately 25.0 years in 2012. As of December 31, 2012, we had 114 natural gas fields under development in the Sichuan gas region.

As of December 31, 2012, our proved natural gas reserves in the Sichuan gas region were 10,976.7 Bcf, representing 16.2% of our total proved natural gas reserves and an increase of 0.4% from 10,938.1 Bcf as of December 31, 2011. In 2012, our natural gas production for sale in the Sichuan gas region reached 438.7 Bcf, representing 17.1% of our total natural gas production for sale.

Changqing Oil and Gas Region

The Changqing oil and gas region covers parts of Shaanxi Province and Gansu Province and the Ningxia and Inner Mongolia Autonomous Regions. As of December 31, 2012, our proved crude oil reserves in the Changqing oil region were 2,257.7 million barrels, representing 20.5% of our total proved crude oil reserves. In 2012, our crude oil production in the Changqing oil region were an average of 456.4 thousand barrels per day, representing approximately 18.2% of our total daily crude oil production. In 2012, the crude oil reserve-to-production ratio at the Changqing oil region was 13.5 years.

In the early 1990s, we discovered the Changqing gas region, which had total estimated proved natural gas reserves of 22,521.1 Bcf as of December 31, 2012, representing 33.3% of our total proved natural gas reserves. In January 2001, we discovered the Silage gas field in Changqing gas region, which had total estimated proved natural gas reserves of 10,050.6 Bcf as of December 31, 2012. Sulige gas field is currently the largest gas field in China. In 2012, we produced 886.3 Bcf of natural gas for sale in the Changqing oil and gas region, representing an increase of 14.4% from 774.9 Bcf in 2011.

Tarim Oil and Gas Region

The Tarim oil and gas region is located in the Tarim basin in northwestern China with a total area of approximately 590,000 acres. In 1998, we discovered the Kela 2 natural gas field in the Tarim oil and gas region. As of December 31, 2012, the proved natural gas reserves in the Tarim oil and gas region reached 20,250.4 Bcf, representing 30% of our total proved natural gas reserves.

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In 2012, we produced 636.6 Bcf of natural gas for sale in the Tarim oil and gas region. We have completed the construction of the pipelines to deliver natural gas in the Tarim oil and gas region to the central and eastern regions of China where there is strong demand for natural gas transmitted through our West-East Gas Pipeline. See [Natural Gas and Pipeline](#) [Natural Gas Transmission Infrastructure](#) for a discussion of our West-East Gas Pipeline.

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Table of Contents**Refining and Chemicals**

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

The following table sets forth the financial and operating data of our refining and chemicals segment for each of the years ended December 31, 2010, 2011 and 2012:

	Year Ended December 31,		
	2010	2011	2012
Revenue (RMB in millions)	664,773	847,711	883,218
Income/(loss) from operations (RMB in millions)	7,847	(61,866)	(43,511)
Crude oil processed (million barrels)	903.9	984.6	1,012.5
Crude oil primary distillation capacity (million barrels/year)	1,082.9	1,129.0	1,160.8
Production of refined oil products (thousand tons)	79,448	87,150	91,016

Refining**Refined Products**

We produce a wide range of refined products at our refineries. Some of the refined products are for our internal consumption and used as raw materials in our petrochemical operation. The table below sets forth production volumes for our principal refined products for each of the years ended December 31, 2010, 2011 and 2012.

Principal Product	Year Ended December 31,		
	2010	2011	2012
	(In thousands of tons)		
Diesel	53,745	59,040	59,227
Gasoline	23,308	25,447	28,381
Kerosene	2,395	2,663	3,408
Lubricants	1,607	1,573	1,838
Fuel oil	4,131	3,717	3,874
Naphtha	10,016	10,301	9,876

Our Refineries

Most of our refineries are strategically located close to our crude oil production and storage bases, along our crude oil and refined product transmission pipelines and railways, which provide our refineries with secure supplies of crude oil and facilitate our distribution of refined products to the domestic markets. In 2012, our major progress in construction of new refineries and upgrading of existing refineries including completing the construction of a refinery in Sichuan Province, commencing the construction of a new refinery in Guangdong Province, commencing on schedule the operation of the refinery and ethylene projects at Daqing Petrochemical and Fushun Petrochemical and the capacity expansion project at Hohhot Petrochemical. In each of the years ended December 31, 2010, 2011 and 2012, our exploration and production operations supplied approximately 69.1%, 64.9% and 66.3%, respectively, of the crude oil processed in our refineries.

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The table below sets forth certain operating statistics regarding our refineries as of December 31, 2010, 2011 and 2012.

	As of December 31,		
	2010	2011	2012
Primary distillation capacity⁽¹⁾ (thousand barrels per day)			
Lanzhou Petrochemical	212.6	212.6	212.6
Dalian Petrochemical	415.0	415.0	415.0
Fushun Petrochemical	236.9	236.9	236.9
Dushanzi Petrochemical	202.4	202.4	202.4
Guangxi Petrochemical	202.4	202.4	202.4
Jilin Petrochemical	198.4	198.4	198.4
Other refineries	1,499.0	1,625.6	1,712.6
Total	2,966.7	3,093.3	3,180.3
Refining throughput (thousand barrels per day)			
Lanzhou Petrochemical	209.3	213.2	202.3
Dalian Petrochemical	331.1	302.8	329.1
Fushun Petrochemical	181.9	134.7	152.2
Dushanzi Petrochemical	176.8	169.5	180.7
Guangxi Petrochemical	55.2	183.5	174.1
Jilin Petrochemical	146.6	185.0	168.5
Other refineries	1,375.5	1,508.7	1,559.6
Total	2,476.4	2,697.4	2,766.5

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

In each of the years ended December 31, 2010, 2011 and 2012, the average utilization rate of the primary distillation capacity at our refineries was 91.3%, 92.0% and 90.1%, respectively, and the average yield for our four principal refined products (gasoline, kerosene, diesel and lubricants) at our refineries was 66.3%, 66.6% and 67.8%, respectively. Yield represents the number of tons of a refined product expressed as a percentage of the number of tons of crude oil from which that product is processed. In each of the years ended December 31, 2010, 2011 and 2012, the yield for all refined products at our refineries was 93.5%, 94.0% and 93.8%, respectively.

Dalian Petrochemical, Lanzhou Petrochemical, Dushanzi Petrochemical, Jilin Petrochemical, Fushun Petrochemical and Guangxi Petrochemical were our leading refineries in terms of both primary distillation capacity and refining throughput in 2012.

To maintain effective operations of our facilities and lower production costs, we have endeavored to achieve the most cost-efficient proportions of various types of crude oil in our refining process. We purchase a portion of our crude oil requirements from third-party international suppliers located in different countries and regions. As a result, in 2012, we purchased a small amount of crude oil, through independent suppliers, from certain countries on the U.S. sanction list, such as Sudan. The crude oil so purchased was mingled with crude oil from other sources during the refining process.

Chemicals

Most of our chemical plants are near to our refineries and are also connected with the refineries by pipelines, providing additional production flexibility and opportunities for cost competitiveness. Our exploration and production and natural gas and pipeline operations supply substantially all of the hydrocarbon feedstock requirements for our chemicals operations.

Table of Contents**Our Chemical Products**

The table below sets forth the production volumes of our principal chemical products for each of the years ended December 31, 2010, 2011 and 2012.

	Year Ended December 31,		
	2010	2011	2012
	(In thousand tons)		
Basic petrochemicals			
Propylene	3,491	3,807	4,074
Ethylene	3,615	3,467	3,690
Benzene	1,247	1,510	1,627
Derivative petrochemicals			
Synthetic resin	5,550	5,690	6,089
Other synthetic fiber raw materials and polymer	1,985	2,031	1,595
Synthetic rubber	619	606	633
Other chemicals			
Urea	3,764	4,484	4,408

We are one of the major producers of ethylene in China. We use the bulk of the ethylene we produce as a principal feedstock for the production of many chemical products, such as polyethylene. As of December 31, 2012, our annual ethylene production capacity was 5,110 thousand tons. Our production volume of ethylene increased by 6.4 % from 3,467 thousand tons in 2011 to 3,690 thousand tons in 2012. The ethylene projects at Fushun Petrochemical and Daqing Petrochemical were completed and put into operation in the fourth quarter of 2012.

We produce a number of synthetic resin products, including polyethylene, polypropylene and ABS. As of December 31, 2012, our production capacities for polyethylene, polypropylene and ABS were 4,462 thousand tons, 3,749 thousand tons and 495 thousand tons, respectively. Currently, there is a large domestic demand for polyolefin and ABS. We intend to increase the production, and improve the quality, of these products. We are building new production facilities with new technology for the production of these products in Sichuan Petrochemical, Jilin Petrochemical and other branch companies to meet this target.

Marketing of Chemicals

Our chemical products are distributed to a number of industries that manufacture components used in a wide range of applications, including automotive, construction, electronics, medical manufacturing, printing, electrical appliances, household products, insulation, packaging, paper, textile, paint, footwear, agriculture and furniture industries.

The following table sets forth the sales volumes of our chemical products by principal product category for each of the years ended December 31, 2010, 2011 and 2012.

Product	Year Ended December 31,		
	2010	2011	2012
	(In thousands tons)		
Derivative petrochemicals			
Synthetic resin	5,431.4	5,625.9	5,980.4
Synthetic fiber	140.5	108.7	107.4
Synthetic rubber	628.6	605.0	661.4
Intermediates	5,109.7	6,774.1	8,201.0
Other chemicals			
Urea	3,445.0	4,226.6	4,303.6

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In each of the years ended December 31, 2010, 2011 and 2012, our capital expenditures for our refining and chemicals segment were approximately RMB44,242 million, RMB42,781 million and RMB36,009 million, respectively. These capital expenditures were incurred primarily in connection with the expansion of our refining facilities and the upgrading of our product quality and the construction of large ethylene projects. In addition, we have also focused on enhancing our processing technologies and methods. These efforts have enabled us to improve the quality of refined products at our refineries, particularly that of gasoline and diesel. We believe that our refined products are capable of meeting product specification and environmental protection requirements as set by the PRC government.

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Table of Contents**Marketing**

We engage in the marketing of refined products through 37 regional sales branch companies including three distribution branch companies, one lubricants branch company and one fuel oil company. These operations include the transportation and storage of the refined products, and the wholesale, retail and export of gasoline, diesel, kerosene, lubricant, paraffin, asphalt and other refined products. In addition, we have been actively developing international trade and have made some new achievements in Asia, Europe and America, the three oil and gas operating centers in the world, which further improved our international operations.

The following table sets forth the financial and operating data of our marketing segment for each of the years ended December 31, 2010, 2011 and 2012:

	Year Ended December 31,		
	2010	2011	2012
Revenue (RMB in millions)	1,134,534	1,693,130	1,890,558
Income from operations (RMB in millions)	15,956	20,653	16,391
External sales volume of refined oil products (thousand tons)	120,833	145,532	153,277

We market a wide range of refined products, including gasoline, diesel, kerosene and lubricants, through an extensive network of sales personnel and independent distributors and a broad wholesale and retail distribution system across China. As of December 31, 2012, our marketing network consisted of:

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

19,840 service stations, consisting of 19,296 service stations owned and operated by us and 544 franchise service stations owned and operated by third parties.

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

The following table sets forth our sales volumes of diesel, gasoline, kerosene and lubricants for each of the years ended December 31, 2010, 2011 and 2012.

Product	Year Ended December 31,		
	2010	2011	2012
	(In thousands tons)		
Diesel	77,789	91,787	94,515
Gasoline	36,328	43,967	47,407
Kerosene	6,716	9,778	11,355
Lubricants	1,703	1,761	2,104

Wholesale Marketing

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

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Retail Marketing

The weighted average sales volume of gasoline and diesel per business day at our service station network was 11.0 tons per service station in 2010, 11.1 tons per service station in 2011 and 11.1 tons per service station in 2012.

Capital expenditures for the marketing segment for the years ended December 31, 2010, 2011 and 2012 amounted to RMB15,793 million, RMB15,136 million and RMB14,928 million, respectively, which were used mainly for the construction of sales network facilities including service stations and oil storage tanks.

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Table of Contents**Natural Gas and Pipeline**

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

The following table sets forth the financial and operating data of our natural gas and pipeline segment for each of the years ended December 31, 2010, 2011 and 2012:

	As of December 31 or Year Ended December 31,		
	2010	2011	2012
Revenue (RMB in millions)	117,043	173,058	202,196
Income (loss) from operations (RMB in millions)	20,415	15,530	(2,110)
Total length of natural gas pipelines (km)	32,801	36,116	40,995
Total length of crude oil pipeline (km)	14,782	14,782	16,344
Total length of refined oil products pipeline (km)	9,257	9,334	9,437
Total volume of natural gas sold ⁽¹⁾ (Bcf)	2,225.2	2,658.5	3,015.5

(1) Represents the natural gas sold to third parties

Our Principal Markets for Natural Gas

In 2012, in addition to satisfying the demand of the northwestern, central and northeastern regions of China, we sold our natural gas mainly to the northern, eastern and southeastern regions of the PRC.

Sichuan Province and Chongqing Municipality are two of our principal markets for natural gas in southwest China. We supply natural gas to Sichuan Province and Chongqing Municipality from our exploration and production operations in the Sichuan oil and gas region. Beijing Municipality, Tianjin Municipality, Hebei Province and Shandong Province in northern China have a relatively high energy consumption levels. These areas are important markets for our natural gas transmission and marketing business. We supply natural gas to these areas primarily from the Changqing oil region through the Shaanxi to Beijing natural gas pipeline.

Shanghai Municipality, Jiangsu Province, Zhejiang Province and Anhui Province located in Yangtze River Delta of eastern China, and Henan Province and Hubei Province located in the central China have become our significant natural gas markets.

We have entered into contracts to provide approximately 3,777 Bcf of natural gas to certain users in 2013. However, the committed quantity of supply may be adjusted by us and the users in the course of the performance of the contracts in light of the actual situation.

Each year, we must supply natural gas to customers subject to the government-formulated guidance supply plan first as required by the PRC government. We enter into natural gas supply contracts with those customers on the basis of the amount of natural gas to be supplied according to the guidance supply plan for the following year's supply.

Driven by environmental and efficiency concerns, the PRC government is increasingly encouraging industrial and residential use of natural gas to meet primary energy and environmental protection needs. The PRC government has adopted a number of laws and regulations to require municipal governments to increase the use of clean energy, such as natural gas and liquefied petroleum gas, to replace the use of raw coal. Several local governments, including that of Beijing, have adopted policies to facilitate an increase in natural gas consumption in order to reduce the air pollution level. The PRC government has also adopted a preferential value-added tax rate of 13% for natural gas production as compared to a 17% value-added tax rate for crude oil production.

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

Natural Gas Transmission Infrastructure

As of December 31, 2012, we owned and operated approximately 40,995 kilometers of natural gas pipelines in China. Our natural gas pipelines represent the vast majority of China's onshore natural gas pipelines. Our existing natural gas pipelines form a national trunk network for natural gas supply and the regional natural gas supply networks in northwestern, southwestern, northern and central China as well as the Yangtze River Delta.

The First West-East Gas Pipeline

The construction of the First West-East Gas Pipeline commenced officially in July 2002 and was entirely completed and put into operation on October 1, 2004. The main line of our West-East Gas Pipeline links our natural gas fields in Xinjiang and Changqing with Henan Province, Anhui Province, Jiangsu Province, Shanghai Municipality and other areas in the Yangtze River Delta. It is designed to mainly transmit the natural gas produced at Tarim oil region to Henan, Anhui, Jiangsu, Zhejiang and Shanghai. The First West-East Gas Pipeline includes one main line, three branch lines and two underground storage facilities, with a total length of 6,426 kilometers, of which the main line has a total length of 3,843.5 kilometers. The First West-East Gas Pipeline has a designed annual throughput capacity of 600.4 Bcf.

The Second West-East Gas Pipeline

In February 2008, we commenced the construction of the Second West-East Gas Pipeline. The west section of the Second West-East Gas Pipeline was put into operation in December 2009. In June 2011, the east section was put into operation. By the end of 2012, the main line and branch lines as well as the Hong Kong branch line of the Second West-East Gas Pipeline were all completed and put into operation. The Second West-East Gas Pipeline includes one main line, eight branch lines and three underground storage facilities, with a total length of 8,704 kilometers. The main line of the Second West-East Gas Pipeline has a length of 4,978 kilometers. The western section of the main line extends from Horgos to Zhongwei with a length of 2,461 kilometers and a designed annual throughput capacity of 1,059.5 Bcf. The eastern section of the main line extends from Zhongwei to Guangzhou with a length of 2,517 kilometers and a designed annual throughput capacity of 988.8 Bcf.

In addition, we also operate other natural gas pipelines, such as the Zhong County-to-Wuhan natural gas pipeline, the first, the second and the third Shaanxi-to-Beijing natural gas pipelines and Sebei-to-Lanzhou natural gas pipelines.

Crude Oil Transportation and Storage Infrastructure

We have an extensive network for the transportation, storage and distribution of crude oil, which covers many regions of China.

As of December 31, 2012, our crude oil transportation and storage infrastructure consisted of:

16,344 kilometers of crude oil pipelines; and

crude oil storage facilities with an aggregate storage capacity of approximately 35.6 million cubic meters.

Russia to China Crude Oil Pipeline

In May 2009, we commenced the construction of the Russia to China crude oil transmission pipeline (the Mohe-to-Daqing section) upon the approval of the National Development and Reform Commission, or NDRC.

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We are the constructor and operator of the section crossing the Heilongjiang River and the section lies in China. This pipeline extends from the Skovorodino off-take station of Russia's Far East Pipeline, through Galinda at the Russian border, Heilongjiang Province and Inner Mongolia, to Daqing terminal station. With a designed transmission capacity of 15 million tons, this pipeline is 935 kilometers long. This pipeline was entirely completed on September 27, 2010 and was put into commercial operation on January 1, 2011.

In addition, we also operate other crude oil pipelines, including the crude oil pipeline network for western regions and the crude oil pipeline network for northeastern regions.

Refined Product Transportation and Storage Infrastructure

As of December 31, 2012, our refined product transportation and storage infrastructure includes:

9,437 kilometers of refined product pipelines; and

refined product storage facilities with a total storage capacity of approximately 32.4 million cubic meters.

The Lanzhou-to-Zhengzhou-to-Changsha Pipeline

We received the approval from the NDRC for and commenced the construction of the Lanzhou-to-Zhengzhou-to-Changsha refined oil pipeline in December 2007. The pipeline starts from Lanzhou of Gansu Province and terminates at Changsha of Hunan Province, with a total length of 3,111 kilometers, including the length of all the main lines and branch lines. We finished the construction and commenced the operation of the section from Lanzhou to Zhengzhou in April 2009 and the section from Zhengzhou to Wuhan in August 2009. We expect to finish the construction of all the main line and branch lines by May 2013.

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

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

Competition

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

Exploration and Production Operations

We are the largest onshore oil and gas company in China in terms of proved crude oil and natural gas reserves as well as crude oil and natural gas production and sales. However, we compete with other domestic oil and gas companies for the acquisition of desirable crude oil and natural gas prospects. Similarly, we face some competition in the development of offshore oil and gas resources. We believe that our experience in crude oil and natural gas exploration and production and our advanced exploration and development technologies that are suitable for diverse geological conditions in China will enable us to maintain our dominant position in discovering and developing crude oil and natural gas reserves in China.

Refining and Chemicals Operations and Marketing Operations

We compete with Sinopec in our refining and chemicals operations and marketing operations on the basis of price, quality and customer service. Most of our refineries and chemical plants are located in the northeastern and

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northwestern regions of China where we have the dominant market share for refined products and chemical products. We sell the remainder of our refined products and chemical products to the eastern, southern, southwestern and central-southern regions of China, where our products have a considerable market share. The eastern and southern regions of China, where refined products and chemical products are in higher demand, are important markets for our refined products and chemical products. Sinopec has a strong presence in the eastern and southern regions of China in competition with us, and most of Sinopec's refineries, chemical plants and distribution networks are located in these regions in close proximity to these markets. Moreover, as the newly constructed facilities of CNOOC commenced operation in the same region, large quantity of chemical products have been marketed into that area. As a result, the competition has further intensified. We expect that we will continue to face competition from other competitors in our refined products and chemical products sales in these regions. See Item 3 Key Information Risk Factors .

We also face competition from imported refined products and chemical products on the basis of price and quality. As a result of China's entry into the WTO, competition from foreign producers of refined products and chemical products has increased and the retail and wholesale markets in China for refined products and chemical products will be gradually opened to foreign competition as tariff and non-tariff barriers for imported refined products and chemical products are being lifted over time. For example, sales of chemical products imported from the Middle East have increased rapidly in China in recent years. We will face more and more challenges in the competition of refined and chemical products. All these force us to reduce our production costs, improve the quality of our products and optimize our product mix. See Item 3 Key Information Risk Factors .

Natural Gas and Pipeline Operations

We are the largest natural gas supplier in the PRC in terms of the sales volume. Currently, we face competition with Sinopec, CNOOC and coal-based natural gas producers in the supply of natural gas in Beijing Municipality, Tianjin Municipality, Hebei Province, Shanghai Municipality, Jiangsu Province, Anhui Province, Henan Province, Hubei Province, Hunan Province and the northwestern regions of China, our existing principal markets for natural gas. Currently, Sinopec has natural gas fields in Sichuan Province and Chongqing Municipality and sells natural gas to users in places such as Sichuan, Chongqing, Hunan, Jiangsu, Zhejiang and Shanghai. Further, we intend to expand our markets for natural gas into the coastal regions in southeastern China where we may face competition from CNOOC and Sinopec. We believe that our dominant natural gas resources base, our relatively advanced technologies and skills in managing long distance pipelines will enable us to continue to be a dominant player in the natural gas markets in China.

Environmental Matters

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

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

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

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

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

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

We anticipate that the environmental laws and regulations to which we are subject will become increasingly strict and are therefore likely to have an increasing impact on our operations. It is difficult, however, to predict accurately the effect of future developments in such laws and regulations on our future earnings and operations. Some risk of environmental costs and liabilities is inherent in certain of our operations and products, as it is with other companies engaged in similar businesses. We cannot assure you that material costs and liabilities will not be incurred. However, we do not currently expect any material adverse effect on our financial condition or results of operations as a result of compliance with such laws and regulations. We paid pollutant discharge fees of approximately RMB305 million, RMB324 million and RMB327 million in 2010, 2011 and 2012, respectively.

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

building environment-friendly projects;

reducing sulphur levels in gasoline and diesel fuel;

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

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

Our capital expenditures on environmental programs in 2010, 2011 and 2012 were approximately RMB1.28 billion, RMB1.65 billion and RMB1.94 billion, respectively.

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

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

enhancing the implementation of various effective safety production measures we have adopted previously.

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

Legal Proceedings

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

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Properties

Under a restructuring agreement we entered into with CNPC on March 10, 2000, CNPC undertook to us the following:

CNPC would use its best endeavors to obtain formal land use right licenses to replace the entitlement certificates in relation to the 28,649 parcels of land, which were leased or transferred to us from CNPC, within one year from August, September and October 1999 when the relevant entitlement certificates were issued;

CNPC would complete, within one year from November 5, 1999, the necessary governmental procedures for the requisition of the collectively owned land on which 116 service stations owned by us are located; and

CNPC would obtain individual building ownership certificates in our name for all of the 57,482 buildings transferred to us by CNPC, before November 5, 2000.

As of December 31, 2012, CNPC obtained formal land use right certificates for 28,223 of the 28,649 parcels of land and ownership certificates for some buildings. The governmental procedures for the above-mentioned service stations located on collectively owned land have not been completed to date. We believe that the use of and the conduct of relevant activities at the above-mentioned parcels of land, service stations and buildings are not affected by the fact that the relevant land use right certificates or building ownership certificates have not been obtained or the fact that the relevant governmental procedures have not been completed. We believe that this will not have any material adverse effect on our results of operations and financial condition.

We hold exploration and production licenses covering all of our interests in developed and undeveloped acreage, oil and natural gas wells and relevant facilities.

Intellectual Property

Our company logo is jointly owned by us and CNPC and has been used since December 26, 2004. Together with CNPC, we have applied for trademark registrations of the logo with the State Trademark Bureau of the PRC. To date, several of our applications have been approved and others are either in the process of review or public announcement phase. In addition, together with CNPC, we have applied for international trademark registration for our logo in other jurisdictions. We have received 136 International Trademark Registration Certificates for our logo covering more than 50 jurisdictions.

As of December 31, 2012, we owned approximately 5,500 patents in China and other jurisdictions. We were granted 1,600 patents in China in 2012.

Regulatory Matters

Overview

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

The Ministry of Land and Resources has the authority for granting, examining and approving oil and gas exploration and production licenses, the administration of registration and transfer of exploration and production licenses.

The Ministry of Commerce:

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

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

examines and approves production sharing contracts in relation to oil and coal seam gas and Sino-foreign equity and cooperative joint venture contracts.

The National Development and Reform Commission:

has the authority for industry administration, industry policy and policy coordination over China's oil and gas industry;

determines mandatory minimum volumes and applicable prices of natural gas to be supplied to certain fertilizer producers;

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

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

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

approves Sino-foreign equity and cooperative projects exceeding certain capital amounts.

Exploration Licenses and Production Licenses

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

Applicants for exploration licenses must first register with the Ministry of Land and Resources blocks in which they intend to engage in exploration activities. The holder of an exploration license is obligated to make a progressively increasing annual minimum exploration investment relating to the exploration blocks in respect of which the license is issued. Investments range from RMB2,000 per square kilometer for the initial year to RMB5,000 per square kilometer for the second year, and to RMB10,000 per square kilometer for the third and subsequent years. Additionally, the holder has to pay an annual exploration license fee that starts at RMB100 per square kilometer for each of the first three years and increases by an additional RMB100 per square kilometer per year for subsequent years up to a maximum of RMB500 per square kilometer. The maximum term of an oil and natural gas exploration license is seven years, subject to renewal upon expiration of the original term, with each renewal being up to two years. At the exploration stage, an applicant can also apply for a progressive exploration and production license that allows the holder to test and develop reserves not yet fully proven. Upon the detection and confirmation of the quantity of reserves in a certain block, the holder must apply for a production license based on economic evaluation, market conditions and development planning in order to shift into the production phase in a timely fashion. In addition, the holder needs to obtain the right to use that block of land. Generally, the holder of a full production license must obtain a land use rights certificate for industrial land use covering that block of land.

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The Ministry of Land and Resources issues production licenses to applicants on the basis of the reserve reports approved by the relevant authorities. Production license holders are required to pay an annual production right usage fee of RMB1,000 per square kilometer. Administrative rules issued by the State Council provide that

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the maximum term of a production license is 30 years. In accordance with a special approval from the State Council, the Ministry of Land and Resources has issued production licenses with terms coextensive with the projected productive life of the assessed proven reserves as discussed above. Each of our production licenses is renewable upon our application 30 days prior to expiration. If oil and gas prices increase, the productive life of our crude oil and natural gas reservoirs may be extended beyond the current terms of the relevant production licenses.

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

Pricing

Crude Oil

PetroChina and Sinopec set their crude oil median prices each month based on the average Singapore market FOB prices for crude oil of different grades in the previous month. In addition, PetroChina and Sinopec negotiate a premium or discount to reflect transportation costs, the differences in oil quality and market supply and demand. The National Development and Reform Commission will mediate if PetroChina and Sinopec cannot agree on the amount of premium or discount.

Refined Products

Since October 2001, PetroChina has set its retail prices within an 8% floating range of the published retail median guidance prices of gasoline and diesel published by the National Development and Reform Commission (but after March 26, 2006, the price of diesel for fishing vessels has been set in line with the published retail base price, with no upward adjustment for the time being). These retail median guidance prices of gasoline and diesel vary in each provincial level distribution region. From October 2001 to early 2006, the National Development and Reform Commission published the retail median guidance prices of gasoline and diesel from time to time based on the weighted average FOB Singapore, Rotterdam and New York trading prices for diesel and gasoline plus transportation costs and taxes. Generally, adjustments were made only if the weighted average prices fluctuate beyond 8% of the previously published retail median guidance price. In 2006, the PRC government, under its macro economic controls, introduced a mechanism for determining the prices of refined products.

On December 18, 2008, the PRC government further improved the pricing mechanism and the domestic prices of refined oil products continue to be indirectly linked to the international market. Under the improved mechanism, the domestic ex-factory price of the refined oil products are determined on the basis of the corresponding international crude oil prices and by taking consideration of the average domestic processing cost, tax and appropriate profit margin. The prices of diesel and gasoline continue to follow the government set prices and the government guiding prices. The retail prices of gasoline and diesel are subject to highest retail prices set by the government. The highest retail price is determined on the basis of the ex-factory price and the profit margin for retailing activities.

On May 7, 2009, the National Development and Reform Commission promulgated and implemented the *Measures for Administration of Petroleum Price* (on trial) (the Oil Price Measures). The Oil Price Measures officially specifies the relevant conditions and mechanisms for the adjustment of the prices of China's domestic refined oil products. Under the Oil Price Measures, when the change in the average price of crude oil on the international market for 22 consecutive days exceeds 4%, prices of domestic refined oil products may be adjusted accordingly. When the price of crude oil on the international market becomes lower than US\$80 per barrel, the prices of domestic refined oil products shall be computed on the basis of normal profit margin for processing. On the contrary, when the price of crude oil on the international market becomes higher than US\$80 per barrel, the profit margin for processing shall be reduced until being reduced to zero. When the price of crude oil becomes

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higher than US\$130 per barrel, appropriate financial and tax policies shall be adopted to ensure the production and supply of refined oil products and the stability of the domestic gasoline and diesel prices. Retailers of refined oil products may set the retail prices freely as long as their retail prices are not higher than the highest retail prices of gasoline and diesel set by the government.

On March 26, 2013, the National Development and Reform Commission, or the NDRC, promulgated the refined oil products pricing mechanism enhancement system. This is China's second oil pricing reform after its first refined oil products price, tax and fee reform commenced on December 16, 2008. Under this new system, (i) the price adjustment period was shortened from 22 working days to 10 and the 4% limit on the price adjustment range was eliminated; (ii) the composition of the basket of crudes to which refined oil products prices are linked will be adjusted accordingly in light of the composition of the imported crudes and changes in crudes trading on the international market; and (iii) the refined oil products pricing mechanism will be further enhanced.

Chemical Products

PetroChina determines the prices of all of its chemical products based on market conditions.

Natural Gas

The citygate price of natural gas has two components: ex-factory price and pipeline transportation tariff.

Prior to December 26, 2005, ex-factory prices varied depending on whether or not the natural gas sold was within the government-formulated natural gas supply plan. For natural gas sold within the government-formulated supply plan, the National Development and Reform Commission fixed ex-factory prices according to the nature of the customers. Most of these customers were fertilizer producers. For natural gas sold to customers not subject to the government-formulated supply plan, the National Development and Reform Commission published median guidance ex-factory prices, and allowed natural gas producers to adjust prices upward or downward by up to 10%.

On December 26, 2005, the NDRC reformed the mechanism for setting the ex-factory prices of domestic natural gas by changing the ex-factory prices to governmental guidance prices, and categorizing domestic natural gas into two categories. On the basis of the ex-factory price set by the government, subject to the negotiations between the seller and the buyer, the actual ex-factory price of the first category may float upward or downward up to 10%; while the actual ex-factory price of the second category may float upward up to 10% and downward to any level. The price of the first category will be adjusted to the same level as the second category within three to five years. The National Development and Reform Commission does not allow PetroChina and Sinopec to charge different prices towards internal and external enterprises. On November 10, 2007, the National Development and Reform Commission increased the ex-factory price of the industrial use natural gas by RMB400/thousand cubic meters. On June 1, 2010, the NDRC raised the median ex-factory prices of the domestic onshore natural gas and as a result of that, the median ex-factory price of all the oil and gas fields in China increased by RMB0.23/cubic meter. At the same time, the National Development and Reform Commission combined the first category and the second category median ex-factory prices of the natural gas from Dagang Oil Field, Liaohe Oil Field and Zhongyuan Oil Field, thus ending the dual-track natural gas pricing system as described above. In addition, the National Development and Reform Commission expanded the floating range of the median ex-factory price by allowing the median ex-factory price to float upward to 10% and downward to any level.

PetroChina negotiates the actual ex-factory price with natural gas users within the benchmark price and the adjustment range set by the government.

On December 26, 2011, the NDRC implemented a natural gas price formation mechanism pilot reform in Guangdong Province and Guangxi Zhuang Autonomous Region. In general, the approaches under this reform consist of (i) modifying the natural gas pricing method from the current cost plus pricing to the netback pricing

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by choosing a pricing reference point and an alternative energy to establish a price linkage mechanism between the natural gas and the alternative energy; (ii) determining the gate station natural gas price in each province (region or municipality) based on the natural gas price of the pricing reference point and by taking into account the direction of the main flows of the natural gas market resources and the pipeline transportation cost of natural gas; (iii) implementing a dynamic adjustment mechanism for the gate station natural gas price under which the gate station natural gas price will be initially adjusted on an annual basis and subsequently on a semi-annual or quarterly basis in response to the change in the price of the alternative energy; and (iv) lifting the control over the ex-works prices of non-conventional natural gas such as the shale gas, coal seam gas and coal gas to allow them to be formed through market competition.

In the fourth quarter of 2012, in order to secure a stable supply on the local natural gas market, Sichuan Province and Chongqing Municipality implemented a natural gas pricing mechanism reform and adjusted their local natural gas supply price by referring to the reform model in Guangdong Province and Guangxi Province. After such adjustment, the natural gas citygate price in Sichuan and Chongqing increased by RMB0.18/cubic meter on average.

The National Development and Reform Commission sets the pipeline transportation tariff for the natural gas transported by pipelines constructed prior to 1991. For natural gas transported by pipelines constructed after 1991, PetroChina submits to the National Development and Reform Commission for examination and approval proposed pipeline transmission tariffs based on the capital investment made in the pipeline, the depreciation period for the pipeline, the ability of end users to pay and PetroChina's profit margin.

On April 25, 2010, the National Development and Reform Commission adjusted the originally government-set flat pipeline transportation tariff for the natural gas transported by pipelines. As a result of such adjustment, our average pipeline transportation tariff for the natural gas transported by pipelines increased from RMB0.06 per cubic meter to RMB0.14 per cubic meter.

Production and Marketing

Crude Oil

Each year, the National Development and Reform Commission publishes the projected target for the production and process of crude oil in China based on the domestic consumption estimates submitted by domestic producers, including but not limited to PetroChina, Sinopec and CNOOC, the production of these companies as well as the forecast of international crude oil prices. The actual production levels are determined by the producers themselves and may vary from the submitted estimates. Since January 1, 2007, when the Measures on the Administration of the Refined Products Market promulgated by the Ministry of Commerce became effective, qualified domestic producers are permitted to engage in the sale and storage of crude oil. Foreign companies with required qualifications are also allowed to establish and invest in enterprises to conduct crude oil business.

Refined Products

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

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Natural Gas

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

Foreign Investments

Cooperation in Exploration and Production with Foreign Companies

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

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

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

Transportation and Refining

Since December 1, 2007, PRC regulations encourage foreign investment in the construction and operation of oil and gas pipelines and storage facilities but restrict foreign investment in refineries with an annual capacity of ten million tons or lower. Furthermore, when appropriate, projects must receive necessary approvals from relevant PRC government agencies. See [Item 3 Key Information Risk Factors](#) .

Import and Export

Since January 1, 2002, state-owned trading companies have been allowed to import crude oil under an automatic licensing system. Non-state-owned trading companies have been allowed to import crude oil and refine products subject to quotas. The export of crude oil and refined oil products by both state-owned trading companies and non-state-owned trading companies is subject to quota control. The Ministry of Commerce has granted PetroChina the right to conduct crude oil and refined product import and export business.

Capital Investment and Financing

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

(1) new oil field development projects with an annual capacity of one million tons or above and new gas field development projects with an annual capacity of two billion cubic meters or above;

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(2) facilities for taking delivery of, storing or transporting imported liquefied natural gas, and cross-province (region or municipality) major oil transmission pipeline facilities;

(3) cross-province (region or municipality) gas transmission facilities, or gas transmission facilities with an annual capacity of 500 million cubic meters or above;

(4) new refineries, first expansion of existing refineries, new ethylene projects, and transformation or expansion of existing ethylene projects which will result in an additional annual capacity of 200 thousand tons;

(5) new Purified Terephthalic Acid (PTA), P-Xylene (PX), diphenylmethane diisocyanate (MDI) and toluene diisocyanate (TDI) projects, and transformation of existing PTA and PX projects which will result in an additional capacity of 100 thousand tons;

(6) potassium mineral fertilizer projects with an annual capacity of 500 thousand tons or more; and

(7) national crude oil reserve facilities.

Taxation, Fees and Royalty

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

Tax Item	Tax Base	Tax Rate
<i>Enterprise income tax</i>	Taxable income	Effective from January 1, 2008, the statutory corporate tax rate is 25%, whereas a statutory corporate tax rate of 15% is applicable to operations in certain western regions in China qualified for certain tax incentives through the year 2020
<i>Value-added tax</i>	Turnover	13% for liquified natural gas, natural gas, liquified petroleum gas, agricultural film and fertilizers and 17% for other items. On November 16, 2011, the Ministry of Finance and the State Administration of Taxation promulgated the Plan for Implementation of the Pilot Reform for Collection of Value-added Tax in Lieu of Business Tax which sets forth the guidelines, principles and major contents of the pilot reform. Pursuant to the Plan, effective from January 1 and September 1, 2012, respectively, in pilot provinces and municipalities including Shanghai and Beijing, a pilot reform would be implemented on a step-by-step basis or completed to collect value-added tax in lieu of business tax on the revenue of PRC entities or individuals located in or resident in pilot provinces or municipalities generated from transportation services and certain modern services or of foreign entities or individuals from providing taxable services to the above PRC entities or individuals. Certain pipeline transmission services of our company have since then been subject to value-added-tax at the rate of 11%.
<i>Business tax</i>	Income from oil and gas transportation services	3%

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Tax Item	Tax Base	Tax Rate
<i>Consumption tax</i>	Aggregate volume sold or self-consumed	Effective January 1, 2009, the unit tax amount of the consumption tax for refined oil products was increased as follows: RMB1.0 per liter for unleaded gasoline RMB0.8 per liter for diesel. RMB1.0 per liter for naphtha, solvent naphtha and lubricants. RMB0.8 per liter for fuel oil
<i>Resource tax</i>	Value sold	Starting from December 1, 2010, the resource tax on crude oil and natural gas has been assessed on the basis of value instead of quantity and collected at the rate of 5% of the value sold for 12 provinces in western China. This taxation method has been applied nationwide since November 1, 2011. Certain oil fields, however, may enjoy certain preferential treatment in respect of the resource tax based on the quality of their actual resources, scale of exploration and production activities, and actual production cost.
<i>Compensatory fee for mineral resources</i>	Turnover	1% for crude oil and natural gas
<i>Crude oil special gain levy</i>	Sales amount above specific threshold	Effective from November 1, 2011, the threshold above which crude oil special gain levy levied on the domestic crude oil sold was raised from US\$40 per barrel to US\$55 per barrel, with the five-level progressive tax rates varying from 20% to 40% remaining.
<i>Exploration license fee</i>	Area	RMB100 to RMB500 per square kilometer per year
<i>Production license fee</i>	Area	RMB1,000 per square kilometer per year
<i>Royalty fee⁽¹⁾</i>	Production volume	Progressive rate of 0-12.5% for crude oil and 0-3% for natural gas

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

Environmental Regulations

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

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The environmental regulations require a company, such as us, to register or file an environmental impact report with the relevant environmental authority for approval before it undertakes any construction of a new production facility or any major expansion or renovation of an existing production facility. The new facility or the expanded or renovated facility will not be permitted to operate unless the relevant environmental authority has inspected to its satisfaction that environmental equipment that satisfies the environmental protection requirements has been installed for the facility. A company that wishes to discharge pollutants, whether it is in the form of emission, water or materials, must submit a pollutant discharge declaration statement detailing the amount, type, location and method of treatment. After reviewing the pollutant discharge declaration, the relevant environmental authority will determine the amount of discharge allowable under the law and will issue a pollutant discharge license for that amount of discharge subject to the payment of discharge fees. If a company discharges more than is permitted in the pollutant discharge license, the relevant environmental authority can fine the company up to several times the discharge fees payable by the offending company for its allowable discharge, or require the offending company to close its operation to remedy the problem.

ITEM 4A UNRESOLVED STAFF COMMENTS

We do not have any unresolved staff comment.

ITEM 5 OPERATING AND FINANCIAL REVIEW AND PROSPECTS

General

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

Overview

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

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

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

marketing of refined oil products and trading; and

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

We are China's largest producer of crude oil and natural gas and are one of the largest companies in China in terms of sales. In 2012, we produced approximately 916.5 million barrels of crude oil and approximately 2,558.8 Bcf of natural gas for sale. Our refineries also processed approximately 1,012.5 million barrels of crude oil in 2012. In 2012, we had turnover of RMB2,195,296 million and profit attributable to owners of our company of RMB115,326 million.

Factors Affecting Results of Operations

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

Prices of Principal Products

The fluctuations in the prices of crude oil, refined products, chemical products and natural gas have a significant impact on our turnover. See

Item 4 Information on the Company Regulatory Matters Pricing for a more detailed discussion of current PRC pricing regulations and Item 3 Risk Factors Risks Related to Pricing and Exchange Rate .

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The table below sets forth the average realized prices of our principal products in 2010, 2011 and 2012.

	2010	2011	2012
Crude oil (US\$/barrel)	72.93	104.20	103.65
Natural gas (US\$/thousand cubic feet) ⁽¹⁾	5.54	6.42	6.74
Gasoline (US\$/barrel)	115.17	142.16	149.23
Kerosene (US\$/barrel)	91.14	121.63	128.32
Diesel (US\$/barrel)	116.41	143.51	148.84

(1) Natural gas citygate price

Production and Sales Volume for Oil and Gas Products

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

Regulatory Environment

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

Critical Accounting Policies

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

Accounting for Oil and Gas Exploration and Production Activities

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

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Oil and Gas Reserves

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

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

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

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

Property, Plant and Equipment

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

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

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The company uses the following useful lives for depreciation purposes:

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

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

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

Property, plant and equipment, including oil and gas properties, are reviewed for possible impairment when events or changes in circumstances indicate that the carrying amount may not be recoverable. An impairment loss is recognized for the amount by which the carrying amount of a cash generating unit exceeds the higher of its fair value less costs to sell and its value in use, which is the estimated net present value of future cash flows to be derived from the cash generating unit.

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

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

Provision for Asset Decommissioning

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

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

Our income statement for each of the years ended December 31, 2010, 2011 and 2012 is summarized in the table below.

	Year Ended December 31,		
	2010	2011	2012
	(RMB in millions)		
Turnover	1,465,415	2,003,843	2,195,296
Operating expenses	(1,277,638)	(1,821,382)	(2,020,777)
Profit from operations	187,777	182,461	174,519
Exchange (loss)/gain, net	(1,172)	(936)	131
Interest expense, net	(4,338)	(8,212)	(16,101)
Share of profit of affiliates and jointly controlled entities	7,038	10,902	8,262
Profit before income tax expense	189,305	184,215	166,811
Income tax expense	(38,513)	(38,256)	(36,191)
Profit for the year attributable to non-controlling interest	10,800	12,998	15,294
Profit for the year attributable to owners of the company	139,992	132,961	115,326

The table below sets forth our turnover by business segment for each of the years ended December 31, 2010, 2011 and 2012 as well as the percentage changes in turnover for the periods shown.

	2010	2011	2011 vs. 2010		2012 vs. 2011	
			2010	2011	2012	2011
	(RMB in millions, except percentages)					
Turnover						
Exploration and production	544,884	774,777	42.2%	789,818	1.9%	
Refining and chemicals	664,773	847,711	27.5%	883,218	4.2%	
Marketing	1,134,534	1,693,130	49.2%	1,890,558	11.7%	
Natural gas and pipeline	117,043	173,058	47.9%	202,196	16.8%	
Other	1,606	2,354	46.6%	2,530	7.5%	
Total	2,462,840	3,491,030	41.7%	3,768,320	7.9%	
Less intersegment sales	(997,425)	(1,487,187)	49.1%	(1,573,024)	5.8%	
Consolidated net sales from operations	1,465,415	2,003,843	36.7%	2,195,296	9.6%	

The table below sets forth our operating income by business segment for each of the years ended December 31, 2010, 2011 and 2012, as well as the percentage changes in operating income for the periods shown. Other profit from operations shown below consists of research and development, business services and infrastructure support to our operating business segments.

	2010	2011	2011 vs. 2010		2012 vs. 2011	
			2010	2011	2012	2011
	(RMB in millions, except percentages)					
Profit/(loss) from operations						

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Exploration and production	153,703	219,539	42.8%	214,955	(2.1)%
Refining and chemicals	7,847	(61,866)		(43,511)	(29.7)%
Marketing	15,956	20,653	29.4%	16,391	(20.6)%
Natural gas and pipeline	20,415	15,530	(23.9)%	(2,110)	
Other	(10,144)	(11,395)		(11,206)	(1.7)%
Total	187,777	182,461	(2.8)%	174,519	(4.4)%

Table of Contents**Year Ended December 31, 2012 Compared to Year Ended December 31, 2011****Consolidated Results of Operations****Overview**

Our turnover was RMB2,195,296 million for the year ended December 31, 2012, representing an increase of 9.6% compared with the previous period. Profit attributable to owners of the company for the year ended December 31, 2012 was RMB115,326 million, representing a decrease of 13.3% compared with the previous period. For the year ended December 31, 2012, the basic and diluted earnings per share attributable to owners of the company were RMB0.63 while the same for the year ended December 31, 2011 was RMB0.73.

Turnover. Turnover increased by 9.6% from RMB2,003,843 million for the year ended December 31, 2011 to RMB2,195,296 million for the year ended December 31, 2012. This was primarily due to increases in the selling prices and in the sales volume of major products including crude oil, natural gas, gasoline and diesel.

The table below sets out the external sales volume and average realized prices for major products sold by the company in 2012 and 2011 and percentage of changes in the sales volume and average realized prices during these two years.

	Sales Volume (thousand tons)			Average Realized Price (RMB per ton)		
	2012	2011	Percentage of Change (%)	2012	2011	Percentage of Change (%)
Crude oil	76,203	62,057	22.8	4,678	4,748	(1.5)
Natural gas (million cubic meter, RMB 000/cubic meter)	85,388	75,281	13.4	1,125	1,082	4.0
Gasoline	47,407	43,967	7.8	8,007	7,804	2.6
Diesel	94,515	91,787	3.0	7,046	6,952	1.4
Kerosene	11,355	9,778	16.1	6,399	6,206	3.1
Heavy oil	12,615	9,325	35.3	4,612	4,376	5.4
Polyethylene	3,045	2,885	5.5	9,082	9,425	(3.6)
Lubricant	2,104	1,761	19.5	8,973	9,601	(6.5)

Operating Expenses. Operating expenses increased by 10.9% from RMB1,821,382 million for the year ended December 31, 2011 to RMB2,020,777 million for the year ended December 31, 2012, of which:

Purchases, Services and Other. Purchases, services and other increased by 14.9% from RMB1,227,533 million for the year ended December 31, 2011 to RMB1,411,036 million for the year ended December 31, 2012. This was primarily due to the increase of the purchase costs as a result of the expansion of oil products trading and the increased import of natural gas to meet the increasing domestic demand.

Employee Compensation Costs. Employee compensation costs (including salaries of 548,355 employees and 318,311 temporary employees in 2012 and such additional costs as contributions to social security and housing fund scheme and employee training expenses) of the company were RMB106,189 million for the year ended December 31, 2012, representing an increase of 9.3% compared with that in 2011 at RMB97,162 million. This was primarily due to the fact that the company has adjusted its front-line employees' salaries to appropriate level, taking into consideration of certain factors, such as the rise of the domestic consumer price index, the increase of our turnover and the expansion of operations and the rise of the social security contribution as a result of changes in local government policies.

Exploration Expenses. Exploration expenses was RMB23,972 million for the year ended December 31, 2012, being substantially the same as RMB23,908 million for the year ended December 31, 2011.

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Depreciation, Depletion and Amortization. Depreciation, depletion and amortization increased by 10.1% from RMB138,073 million for the year ended December 31, 2011 to RMB151,975 million for the year ended December 31, 2012. This was primarily due to the fact that both the average carrying value of fixed assets and the average net value of oil and gas properties increased as a result of an increase in capital expenditure of the company, leading to an increase in depreciation and depletion provisions during 2012.

Selling, General and Administrative Expenses. Selling, general and administrative expenses increased by 6.8% from RMB69,969 million for the year ended December 31, 2011 to RMB74,692 million for the year ended December 31, 2012. Such increase was primarily due to an increase in leasing costs as a result of business expansion and an increase in the transportation costs due to the increase in the volume of products transported and the cost of transportation per unit.

Taxes other than Income Taxes. Taxes other than income taxes decreased by 4.3% from RMB266,343 million for the year ended December 31, 2011 to RMB254,921 million for the year ended December 31, 2012. In particular, crude oil special gain levy decreased from RMB102,458 million for the year ended December 31, 2011 to RMB79,119 million for the year ended December 31, 2012 because the threshold of the crude oil special gain levy was raised in 2011. Resource tax borne by the company increased from RMB19,784 million for the year ended December 31, 2011 to RMB28,079 million for the year ended December 31, 2012, primarily due to the promulgation of new resource tax policy by the PRC government.

Other Income, net. Other income, net, of the company for the year ended December 31, 2012 was RMB2,008 million, representing an increase of 25.0% from the other income, net, of the company in the amount of RMB1,606 million for the year ended December 31, 2011. This was primarily due to the fact that the refund of value-added tax, or VAT, for imported natural gas was recognized by the company in 2012.

Profit from Operations. The profit from operations of the company for the year ended December 31, 2012 was RMB174,519 million, representing a decrease of 4.4% from RMB182,461 million for the preceding year.

Net Exchange Gain/Loss. We recorded a net exchange gain of RMB131 million for the year ended December 31, 2012, representing an increase of RMB1,067 million as compared with the net exchange loss of RMB936 million for the year ended December 31, 2011. The realization of the net exchange gain was primarily because the decline of the exchange rate of US dollars against RMB slowed down in 2012 and the exchange rate of CAD against RMB increased in 2012.

Net Interest Expenses. Net interest expenses increased by RMB7,889 million, from RMB8,212 million for the year ended December 31, 2011 to RMB16,101 million for the year ended December 31, 2012. The increase in net interest expenses was primarily attributable to an increase in the amount of interest-bearing debts prompted by the need to secure required funding for production, operation and capital investment.

Profit Before Income Tax Expense. Profit before income tax expense decreased by 9.4% from RMB184,215 million for the year ended December 31, 2011 to RMB166,811 million for the year ended December 31, 2012.

Income Tax Expenses. Income tax expenses decreased by 5.4% from RMB38,256 million for the year ended December 31, 2011 to RMB36,191 million for the year ended December 31, 2012. The decrease was primarily due to a decrease in the taxable income for the year.

Profit for the year. Profit for the year decreased by 10.5% from RMB145,959 million for the year ended December 31, 2011 to RMB130,620 million for the year ended December 31, 2012.

Profit attributable to non-controlling interests of the company. Profit attributable to non-controlling interests increased by 17.7% from RMB12,998 million for the year ended December 31, 2011 to RMB15,294 million for the year ended December 31, 2012, due to the increase of net profits of certain subsidiaries of the company.

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Profit attributable to owners of the company. Profit attributable to owners of the company decreased by 13.3% from RMB132,961 million for the year ended December 31, 2011 to RMB115,326 million for the year ended December 31, 2012. Such decrease was primarily due to the combined effect of the increase of the imported natural gas and the purchase price of the imported natural gas exceeding its sales price and the macro regulation over the domestic refined oil price.

Segment Information***Exploration and Production***

Turnover. Turnover increased by 1.9% from RMB774,777 million for the year ended December 31, 2011 to RMB789,818 million for the year ended December 31, 2012. The increase was primarily due to an increase in the sales volumes of crude oil and natural gas. The average realized crude oil price of the company in 2012 was US\$103.65 per barrel, being substantially the same as US\$104.20 per barrel in 2011.

Operating Expenses. Operating expenses increased by 3.5% from RMB555,238 million for the year ended December 31, 2011 to RMB574,863 million for the year ended December 31, 2012, primarily driven by the increase of expenses associated with depreciation and amortization of RMB15,770 million as compared with the previous year.

The oil and gas lifting cost increased by 4.5% from US\$11.23 per barrel in 2011 to US\$11.74 per barrel in 2012. Excluding the impact of the fluctuation of exchange rates, the oil and gas lifting cost increased by 2.2% compared the previous period.

Profit from Operations. The profit from operations for the year ended December 31, 2012 was RMB214,955 million, representing a decrease of 2.1% from RMB219,539 million for the preceding year. Such decrease was primarily attributable to the increase of depreciation and amortization. The exploration and production segment remains as the most important profit contributing segment of the company.

Refining and Chemicals

Turnover. Turnover increased by 4.2% from RMB847,711 million for the year ended December 31, 2011 to RMB883,218 million for the year ended December 31, 2012. The increase was primarily due to an increase in both the selling prices and sales volumes of key refined products.

Operating Expenses. Operating expenses increased by 1.9% from RMB909,577 million for the year ended December 31, 2011 to RMB926,729 million for the year ended December 31, 2012. The operating expenses incurred for purchases, services and other increased by RMB15,751 million as compared with last year. Such increase was primarily due to an increase in expenses incurred for purchasing crude oil, raw materials and power.

The cash processing cost of refineries increased by 5.7% from RMB146.27 per ton in 2011 to RMB154.61 per ton in 2012, which was primarily due to an increase in the costs of power and additives.

Profit from Operations. Due to the fact that international crude oil prices remained high in 2011, the prices of domestic refined products were subject to government regulation and control and the demand in the petrochemical market was down, the refining and chemicals segment recorded operating losses of RMB43,511 million for the year ended December 31, 2012, of which, the refining operations and the chemicals operations recorded operating losses of RMB33,672 million and RMB9,839 million for the year ended December 31, 2012, respectively. The operating losses of the refining operations decreased by RMB26,415 million compared to the previous year and the operating losses of the chemical operations increased by RMB8,060 million.

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Marketing

Turnover. Turnover increased by 11.7% from RMB1,693,130 million for the year ended December 31, 2011 to RMB1,890,558 million for the year ended December 31, 2012. The increase was primarily due to an increase in turnover from the oil products trading business.

Operating Expenses. Operating expenses increased by 12.1% from RMB1,672,477 million for the year ended December 31, 2011 to RMB1,874,167 million for the year ended December 31, 2012, primarily due to an increase in the purchase cost relating to the oil products trading business.

Profit from Operations. Profit from operations was RMB16,391 million for 2012, representing a decrease of 20.6% from RMB20,653 million for the year ended December 31, 2011, which was primarily due to the weak demand of oil products in 2012.

Natural Gas and Pipeline

Turnover. Turnover amounted to RMB202,196 million in 2012, representing an increase of 16.8% from RMB173,058 million in 2011. This increase was primarily due to (i) increases in both the sales and transmission volumes as well as sales price of the natural gas; and (ii) an increase in the turnover generated from the sales of city gas and LPG in 2012 due to an expansion of such business activities.

Operating Expenses. Operating expenses amounted to RMB204,306 million in 2012, representing an increase of 29.7% from RMB157,528 million in 2011. Such increase was primarily due to an increase of purchase costs of natural gas.

Profit from Operations. The natural gas and pipeline segment recorded operating losses of RMB2,110 million for the year ended December 31, 2012, representing a decrease of RMB17,640 million from the profit from operations of RMB15,530 million for the previous year, which was primarily due to an increase in losses of the sales of natural gas and LNG imported from Central Asia. RMB41,900 million of the operating losses in 2012 were attributable to the losses from the sales of the imported natural gas and LNG.

In 2012, our overseas operations further increased their contribution to the company. Turnover of overseas operations amounted to RMB702,660 million in 2012, or 32.0% of our total turnover. Profit before income tax expense of overseas operations amounted to RMB32,672 million in 2012, or 19.6% of our profit before income tax expense.

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

Year Ended December 31, 2011 Compared to Year Ended December 31, 2010

Consolidated Results of Operations

Overview

Our turnover for the year ended December 31, 2011 was RMB2,003,843 million, representing an increase of 36.7% compared with the previous period. Profit attributable to owners of the parent company for the year ended December 31, 2011 was RMB132,961 million, representing a decrease of 5.0% compared with the previous period. For the year ended December 31, 2011, the basic and diluted earnings per share attributable to owners of the parent company were RMB0.73 while the same for the year ended December 31, 2010 was RMB0.76.

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Turnover. Turnover increased by 36.7% from RMB1,465,415 million for the year ended December 31, 2010 to RMB2,003,843 million for the year ended December 31, 2011. This was primarily due to increases in the selling prices and the sales volume of major products, including crude oil, natural gas, gasoline and diesel. The table below sets out the external sales volume and average realized prices for major products sold by the company in 2011 and 2010 and percentage of changes in the sales volume and average realized prices during these two years.

	Sales Volume (thousand tons)			Average Realized Price (RMB per ton)		
	2011	2010	Percentage of Change (%)	2011	2010	Percentage of Change (%)
Crude oil	62,057	61,629	0.7	4,748	3,623	31.1
Natural gas (million cubic meter, RMB 000/cubic meter)	75,281	63,011	19.5	1,082	955	13.3
Gasoline	43,967	36,328	21.0	7,804	6,627	17.8
Diesel	91,787	77,789	18.0	6,952	5,910	17.6
Kerosene	9,778	6,716	45.6	6,206	4,874	27.3
Heavy oil	9,325	9,603	(2.9)	4,376	3,800	15.2
Polyethylene	2,885	3,012	(4.2)	9,425	8,958	5.2
Lubricant	1,761	1,703	3.4	9,601	8,215	16.9

Operating Expenses. Operating expenses increased by 42.6% from RMB1,277,638 million for the year ended December 31, 2010 to RMB1,821,382 million for the year ended December 31, 2011, of which:

Purchases, Services and Other. Purchases, services and other increased by 54.3% from RMB795,525 million for the year ended December 31, 2010 to RMB1,227,533 million for the year ended December 31, 2011. This was primarily due to (i) an overall increase in purchase cost as a result of larger trading volume in oil products, increased imports of crude oil by the refineries and the sharp rise in crude oil prices on the international market, and (ii) an increase in the costs of importing extra natural gas from Central Asia and LNG to ensure the safe and stable supply of gas to urban residents, utilities and key industrial users.

Employee Compensation Costs. Employee compensation costs (including employees' salaries and such additional costs as contributions to social security and housing fund scheme) of the company were RMB97,162 million for the year ended December 31, 2011. Excluding the impact due to the expansion of operations and the rise of the social security contribution base due to changes in government policies, employee compensation costs of the company increased by 9.8% as compared to the year ended December 31, 2010. This was primarily due to the fact that the company has adjusted its front-line employees' salaries to appropriate level, taking into consideration of certain factors, such as the rise of the domestic consumer price index.

Exploration Expenses. Exploration expenses increased by 4.1% from RMB22,963 million for the year ended December 31, 2010 to RMB23,908 million for the year ended December 31, 2011. This was primarily due to the fact that the company continued to put more efforts into oil and gas exploration to further strengthen its base of oil and gas resources.

Depreciation, Depletion and Amortization. Depreciation, depletion and amortization increased by 22.0% from RMB 113,209 million for the year ended December 31, 2010 to RMB138,073 million for the year ended December 31, 2011. This was primarily due to the fact that (i) both the average carrying value of fixed assets and the average net value of oil and gas properties increased as a result of an increase in capital expenditure of the company, leading to an increase in depreciation and depletion provisions during 2011; and (ii) a higher amount of impairment charges were recorded by the company against certain refining equipment during 2011.

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Selling, General and Administrative Expenses. Selling, general and administrative expenses decreased by 5.8% from RMB74,239 million for the year ended December 31, 2010 to RMB69,969 million for the year ended December 31, 2011. Excluding the impact due to the change in the calculation method in respect of transportation costs, the year-on-year increase was 11.7%, which was primarily due to an increase in repair costs of refining equipment and extra storage and leasing costs as a result of business expansion.

Taxes other than Income Taxes. Taxes other than income taxes increased by 44.6% from RMB184,209 million for the year ended December 31, 2010 to RMB266,343 million for the year ended December 31, 2011. In particular: (i) crude oil special gain levy increased from RMB52,172 million for the year ended December 31, 2010 to RMB102,458 million for the year ended December 31, 2011. With effect from November 1, 2011, the threshold of the crude oil special gain levy was raised from US\$40 per barrel to US\$55 per barrel. However, as the international crude oil price rose significantly during the reporting period and only November and December in 2011 were affected by the implementation of the policy of imposing a higher threshold of the crude oil special gain levy, there was a substantial increase in the company's crude oil special gain levy for the year ended December 31, 2011; (ii) consumption tax borne by the company increased from RMB89,670 million for the year ended December 31, 2010 to RMB98,795 million for the year ended December 31, 2011, which was primarily due to an increase in the sales volume of refined products from refineries during 2011; and (iii) resource tax borne by the company increased from RMB9,796 million for the year ended December 31, 2010 to RMB19,784 million for the year ended December 31, 2011. The substantial increase in the company's resource tax for the year ended December 31, 2011 as compared with 2010 was primarily due to the promulgation of new resource tax policy by the PRC government.

Other Income, net. Other income, net, of the company for the year ended December 31, 2011 was RMB1,606 million, representing an increase of RMB5,795 million from the other expenses, net, of the company in the amount of RMB4,189 million for the year ended December 31, 2010. This was primarily due to the fact that the refund of value-added tax, or VAT, for imported natural gas, including LNG, was recognized by the company in 2011.

Profit from Operations. The profit from operations of the company for the year ended December 31, 2011 was RMB182,461 million, representing a decrease of 2.8% from RMB187,777 million for the year ended December 31, 2010.

Net Exchange Loss. Net exchange loss decreased from RMB1,172 million for the year ended December 31, 2010 to RMB936 million for the year ended December 31, 2011, representing a decrease of 20.1%. The decrease in net exchange loss was primarily due to the repayment of loans denominated in Canadian dollars at the end of 2010.

Net Interest Expenses. Net interest expenses increased by 89.3% from RMB4,338 million for the year ended December 31, 2010 to RMB8,212 million for the year ended December 31, 2011. The increase in net interest expenses was primarily due to (i) an increase in our interest-bearing debts in order to ensure the funds required for production, operation and capital investment; and (ii) an increase in our financial costs as a result of the increase in interest rates in China.

Profit Before Income Tax Expense. Profit before income tax expense decreased by 2.7% from RMB189,305 million for the year ended December 31, 2010 to RMB184,215 million for the year ended December 31, 2011.

Income Tax Expenses. Income tax expenses decreased by 0.7% from RMB38,513 million for the year ended December 31, 2010 to RMB38,256 million for the year ended December 31, 2011, which was primarily due to a decrease in the taxable income for the year.

Profit for the year. Profit for the year decreased by 3.2% from RMB150,792 million for the year ended December 31, 2010 to RMB145,959 million for the year ended December 31, 2011.

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Profit attributable to non-controlling interests of the company. As international oil prices in 2011 increased significantly compared with that of last year, certain overseas subsidiaries engaging in upstream operations recorded material increases in profits, which resulted in an increase of the profit attributable to non-controlling interests by 20.4%, from RMB10,800 million for the year ended December 31, 2010 to RMB 12,998 million for the year ended December 31, 2011.

Profit attributable to owners of the parent company. Due to the effect of government control over domestic price of refined oil products, the purchase price of imported natural gas being higher than the selling price of the same and a significant increase in taxes and levies, profit attributable to owners of the parent company decreased by 5.0% from RMB139,992 million for the year ended December 31, 2010 to RMB132,961 million for the year ended December 31, 2011.

Segment Information**Exploration and Production**

Turnover. Turnover increased by 42.2% from RMB544,884 million for the year ended December 31, 2010 to RMB774,777 million for the year ended December 31, 2011. The increase was primarily due to an increase both in the average realized prices and sales volumes of crude oil and natural gas. The average realized crude oil price of the company was US\$104.20 per barrel in 2011, representing an increase of 42.9% from US\$72.93 per barrel in 2010.

Operating Expenses. Operating expenses increased by 41.9% from RMB391,181 million for the year ended December 31, 2010 to RMB555,238 million for the year ended December 31, 2011 because: (i) operating expenses incurred for purchases, services and other increased RMB76,299 million as compared with the previous year, primarily due to an increase in the purchase cost of oil import from Russia and Kazakhstan during 2011; and (ii) taxes other than income taxes increased RMB70,144 million compared with last year, primarily due to a significant increase in the crude oil special gain levies and the resource tax during 2011.

The oil and gas lifting cost increased by 12.6%, or 7.4% excluding the impact of the fluctuation of exchange rates, from US\$9.97 per barrel in 2010 to US\$11.23 per barrel in 2011, which shows that the oil and gas lifting cost was brought under effective control.

Profit from Operations. In 2011, the exploration and production segment transformed the mode of development and continued to step up cost control while crude oil prices remained high. As a result, our profitability has further improved and the basis for sustainable development has been reinforced. The profit from operations for the year ended December 31, 2011 was RMB219,539 million, representing an increase of 42.8% from RMB153,703 million for the year ended December 31, 2010. The exploration and production segment remains as the most important profit contributing segment of the company.

Refining and Chemicals

Turnover. Turnover increased by 27.5% from RMB664,773 million for the year ended December 31, 2010 to RMB847,711 million for the year ended December 31, 2011. The increase was primarily due to an increase in both the selling prices and sales volumes of major refined products.

Operating Expenses. Operating expenses increased by 38.5% from RMB656,926 million for the year ended December 31, 2010 to RMB909,577 million for the year ended December 31, 2011. The operating expenses incurred for purchases, services and other increased by RMB230,170 million as compared with last year. This was primarily due to an increase in crude oil imports by refineries and increases in international crude oil prices during 2011. Taxes other than income taxes increased by RMB10,024 million, which was primarily due to an increase in consumption tax as compared with last year.

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The cash processing cost of refineries was RMB146.27 per ton in 2011, which was substantially the same as RMB144.04 per ton in 2010.

Profit from Operations. Due to the fact that international crude oil prices remained high in 2011, the prices of domestic refined products were subject to government regulation and control and the demand in the petrochemical market was down, the refining and chemicals segment recorded operating losses of RMB61,866 million for the year ended December 31, 2011, of which, the refining operations and the chemicals operations recorded operating losses of RMB60,087 million and RMB1,779 million for the year ended December 31, 2011, respectively.

Marketing

Turnover. Turnover increased by 49.2% from RMB1,134,534 million for the year ended December 31, 2010 to RMB1,693,130 million for the year ended December 31, 2011. The increase was primarily due to an increase in both the selling prices and the sales volumes of refined products as well as an increase in revenue from the oil products trading business.

Operating Expenses. Operating expenses increased by 49.5% from RMB1,118,578 million for the year ended December 31, 2010 to RMB1,672,477 million for the year ended December 31, 2011, of which, the operating expenses incurred for purchases, services and other increased by RMB558,011 million as compared to last year, primarily due to an increase in the purchase cost relating to the oil products trading business.

Profit from Operations. In 2011, the marketing segment promptly took advantage of opportunities presented by the market and organized its marketing efforts scientifically. It expanded sales and improved the quality of marketing efforts. As a result, profit from operations was RMB20,653 million for the year ended December 31, 2011, representing an increase of 29.4% from RMB15,956 million for the year ended December 31, 2010.

Natural Gas and Pipeline

Turnover. Turnover amounted to RMB173,058 million in 2011, representing an increase of 47.9% from RMB117,043 million in 2010. This increase was primarily due to (i) increases in both the sales and transmission volumes as well as the ongoing optimization of the sales structure by the natural gas and pipeline segment in 2011, resulting in an increase in the share of industrial gas in the sales volume; (ii) the PRC government raising the ex-factory base price of locally produced onshore natural gas by RMB0.23 per cubic meters with effect from June 1, 2010; (iii) an increase in the sales revenue of city gas and LPG in 2011.

Operating Expenses. Operating expenses amounted to RMB157,528 million in 2011, representing an increase of 63.0% from RMB96,628 million in 2010, of which purchases, services and other increased RMB56,723 million compared to 2010. For the purposes of ensuring a safe and stable supply of gas to city residents, utilities and key industrial users, we imported 15.53 billion cubic meters of natural gas from Central Asia and 1.83 billion cubic meters of LNG in 2011, thereby increasing the purchase costs. Depreciation, depletion and amortization increased RMB4,376 million, which was primarily due to the fact that key projects such as the trunk line of the Second West-East Gas Pipeline commencing operation, leading to a corresponding increase in depreciation and depletion.

Profit from Operations. Profit from operations was RMB 15,530 million for the year ended December 31, 2011, representing a decrease by 23.9% from RMB20,415 million for the previous year, which was primarily due to the effect of an increase in the losses in the sales of imported natural gas as well as the transfer of major projects to fixed assets and the corresponding increase in depreciation, of which the aggregate losses arising from selling imported natural gas and LNG approximately amounted to RMB21,400 million.

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In 2011, our overseas operations further increased their contribution to the company. Turnover of overseas operations amounted to RMB574,212 million in 2011, or 28.6% of our total turnover. Profit before income tax expense of overseas operations amounted to RMB34,747 million in 2011, or 18.9% of our profit before income tax expense.

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

Liquidity and Capital Resources

Our primary sources of funding include cash generated by operating activities and short-term and long-term borrowings. Our primary uses of funds were for operating activities, acquisitions, capital expenditures, repayment of short-term and long-term borrowings and distributions of dividends to shareholders. Our payments to CNPC are limited to dividends and payments for services provided to us by CNPC. For the year ended December 31, 2012, we distributed as dividends 45% of our reported income for the year attributable to our shareholders. See Item 8 Financial Information Dividend Policy for a discussion of factors which may affect the determination by our board of directors of the appropriate level of dividends.

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

We plan to fund the capital and related expenditures described in this annual report principally through cash from operating activities, short-term and long-term borrowings and cash and cash equivalents. Net cash flows from operating activities in the year ended December 31, 2012 was RMB239,288 million. As of December 31, 2012, we had cash and cash equivalents of RMB43,395 million. While each of the projects described in this annual report for which significant capital expenditures will be required is important to our future development, we do not believe that failure to implement any one of these projects would have a material adverse effect on our financial condition or results of operations. If the price of crude oil undergoes a steep decline in the future, it is likely that we would delay or reduce the scale of the capital expenditures for our exploration and production segment.

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

In addition, we did not have for the year ended December 31, 2012, and do not currently have, any transactions, arrangements or other relationships with unconsolidated entities or other persons that are reasonably likely to materially affect the liquidity or availability of or requirements for our capital resources.

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The table below sets forth our cash flows for each of the years ended December 31, 2010, 2011 and 2012 and our cash equivalents at the end of each period.

	Year Ended December 31,		
	2010	2011	2012
	(RMB in millions)		
Net cash flows from operating activities	318,796	290,155	239,288
Net cash flows used for investing activities	(299,302)	(283,638)	(332,226)
Net cash flows (used for)/from financing activities	(60,944)	9,259	75,356
Currency translation difference	234	(313)	(195)
Cash and cash equivalents at year end	45,709	61,172	43,395

Our cash and cash equivalents decreased by 29.1% from RMB61,172 million as of December 31, 2011 to RMB43,395 million as of December 31, 2012.

Net Cash Flows from Operating Activities

Our net cash flows from operating activities for the year ended December 31, 2012 was RMB239,288 million, representing a decrease of 17.5% from RMB290,155 million in the year ended December 31, 2011. This was mainly due to the combined impact of the decrease in profit, changes in accounts receivables and payables, inventories and other kinds of working capital, and the increase in taxes and levies paid. As at December 31, 2012, we had cash and cash equivalents of RMB43,395 million. The cash and cash equivalents were mainly denominated in Renminbi (approximately 64.1% were denominated in Renminbi, approximately 16.6% were denominated in US Dollars, approximately 15.2% were denominated in HK Dollars, approximately 1.7% were denominated in KZT and approximately 2.4% were denominated in other currencies).

Our net cash flows from operating activities for the year ended December 31, 2011 was RMB290,155 million, representing a decline of 9.0% compared with RMB318,796 million generated for the year ended December 31, 2010. This was mainly due to an increase in taxes and levies paid as well as changes in inventories and other kinds of working capital. As at December 31, 2011, the company had cash and cash equivalents of RMB61,172 million. The cash and cash equivalents were mainly denominated in Renminbi (approximately 67.8% were denominated in Renminbi, approximately 25.7% were denominated in US Dollars, approximately 1.6% were denominated in HK Dollars and approximately 4.9% were denominated in other currencies).

Net Cash Flows Used for Investing Activities

Our net cash flows used for investing activities for the year ended December 31, 2012 were RMB332,226 million, representing an increase of 17.1% from RMB283,638 million in the year ended December 31, 2011. The increase was primarily due to the increase in the payment of capital expenditures in cash during the reporting period.

Our net cash flows used for investing activities for the year ended December 31, 2011 was RMB283,638 million, representing a decline of 5.2% compared with RMB299,302 million used for investing activities for the year ended December 31, 2010. The decrease was primarily due to a decrease in expenditures for the acquisition of associated entities and jointly controlled entities during 2011, partially offset by an increase in capital expenditures.

Net Cash Flows From/(Used for) Financing Activities

Our net cash flows from financing activities for the year ended December 31, 2012 increased by RMB66,097 million to RMB75,356 million from RMB9,259 million in the year ended December 31, 2011. Such change was primarily due to an increase in loans during the reporting period as compared with last year.

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Our net cash flows from financing activities for the year ended December 31, 2011 was RMB9,259 million, while our net cash flows used for financing activities for the year ended December 31, 2010 was RMB60,944 million. Such change from net cash outflows to net cash inflows was primarily due to an increase in new loans in 2011.

Our net borrowings as of December 31, 2010, 2011 and 2012 were as follows:

	2010	December 31, 2011	2012
	(RMB in millions)		
Short-term debt (including current portion of long-term debt)	102,268	137,698	151,247
Long-term debt	131,352	180,675	293,774
Total debt	233,620	318,373	445,021
Less:			
Cash and cash equivalents	45,709	61,172	43,395
Net debt	187,911	257,201	401,626

Of our total borrowings as at December 31, 2012, approximately 78.4% were fixed-rate loans and approximately 21.6% were floating-rate loans. Of our borrowings as at December 31, 2012, approximately 84.9% were denominated in Renminbi, approximately 14.1% were denominated in United States Dollars and approximately 1.0 % were denominated in other currencies.

Of our total borrowings as at December 31, 2011, approximately 72.4% were fixed-rate loans and approximately 27.5% were floating-rate loans, and approximately 0.1% were interest-free loans. Of our borrowings as at December 31, 2011, approximately 79.8% were denominated in Renminbi, approximately 17.7% were denominated in United States Dollars, approximately 1.2% were denominated in Japanese yen, approximately 0.9% were denominated in Canadian Dollars and approximately 0.4% were denominated in other currencies.

Our debt to capital ratio (calculated by dividing interest-bearing debts by the aggregate of interest-bearing debts and shareholder's equity) as of December 31, 2012 was 27.4%, as compared to 22.7% as of December 31, 2011.

As at December 31, 2012, the outstanding amount of our debts secured by CNPC and its subsidiaries and other third parties was RMB21,942 million. In August 2012, we received the approval from the China Securities Regulatory Commission for our offering in China of bonds of a maximum amount of RMB40 billion under the unconditional and irrevocable guarantee of CNPC. In November 2012, we completed the offering of the first tranche of RMB20 billion, consisting of RMB16 billion 4.55% bonds due in five years, RMB2 billion 4.90% due in 10 years, and RMB 2 billion 5.04% due in 15 years. In March 2013, we completed the offering of the remaining RMB20 billion, consisting of RMB16 billion 4.47% bonds due in five years and RMB4 billion 4.88% due in 10 years.

Capital Expenditures and Investments

In 2012, we placed top priority on maintaining the leading position of our upstream operations, carrying on arduously the principal business of oil and gas domestically whilst emphasizing the development of oil and gas operations overseas, and pushed forward with the construction of oil and gas pipelines and trunk pipeline networks in a steady manner. Our capital expenditures in 2012 increased by 23.95% to RMB352,516 million from RMB284,391 million in 2011.

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The table below sets forth our capital expenditures and investments by business segment for each of the years ended December 31, 2010, 2011 and 2012 as well as those anticipated for the year ending December 31, 2013. Actual capital expenditures and investments for periods after January 1, 2013 may differ from the amounts indicated below.

	2010		2011		2012		2013 Anticipated	
	(RMB in millions)	%	(RMB in millions)	%	(RMB in millions)	%	(RMB in millions)	%
Exploration and production ⁽¹⁾	160,893	58.25	162,154	57.02	227,211	64.45	239,600	67.49
Refining and chemicals	44,242	16.02	42,781	15.04	36,009	10.21	32,400	9.13
Marketing	15,793	5.72	15,136	5.32	14,928	4.23	14,300	4.03
Natural gas and pipeline	53,648	19.42	62,645	22.03	72,939	20.69	65,700	18.51
Other	1,636	0.59	1,675	0.59	1,429	0.42	3,000	0.84
Total	276,212	100.0	284,391	100.0	352,516	100.0	355,000	100.0

- (1) If investments related to geological and geophysical exploration costs are included, the capital expenditures and investments for the exploration and production segment for 2010, 2011, 2012 and the estimates for the same in 2013 would be RMB173,142 million, RMB173,760 million, RMB239,266 million and RMB250,600 million, respectively.

As of December 31, 2012, the capital expenditures contracted for at the balance sheet date but not recognized in our consolidated financial statements were approximately RMB47,196 million.

Exploration and Production

A majority of our capital expenditures and investments relate to our exploration and production segment. For each of the three years ended December 31, 2010, 2011 and 2012, capital expenditures in relation to the exploration and production segment amounted to RMB160,893 million, RMB162,154 million and RMB227,211 million, respectively. In 2012, our capital expenditures were primarily used for the acquisition of mineral interests in oil and gas fields in Canada, capital investments in oil and gas development projects such as Halfaya and Rumaila of Iraq, large scale domestic oil and gas exploration projects such as those in Changqing, Tarim, Daqing and Southwestern, and construction of key production capacities for various oil and gas fields.

We anticipate that capital expenditures for our exploration and production segment for 2013 would amount to RMB239,600 million. Domestic exploration activities will remain focused on the Peak Oil and Gas Reserves Program and more efforts will be devoted to key oil and gas regions such as Songliao Basin, Erdos Basin, Tarim Basin, Sichuan Basin and Bohai Bay Basin, and to such unconventional oil and gas areas as coal seam gas and shale gas. Development activities will be focused on maintaining the output of Daqing Oilfield at 40 million tons of crude oil per year, as well as increasing the oil and gas equivalent output of Changqing Oilfield to 50 million tons per year and increasing the output of such oil and gas fields as Xinjiang, Tarim and Southwestern. Overseas operations will be focused on cooperation in oil and gas exploration and development in the Middle East, Central Asia, the Americas and the Asia-Pacific regions.

Refining and Chemicals

Our capital expenditures for our refining and chemicals segment for each of the years ended December 31, 2010, 2011 and 2012 were RMB44,242 million, RMB42,781 million and RMB36,009 million, respectively. Among the capital expenditure made in 2012, RMB21,563 million was used on the construction of refinery facilities and RMB14,446 million was used on the construction of chemicals facilities, including the construction of large scale refining and ethylene projects, such as the Guangxi Petrochemical, Sichuan Petrochemical, Fushun Petrochemical, Daqing Petrochemical, and Hohhot Petrochemical projects.

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We anticipate that capital expenditures for the refining and chemicals segment for 2013 will amount to RMB32,400 million, which are expected to be used primarily for the construction of large scale refining and chemicals projects, such as those at Guangdong Petrochemical, Huabei Petrochemical, Yunnan Petrochemical and Sichuan Petrochemical, as well as the construction of quality enhancement projects for gasoline and diesel products. Of the RMB32,400 million, approximately RMB24,800 million will be used for the construction and expansion of refining facilities and approximately RMB7,600 million will be used for the construction and expansion of chemical facilities.

Marketing

Our capital expenditures for our marketing segment for each of the years ended December 31, 2010, 2011 and 2012 were RMB15,793 million and RMB15,136 million and RMB14,928 million, respectively. Our capital expenditures for the marketing segment in 2012 were mainly used for the construction of service stations, storage facilities and other facilities for our sales network.

We anticipate that capital expenditures for our marketing segment for the year of 2013 will amount to RMB14,300 million, which are expected to be used primarily for the construction and expansion of high-efficiency sales networks in China as well as the construction of oil and gas operating centers abroad.

Natural Gas and Pipeline

Our capital expenditures for the natural gas and pipeline segment for each of the three years ended December 31, 2010, 2011 and 2012 were RMB53,648 million, RMB62,645 million and RMB72,939 million, respectively. Our capital expenditures for the natural gas and pipeline segment in 2012 were mainly used for the construction of the Second West-East Gas Pipeline, the Third West-East Pipeline, the Third Shaanxi-Beijing Gas Pipeline, the Lanzhou-Chengdu Crude Oil Pipeline projects, and the Tangshan LNG project.

We anticipate that our capital expenditures for the natural gas and pipeline segment for 2013 will amount to approximately RMB65,700 million, which are expected to be used primarily for the construction of major oil and gas transmission projects such as the Third West-East Gas Pipeline, the Zhongwei-Guiyang Natural Gas Pipeline, the Third Daqing-Tieling Crude Oil Pipeline, and the Fourth Daqing-Tieling Crude Oil Pipeline and associated liquefied natural gas and city gas facilities.

Others

Our non-segment-specific capital expenditures and investments for each of the years ended December 31, 2010, 2011 and 2012 were RMB1,636 million, RMB1,675 million and RMB1,429 million, respectively.

Our anticipated capital expenditures for the headquarter and other segments for the year of 2013 amount to RMB3,000 million. These planned capital expenditures and investments mainly include capital expenditures for scientific research activities and the construction of the information system.

Off-Balance Sheet Arrangements

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

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

The tables below set forth our long-term contractual obligations outstanding as of December 31, 2012.

Contractual Obligations	Total	Payment Due by Period			After 5 Years
		Less Than 1 Year	1-3 Years	3-5 Years	
		(RMB in millions)			
Long-term debt	301,612	7,838	135,434	89,244	69,096
Capital lease obligations (finance lease)	4,061	199	810	1,221	1,831
Operating leases	102,337	6,148	9,652	9,444	77,093
Capital commitments	47,196	46,947	180	46	23
Other long-term obligations					
Debt-related interest	58,491	13,156	19,838	10,787	14,710
Total	513,697	74,288	165,914	110,742	162,753

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

Year	Annual Payment (RMB in millions)
2013	1,000
2014	1,000
2015	1,000
2016	1,000
2017	1,000

Assets Retirement Obligation

A number of provinces and regions in which our oil and gas exploration and production activities are located have promulgated environment protection regulations, which set forth specific abandonment and disposal processes for oil and gas exploration and production activities. We have established standard abandonment procedures, including plugging all retired wells, dismantling all retired metering stations and other related facilities and performing site restoration, in response to the issuance of these provincial and regional regulations. As of December 31, 2012 the balance of assets retirement obligation was RMB83,928 million.

Research and Development

We have a research and development management department, directly under which there are three research institutions. Except for our branch companies which are engaged in marketing activities, each of our branch companies has its own research and development management department. Most of our branch companies have their own research institutions. Our research and development management departments are mainly responsible for managing and coordinating the research and development activities conducted by each of the research institutions. As of December 31, 2012, we had 28,629 employees engaged in research and development functions.

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In each of the years ended December 31, 2010, 2011 and 2012, our total expenditures for research and development were approximately RMB11,840 million, RMB13,224 million and RMB14,453 million, respectively.

Exploration and Production

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

theories and technologies of crude oil and natural gas exploration;

oil and gas development theory and technology;

engineering technology and equipment;

theory and technology for oil and gas storage and transportation; and

security, energy conservation and environment protection.

Refining and Chemicals

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

technology for clean refined oil products;

technology for unqualified heavy oil processing;

refining-chemical integration technology;

technology for new products of synthetic resin and synthetic rubber; and

new catalytic and catalytic materials.

Trend Information

The world economic situation and energy industry are developing and changing rapidly. China may encounter unexpected challenges and obstacles in maintaining a stable economic development. The increase in China's domestic demand for refined oil products is still subject to many uncertainties. The competition on China's domestic petroleum and petrochemical market will be more intense.

Other than as disclosed above and elsewhere in this annual report, we are not aware of any trends, uncertainties, demands, commitments or events for the periods from January 1, 2010 to December 31, 2012 that are reasonably likely to have a material adverse effect on our net revenues, income, profitability, liquidity or capital resources, or that would cause the disclosed financial information to be not necessarily

indicative of future operating results or financial conditions.

Other Information

Inflation

Inflation or deflation has not had a significant impact on our results of operations for the year ended December 31, 2012.

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Related Party Transactions

For a discussion of related party transactions, see Item 7 Major Shareholders and Related Party Transactions Related Party Transactions and Note 37 to our consolidated financial statements included elsewhere in this annual report.

Recent Developments in IFRS

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

ITEM 6 DIRECTORS, SENIOR MANAGEMENT AND EMPLOYEES

Directors, Senior Management and Supervisors

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

- (1) convening shareholders meetings and reporting its work to the shareholders meetings;
- (2) implementing the resolutions of the shareholders meetings;
- (3) determining our business plans and investment programs;
- (4) formulating our annual budget and final accounts;
- (5) formulating our profit distribution proposal and loss recovery proposals;
- (6) formulating proposals for the increase or reduction of our registered capital and the issuance of our debentures or other securities and listings;
- (7) proposing to acquire our shares or merger, spin-off, dissolution or any plan to change in the form of the company;
- (8) deciding on our internal management structure;
- (9) appointing or dismissing the President of the company, and upon the nomination of the President, appointing or dismissing the senior vice president, vice president, chief financial officer and other senior management, and determining matters relating to their remuneration;
- (10) formulating our basic management system;

(11) preparing amendments to our articles of association;

(12) managing the information disclosures of our company; and

(13) exercising any other powers and duties conferred by the shareholders at general meetings.

Six of the directors are affiliated with CNPC or an affiliate of CNPC.

The PRC Company Law requires a joint stock company with limited liability to establish a supervisory board. This requirement is reflected in our articles of association. The supervisory board is responsible for monitoring our financial matters and overseeing the corporate actions of our board of directors and our management personnel. At the end of this reporting period, the supervisory board consists of eight supervisors, five of whom are elected, including four shareholders representatives and one independent supervisor, and may be removed, by the shareholders in a general meeting and three of whom are employees representatives who are

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elected by our staff, and may be removed, by our staff. Four of our supervisors are affiliated with CNPC. The term of office of our supervisors is three years. The supervisors may be re-elected and re-appointed upon the expiration of his/her term of office. An elected supervisor cannot concurrently hold the position of a director, manager or financial controller.

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

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

to review the company's financial position;

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

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

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

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

to submit proposals to the shareholders' meetings;

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

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

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

to oversee the compliance of related party transactions; and

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other functions and powers as set forth in the articles of association of the company.
Supervisors shall attend meetings of the board of directors as observers.

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

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

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

Name⁽¹⁾	Age	Position	Date of Election⁽²⁾
Zhou Jiping	60	Chairman of the board of directors and president	May 18, 2011
Li Xinhua	59	Director	May 18, 2011
Liao Yongyuan	50	Director and vice president	May 18, 2011
Wang Guoliang	60	Director	May 18, 2011
Wang Dongjin	50	Director	May 18, 2011
Yu Baocai	47	Director	May 18, 2011
Ran Xinquan	47	Director and vice president	May 18, 2011
Liu Hongru	82	Independent non-executive director	May 18, 2011
Franco Bernabè	64	Independent non-executive director	May 18, 2011
Li Yongwu	68	Independent non-executive director	May 18, 2011
Cui Junhui	66	Independent non-executive director	May 18, 2011
Chen Zhiwu	50	Independent non-executive director	May 18, 2011
Li Hualin	50	Vice President and Secretary to the board of directors	
Sun Longde	50	Vice president	
Liu Hongbin	49	Vice president	
Zhao Zhengzhang	56	Vice president	
Bo Qiliang	50	Vice president	
Huang Weihe	55	Vice president	
Xu Fugui	55	Vice president	
Yu Yibo	49	Chief financial officer	
Lin Aiguo	54	Chief engineer	
Wang Daofu	57	Chief geologist	
Wang Lixin	56	Chairman of the supervisory board	
Guo Jinping	55	Supervisor	
Wen Qingshan	54	Supervisor	
Sun Xianfeng	60	Supervisor	
Wang Guangjun	48	Supervisor	
Yao Wei	56	Supervisor	
Liu Hehe	49	Supervisor	
Wang Daocheng	72	Independent supervisor	

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

Due to change of work, Mr. Jiang Jiemin, our former Chairman, has tendered his resignation to the company and ceased to hold the positions of the Chairman of the board and the director of the company effective from March 18, 2013. Pursuant to the relevant provisions of the PRC Company Law and the Articles of Association of the Company, Mr. Zhou Jiping, the former Vice Chairman and President of the Company, performed the duties and powers of the Chairman of the board prior to the election of a new chairman of the board. On April 25, 2013, the board appointed Mr. Zhou Jiping as the Chairman of our company.

Due to taking up the appointments of the chief accountant of China State Shipbuilding Corporation, Mr. Zhou Mingchun, our former chief financial officer, has rendered his resignation and ceased to hold the position of the chief financial officer of the Company effective from March 14, 2013.

Mr. Sun Bo, our former vice president, passed away on December 8, 2012.

(2) For directors only.

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Zhou Jiping, aged 60, is the Chairman and President of our company and the Chairman of CNPC. Mr. Zhou is a professor-level senior engineer and holds a master's degree. He has over 40 years of working experience in China's oil and gas industry. In November 1996, he was appointed Deputy Director of the International Exploration and Development Cooperation Bureau of China National Petroleum Corporation and Deputy General Manager of China National Oil & Gas Exploration and Development Corporation. In December 1997, he was appointed General Manager of China National Oil & Gas Exploration and Development Corporation and Deputy Director of the International Exploration and Development Cooperation Bureau of China National Petroleum Corporation, and in August 2001, he was appointed Assistant to the General Manager of CNPC and General Manager of China National Oil & Gas Exploration and Development Corporation. Mr. Zhou has been a Deputy General Manager of CNPC since December 2003, and a Director of our company since May 2004. In May 2008, Mr. Zhou was appointed the Vice Chairman and President of our company. Mr. Zhou was appointed the General Manager of CNPC in October 2011. In March 2013, Mr. Zhou performed the duties and powers of the Chairman of our company. In April 2013, Mr. Zhou was appointed the Chairman of CNPC and concurrently the Chairman of our company.

Li Xinhua, aged 59, is a Director of our company and a Deputy General Manager of CNPC. Mr. Li is a senior engineer and holds a bachelor's degree. Mr. Li has over 35 years of working experience in China's petrochemical industry. In June, 1985 Mr. Li was appointed the Vice Director of Yunnan Province Natural Gas Chemical Plant and in February 1992 the Director of Yunnan Province Natural Gas Chemical Plant. In March 1997, Mr. Li was appointed as the Chairman and General Manager of Yunnan Province Yuntianhua Group and in March 2002, as the Assistant Governor of Yunnan Province. In January 2003, Mr. Li was appointed as the Deputy Governor of Yunnan Province, and in April 2007 as the Deputy General Manager of CNPC. Since May 2008, Mr. Li has been acting as a Director of our company.

Liao Yongyuan, aged 50, is a Director and Vice President of our company and concurrently serves as the Deputy General Manager of CNPC. Mr. Liao holds a master's degree and is a professor-level senior engineer. He has 30 years of working experience in China's oil and gas industry. He was Deputy Director of the New Zone Exploration and Development Department of China National Petroleum Corporation from June 1996, the Standing Deputy Commander and then Commander of Tarim Petroleum Exploration and Development Headquarters from November 1996. He was the General Manager of PetroChina Tarim Oilfield Branch Company from September 1999, and also the Deputy Director of Gansu Provincial Economic and Trade Committee from October 2001. He has worked as the Assistant to the General Manager of CNPC since January 2004 and has been concurrently the Head of Coordination Team for Oil Enterprises in Sichuan and Chongqing and Director of Sichuan Petroleum Administration since April 2004. He has been a Vice President of our company since November 2005. He was appointed a Deputy General Manager of CNPC in February 2007, and was the Safety Director of CNPC from July 2007 to February 2012. He has been a Director of our company since May 2008.

Wang Guoliang, aged 60, is a Director of our company and the Chief Accountant of CNPC. Mr. Wang is a professor-level senior accountant and holds a master's degree. Mr. Wang has 30 years of working experience in China's oil and gas industry. Mr. Wang had worked as the Vice President of China Petroleum Finance Company Limited from October 1995. In November 1997, he was appointed a Deputy General Manager and the General Accountant of China National Oil & Gas Exploration and Exploitation Corporation. Mr. Wang had been the Chief Financial Officer of our company from November 1999. He was appointed General Accountant of CNPC in February 2007, and Director of our company in May 2008.

Wang Dongjin, aged 50, is a Director of our company and the Deputy General Manager of CNPC. Mr. Wang is a professor-level senior engineer and holds a master's degree. Mr. Wang has 30 years of working experience in China's oil and gas industry. In July 1995, Mr. Wang was made the Deputy Director of Jiangsu Oil Exploration Bureau. In December 1997, he was made the Deputy General Manager of China National Oil & Gas

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Exploration and Development Corporation. From December 2000, Mr. Wang has worked concurrently as the General Manager in each of CNPC International (Kazakhstan) Ltd. and Aktobe Oil and Gas Co., Ltd.. In October 2002, he assumed the position as the General Manager of China National Oil & Gas Exploration and Development Corporation. In January 2004, Mr. Wang assumed the positions as the Assistant to the General Manager of CNPC and the Vice Chairman and General Manager of China National Oil & Gas Exploration and Development Corporation. In September 2008, Mr. Wang was appointed as the Deputy General Manager of CNPC. Mr. Wang was elected as a Director of our company in May 2011.

Yu Baocai, aged 47, is a Director of our company and the Deputy General Manager of CNPC. Mr. Yu is a senior engineer and holds a master's degree. He has nearly 25 years of working experience in China's oil and petrochemical industry. In September 1999, Mr. Yu was made the Deputy General Manager of PetroChina Daqing Petrochemical Company. In December 2001, he assumed the position as the General Manager of PetroChina Daqing Petrochemical Company. In September 2003, he undertook the position as General Manager of PetroChina Lanzhou Petrochemical Company. In September 2008, Mr. Yu was made the Deputy General Manager of CNPC. In February 2003, Mr. Yu was elected as a representative of the 10th National People's Congress of PRC. In February 2008, Mr. Yu was elected as a representative of the 11th National People's Congress of PRC. Mr. Yu was elected as a Director of our company in May 2011.

Ran Xinquan, aged 47, is a Director and Vice President of our company and the General Manager of PetroChina Changqing Oilfield Company. Mr. Ran is a professor-level senior engineer and holds a doctorate degree. He has nearly 25 years of working experience in the China's oil and gas industry. In April 2002, Mr. Ran was made the Deputy General Manager of CNPC Exploration and Production Company. In February 2005, he was made an key executive of PetroChina Changqing Oilfield Company. In October 2006, Mr. Ran became the key executive of PetroChina Changqing Oilfield Company. Since February 2008, he has served as the General Manager of PetroChina Changqing Oilfield Company. Mr. Ran was elected as a Director of our company in May 2011 and appointed as the Vice President of our company in October 2011.

Independent Non-executive Directors

Liu Hongru, aged 82, is an independent non-executive Director of our company. Mr. Liu is a professor and holds a doctorate degree. He graduated from the Faculty of Economics of the University of Moscow in 1959 with an associate doctorate degree. Mr. Liu once worked as Vice Governor of the Agricultural Bank of China, Vice-Governor of the People's Bank of China, Deputy Director of the State Economic Restructuring Committee, and the Chairman of the China Securities Regulatory Commission. Mr. Liu is also a professor at the Peking University, the Tsinghua University and the Hong Kong Baptist University. Mr. Liu was appointed an independent Supervisor of our company in December 1999. After his resignation from this position as independent supervisor, Mr. Liu was appointed an independent non-executive Director of our company in November 2002. Mr. Liu has expertise in the accounting or related financial management field as required by the Main Board Listing Rules of Hong Kong Exchanges and Clearing Limited.

Franco Bernabè, aged 64, is an independent non-executive Director of our company. He holds a doctorate degree in political economics. He is currently the Chief Executive Officer of Telecom Italia (serving a second time). Prior to that, he held the responsibilities of the Chairman of the Franco Bernabè Group, the Vice Chairman of H3G, the Vice Chairman of Rothschild Europe, a non-executive director of Pininfarina Spa and an independent non-executive director of Areoportidi Bologna. Mr. Bernabè joined ENI in 1983 to become an assistant to the chairman; in 1986 he became director for development, planning and control; and between 1992 and 1998 he was the Chief Executive Officer of ENI. Mr. Bernabè led the restructuring program of the ENI Group, making it one of the world's most profitable oil companies. Between 1998 and 1999, Mr. Bernabè was the Chief Executive Officer of Telecom Italia. Between 1999 and 2000, he also served as a special representative of the Italian government for the reconstruction of the Balkan region. He was the Chairman of La Biennale di Venezia from 2001 to 2003 and has been the Chairman of the Modern Arts Museum of Trento and Rovereto since 2005. Prior to his joining ENI, Mr. Bernabè was the head of economic studies at FIAT. Mr. Bernabè was a

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senior economist at the OECD Department of Economics and Statistics in Paris. Earlier he was a professor of economic politics at the School of Industrial Administration, Turin University. Mr. Bernabè has been an independent non-executive Director of our company since June 2000.

Li Yongwu, aged 68, is an independent non-executive Director of our company. Mr. Li is a senior engineer and holds a bachelor's degree. In June 1991, Mr. Li was appointed as the Director of Tianjin Chemicals Bureau. In July 1993, he was appointed as the Director of Tianjin Economic Committee. He was elected as the Vice Minister of the PRC Ministry of Chemical Industry in April 1995. He became Director of the State's Petroleum and Chemical Industry Bureau in March 1998. In April 2001, he was appointed a Deputy Director of the Liaison Office of the Central Government at the Special Administrative Region of Macau. In December 2004, he was appointed the Vice President of China Petroleum and Petrochemical Industry Association. In May 2005, he became the Chairman of China Petroleum and Petrochemical Industry Association and in November 2005, he became an Independent Supervisor of our company. In 2003, he was elected as a standing member of the Tenth Chinese People's Consultative Conference. In May 2008, Mr. Li was appointed an independent non-executive Director of our company.

Cui Junhui, aged 66, is an independent non-executive Director of our company. Mr. Cui is a representative of the 11th National People's Congress of the PRC and a Committee Member of the Financial and Economic Affairs Committee of the National People's Congress of the PRC. He is holder of a postgraduate degree (part-time study). The positions he held include Deputy Director of the Tax Bureau of Shandong Province and the Director of State Tax Bureau of Shandong Province. From January 2000 to January 2007, he served as a Deputy Director of the State Administration of Taxation. In December 2006, he was made a Vice President of Chinese Taxation Institute and a Vice President of China Charity Federation. Mr. Cui was elected as a representative of the 11th National People's Congress and a member of the Financial and Economic Affairs Committee of the National People's Congress in March 2008. In April 2008, Mr. Cui was elected as the President of the sixth term of the Chinese Taxation Institute. Mr. Cui has served as an independent non-executive Director of our company since May 2008. Mr. Cui has expertise in the accounting or related financial management field as required by the Main Board Listing Rules of Hong Kong Exchanges and Clearing Limited.

Chen Zhiwu, aged 50, is an independent non-executive Director of our company. Mr. Chen is a tenured professor of economic finance at Yale University School of Management and a distinguished professor under the Chang Jiang Scholar Program at Tsinghua University School of Humanities and Social Sciences. Mr. Chen received a bachelor of science degree from Central South University of Technology in China (now Central South University), a master's degree in engineering from National University of Defense Technology of the PRC and a doctoral degree of finance from Yale University of the United States. In June 1990, Mr. Chen started his teaching career in the University of Wisconsin – Madison of the United States. From July 1995 to July 1999, he worked at Ohio State University of the United States and was promoted to associate professor of finance in 1997. From July 1999, Mr. Chen became a tenured professor of finance at Yale University School of Management. Mr. Chen was elected as an independent non-executive Director of our company in May 2011.

Secretary to the Board of Directors

Li Hualin, aged 50, is the Secretary to the Board of Directors and Vice President of our company, and an Executive Director and General Manager of China Petroleum Hongkong (Holding) Limited. Mr. Li holds a master's degree and is a professor-level senior economist. Mr. Li has approximately 30 years of experience in the oil and gas industry in China. In December 1997, Mr. Li became the Deputy General Manager of the China National Oil and Gas Exploration Development Corporation and the Chairman and General Manager of CNPC International (Canada) Ltd. In September 1999, Mr. Li became the General Manager of CNPC International (Kazakhstan) Ltd. whilst remaining as the Deputy General Manager of the China National Oil and Gas Exploration and Development Corporation. In January 2001, Mr. Li became the Deputy General Manager of China Petroleum Hongkong (Holding) Limited. In December 2001, he was appointed as the Chairman of Shenzhen Petroleum Industrial Co., Ltd. From July 2006, Mr. Li became the Vice-Chairman and General

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Manager of China Petroleum Hongkong (Holding) Limited, whilst remaining as the Chairman of Shenzhen Petroleum Industrial Co., Ltd. Mr. Li has been a Vice President of our company since November 2007. Mr. Li was appointed as the Secretary to the Board of Directors of our company in May 2009.

Other Senior Management Personnel

Sun Longde, aged 50, is a Vice President of our company. Mr. Sun is a professor-level senior engineer and holds a doctoral degree. He has approximately 30 years of working experience in China's oil and geological industry. Mr. Sun was appointed the Deputy Chief Geologist of Xianhe Oil Extraction Plant and Deputy Manager of Dongxin Oil Extraction Plant of Shengli Petroleum Administration Bureau in January 1994, Chief Deputy Director-General of Exploration Business Department of Shengli Petroleum Administration Bureau in April 1997, the Manager of Exploration & Development Company of Shengli Petroleum Administration Bureau in September 1997, Chief Geologist of Tarim Petroleum Exploration & Development Headquarters in November 1997, Deputy General Manager of PetroChina Tarim Oilfield Company in September 1999 and the General Manager of PetroChina Tarim Oilfield Company in July 2002. Mr. Sun has been a Vice President of our company since June 2007. In December 2011, Mr. Sun was elected to the Chinese Academy of Engineering.

Liu Hongbin, aged 49, is a Vice President of our company and concurrently the General Manager of the Marketing Company of our company. Mr. Liu is a senior engineer and holds a college degree. He has approximately 30 years of working experience in China's oil and gas industry. Mr. Liu was appointed the Vice President of Exploration & Development Research Institute of Yumen Petroleum Administration Bureau in May 1991, the Director of the Development Division of Tuha Petroleum Exploration & Development Headquarters in October 1994, the Chief Engineer of Tuha Petroleum Exploration & Development Headquarters in June 1995, the Deputy General Manager of PetroChina Tuha Oilfield Company in July 1999, the Commander of Tuha Petroleum Exploration & Development Headquarters in July 2000, the General Manager of the Planning Department of our company in March 2002 and the Director of the Planning Department of CNPC in September 2005. Mr. Liu has become a Vice President of our company since June 2007. Mr. Liu has served as a Vice President of our company and concurrently as the General Manager of the Marketing Company since November 2007.

Zhao Zhengzhang, aged 56, is a Vice President of our company and concurrently the General Manager of Exploration and Production Company of our company. Mr. Zhao holds a master's degree. He is a professor-level senior engineer and has over 25 years of working experience in China's oil and industry. In June 1996, Mr. Zhao was appointed as the Deputy Director of the New District Exploration Department of CNPC. In November 1996, he was appointed as Deputy Director of the Exploration Bureau of CNPC and Director of the New District Exploration Department. In October 1998, Mr. Zhao was appointed as Deputy Director of the Exploration Department of CNPC. In September 1999, he was appointed as a member of the Preparatory Group of CNPC Exploration and Production Company. In December 1999, Mr. Zhao was appointed as Deputy General Manager of CNPC Exploration and Production Company. In January 2005, he was appointed as Senior Executive and Deputy General Manager of CNPC Exploration and Production Company. In January 2006, he was appointed as the General Manager of CNPC Exploration and Production Company. In May 2008, Mr. Zhao was appointed the Vice President of the company and the General Manager of the Exploration and Production Company.

Bo Qiliang, aged 50, is a Vice President of our company and concurrently the General Manager of PetroChina International Ltd. Mr. Bo holds a doctor's degree and is a professor-level senior engineer. He has over 25 years of working experience in China's oil and gas industry. Mr. Bo was made the Vice President of the Scientific Research Institute of Petroleum Exploration and Development in February 1997, senior executive of CNPC International (E&D) Ltd. in December 2001, Senior Deputy General Manager of China National Oil and Gas Exploration and Development Corporation in October 2004, President of PetroKazakhstan Inc. and concurrently leader of the Kazakhstan Coordination and Steering Team in November 2005, and General Manager of China National Oil and Gas Exploration and Development Corporation in September 2008. Mr. Bo began to act as the General Manager of PetroChina International Ltd. while concurrently acting as the General Manager of

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China National Oil and Gas Exploration and Developing Corporation from November 2009. Mr. Bo has been acting as a Vice President of our company and concurrently as the General Manager at PetroChina International Ltd. since January 2010.

Huang Weihe, aged 55, is a Vice President and the General Manager of PetroChina Natural Gas and Pipelines Company. Mr. Huang is a professor-level senior engineer and holds a doctoral degree. He has 30 years of working experience in China's oil and gas industry. In December 1998, he was appointed as Deputy Director of the Petroleum and Pipelines Bureau. In November 1999, he was appointed as Deputy Director of the Petroleum and Pipelines Bureau while concurrently acting as Chief Engineer. From October 2000, Mr. Huang served as the General Manager of PetroChina Pipelines Company and in May 2002, concurrently as the General Manager of PetroChina West-East Natural Gas Transmission Pipelines Company. In November 2002, Mr. Huang was appointed as the General Manager of PetroChina West-East Natural Gas Transmission Pipelines Company. In December 2002, he was appointed as the General Manager of PetroChina Natural Gas and Pipelines Company of the Company and the General Manager of PetroChina West-East Natural Gas Transmission Pipelines Company. In February 2006, Mr. Huang ceased to be the General Manager of PetroChina Natural Gas Transmission Pipelines Company. In May 2008, Mr. Huang was appointed as the Chief Engineer of the company while concurrently serving as the General Manager of PetroChina Natural Gas and Pipelines Company. Mr. Huang was appointed the Vice President of our company in October 2011.

Xu Fugui, aged 55, is the Vice President of our company and the General Manager of PetroChina Refining & Chemical Company. Mr. Xu is a professor-level senior engineer and holds a doctoral degree. He has 30 years of working experience in China's oil and petrochemical industry. Mr. Xu had worked as the Deputy Manager of Dushanzi Petrochemical Plant and manager of Refining Plant of Xinjiang Petroleum Administration Bureau concurrently. He was appointed as the General Manager of Dushanzi Petrochemical Plant of Xinjiang Petroleum Administration Bureau in July 1999, and the General Manager of Dushanzi Petrochemical Company in September 1999. In September 2011, he was appointed the General Manager of PetroChina Refining & Chemical Company. In October 2011, he was appointed as the Vice President of our company.

Yu Yibo, aged 49, is the Chief Financial Officer of our company and concurrently the General Manager of the Merger and Acquisition Department of our company. Mr. Yu is a professor-level senior accountant and holds a doctorate degree from the Business School of Hitotsubashi University in Japan. Mr. Yu has 15 years of experience in China's oil and gas industry. In November 1998, Mr. Yu was appointed the assistant to the President of CNPC. In February 1999, Mr. Yu was appointed as a member of the Restructuring and Listing Preparatory Team of CNPC. In November 1999, Mr. Yu was appointed the deputy general manager of the Finance Department of our company. Mr. Yu was the Deputy General Manager of PetroChina Dagang Oilfield Branch Company from March 2002 to October 2002. Since April 2003, he has been the General Manager of the Merger and Acquisition Department of our company. He was a supervisor of the company from May 2008 to May 2011. In March 2013, Mr. Yu was appointed the Chief Financial Officer of our company.

Lin Aiguo, aged 54, is the Chief Engineer of our company. Mr. Lin is a professor-level senior engineer and holds a college degree. He has over 30 years of working experience in China's oil and petrochemical industry. Mr. Lin was appointed as the Deputy Manager and the Standing Deputy Manager of Shengli Refinery of Qilu Petrochemical Company in July 1993, the Deputy General Manager of Dalian West Pacific Petrochemical Co. Ltd. in May 1996, and the General Manager of Dalian West Pacific Petrochemical Co. Ltd. in August 1998, and the General Manager of Refining & Marketing Company of our company in December 2002. Mr. Lin has served as the Chief Engineer of our company since June 2007.

Wang Daofu, aged 57, is the General Geologist of our company and Director of the Exploration and Development Institute. Mr. Wang is a professor-level senior engineer and holder of a doctoral degree. He has 30 years of working experience in China's oil and gas industry. He was appointed as Deputy General Manager of PetroChina Changqing Oilfield Company in September 1999 and General Manager of PetroChina Changqing Oilfield Company in January 2003. He was elected as a representative of the 11th National People's Congress of

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the PRC in 2008. Mr. Wang has become the General Geologist of our company since May 2008. Mr. Wang has been concurrently acting as the Director of the Exploration and Development Institute since September 2008.

Supervisors

Wang Lixin, aged 56, is the Chairman of the Supervisory Board of our company. Mr. Wang is a professor-level senior economist and holder of a master's degree. Mr. Wang has 40 years of working experience in China's oil and petrochemical industry. He was made the executive of Shengli Petroleum Administration Bureau in February 1998. In November 2004, he was appointed as key executive of Shengli Petroleum Administration Bureau and Vice Chairman of Shengli Oilfield Company Limited. Mr. Wang became the director of the Shengli Petroleum Administration Bureau in March 2007 and was also appointed as the Assistant to the General Manager of China Petrochemical Corporation since March 2009. In May 2011, he was appointed as the head of Discipline Inspection Group of CNPC. In October 2011, he was elected as the supervisor and Chairman of the Supervisory Board.

Guo Jinping, aged 55, is a Supervisor and the General Manager of the Legal Department of our company and the General Counsel and the director of the Legal Department of CNPC. Mr. Guo is a professor-level senior economist and has been awarded with post-graduate qualification. Mr. Guo has nearly 30 years of working experience in the China's oil and gas industry. In November 1996, he became the chief economist in the Bureau of Policy and Regulations of China National Petroleum Corporation. In October 1998, Mr. Guo was made the deputy director of the Development and Research Department in CNPC. Since September 1999, he has served as the General Manager of the Legal Department of our company. In September 2005, Mr. Guo has worked as the director of the Legal Department of CNPC. In November 2007, he became the general manager of the Legal Department of our Company and the General Counsel and the director of the Legal Department of CNPC concurrently. In May 2011, he was elected as a Supervisor of our company.

Wen Qingshan, aged 54, is a Supervisor of our company and the Deputy Chief Accountant and the General Manager of the Finance and Assets Department of CNPC. Mr. Wen is a professor-level senior accountant and holds a master's degree in economics. Mr. Wen has over 35 years of working experience in China's petrochemical industry. He had acted as the Deputy Director of the Finance and Assets Department of CNPC since May 1999 and Director of the Finance and Assets Department of CNPC since May 2002. He has been a Supervisor of our company since November 2002. He has been acting as the Deputy Chief Accountant and the Director of the Finance and Assets Department of CNPC since November 2007.

Sun Xianfeng, aged 60, is a Supervisor of our company. Mr. Sun is a senior economist and holds a MBA degree. Mr. Sun has over 40 years of working experience in China's oil and gas industry. Mr. Sun was made Deputy Director of the Supervisory Bureau of China National Petroleum Corporation in November 1996, and was transferred to the Eighth Office of the State Council Compliance Inspectors' General Office (Supervisory Committee of Central Enterprises Working Commission) as its temporary head in June 1998. He was appointed as the Deputy Director of the Audit Department of CNPC in October 2000, and concurrently the Director of the Audit Institute in December 2000. Mr. Sun was made the Director of the Audit Department of CNPC and the Director of the Audit Service Centre in April 2004. Mr. Sun has been a Supervisor of our company since May 2004. In October 2005, Mr. Sun was appointed as a concurrent State-owned Company Supervisor from State-owned Assets Supervision and Administration Commission to CNPC. Mr. Sun served as the General Manager of the Audit Department of our company from July 2007 to September 2012.

Wang Guangjun, aged 48, is a Supervisor of our company and the General Manager of PetroChina Jilin Petrochemical Company. Mr. Wang is a professor-level senior engineer and holds a doctoral degree. He has over 25 years of working experience in China's oil and petrochemical industry. He was appointed as the deputy general manager of the Quality, Safety and Environmental Protection Department of our company in September 1999. In May 2006, he became the general manager of PetroChina Northeast Chemicals and Marketing Company. Mr. Wang was then appointed as the general manager of PetroChina Jilin Petrochemical Company in June 2007. In May 2011, he was elected as a Supervisor of our company.