CHINA PETROLEUM & CHEMICAL CORP Form 20-F April 30, 2010 cy

#### UNITED STATES SECURITIES AND EXCHANGE COMMISSION Washington, D.C. 20549

#### FORM 20-F

(Mark One)

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

OR

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

FOR THE FISCAL YEAR ENDED DECEMBER 31, 2009

OR

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

FOR THE TRANSITION PERIOD FROM \_\_\_\_\_ TO\_\_\_\_\_

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 TRANSACTION PERIOD FORM \_\_\_\_\_ TO \_\_\_\_\_

COMMISSION FILE NUMBER 1-15138

CHINA PETROLEUM & CHEMICAL CORPORATION (Exact name of Registrant as specified in its charter)

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

22 Chaoyangmen North Street Chaoyang District, Beijing, 100728 The People's Republic of China

(Address of principal executive offices)

Mr. Chen Ge 22 Chaoyangmen North Street Chaoyang District, Beijing, 100728 The People's Republic of China Tel: +86 (10) 5996 0028 Fax: +86 (10) 5996 0386 (Name, Telephone, Email and/or Facsimile number and Address of Company Contact Person)

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

	Name of Each Exchange
Title of Each Class	On Which Registered
American Depositary Shares, each representing 1	00 H New York Stock Exchange,
Shares of par value RMB 1.00 per share	Inc.
	New York Stock Exchange,
H Shares of par value RMB 1.00 per share	Inc.*

\* Not for trading, but only in connection with the registration of American Depository Shares. Securities registered or to be registered pursuant to Section 12 (g) of the Act.

None

(Title of Class)

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

#### None

#### (Title of Class)

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

H Shares, par value RMB 1.00 per share	16,780,488,000
A Shares, par value RMB 1.00 per share	69,921,951,000

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

Yes X No\_\_\_

If this report is an annual or transition report, indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934.

Yes \_\_\_\_ No X

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

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15 (d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the Registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.

Yes X 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 Accelerated filer Non-accelerated filer X \_\_\_\_\_ 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 X Other \_\_\_\_ as issued by the International Accounting Standards Board

If "Other" has been checked in response to the previous question, indicate by check mark which financial statement item the registrant has elected to follow.

Item 17\_\_\_\_ Item 18\_\_\_

If this is an annual report, indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act).

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#### CERTAIN TERMS AND CONVENTIONS

#### Definitions

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

- "Sinopec Corp.", "we", "our" and "us" are to China Petroleum & Chemical Corporation, a PRC joint stock limited company, and its subsidiaries;
- "Sinopec Group Company" are to our controlling shareholder, China Petrochemical Corporation, a PRC limited liability company;
- "Sinopec Group" are to the Sinopec Group Company and its subsidiaries other than Sinopec Corp. and its subsidiaries;
- "China" or the "PRC" are to the People's Republic of China, excluding for purposes of this annual report Hong Kong, Macau and Taiwan;
- "provinces" are to provinces and to provincial-level autonomous regions and municipalities in China which are directly under the supervision of the central PRC government;
- "RMB" are to Renminbi, the currency of the PRC;
- "HK\$" are to Hong Kong dollar, the currency of the Hong Kong Special Administrative Region of the PRC; and
- "US\$" are to US dollars, the currency of the United States of America.

#### **Conversion Conventions**

Conversions of crude oil from tonnes to barrels are made at a rate of one tonne to 7.35 barrels for crude oil we purchase from external sources and one tonne to 7.1 barrels for crude oil we produce, representing the American Petroleum Institute ("API") gravity of the respective source of crude oil. Conversions of natural gas from cubic meters to cubic feet are made at a rate of one cubic meter to 35.31 cubic feet.

Glossary of Technical Terms

Unless otherwise indicated in the context, references to:

- "billion" are to a thousand million.
- "BOE" are to barrels-of-oil equivalent; natural gas is converted at a ratio of 6,000 cubic feet of natural gas to one BOE.
- "primary distillation capacity" are to the crude oil throughput capacity of a refinery's crude oil distillation units, calculated by estimating the number of days in a year that such crude oil distillation units are expected to operate, excluding downtime for regular maintenance, and multiplying that number by the amount equal to the units' optimal daily crude oil throughput.

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

#### CURRENCIES AND EXCHANGE RATES

We publish our financial statements in Renminbi. Unless otherwise indicated, all translations from Renminbi to US dollars have been made at a rate of RMB 6.8259 to US\$1.00, the noon buying rate on December 31, 2009 as set forth in the H.10 statistical release of the U.S. Federal Reserve Board. We do not represent that Renminbi or US dollar amounts could be converted into US dollars or Renminbi, as the case may be, at any particular rate, the rates below or at all. On April 23, 2010, the noon buying rate was RMB 6.8270 to US\$1.00.

The following table sets forth noon buying rate for US dollars in Renminbi for the periods indicated:

Noon Buyin	g Rate(1)		
End	Average(2)	High	Low
(RMB per U	JS\$1.00)		
8.0702	8.1826	8.2765	8.0702
7.8041	7.9723	8.0702	7.9723
7.2946	7.5806	7.8127	7.2946
6.8225	6.9193	7.2946	6.7800
6.8259	6.8307	6.8470	6.8176
6.8264	6.8267	6.8292	6.8248
6.8265	6.8271	6.8300	6.8255
6.8259	6.8276	6.8299	6.8260
6.8268	6.8269	6.8295	6.8258
6.8258	6.8285	6.8330	6.8258
6.8258	6.8262	6.8270	6.8254
6.8270	6.8256	6.2875	6.8229
	End (RMB per U 8.0702 7.8041 7.2946 6.8225 6.8259 6.8264 6.8265 6.8259 6.8268 6.8258 6.8258	(RMB per US\$1.00)   8.0702 8.1826   7.8041 7.9723   7.2946 7.5806   6.8225 6.9193   6.8259 6.8307   6.8264 6.8267   6.8265 6.8271   6.8259 6.8276   6.8265 6.8276   6.8268 6.8269   6.8258 6.8285   6.8258 6.8262	EndAverage(2)High(RMB per US\$1.00)8.07028.18268.27657.80417.97238.07027.29467.58067.81276.82256.91937.29466.82596.83076.84706.82646.82676.82926.82656.82716.83006.82596.82766.82996.82686.82696.82956.82586.82856.83306.82586.82626.8270

- (1) For the period prior to January 1, 2009, the exchange rates reflect the noon buying rates certified by the Federal Reserve Bank of New York. For the period after January 1, 2009, the exchange rates reflect those set forth in the H.10 statistical release of the U.S. Federal Reserve Board.
- (2) Annual averages are determined by averaging the rates on the last business day of each month during the relevant period. Monthly averages are calculated using the average of the daily rates during the relevant period.

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#### FORWARD-LOOKING STATEMENTS

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

- amount and nature of future exploration and development,
- future prices of and demand for our products,
- future earnings and cash flow,
- · development projects and drilling prospects,
- future plans and capital expenditures,
- estimates of proved oil and gas reserves,
- exploration prospects and reserves potential,
- · expansion and other development trends of the petroleum and petrochemical industry,
- · production forecasts of oil and gas,
- expected production or processing capacities, including expected rated capacities and primary distillation capacities, of units or facilities not yet in operation,
- expansion and growth of our business and operations, and
- our prospective operational and financial information.

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

- fluctuations in crude oil prices,
- fluctuations in prices of our products,
- · failures or delays in achieving production from development projects,
- · potential acquisitions and other business opportunities,
- · general economic, market and business conditions, and
- other risks and factors beyond our control.

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

# ITEM IDENTITY OF DIRECTORS, SENIOR MANAGEMENT AND ADVISORS 1.

Not applicable.

# ITEM OFFER STATISTICS AND EXPECTED TIMETABLE 2.

Not applicable.

ITEM KEY INFORMATION 3.

#### A. SELECTED FINANCIAL DATA

The selected consolidated income statement data (except per ADS data) and consolidated cash flow data for the years ended December 31, 2007, 2008 and 2009, and the selected consolidated balance sheet data as of December 31, 2008, and 2009 have been derived from, and should be read in conjunction with, the audited consolidated financial statements included elsewhere in this annual report. The selected consolidated income statement data and consolidated cash flow data for the years ended December 31, 2005 and 2006 and the selected consolidated balance sheet data as of December 31, 2005, 2006 and 2007 are derived from our audited consolidated financial statements which are not included elsewhere in this annual report and the financial statements of the acquired businesses described below.

We acquired from Sinopec Group Company the equity interests of Sinopec Hainan Refining and Chemical Company Limited (Sinopec Hainan) and certain oil and gas production companies (Oil Production Plants) in 2006, the equity interests of Zhanjiang Dongxing Petroleum Company Limited, Sinopec Hangzhou Oil Refinery Plant, Yangzhou Petrochemical Plant, Jiangsu Taizhou Petrochemical Plant and Sinopec Qingjiang Petrochemical Company Limited (collectively, Refinery Plants) in 2007, and the entire equity interests of Sinopec Qingdao Petrochemical Company Limited and certain storage and distribution operations (collectively, the Acquired Group) in 2009. As we and these companies are under the common control of Sinopec Group Company, our acquisitions are reflected in our consolidated financial statements as combination of entities under common control that is accounted for in a manner similar to a pooling-of-interests. Accordingly, the acquired assets and related liabilities have been accounted for at historical cost and our consolidated financial statements for periods prior to the combinations have been restated to include the financial condition and the results of operation of these companies on a combined basis.

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

			Yea	rs H	Ended Dece	emb	er 31,			
	2005	2	2006		2007		2008		2009	
	RMB	I	RMB		RMB		RMB		RMB	
	(1	in r	nillions, ex	xce	pt per share	e an	d per ADS d	lat	a)	
Consolidated Income Statement Data(1):										
Operating revenues	814,093		1,056,363		1,200,997	'	1,444,291		1,345,052	2
Other income	9,912		5,225		4,863		50,857		-	
Operating expenses	(752,488	)	(980,338	)	(1,120,36	4)	(1,468,812	)	(1,260,62	21)
Operating income	71,517		81,250		85,496		26,336		84,431	
Earnings before income tax	68,090		79,073		82,847		22,116		80,568	
Tax (expense)/benefit	(21,048	)	(23,865	)	(24,723	)	2,840		(16,084	)
Net income attributable to equity shareholders										
of the Company	43,743		53,773		55,914		28,525		61,760	
Basic earnings per share(2)	0.50		0.62		0.64		0.33		0.71	
Basic earnings per ADS(2)	50.45		62.02		64.49		32.90		71.23	
Diluted earnins per share(2)	0.50		0.62		0.64		0.29		0.71	
Diluted earnings per ADS(2)	50.45		62.02		64.49		28.87		70.78	
Cash dividends declared per share	0.12		0.13		0.16		0.145		0.16	
Segment results										
Exploration and production	49,307		63,498		48,766		66,569		19,644	
Refining	(2,801	)	(26,001	)	(10,997	)	(63,635	)	23,077	
Marketing and distribution	10,583		30,361		35,904		38,519		30,300	
Chemicals	15,626		14,924		13,306		(12,950	)	13,615	
Corporate and others	(1,198	)	(1,532	)	(1,483	)	(2,167	)	(2,205	)
Operating income	71,517		81,250		85,496		26,336		84,431	
	2005			As	of Decemb	er :			2000	
	2005		2006		2007		2008		2009	
	RMB		RMB		RMB		RMB		RMB	
					/• • • • • • • • • • • • • • • • • • •	``				
					(in millior	ıs)				
Consolidated Balance Sheet Data(1):	15 418		7 187			ıs)	7 008		8 750	
Cash and cash equivalents	15,418		7,187		7,785	is)	7,008		8,750 201 280	
Cash and cash equivalents Total current assets	150,640		148,073		7,785 186,761	ıs)	165,398		201,280	
Cash and cash equivalents Total current assets Total non-current assets	150,640 400,160		148,073 471,413		7,785 186,761 556,610	is)	165,398 613,774		201,280 676,562	
Cash and cash equivalents Total current assets Total non-current assets Total assets	150,640		148,073		7,785 186,761	IS)	165,398		201,280	
Cash and cash equivalents Total current assets Total non-current assets Total assets Short-term debts and loans from Sinopec	150,640 400,160		148,073 471,413		7,785 186,761 556,610	is)	165,398 613,774		201,280 676,562	
Cash and cash equivalents Total current assets Total non-current assets Total assets Short-term debts and loans from Sinopec Group Company and its affiliates (including	150,640 400,160 550,800		148,073 471,413 619,486		7,785 186,761 556,610 743,371	is)	165,398 613,774 779,172		201,280 676,562 877,842	
Cash and cash equivalents Total current assets Total non-current assets Total assets Short-term debts and loans from Sinopec Group Company and its affiliates (including current portion of long-term debts)	150,640 400,160		148,073 471,413		7,785 186,761 556,610	IS)	165,398 613,774		201,280 676,562	
Cash and cash equivalents Total current assets Total non-current assets Total assets Short-term debts and loans from Sinopec Group Company and its affiliates (including current portion of long-term debts) Long-term debts and loans from Sinopec	150,640 400,160 550,800		148,073 471,413 619,486		7,785 186,761 556,610 743,371	IS)	165,398 613,774 779,172		201,280 676,562 877,842	
Cash and cash equivalents Total current assets Total non-current assets Total assets Short-term debts and loans from Sinopec Group Company and its affiliates (including current portion of long-term debts) Long-term debts and loans from Sinopec Group Company and its affiliates (excluding	150,640 400,160 550,800 50,734		148,073 471,413 619,486 70,952		7,785 186,761 556,610 743,371 69,462	15)	165,398 613,774 779,172 108,926		201,280 676,562 877,842 72,541	
Cash and cash equivalents Total current assets Total non-current assets Total assets Short-term debts and loans from Sinopec Group Company and its affiliates (including current portion of long-term debts) Long-term debts and loans from Sinopec Group Company and its affiliates (excluding current portion of long-term debts)	150,640 400,160 550,800		148,073 471,413 619,486		7,785 186,761 556,610 743,371	15)	165,398 613,774 779,172		201,280 676,562 877,842	
Cash and cash equivalents Total current assets Total non-current assets Total assets Short-term debts and loans from Sinopec Group Company and its affiliates (including current portion of long-term debts) Long-term debts and loans from Sinopec Group Company and its affiliates (excluding current portion of long-term debts) Equity attributable to equity shareholders of	150,640 400,160 550,800 50,734 103,408		148,073 471,413 619,486 70,952 100,637		7,785 186,761 556,610 743,371 69,462 120,314	<b>IS</b> )	165,398 613,774 779,172 108,926 127,144		201,280 676,562 877,842 72,541 145,828	
Cash and cash equivalents Total current assets Total non-current assets Total assets Short-term debts and loans from Sinopec Group Company and its affiliates (including current portion of long-term debts) Long-term debts and loans from Sinopec Group Company and its affiliates (excluding current portion of long-term debts) Equity attributable to equity shareholders of the Company	150,640 400,160 550,800 50,734 103,408 226,506		148,073 471,413 619,486 70,952 100,637 264,911		7,785 186,761 556,610 743,371 69,462 120,314 307,897	ns)	165,398 613,774 779,172 108,926 127,144 327,889		201,280 676,562 877,842 72,541 145,828 375,661	
Cash and cash equivalents Total current assets Total non-current assets Total assets Short-term debts and loans from Sinopec Group Company and its affiliates (including current portion of long-term debts) Long-term debts and loans from Sinopec Group Company and its affiliates (excluding current portion of long-term debts) Equity attributable to equity shareholders of	150,640 400,160 550,800 50,734 103,408		148,073 471,413 619,486 70,952 100,637		7,785 186,761 556,610 743,371 69,462 120,314	15)	165,398 613,774 779,172 108,926 127,144		201,280 676,562 877,842 72,541 145,828	
Cash and cash equivalents Total current assets Total non-current assets Total assets Short-term debts and loans from Sinopec Group Company and its affiliates (including current portion of long-term debts) Long-term debts and loans from Sinopec Group Company and its affiliates (excluding current portion of long-term debts) Equity attributable to equity shareholders of the Company	150,640 400,160 550,800 50,734 103,408 226,506		148,073 471,413 619,486 70,952 100,637 264,911 451,636	ars	7,785 186,761 556,610 743,371 69,462 120,314 307,897 515,213		165,398 613,774 779,172 108,926 127,144 327,889 577,604		201,280 676,562 877,842 72,541 145,828 375,661	
Cash and cash equivalents Total current assets Total non-current assets Total assets Short-term debts and loans from Sinopec Group Company and its affiliates (including current portion of long-term debts) Long-term debts and loans from Sinopec Group Company and its affiliates (excluding current portion of long-term debts) Equity attributable to equity shareholders of the Company	150,640 400,160 550,800 50,734 103,408 226,506		148,073 471,413 619,486 70,952 100,637 264,911 451,636	ars	7,785 186,761 556,610 743,371 69,462 120,314 307,897		165,398 613,774 779,172 108,926 127,144 327,889 577,604		201,280 676,562 877,842 72,541 145,828 375,661	
Cash and cash equivalents Total current assets Total non-current assets Total assets Short-term debts and loans from Sinopec Group Company and its affiliates (including current portion of long-term debts) Long-term debts and loans from Sinopec Group Company and its affiliates (excluding current portion of long-term debts) Equity attributable to equity shareholders of the Company	150,640 400,160 550,800 50,734 103,408 226,506 396,404		148,073 471,413 619,486 70,952 100,637 264,911 451,636 Yea	ars	7,785 186,761 556,610 743,371 69,462 120,314 307,897 515,213 Ended Dec		165,398 613,774 779,172 108,926 127,144 327,889 577,604 per 31		201,280 676,562 877,842 72,541 145,828 375,661 608,472	
Cash and cash equivalents Total current assets Total non-current assets Total assets Short-term debts and loans from Sinopec Group Company and its affiliates (including current portion of long-term debts) Long-term debts and loans from Sinopec Group Company and its affiliates (excluding current portion of long-term debts) Equity attributable to equity shareholders of the Company	150,640 400,160 550,800 50,734 103,408 226,506 396,404 2005		148,073 471,413 619,486 70,952 100,637 264,911 451,636 Yea 2006	ars	7,785 186,761 556,610 743,371 69,462 120,314 307,897 515,213 Ended Dec 2007	eml	165,398 613,774 779,172 108,926 127,144 327,889 577,604 per 31 2008		201,280 676,562 877,842 72,541 145,828 375,661 608,472 2009	

Other Financial Data(1):						
Net cash generated from operating activities	78,294		91,934	118,612	66,517	152,075
Net cash (used in)/generated from financing						
activities	(6,835	)	6,202	(3,196)	42,820	(34,294)
Net cash used in investing activities	(75,142	)	(106,342)	(114,754 )	(110,035)	(116,039)
Capital expenditure						
Exploration and production	25,479		35,198	54,498	57,646	51,550
Refining	20,932		22,815	22,964	12,793	15,468
Marketing and distribution	13,262		13,475	14,671	14,796	16,283
Chemicals	9,386		12,629	16,184	20,622	25,207
Corporate and others	1,164		2,170	3,289	2,393	1,505
Total	70,223		86,287	111,606	108,250	110,013

- (1) The acquisitions of equity interests of Sinopec Hainan and Oil Production Plants in 2006, the acquisition of equity interests of the Refining Plants in 2007 and the acquisition of the Acquired Group from Sinopec Group Company in 2009 are treated as "combination of entities under common control" which are accounted in a manner similar to a pooling-of-interests. Accordingly, the acquired assets and liabilities have been accounted for at historical cost and the consolidated financial statements for periods prior to the combinations have been restated to include the financial condition and results of operation of these acquired companies on a combined basis. The considerations for these acquisitions were treated as equity transactions.
- (2) Basic earnings per share have been computed by dividing net income attributable to equity shareholders of our company by the weighted average number of shares in issue. For the years ended December 31, 2005, 2006 and 2007, diluted earnings per share and per ADS are calculated on the same basis as basic earnings per share and per ADS, respectively, since there were no dilutive potential ordinary shares or they were considered anti-dilutive. The calculation of diluted earnings per share for the years ended December 31, 2008 and 2009 is based on the diluted net income attributable to equity shareholders of our Company of RMB 25,348 million and RMB62,136 million and the diluted weighted average number of the shares of 87,790 million and 87,790 million, respectively. Basic and diluted earnings per ADS have been computed as if all of our issued or potential ordinary shares, including domestic shares and H shares, are represented by ADSs during each of the years presented. Each ADS represents 100 shares.
- (3) Capital employed is derived by the sum of short-term debts, long-term debts, loans from Sinopec Group Company and its affiliates and total equity less cash and cash equivalents.

#### B. CAPITALIZATION AND INDEBTEDNESS

Not applicable.

#### C. REASONS FOR THE OFFER AND USE OF PROCEEDS

Not applicable.

#### D. RISK FACTORS

#### Risks Relating to Our Business Operation

Our business may be adversely affected by the fluctuation of crude oil and refined petroleum product prices.

We consume a large amount of crude oil to produce our refined petroleum products and petrochemical products. While we try to adjust the sale price of our products to track international crude oil price fluctuations, our ability to pass on the increased cost resulting from crude oil price increases to our customers is dependent on international and domestic market conditions as well as the PRC government's price control over refined petroleum products. Although the current price-setting mechanism for refined petroleum products in China allows the PRC government to adjust price in the PRC market when the average international crude oil price fluctuates beyond certain levels within a certain time period, the PRC government still retains discretion as to whether or when to adjust the refined petroleum products price. The PRC government generally exercises certain price control over refined petroleum products once international crude oil price experiences sustained rises or becomes significantly volatile. As a result, our results of operations and financial condition may be materially and adversely affected by the fluctuation of crude oil and refined petroleum product prices.

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

Our ability to achieve our growth objectives is dependent in part on our level of success in discovering or acquiring additional oil and natural gas reserves and further exploring our current reserve base. Our exploration and development activities for additional reserves also expose us to inherent risks associated with drilling, including the risk that no economically productive oil or natural gas reservoirs might be discovered. Exploring for, developing and acquiring reserves is highly risky and capital intensive. Without reserve additions through further exploration and development or acquisition activities, our reserves and production will decline over time, which may materially and adversely affect our results of operations and financial condition.

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

We purchase a significant portion of our crude oil and other feedstock requirements from outside suppliers located in different countries and areas in the world. In 2009, approximately 75% of the crude oil required for our refinery business was sourced from international suppliers, some of which are from countries or regions that are on the sanction list published and administered by the Office of Foreign Assets Control of the US Department of Treasury, including Iran and Sudan. In addition, our development requires us to source an increasing amount of crude oil from outside suppliers. We are subject to the political, geographical and economic risks associated with these countries and areas. If one or more of our material supply contracts were terminated or disrupted due to any natural disasters or political events, it is possible that we would not be able to find sufficient alternative sources of supply in a timely manner or on commercially reasonable terms. As a result, our business and financial condition would be materially and adversely affected.

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

Exploring for, producing and transporting crude oil and natural gas and producing and transporting refined and petrochemical products involve a number of operating hazards. Significant operating hazards and natural disasters may cause interruption to our operations, property or environmental damages as well as personal injuries, and each of these incidents could have a material adverse effect on our financial condition and results of operations.

We have been paying high attention to the safety of our operation and implemented health, safety and environment management system within our company with the view to preventing accident, and reducing personal injuries, property losses and environment pollution. We also maintain insurance coverage on our property, plant, equipment and inventory. However, our preventative measures may not be effective and our insurance coverage may not be sufficient to cover all the financial losses caused by the operation risks and natural disasters. Losses incurred or payments required to be made by us due to operating hazards or natural disasters, which are not fully insured, may have a material adverse effect on our financial condition and results of operations.

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

There are numerous uncertainties inherent in estimating quantities of proved oil and natural gas reserves, and in the timing of development expenditures and the projection of future rates of production. The reserve data set forth in this annual report represent estimates only. Adverse changes in economic conditions may render it uneconomical to develop certain reserves. Our actual production, revenues, taxes and fees payable and development and operating expenditures with respect to our reserves may likely vary from these estimates.

The reliability of reserves estimates depends on:

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

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

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

Our results of operations are materially affected by economic conditions in China and elsewhere around the world. The global financial crisis that began in 2008 has adversely affected China and other world economies, including the United States. Although many countries have adopted various macroeconomic policies, including stimulus packages, aiming at

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offsetting the slowdown brought about by the financial crisis, the global economy has been negatively impacted. The global financial crisis also resulted in a tightening in credit markets, a low level of liquidity in many financial markets and increased volatility in credit, equity and commodity markets. The timing and nature of any recovery in worldwide financial markets and the global economy remain uncertain, and there can be no assurance that market conditions will improve in the near future, or even if they do improve, will not deteriorate again. Our operations may also be adversely affected by factors such as volatility in international commodity prices, governmental policies and measures affecting international trade and the PRC government's regulatory schemes and policies affecting domestic market. If the global and domestic markets experience significant or continuous slowdown or downturn, our business, financial condition, results of operations would be adversely affected.

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

Most of our revenues are attributable to sales of refined petroleum products and petrochemical products, and certain of these businesses and related products have historically been cyclical and sensitive to a number of factors that are beyond our control. These factors include the availability and prices of feedstock and general economic conditions, such as changes in industry capacity and output levels, cyclical changes in regional and global economic conditions, prices and availability of substitute products and changes in consumer demand. With the further reduction of tariffs and other import restrictions in the PRC on refined petroleum products and petrochemical products, many of our products have become increasingly subject to the cyclicality of global markets, and hence, our operations may be adversely affected by the cyclical nature of the market.

We face strong competition from domestic and foreign competitors.

Among our competitors, some are major integrated petroleum and petrochemical companies within and outside the PRC, which have recently become more significant participants in the petroleum and petrochemical industry in China. On December 4, 2006, Ministry of Commerce of the PRC promulgated the "Administrative Rules for Crude Oil Market" and "Administrative Rules for Refined Petroleum Products Market" to open the wholesale market of crude oil and refined petroleum products to new market entrants. As a result, we expect to face more competition in both crude oil and refined petroleum product markets. We also expect to face more competition in petrochemical product market as a result of our domestic and international competitors' increasing production capacity. Increased competition may have a material adverse effect on our financial condition and results of operations.

Risks Relating to Our Controlling Shareholder

Related party transactions.

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

#### Non-competition.

Sinopec Group Company has interests in certain businesses, such as oil refining, petrochemical producing, retail service stations and overseas exploration and development, which compete or are likely to compete, either directly or indirectly, with our businesses. To avoid the adverse effects brought by the competition between us and Sinopec

Group Company to the maximum extent possible, we and Sinopec Group Company have entered into a non-competition agreement whereby Sinopec Group Company has agreed to: refrain from operating new businesses which compete or could compete with us in any of our domestic or international markets; grant us an option to purchase Sinopec Group Company's operations that compete or could compete with our businesses; operate its sales enterprises and service stations in a manner uniform to our sales and service operations; and appoint us as sales agent for certain of its products which compete or could compete with our products. Notwithstanding the foregoing contractual arrangements, because Sinopec Group Company is our controlling shareholder, Sinopec Group Company may take actions that may conflict with our own interests.

Investments in OFAC sanctioned countries.

Sinopec Group Company undertakes, from time to time and without our involvement, overseas investments and operations in the oil and gas industry, including exploration and production of oil and gas, refining and LNG projects. Sinopec Group Company's overseas asset portfolio includes oil and gas development projects in Iran, Sudan and Syria, which countries are on the sanction list published and administrated by the Office of Foreign Assets Control, or OFAC, of the U.S. Department of Treasury. Certain U.S.-based investors, including state and municipal governments and universities, may not wish to invest, and have proposed or adopted divestment or similar initiatives regarding investments, in companies that do business with countries on OFAC's sanction list. These investors may not wish to invest, and may divest their investment, in us because of our relationship with Sinopec Group Company and its investments and activities in those OFAC sanctioned countries. As a result, the trading prices of our ADSs may be materially and adversely affected.

Risks Relating to the PRC

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

The PRC government, though gradually liberalizing its regulations on entry into the petroleum and petrochemical industry, continues to exercise certain controls over the petroleum and petrochemical industry in China. These control mechanisms include granting the licenses to explore and produce crude oil and natural gas, granting the licenses to market and distribute crude oil and refined petroleum products, regulating the pricing of refined petroleum products, collecting special gain levies, assessing taxes and fees payable, deciding import and export quotas and procedures for the oil and gas industry, and setting safety, environmental and quality standards. As a result, we may face constraints on our flexibility and ability to expand our business operations.

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

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

- the imposition of fees for the discharge of waste substances;
- the levy of fines and payments for damages for serious environmental offenses; and
- the government, at its discretion, to close any facility which fails to comply with orders and require it to correct or stop operations causing environmental damage.

Our production operations produce substantial amounts of waste water, gas and solid waste materials. In addition, our production facilities require operating permits that are subject to renewal, modification and revocation. We have established a system to treat waste materials to prevent and reduce pollution. However, the PRC government has moved, and may move further, toward more rigorous enforcement of applicable laws, and toward the adoption of more stringent environmental standards, which, in turn, would require us to incur additional expenditures on environmental matters.

Some of our development plans require compliance with state policies and regulatory confirmation and registration.

We are currently engaged in a number of construction, renovation and expansion projects. Some of our large construction, renovation and expansion projects are subject to governmental confirmation and registration. The timing and cost of completion of these projects will depend on numerous factors, including when we can receive the required

confirmation and registration from relevant PRC government authorities and the general economic condition in China. If any of our important projects required for our future growth are not confirmed or registered, or not confirmed or registered in a timely manner, our results of operations and financial condition could be adversely impacted.

Foreign enterprise holders of H shares may be subject to PRC taxation.

In accordance with the new Enterprise Income Tax Law and its implementation rules that became effective on January 1, 2008, dividends derived from the revenues after January 1, 2008 and are paid by PRC

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companies to record holders that are non-resident enterprises, which are established under the laws of non-PRC jurisdictions and have no establishment or place of business in China or whose dividends from China do not relate to their establishment or place of business in China, are generally subject to a PRC withholding tax levied at a rate of 10% unless exempted or reduced pursuant to an applicable tax treaty or other exemptions. Under the notice issued by the State Administration of Taxation of the PRC on November 6, 2008, we are required to withhold PRC income tax at the rate of 10% on dividends paid for 2008 and later years payable to our H Share record holders that are "non-resident enterprises". Accordingly, the investors of our American Depositary Shares representing our H Shares will be subject to such withholding of the PRC income tax at the rate of 10%, as Citibank N.A., the record holder of the H Shares represented by our American Depositary Shares, is deemed as a "non-resident enterprise" under the relevant PRC laws and regulations.

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

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

- import of crude oil and other materials;
- · debt service on foreign currency-denominated debt;
- · purchases of imported equipment;
- · payment of the principals and interests of bonds issued overseas; and
- payment of any cash dividends declared in respect of the H shares (including ADS).

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

The exchange rate of the Renminbi against the U.S. dollar and other foreign currencies fluctuates and is affected by, among other things, the foreign exchange control policies of the PRC government and the changes in the PRC's and international political and economic conditions. On July 21, 2005, the PRC government introduced a floating exchange rate system to allow the value of the Renminbi to fluctuate within a regulated band based on market supply and demand and by reference to a basket of foreign currencies. From July 21, 2005 to December 31, 2009, the value of the Renminbi has appreciated by approximately 21.3% against the U.S. dollar, according to exchange rates as set forth in the H.10 statistical release of the U.S. Federal Reserve Board. We purchase a significant portion of the crude oil from international suppliers, and the purchase prices are benchmarked to US dollar-denominated international prices. Fluctuations in the exchange rate of the Renminbi against the U.S. dollars and certain other foreign currencies may materially and adversely affect our financial condition and results of operations.

Risks relating to enforcement of shareholder rights; Mandatory arbitration.

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

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

## ITEM INFORMATION ON THE COMPANY

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#### A. HISTORY AND DEVELOPMENT OF THE COMPANY

Our legal and commercial name is China Petroleum & Chemical Corporation. Our head office is located at 22 Chaoyangmen North Street, Chaoyang District, Beijing 100728, the People's Republic of China, our telephone number is (8610) 5996-0028 and our fax number is (8610) 5996-0386. We have appointed our subsidiary in the United States, SINOPEC-USA Co., Ltd., 410 Park Avenue, 22nd Fl., New York, NY 10022, USA (telephone number: (212) 759-5085; fax number: (212) 759-6882) as our agent for service of processes for actions brought under the U.S. securities laws.

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

	exploration for, development, production and marketing of crude oil and natural gas;
	refining of crude oil and marketing and distribution of refined petroleum products, including transportation, storage, trading, import and export of petroleum products; and
	production and sales of petrochemical products.
Sinopec Group Company's continui	ing activities consist, among other things, of:
	exploring and developing oil and gas reserves overseas;
	operating certain petrochemical facilities, small capacity refineries and retail service stations that it retained;
	providing geophysical exploration, and well drilling, survey, logging and downhole operational services;

manufacturing production equipment and providing equipment maintenance services;
providing construction services;
providing utilities, such as electricity and water; and
providing other operational services including transportation services.

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

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In order to expand our core businesses, prevent competition between us and members of Sinopec Group and reduce related party transactions, between 2001 and 2008 we have acquired from Sinopec Group Company Sinopec National Star Petroleum Company, Sinopec Group Maoming Petrochemical Company, Tahe Oilfield Petrochemical Factory and Xi'an Petrochemical Main Factory, certain Petrochemical and Catalyst Assets, certain Refinery Plants and certain service stations, certain Oil Production Plants, Sinopec Hainan and certain downhole operation assets. We have also sold and disposed of certain auxiliary assets to third parties. In addition, we completed the privatization of Beijing Yanhua Petrochemical Co., Ltd. and Sinopec Zhenhai Refinery and Chemicals Co., Ltd. and the tender offers for the acquisition of publicly-held A-shares of four subsidiaries formerly listed on stock exchanges in China, namely Sinopec Qilu Petrochemical Co., Ltd., Sinopec Yangzi Petrochemical Co., Ltd., Sinopec Zhongyuan Petroleum Co., Ltd., and Shengli Oil Field Dynamic Co., Ltd. In addition, in 2007, we acquired 20 service stations and fuel business in Hong Kong from China Resources Enterprise, Ltd.

On June 30, 2009, we completed the acquisition of 100% equity interest of Sinopec Qingdao Petrochemical Co., Ltd., 41.99% equity interest in Shijiazhuang Chemical Fiber Co. Ltd., property interests in eight oil product pipeline project divisions and certain other assets relating to our exploration and production, refining and marketing and distribution segments from Sinopec Group Company. On the same day, we also disposed certain assets in our chemicals segment to Sinopec Group Company. The total consideration for the acquisition was RMB 1,839 million and the total consideration for the disposal was RMB 157 million. We funded the net acquisition consideration through our internal resources.

On August 31, 2009, we completed the acquisitions from Sinopec Group Company of (i) all the assets in Petroleum Exploration & Production Research Institute, Research Institute of Petroleum Processing, Beijing Chemical Research Institute, Shanghai Research Institute of Petrochemical Technology, Fushun Research Institute of Petroleum and Petrochemicals and Qingdao Safety Engineering Research Institute, and (ii) 100% equity interests in Beijing Xingpu Fine Chemical Technical Development Company, Beijing Petrochemical Design Institute of Beijing Chemical Institute, Qingdao Sinosun Management System Certification Center, Fushun Huanke Petrochemical Technical Development Co., Ltd. and Sinopec Material Equipment Company. The total consideration for the acquisitions is RMB 3,946 million, which we funded through our internal resources.

On March 26, 2010, Sinopec Corporation Hong Kong International Limited, a wholly-owned subsidiary of Sinopec Corp., and Sinopec Overseas Oil & Gas Limited, a wholly-owned subsidiary of Sinopec Group Company, entered into a purchase agreement and a deed of novation, pursuant to which Sinopec Corporation Hong Kong International Limited agreed to acquire (i) 55% of the total issued share capital of Sonangol Sinopec International Limited, or SSI, a company which is incorporated in the Cayman Islands and a joint venture between China Sonangol International Holding Limited and Sinopec Overseas Oil & Gas Limited, and (ii) the shareholder's loan provided by Sinopec Overseas Oil & Gas Limited to SSI with a cap of US\$ 2.465 billion (equivalent to approximately RMB 16.831 billion). As of November 30, 2009, in respect of the shareholder's loan, SSI had utilized US\$2.3 billion (equivalent to approximately RMB15.9 billion), and the outstanding balance (with accrued interest) of which amounted to US\$779.1 million (equivalent to approximately RMB5.3 billion). The total consideration for the acquisition of shares and shareholder's loan is US\$ 2.5 billion (equivalent to approximately RMB 16.8 billion). Sinopec Corporation Hong Kong International Limited will pay the consideration through its own financial resources and bank loans. After the completion of the transaction, SSI will be controlled by Sinopec Corp. The acquisition is subject to the approvals by relevant PRC governmental authorities and our independent shareholders.

#### B. BUSINESS OVERVIEW

Exploration and Production

Overview

We currently explore for, develop and produce crude oil and natural gas in a number of areas across China. As of December 31, 2009, we held 193 production licenses with an aggregate acreage of 19,136 square kilometers and with terms ranging from 10 to 80 years. Our production licenses are renewable upon our application at least 30 days prior to expiration. During the term of our production license, we pay an annual production license fee of RMB 1,000 per square kilometers. Oilfields at our Shengli production bureau accounted for approximately 58% of our total crude oil and natural gas production in 2009.

As of December 31, 2009, we held 318 exploration licenses for various blocks in which we engaged in exploration activities. The maximum term of our exploration licenses is 7 years and the authorized total acreage under such licenses are 964 thousand square kilometers. Our exploration licenses may be renewed upon our application at least 30 days prior to expiration of the original term with each renewal for a two-year term. We are obligated to make an annual minimum exploration investment in each of the exploration blocks which we obtained the exploration licenses. In addition, we are also obligated to pay an annual exploration license fee ranging from RMB 100 to RMB 500 per square kilometer. However, we are entitled under PRC laws and regulations for reduction and exemption of exploration license fee for exploration in China's western region, northeast region and offshore China.

#### Properties

We currently operate 16 oil and gas production bureaus, each of which consists of many oil and gas producing fields and blocks and all of which are located in China.

Shengli production bureau, our most important crude oil production bureau, consists of 70 producing blocks of various sizes extending over an area of 2,564 square kilometers in northern Shandong province. Most of Shengli's blocks are located in the Jiyang trough with various oil producing levels. In 2009, Shengli production bureau produced 200 million barrels of crude oil and 24.7 billion cubic feet of natural gas, with an average daily production of 553 thousand BOE, accounting for approximately 58% of our total crude oil and natural gas production for the year.

As of December 31, 2009, the total acreage of our oil and gas producing fields and blocks was 8,349 square kilometers, including 5,684 square kilometers that are developed acreage and 2,665 square kilometers that are undeveloped acreage. All of our oil and gas producing fields and blocks with respect to which acreage information is given are wholly owned by us.

#### Oil and Natural Gas Reserves

Our estimated proved reserves of crude oil and natural gas as of December 31, 2009 were 3,943 million BOE (including 2,820 million barrels of crude oil and 6,739 billion cubic feet of natural gas), representing a decrease of 1.4% from 2008. Our estimated proved reserves do not include additional quantities recoverable beyond the term of the relevant production licenses, or that may result from extensions of currently proved areas, or from application of improved recovery processes not yet tested and determined to be economical.

The following tables set forth our proved developed and undeveloped crude oil and natural gas reserves by our major oil and gas production bureaus as of December 31, 2007, 2008 and 2009. Reserves information as of December 31, 2009 shown in the following tables was calculated using the average of first-day-of-the-month price for oil and gas during 2009. Reserves information as of December 31, 2007 and 2008 shown in the following tables was calculated using year-end oil and gas price.

	As	As of December 31,			
	2007	2008	2009		
Crude Oil	(in a	millions of ba	arrels)		
Proved Reserves					
Developed					
Shengli	2,167	1,964	2,009		
Zhongyuan	154	116	124		
Xibei	119	158	173		
Henan	75	77	72		
Jiangsu	84	88	89		

Others	52	48	46
Total Developed	2,651	2,451	2,513
Undeveloped			
Shengli	64	187	114
Zhongyuan	81	49	33
Xibei	161	117	132
Henan	21	4	1
Jiangsu	3	3	3
Others	43	30	24
Total Undeveloped	373	390	307
Total Proved Reserves	3,024	2,841	2,820

	А	As of December 31,		
	2007	2008	2009	
Natural Gas	(in b	(in billions of cubic feet)		
Proved Reserves				
Developed				
Shengli	328	264	262	
Zhongyuan	198	133	103	
Xibei	196	242	296	
Jiangsu	10	12	12	
Xinan	417	420	446	
Huabei	327	384	450	
Puguang	0	0	0	
Others	43	116	158	
Total Developed	1,519	1,571	1,727	
Undeveloped				
Shengli	0	0	0	
Zhongyuan	163	56	33	
Xibei	2	210	122	
Jiangsu	0	0	0	
Xinan	340	262	241	
Huabei	454	325	275	
Puguang	3,509	4,001	3,926	
Others	344	534	415	
Total Undeveloped	4,812	5,388	5,012	
Total Proved Reserves	6,331	6,959	6,739	

As of December 31, 2009, approximately 307 million barrels of our crude oil proved reserves and 5,012 billion cubic feet of our natural gas proved reserves were classified as proved undeveloped reserves. This compares to 390 million barrels and 5,389 billion cubic feet of proved undeveloped reserves of crude oil and natural gas, respectively, as of December 31, 2008. During the year, 1,193 new wells were drilled, including 607, 185 and 155 new wells at our Shengli production bureau, Zhongyuan production bureau and Xibei production bureau, respectively. We converted 111 million barrels of proved undeveloped crude oil reserves and 203 billion cubic feet of proved undeveloped natural gas reserves into proved developed reserves in 2009. Total capital expenditure incurred in converting proved undeveloped reserves amounted to RMB 12.2 billion, including RMB 4.7 billion, RMB 4.2 million and RMB 1.2 million incurred in connection with our operations at Xibei production bureau, Shengli production bureau and Zhongyuan production bureau, respectively, in 2009.

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

Our RMC is chaired by Mr. Wang Zhigang, one of our senior vice presidents, and is co-led by our deputy chief geologist and our director general of our exploration and production segment. Mr. Wang holds a Ph.D. degree in geology from Geology and Geo-physics Research Institute of the China Academy of Science and has 28 years of experience in oil and gas industry. Our RMC also consists of 31 other members who are senior management members in charge of exploration and development activities at production bureau level. A majority of our RMC members hold doctor's or master's degrees and our RMC members have an average of 20 years of technical experience in relevant

industry fields, such as geology, engineering and economics.

Our reserves estimation is guided by procedural manuals and technical guidance. Initial collection and compilation of reserves information are conducted by different working divisions, including exploration, development, financial and legal divisions, at production bureau level. Exploration and development divisions collectively prepare the initial report on reserves estimation. Together with technical experts, reserves management committees at production bureau level then holds peer review to ensure the qualitative and quantitative compliance with technical

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guidance and accuracy and reasonableness of the reserves estimation. At headquarter level, the RMC is primarily responsible for the management and coordination of the reserves estimation process, review and approval of annual changes and results in reserves estimation and reporting of our proved reserves. We also engage outside consultants who assist us to be in compliance with the U.S. Securities and Exchange Commission rules and regulations. Our reserves estimation process is further facilitated by a specialized reserves database which is improved and updated periodically.

#### Oil and Natural Gas Production

In 2009, we produced an average of 962 thousand BOE per day, of which approximately 85.8% was crude oil and 14.2% was natural gas. The following tables set forth our average daily production by final product sold and by our major oil and gas production bureau for the last three years. The production of crude oil includes condensed oil.

	For the Y	For the Years Ended December 31,		
	2007	2008	2009	
	(in tho	(in thousands of barrels daily)		
Average Daily Crude Oil Production				
Shengli	539	538	541	
Zhongyuan	59	58	56	
Xibei	104	116	128	
Henan	35	35	36	
Jiangsu	33	33	33	
Others	29	31	31	
Total Crude Oil Production	799	811	825	
	For the Y	For the Years Ended December 31,		
	2007	2008	2009	
	(in tho	(in thousands of barrels daily)		
Average Daily Natural Gas Production				
Shengli	76	74	68	
Zhongyuan	143	102	90	
Xibei				
	92	123	130	
Henan	92 7	123 6	130 6	
Henan Jiangsu	-	-		
	7	6	6	
Jiangsu	7 5	6 6	6 6	
Jiangsu Xinan	7 5 260	6 6 261	6 6 281	
Jiangsu Xinan Huabei	7 5 260 140	6 6 261 185	6 6 281 190	

#### Lifting Cost & Realized Prices

The following table sets forth our average lifting costs per BOE of crude oil and natural gas produced, average sales prices per barrel of crude oil and average sales prices per thousand cubic meters of natural gas for the years ended December 31, 2007, 2008 and 2009.

	Total	Shengli	Others
		(RMB)	
For the year ended December 31, 2009			

Average petroleum lifting cost per BOE	90.51	96.34	82.63
Average realized sales price			
Per barrel of crude oil	339.36	337.12	343.70
Per thousand cubic meters of natural gas	959.04	1019.98	956.75
For the year ended December 31, 2008			
Average petroleum lifting cost per BOE	88.80	92.24	83.99
Average realized sales price			
Per barrel of crude oil	601.22	598.99	605.80
Per thousand cubic meters of natural gas	914.47	992.15	939.48
For the year ended December 31, 2007			
Average petroleum lifting cost per BOE	84.62	87.23	80.78
Average realized sales price			
Per barrel of crude oil	435.94	421.66	466.17
Per thousand cubic meters of natural gas	822.83	939.92	817.72

#### Exploration and Development Activities

In 2009, we continued to increase our production capacity and scale of our reserve development. We made progress with our key exploration and development projects in Shengli and Tahe. Our Songnan gas field started production. In 2009, our crude oil production capacity increased by 5.7 million tonnes per annum and our natural gas production capacity increased by 1.205 billion cubic meters per annum. Our Sichuan-to-East China Gas Project commenced trial operation in 2009.

The following table sets forth the numbers of our exploratory and development wells, including a breakdown of productive wells and dry wells we drilled during the years ended December 31, 2007, 2008 and 2009.

	Total	Shengli	Xibei	Others
For the year ended December 31, 2009				
Exploratory				
— Productive	259	109	15	135
— Dry	311	95	30	186
Development				
— Productive	3,079	1,702	147	1,230
— Dry	22	8	8	6
For the year ended December 31, 2008				
Exploratory				
— Productive	248	128	26	94
— Dry	296	105	18	173
Development				
— Productive	3,128	1,563	141	1,424
— Dry	24	4	12	8
For the year ended December 31, 2007				
Exploratory				
— Productive	251	118	16	117
— Dry	306	119	24	163
Development				
— Productive	2,956	1,136	112	1,708
— Dry	20	2	8	10

The following table sets forth the number of wells being drilled by our major oil and gas production bureau as of December 31, 2009, as compared to December 31, 2008. We own 100% of the working interest in these wells:

	As of D	As of December 31,	
	2008	2009	
Wells Drilling			
Shengli	47	54	
Zhongyuan	21	33	
Xibei	30	43	
Jiangsu	6	22	
Others	73	67	
Total Wells Drilling	177	219	

As of December 31, 2009, we were conducting waterdrive testing at the undeveloped reserves with extra-low permeability at production bureaus of Shengli, Xibei and Dongbei.

The following table sets forth our number of productive wells for crude oil and natural gas as of December 31, 2009, as compared to December 31, 2008:

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	As of December 31,					
	2008			2009		
		Natural		Natura		
	Crude Oil	Gas		Crude Oil	Gas	
Shengli	24,303	394		25,600	415	
Zhongyuan	3,936	301		4,033	296	
Xibei	840	80		995	88	
Jiangsu	1,776	5		1,929	6	
Others	6,038	2,095	(1)	6,427	2,275	(1)
Total Productive Wells	36,893	2,875		38,984	3,080	

(1) Including (i) six (6) natural gas productive wells in which a third party owns 50% of the working interest; and (ii) twelve (12) natural gas productive wells in which a third party owns 70% of the working interest.

#### Refining

#### Overview

We processed approximately 182.0 million tonnes of crude oil in 2009, representing approximately 53.57% of China's total crude oil throughput. We produce a full range of refined petroleum products. The following table sets forth our production of our principal refined petroleum products for the years ended December 31, 2007, 2008 and 2009.

	For the Years Ended December 31,		
	2007	2008	2009
	(1	in million toni	nes)
Gasoline	26.6	29.6	34.4
Diesel	63.4	69.7	68.9
Kerosene including jet fuel	8.3	8.0	10.4
Light chemical feedstock	24.0	23.1	26.9
Lubricant	13.3	12.1	1.3
Liquefied petroleum gas	7.4	8.2	8.7
Fuel oil	5.6	5.1	4.1

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

#### **Refining Facilities**

Currently we operate 34 refineries in China, all of which are located in our principal market. As of December 31, 2009, our total primary distillation capacity was 227.0 million tonnes per annum.

The following table sets forth our total primary distillation capacity per annum and crude oil throughputs as of and for the years ended December 31, 2007, 2008 and 2009.

As of and for the Years Ended December 31,

	2007	2008	2009
Primary distillation capacity (million tonnes per annum)	191.9	208.0	227.0
Crude oil throughputs (million tonnes)	164.0	171.1	182.6

In 2009, measured by the total output from our refineries, our overall gasoline yield was 18.85%, overall diesel yield was 37.71%, overall kerosene yield was 5.69% and overall light chemical feedstock yield was 14.71%. Other products include lubricant, liquefied petroleum gas, solvent, asphalt, petroleum coke, paraffin and fuel oil. For the years ended December 31, 2007, 2008 and 2009, our overall yield for all refined petroleum products at our refineries was 93.95%, 94.05% and 94.53%, respectively.

The following table sets forth the primary distillation capacity per annum as of, and refinery throughput for the years ended, December 31, 2007, 2008 and 2009 of each of our refineries with the primary distillation capacity of 8 million tonnes or more per annum as of December 31, 2009.

As of and for the Years Ended December 31,					
20	07	20	08	20	09
Primary		Primary		Primary	
Distillation	Refinery	Distillation	Refinery	Distillation	Refinery
Capacity	Throughput	Capacity	Throughput	Capacity	Throughput
		(in millio	on tonnes)		
20.0	18.6	20.0	19.4	23.0	19.2
14.0	8.9	14.0	9.2	14.0	8.8
13.5	13.1	13.5	13.0	13.5	13.0
13.2	10.4	13.2	11.6	13.2	11.2
13.0	11.5	13.0	11.2	13.0	12.4
13.0	8.6	13.0	10.7	13.0	10.8
11.0	8.1	11.0	10.2	11.0	10.5
10.5	10.6	10.5	10.0	10.5	10.1
-	-	10.0	5.1	10.0	9.5
8.0	8.2	8.0	7.5	8.0	8.0
8.0	8.0	8.0	7.8	8.0	8.2
6.5	5.2	8.0	4.8	8.0	6.4
5.0	4.3	8.0	4.0	8.0	4.5
4.0	3.5	4.0	3.1	12.0	7.0
5.5	5.3	5.5	3.6	12.5	4.3
	Primary Distillation Capacity 20.0 14.0 13.5 13.2 13.0 13.0 11.0 10.5 - 8.0 8.0 8.0 6.5 5.0 4.0	2007Primary Distillation CapacityRefinery Throughput20.018.614.08.913.513.113.210.413.011.513.08.611.08.110.510.68.08.28.08.06.55.25.04.34.03.5	$\begin{array}{c} 2007 & 20\\ Primary \\ Distillation \\ Capacity \\ Capacity \\ 14.0 \\ 13.5 \\ 13.2 \\ 13.2 \\ 13.0 \\ 11.5 \\ 13.2 \\ 10.4 \\ 13.5 \\ 13.1 \\ 13.0 \\ 11.5 \\ 13.0 \\ 11.5 \\ 13.0 \\ 11.5 \\ 13.0 \\ 11.5 \\ 13.0 \\ 11.5 \\ 13.0 \\ 11.0 \\ 10.5 \\ 10.6 \\ 10.5 \\ - \\ 10.0 \\ 8.0 \\ 8.1 \\ 11.0 \\ 10.5 \\ 5.1 \\ 8.0 \\$	$\begin{array}{cccccccc} 2007 & 2008 \\ Primary \\ Distillation \\ Capacity \\ Capacity \\ Throughput \\ Throughput \\ Capacity \\ Capacity \\ Throughput \\ Capacity \\ Capacity \\ Throughput \\ Throughput \\ Capacity \\ Throughput \\ Th$	$\begin{array}{c c c c c c c c c c c c c c c c c c c $

(1) Qingdao Refinery was completed and commenced operation in May 2008.

In 2009, our primary distillation capacity of crude oil increased by 22.0 million tonnes per annum, representing a net increase of 19.0 million tonnes per annum from 2008 after adjusting for the facility shut-downs, which includes an increase of 21.0 million tonnes per annum in the distillation capacity of high-sulfur crude oil. In addition, in 2009, our hydro-refining capacity and coking capacity increased by 16.8 million tonnes per annum and 3.3 million tonnes per annum, respectively. The revamping projects for a number of refining facilities to improve refined petroleum product quality were also progressing as planned.

## Sources of Crude Oil

Crude oil is our most important raw material. The following table sets forth the sources of our crude oil supply for the years ended December 31, 2007, 2008 and 2009.

	For the Years ended December 31,		
	2007	2008	2009
Source of Supply	(	in million ton	nes)
Self-supply	30.83	30.88	31.90
PetroChina Company Ltd.	6.89	6.13	7.05
CNOOC Ltd.	7.42	7.55	6.49
Import	116.87	127.98	138.07
Total	162.01	172.54	183.51

Marketing and Sales of Refined Petroleum Products

## Overview

We operate the largest sales and distribution network for refined petroleum products in China. In 2009, we distributed and sold in China approximately 124.02 million tonnes of gasoline, diesel and kerosene including jet fuel, representing a market share of approximately 60% in China. Most of the refined petroleum products sold by us are produced internally. In 2009, approximately 84% of our gasoline sales volume and approximately 87% of our diesel sales volumes were produced internally.

The table below sets forth a summary of key data in the marketing and sales of refined petroleum products for the year ended December 31, 2007, 2008 and 2009.

	For the Ye	ars Ended De	cember 31,
	2007	2008	2009
Sales volume of refined petroleum products			
(in million tonnes)	119.39	122.98	124.02
Of which: Retail	76.62	84.10	78.90
Direct Sales	20.17	19.63	25.61
Wholesale	22.60	19.25	19.52
Average annual throughput of service stations (tonnes per station)	2,697	2,935	2,715
Total number of service stations under Sinopec brand as of December 31 of			
the respective year	29,062	29,279	29,698
Of which: Self-operated service stations	28,405	28,647	29,055
Franchised service stations	657	632	643

#### Retail

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

In 2009, we sold approximately 78.9 million tonnes of refined petroleum products through our retail network, representing approximately 63.6% of our total refined petroleum products sales volume. Our retail market share in 2009 was approximately 76.7% in our principal market. Our retail network mainly consists of service stations that are wholly-owned and operated by us or jointly-owned and operated or leased by us and franchised service stations that are owned and operated by third parties.

In 2009, we continued to improve our refined petroleum products retail networks through acquisition, construction and renovation of service stations, and added 408 new service stations wholly-owned and operated by us into our retail network. We believe we have further strengthened our leading position in our principal market, and further improved our brand awareness and customer loyalty.

## Direct Sales

In 2009, we sold approximately 25.61 million tonnes of refined petroleum products, including 2.42 million tonnes of gasoline, 23.06 million tonnes of diesel and 0.13 million tonnes of kerosene, through direct sales to commercial customers such as industrial enterprises, hotels, restaurants and agricultural producers.

#### Wholesale

In 2009, we sold approximately 19.52 million tonnes of refined petroleum products through wholesale channels, representing approximately 15.7% of our total sales volume of refined petroleum products. Our wholesale sales include sales to large commercial or industrial customers and independent distributors as well as sales to certain long-term customers such as railway, airlines, shipping and public utilities.

Through our wholesale centers, we operate 410 storage facilities with a total capacity of approximately 14.0 million cubic meters, substantially all of which are wholly-owned by us. Our wholesale centers are connected to our refineries by railway, waterway and, in some cases, by pipelines. We also own some dedicated railways, oil wharfs and oil barges, as well as a number of rail tankers and oil trucks.

## Chemicals

## Overview

We are the largest petrochemicals producer in China. We produce a full range of petrochemical products including intermediate petrochemicals, synthetic resins, synthetic fiber monomers and polymers, synthetic fibers, synthetic rubber and chemical fertilizers. Synthetic resins, synthetic fibers, synthetic rubber, chemical fertilizers and some intermediate petrochemicals comprise a significant majority of our external sales. Synthetic fiber monomers and polymers and intermediate petrochemicals, on the other hand, are mostly internally consumed as feedstock for the production of other chemical products. Our chemical operations are integrated with our refining businesses, which

supply a significant portion of our chemical feedstock such as naphtha. Because of strong domestic demand, most of our petrochemical products are sold in China's domestic market.

In 2009, our Fujian ethylene project commenced operation and construction of our Tianjin ethylene project achieved mechanical completion.

Products

Intermediate Petrochemicals

We are the largest ethylene producer in China. Our rated ethylene capacity was 7.13 million tonnes per annum, which represented 59.6% of China's total domestic ethylene capacity, as of December 31, 2009. In 2009, we produced 6.71 million tonnes of ethylene, representing approximately 62.8% of the total domestic output. Nearly all of our olefins production is used as feedstock for our petrochemical operations.

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

Organic chemicals extracted mainly from olefins and aromatics are intermediate petrochemicals and are essential raw materials for synthetic resins, synthetic rubber and synthetic fibers. We are the largest producer of butanol, styrene, paraxylene, vinyl acetate, phenol and acetone in China.

The following table sets forth our rated capacity per annum, production volume and major plants of production as of or for the year ended December 31, 2009 for our principal intermediate petrochemical products. These operational data include 100% of the rated capacity and production of our joint ventures, SECCO, BASF-YPC, and Fujian Refining and Petrochemical Company Limited., which we own 50%, 40% and 50%, respectively.

	Our Rated Capacity (thousand tonnes per annum)	Our Production (thousand tonnes)	Major Plants of Production
Ethylene	7,135	6,713	Yanshan, Shanghai, Yangzi, Qilu, Maoming, Guangzhou, Tianjin, Zhongyuan, SECCO, BASF-YPC and Fujian
Propylene	6,343	6,169	Yanshan, Shanghai, Yangzi, Qilu, Maoming, Guangzhou, Tianjin, Zhongyuan, SECCO, BASF-YPC, Gaoqiao, Anqing, Jinan, Jingmen, Wuhan and Fujian
Benzene	3,701	2,488	Yanshan, Shanghai, Yangzi, Qilu, Guangzhou, Zhenhai,

			Tianjin, Luoyang, SECCO and BASF-YPC
Styrene	1,241	996	Yanshan, Qilu, Guangzhou, Maoming and SECCO
Para-xylene	4,068	2,997	Shanghai, Yangzi, Qilu, Tianjin and Luoyang
Phenol	350	322	Yanshan and Gaoqiao

Synthetic Resins

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

The following table sets forth our rated capacity per annum, production volumes and major plants of production for each of our principal synthetic resins as of or for the year ended December 31, 2009. These operational data include 100% of the rated capacity and production of our joint ventures, SECCO, BASF-YPC, and Fujian Refining and Petrochemical Company Limited., which we own 50%, 40% and 50%, respectively.

	Our Rated Capacity (thousand tonnes per annum)	Our Production (thousand tonnes)	Major Plants of Production
Polyethylene	5,081	4,747	Yanshan, Shanghai, Yangzi, Qilu, Maoming, Guangzhou, Tianjin, Zhongyuan, SECCO, BASF-YPC and Fujian
Polypropylene	4,287	4,297	Yanshan, Shanghai, Yangzi, Qilu, Guangzhou, Maoming, Tianjin, Zhongyuan, SECCO, Wuhan Fenghuang, Jingmen and Fujian
Polyvinyl chloride	600	514	Qilu
Polystyrene	536	412	Yanshan, Qilu, Maoming, Guangzhou and SECCO
Acrylonitrile butadiene			
styrene	200	142	Gaoqiao

Synthetic Fiber Monomers and Polymers

Our principal synthetic fiber monomers and polymers are purified teraphthalic acid, ethylene glycol, acrylonitrile, caprolactam, polyester, polyethylene glycol and polyamide fiber. Based on our 2009 production, we are the largest producer of purified teraphthalic acid, ethylene glycol, caprolactam and polyester in China. Most of our production of synthetic fiber monomers and polymers are used as feedstock for synthetic fibers.

The following table sets forth our rated capacity per annum, our production volume and major plants of production as of or for the year ended December 31, 2009 for each type of our principal synthetic fiber monomers and polymers. These operational data include 100% of the rated capacity and production of our joint ventures, SECCO, BASF-YPC, and Fujian Refining and Petrochemical Company Limited., which we own 50%, 40% and 50%, respectively.

	Our Rated Capacity (thousand tonnes per annum)	Our Production (thousand tonnes)	Major Plants of Production
Purified teraphthalic acid	3,078	3,289	Shanghai, Yangzi, Yizheng, Tianjin and Luoyang
Ethylene glycol	1,413	1,013	Yanshan, Shanghai, Yangzi, Tianjin, Maoming, BASF-YPC and Fujian

Acrylonitrile	510	496	Shanghai, Anqing, Qilu and SECCO
Caprolactam	210	184	Shijiazhuang and Baling
Polyester	2,812	2,701	Shanghai, Yizheng, Tianjin
			and Luoyang

Synthetic Fibers

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

The following table sets forth our rated capacity per annum, production volume and major plants of production for each type of our principal synthetic fibers as of or for the year ended December 31, 2009.

	Our Rated Capacity (thousand	Our Production	Major Plants of Production
	tonnes	(thousand	
	per annum)	tonnes)	
Polyester	1,200	991	Yizheng, Shanghai, Tianjin
fiber			and Luoyang
Acrylic	315	305	
fiber			Shanghai, Anqing and Qilu

## Synthetic Rubbers

Our principal synthetic rubbers are cis-polybutadiene rubber, styrene butadiene rubber, or SBR, styrene butadiene-styrene thermoplastic elastomer and isobutadiene isoprene rubber, or IIR. Based on our 2009 production, we are the largest producer of SBR and cis-polybutadiene rubber and the only producer of IIR in China.

The following table sets forth our rated capacity per annum, production volume and major plants of production as of or for the year ended December 31, 2009 for each of our principal synthetic rubbers.

	Our Rated Capacity (thousand tonnes per annum)	Our Production (thousand tonnes)	Major Plants of Operation
Cis-polybutadiene rubber	285	296	Yanshan, Qilu, Maoming and Gaoqiao
Styrene butadiene rubber	430	354	Yanshan, Qilu, Maoming and Gaoqiao and Yangzi
Styrene-butadiene-styrene thermoplastic elastomers	170	194	Yanshan and Maoming
Isobulylene isoprene rubber	45	40	Yanshan

## **Chemical Fertilizers**

We produce synthetic ammonia and urea. Our synthetic ammonia is used to manufacture urea, caprolactam and acrylic nitrile.

The following table sets forth our rated capacity per annum, our production volume and major plants of production for ammonia and urea as of or for the year ended December 31, 2009.

	Our Rated Capacity (thousand	Our Production	Major Plants of Production
	tonnes	(thousand	
	per annum)	tonnes)	
Ammonia	2,227	1,123	Zhenhai, Jinling, Anqing, Jiujiang, Qilu, Hubei and Baling
Urea	3,634	1,752	-

Zhenhai, Jinling, Anqing, Jiujiang, Qilu, Hubei and Baling

Marketing and Sales of Petrochemicals

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

Our principal sales and distribution channels consist of direct sales to end-users, most of which are large- and medium-sized manufacturing enterprises, and sales to distributors in our national sales network. We also provided after-sale services to our customers, including technical support. We continuously strive to improve our product mix and enhance our product quality to meet market needs.

## Competition

## **Exploration and Production**

Because our production of crude oil can only meet approximately 17.4% of our crude oil requirements, we generally do not compete for crude oil customers. However, we compete with other market participants for the acquisition of desirable crude oil and natural gas prospects.

## Refining and Marketing of Refined Petroleum Products

Market participants compete primarily on the basis of quality of products and service, efficiency of operations including proximity to customers, awareness of brand name and price. While we constantly face competition from other market participants, we believe that we have a competitive advantage in our principal market over our competitors in most of these aspects.

## Chemicals

We compete with domestic and foreign chemicals producers in the chemicals market. We believe our proximity to customers has given us significant geographical advantages. Most of our petrochemical production facilities are located in the eastern and southern regions in China, an area which has experienced higher economic growth rates in China in the past two decades. Proximity of our production facilities to our markets has given us an advantage over our competitors in terms of easy access to our customers, resulting in lower transportation costs, more reliable delivery of products and better service to customers.

## Patents and Trademarks

In 2009, we were granted 605 patents in China and 37 patents overseas. As of December 31, 2009, we owned a total of 5,082 patents in China. We are also entitled to use certain patents, trademarks and computer software owned by Sinopec Group Company under a royalty-free basis, provided that we bear all such annual expenses of maintaining the validity of such trademarks, patents and computer software. Certain patents expire from time to time and cover various products, processes and product uses. Our royalty-free trademark licenses from Sinopec Group Company also include the right to use the "Sinopec" brand for our products and services. Pursuant to a supplemental agreement we entered into with Sinopec Group Company on October 21, 2009, our intellectual property licenses from Sinopec Group Company were extended to December 31, 2019.

## **Regulatory Matters**

#### Overview

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

## National Development and Reform Commission ("NDRC")

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

- Formulating guidance plan for annual production, import and export amount of crude oil, natural gas and gasoline nationwide based on its forecast on macro economic conditions in China;
- Setting the pricing policy for refined petroleum products;
- Approving certain domestic and overseas resource investment projects which are subject to NDRC's approval as required by the Catalogue of Investment Projects Approved by the Government (2004); and
- · Approving foreign investment projects that are in excess of certain investment limits.

The Ministry of Commerce ("MOFCOM")

MOFCOM is responsible for examining and approving production sharing contracts, Sino-foreign equity joint venture contracts and Sino-foreign cooperation joint venture contracts for oil and gas development within the PRC. It is also responsible to issue quotas and licenses for import and export of crude oil and refined oil.

Ministry of Land and Resources ("MLR")

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

Regulation of Exploration and Production

**Exploration and Production Rights** 

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

Applicants for exploration licenses must first register with the MLR blocks in which they intend to engage in exploration activities. The holder of an exploration license is obligated to make an annual minimum exploration investment relating to the exploration blocks in respect of which the license is issued. Investment ranges from RMB 2,000 per square kilometer for the initial year to RMB 5,000 for the second year and to RMB 10,000 for the third and subsequent years. Additionally, the holder has to pay an annual exploration license fee of RMB 100 per square kilometer for each of the first three years. Afterwards, the annual fee increases by an additional RMB 100 per square kilometer per year up to a maximum of RMB 500 per square kilometer. The maximum term of an exploration license is 7 years. The exploration license may be renewed upon application by the holder at least 30 days prior to expiration of the original term with each renewal for a two-year term.

At the exploration stage, an applicant can also apply for a progressive exploration and production license that allows the holder to test and develop reserves not yet fully proved. The progressive exploration and production license has a maximum term of 15 years. When the reserves become proved for a block, the holder must apply for a full production license in order to undertake production.

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

production right usage fee of RMB 1,000 per square kilometer.

All companies approved by the State Council to engage in oil and gas exploration and production activities may apply for exploration and production licenses for onshore and offshore oil and natural gas resources without geographical restrictions. We have exploration and production licenses for the exploration and production of both onshore and offshore crude oil and natural gas resources in China.

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

Volume and Price of Natural Gas

The NDRC formulates the annual natural gas supply guidelines which require natural gas producers to distribute specified amount of natural gas to specified fertilizer producers. The actual production level of natural gas (excluding the amount supplied to the fertilizer producers) is determined by the natural gas producers themselves.

The price of natural gas has two components:

- ex-factory price; and
- pipeline transportation fee

Since December 2005, the NDRC simplified the ex-factory price-setting mechanism by dividing natural gas prices into two tiers and setting a median guidance ex-factory price for each tier. The price for the first tier may be set within  $\pm 10\%$  of the guidance price through negotiation between the producers and their customers, while the price for the second tier may fluctuate up to 10% of the guidance price with no limitation on the minimum price. In addition, the NDRC would adjust the guidance prices once per year by up to 8% annually to reflect the price trends of crude oil and other alternative energies. On November 8, 2007, the NDRC adopted an adjusted pricing policy for natural gas, by increasing the guidance ex-factory price of the natural gas for industrial applications other than chemical fertilizers and independent heating enterprises by RMB 400.0 per thousand cubic meters, deregulating the ex-factory price of the natural gas for LNG producers, fixing the minimum ratio between the base retail price of natural gas for automobiles and the base retail price of #90 gasoline at 0.75:1.

Natural gas producers submit to the NDRC for examination and approval of any proposed transportation fee for the natural gas transported by pipelines, which was based on the capital investment made in the pipeline, the depreciation period for the pipeline and the ability of end users to pay.

Regulation of Refining and Marketing of Refined Petroleum Products

Volume and Price Controls on Gasoline, Diesel and Jet Fuel

The PRC government continues to exercise control over gasoline, diesel and jet fuel prices.

According to the Notice on Implementing Reforms on Prices of Refined Products and Tax promulgated by the State Council on December 18, 2008 and the Measures for Administration of Petroleum Products Price (Trial) issued by the NDRC on May 7, 2009, the sale price for refined petroleum products in the PRC market shall be adjusted with reference to international crude oil price fluctuations, subject to governmental control. The NDRC will set maximum retail price and the provincial price bureaus have the authority to set maximum whole sale prices for gasoline and diesel . As a principle, maximum retail price for gasoline and diesel in the Chinese market shall be decided with reference to the international crude oil price plus the average domestic processing costs, tax levies, reasonable sales and marketing expenses and appropriate profit. The refined petroleum products price in the PRC market may be adjusted when the moving average price of international crude oil price fluctuates beyond 4% within a period of 22 consecutive business days. If the international crude oil prices experience sustained increase or radical fluctuation, the price of refined petroleum products, including gasoline and diesel products, will be controlled by the government to reduce the oil price fluctuation impact upon the PRC market.

Regulation of Crude Oil and Refined Petroleum Products Market

On December 4, 2006, Ministry of Commerce of the PRC promulgated the "Administrative Rules for Crude Oil Market" and "Administrative Rules for Refined Petroleum Products Market" to open the wholesale market of crude oil and refined petroleum products to new market entrants, respectively. We will face more competition in both crude oil and refined petroleum products markets. Such increased competition may have a material adverse effect on our financial conditions and results of operations.

Investment

Under the State Council's Decision on Investment System Reform, investments without the use of government funds are only subject to a licensing system or a registration system, as the case may be. Under the current

system, only significant projects and the projects of restrictive nature are subject to approval so as to maintain social and public interests, and all other projects of any investment scale are only subject to a registration system.

Overseas investment project falling within the category of resources development involving investment by any Chinese party of above US\$ 200 million (inclusive) shall be verified and approved by the State Council, and those involving investment of above US\$ 30 million (inclusive) shall be verified and approved by the NDRC. Other overseas investment project shall be verified and approved by State Council if it involves investment by any Chinese party of above US\$ 50 million (inclusive), or by the NDRC if it involves investment by any Chinese party of above US\$ 10 million (inclusive). Any overseas investment projects other than the foregoing shall be filed with the NDRC and/or the MOFCOM if the investor is an enterprise managed by the central government, or approved by its local government according to applicable laws and regulations. Overseas investment projects involving domestic enterprise's establishment or acquisition of overseas enterprise to acquire ownership, control or management rights of overseas enterprise (with the exception of financial enterprises) shall be approved by the MOFCOM or relevant provincial-level commerce authorities according to applicable laws and regulations.

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

Taxation, Fees and Royalty

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

Effective from January 1, 2008, the general enterprise income tax rate imposed on entities, other than certain enterprises defined in the new Enterprise Income Tax Law of the PRC, is 25%.

According to the Notice on Implementing Reforms on Prices of Refined Products and Tax, starting from January 1, 2009, consumption tax on refined petroleum products were adjusted. Applicable tax, fees and royalties on refined petroleum products and other refined products generally payable by us or by other companies in similar industries are shown below.

Tax Item	Tax Base	Tax Rate
Enterprise income tax	Taxable income	25% effective from January 1, 2008.
Value-added tax	Revenue	13% for liquefied petroleum gas, natural gas, and low density polyethylene for production of agricultural film and fertilizers and 17% for other items. We generally charge value-added tax to our customers at the time of settlement on top of the selling prices of our products on behalf of the taxation authority. We may directly claim refund from the value-added tax collected from our customers of any value-added tax that we paid for (i) purchasing

materials consumed during the production process; (ii) charges paid for drilling and other engineering services; and (iii) labor consumed during the production process.

Business tax	Revenue from pipeline transportation services	3%.
Consumption tax	Aggregate volume sold or self-consumed	RMB 1 per liter for gasoline, naphtha, solvent oil and lubricant; RMB 0.8 per liter for diesel, jet fuel and fuel oil. Prior to December 31, 2010, the consumption tax paid for imported naphtha for the

		production of ethylene and aromatic hydrocarbon will be refunded, and naphtha procured from domestic sources for the production of ethylene and aromatic hydrocarbon will remain tax-free. Consumption tax on jet fuel is currently exempted.
Import tariff	CIF China price	5% for gasoline, 6% for light diesel, 9% for jet kerosene and 6% for No. 5-7 fuel oil. The current applicable tax rates in 2010 for jet kerosene and No. 5-7 fuel oil are 6% and 3%, respectively.
Resource tax	Aggregate volume sold or self-consumed	RMB 14 to RMB 30 per tonne for crude oil. RMB 7 to RMB 15 per thousand cubic meters for natural gas.
Compensatory fee for mineral resources	Revenue of crude oil and natural gas	1%
Exploration license fee	Area	RMB 100 to 500 per square kilometer per annum.
Production license fee	Area	RMB 1,000 per square kilometer per annum.
Royalty fee(1)	Production volume	Progressive rate of 0-12.5% for crude oil and 0-3% for natural gas.
City construction tax	Total amount of value-added tax, consumption tax and business tax	1%, 5% and 7%.
Education Surcharge	Total amount of value-added tax, consumption tax and business tax	3%.
Special Oil Income Levy	Any revenue derived from sale of domestically produced crude oil when the realized crude oil price exceeds US\$ 40 per barrel.	Progressive rate of 20% to 40% for revenue derived from crude oil with realized price in excess of US\$ 40 per barrel, i.e. 20% for the portion in excess of US\$ 40 per barrel up to US\$ 45 per barrel (inclusive); 25% for the portion in excess of US\$ 45 per barrel up to US\$ 50 per barrel (inclusive); 30% for the portion in excess of US\$ 50 per barrel to US\$ 55 per barrel (inclusive); 35% for the portion in excess of US\$ 55 per barrel to US\$ 60 per

barrel (inclusive); and 40% for the portion in excess of US\$ 60 per barrel.

(1) Payable only by Sino-foreign oil and gas exploration and development cooperative projects, and the project companies of those cooperative projects are not subject to any other resource taxes or fees.

# C. ORGANIZATIONAL STRUCTURE

For a description of our relationship with Sinopec Group Company, see "Item 4. Information on the Company — A. History and Development of the Company" and "Item 7. Major Shareholders and Related Party Transactions." For a description of our significant subsidiaries, see Note 34 to our consolidated financial statements.

## D. PROPERTY, PLANT AND EQUIPMENT

We own substantially all of our properties, plants and equipment relating to our business activities. We hold production licenses covering all of our interests in our developed and undeveloped crude oil and natural gas fields and productive wells. See "Item 4. Information on the Company — B. Business Overview" for description of our property, plant and equipment.

## **Environmental Matters**

We are subject to various national environmental laws and regulations and also environmental regulations promulgated by the local governments in whose jurisdictions we have operations. For example, national regulations promulgated by the central government set discharge standards for emissions into air and water. They also set forth schedules of discharge fees for various waste substances. These schedules usually provide for discharge fee increases for each incremental increase of the amount of discharge up to a certain level. Above a certain level, the central regulations permit the local government to order any of our facilities to cure certain behavior causing environmental damage and subject to the central government's approval, the local government may also issue orders to close any of our facilities that fail to comply with the existing regulations. In addition, the PRC government has set certain environmental protection objective for the petroleum and chemical industry to reduce energy intensity, chemical oxygen demand, industrial water consumption and sulfur dioxide emission by certain level by 2009 compared to 2005. In light of such objective, we have incurred capital expenditure specifically to promote energy saving and environmental protection in China.

Each of our production subsidiaries has implemented a system to control its pollutant emissions and to oversee compliance with the PRC environmental regulations. We have a central safety and environmental compliance department to set our internal environmental requirements and procedures, and to manage and supervise the environmental protection programs at the various production facilities. Each production subsidiary has an environmental compliance department which is responsible for supervising environmental matters at the subsidiary and implementing our environmental requirements and procedures. These departments report both to the management of the subsidiary and to the central environmental compliance department.

Our production facilities have their own facilities to treat waste water, solid waste and waste gases on site. Waste water first goes through preliminary treatment at our own waste water treatment facilities. Thereafter, the water is sent to nearby waste water treatment centers operated either by us or by Sinopec Group for further treatment. All solid waste materials generated by our production facilities are buried at disposal sites or burned in furnaces either operated by us or by Sinopec Group. Waste gases are generally treated and burned in furnaces before dissipation and the ash is disposed in accordance with our solid waste disposal procedures.

Environmental regulations also require companies to file an environmental impact report to the environmental bureau for approval before undertaking any construction of a new production facility or any major expansion or renovation of an existing production facility. Such an undertaking will not be permitted to operate until the environmental bureau has performed an inspection and is satisfied that environmentally sound equipment has been installed for the facility.

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

We paid pollutant discharge fees of approximately RMB 2.1 billion in 2007, RMB 2.3 billion in 2008 and RMB 3.2 billion in 2009.

#### Insurance

In respect of our refining, petrochemical production, and marketing and sales operations, we currently maintain with Sinopec Group Company, under the terms of its Safety Production Insurance Fund ("SPI Fund"), approximately RMB 456.3 billion of coverage on our property and plants and approximately RMB 71.2 billion of coverage on our inventory. In 2009, we paid an insurance premium of approximately RMB 1.87 billion to Sinopec Group Company for such coverage. Transportation vehicles and products in transit are not covered by Sinopec Group Company and we

maintain insurance policies for those assets with insurance companies in the PRC.

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

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

Consistent with what we believe to be customary practice among PRC enterprises, we do not currently carry any third party liability insurance to cover claims in respect of personal injury, environmental damage arising from accidents on our property or relating to our operations other than on our transportation vehicles. We have not had a third party liability claim filed against us during the past three years. We do not carry business interruption insurance, as such coverage is not customary in the PRC.

# ITEM UNRESOLVED STAFF COMMENTS 4A.

None.

ITEM OPERATING AND FINANCIAL REVIEW AND PROSPECTS 5.

## A. GENERAL

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

## Critical Accounting Policies

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

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

## Oil and gas properties and reserves

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

The successful efforts method reflects the volatility that is inherent in exploring for mineral resources in that costs of unsuccessful exploratory efforts are charged to expense as they are incurred. These costs primarily include dry hole costs, seismic costs and other exploratory costs. Under the full cost method, these costs are capitalized and written-off (depreciation) over time.

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

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

Despite the inherent imprecision in these engineering estimates, these estimates are used in determining depreciation expense, impairment expense and future dismantlement costs, and in disclosing the supplemental standardized measure of discounted future net cash flows relating to proved oil and gas properties. Depreciation rates are determined based on estimated proved developed reserve quantities (the denominator) and capitalized costs of producing properties (the numerator). Producing properties' capitalized costs are amortized based on the units of oil or gas produced. Therefore, assuming all other variables are held constant, an increase in estimated proved developed reserves decreases our depreciation, depletion and amortization expense. Also, estimated reserves are often used to calculate future cash flows from our oil and gas operations, which serve as an indicator of fair value in determining whether a property is impaired or not. The larger the estimated reserves, the less likely the property is impaired. There have been no significant changes to the original reserve estimates during any of the three years ended December 31, 2007, 2008 and 2009.

## Impairment for long-lived assets

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

Impairment losses recognized for each of the three years ended December 31, 2007, 2008 and 2009 in our statement of income on long-lived assets are summarized as follows:

	Years	Years ended December 31,				
	2007	2008	2009			
	RMB	RMB	RMB			
		(in millions	)			
Exploration and production	481	5,991	1,595			
Refining	1,070	270	396			
Marketing and distribution	1,237	709	1,479			
Chemicals	318	1,511	3,807			
Corporate and others		19	8			
Total	3,106	8,500	7,285			

## Depreciation

Property, plant and equipment (other than oil and gas properties) are depreciated on a straight-line basis over the estimated useful lives of the assets, after taking into account the estimated residual value. We review the estimated useful lives of the assets regularly in order to determine the amount of depreciation expense to be recorded during any reporting period. The useful lives are based on our historical experience with similar assets and take into account anticipated technological changes. The depreciation expense for future periods is adjusted if there are significant

changes from previous estimates. There have been no changes to the estimated useful lives and residual values during each of the three years ended December 31, 2007, 2008 and 2009.

Impairment of accounts receivable for bad and doubtful debts

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

	Years ended December 31,				
	2007	2008	2009		
	RMB	RMB	RMB	i.	
		(in million	ns)		
Balance as of January 1.	3,373	2,909	2,406		
Impairment losses recognized for the year.	295	143	70		
Reversal of impairment losses	(204	) (254	) (245	)	
Written off	(555	) (392	) (310	)	
Balance as of December 31	2,909	2,406	1,921		

Allowance for diminution in value of inventories

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

	Years	Years ended December 31,				
	2007	2007 2008 2				
	RMB	RMB	RMB			
		(in millior	ns)			
Balance as of January 1	871	4,572	9,189			
Allowance for the year	3,962	8,777	401			
Reversal of allowance on disposal	(131	) (64	) (185	)		
Written off	(130	(4,096	) (8,367	)		
Balance as of December 31	4,572	9,189	1,038			

Recently Pronounced International Financial Reporting Standards

Information relating to the recently pronounced IFRS is presented in Note 37 to the consolidated financial statements.

Overview of Our Operations

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

- Exploration and Production Segment, which consists of our activities related to exploring for and developing, producing and selling crude oil and natural gas;
- Refining Segment, which consists of purchasing crude oil from our exploration and production segment and from third parties, processing of crude oil into refined petroleum products, selling refined petroleum products principally to our marketing and distribution segment;

- Marketing and Distribution Segment, which consists of purchasing refined petroleum products from our refining segment and third parties, and marketing, selling and distributing refined petroleum products by wholesale to large customers and independent distributors and retail through our retail network;
- · Chemicals Segment, which consists of purchasing chemical feedstock principally from the refining segment and producing, marketing, selling and distributing chemical products; and
- Corporate and Others Segment, which consists principally of trading activities of the import and export subsidiaries and our research and development activities.

## B. CONSOLIDATED RESULTS OF OPERATIONS

The following table sets forth certain income and expense items from our consolidated statements of income for the periods indicated.

	Years Ended December 31,					
	2007		2008		2009	
	RMB		RMB		RMB	
			(in billions	s)		
Operating revenues						
Sales of goods	1,170.0		1,413.2		1,315.9	
Other operating revenues	31.0		31.1		29.1	
Total operating revenues	1,201.0		1,444.3		1,345.0	
Other income	4.9		50.9		-	
Operating expenses						
Purchased crude oil, products and operating supplies and expenses	(971.7	)	(1,286.1	)	(990.5	)
Selling, general and administrative expenses	(32.8	)	(39.4	)	(40.5	)
Depreciation, depletion and amortization	(43.6	)	(46.4	)	(50.5	)
Exploration expenses, including dry holes	(11.1	)	(8.3	)	(10.5	)
Personnel expenses	(22.9	)	(23.4	)	(28.8	)
Taxes other than income tax	(34.7	)	(57.2	)	(132.9	)
Other operating expenses, net	(3.6	)	(8.1	)	(6.9	)
Total operating expenses	(1,120.4	)	(1,468.9	)	(1,260.6	)
Operating income	85.5		26.3		84.4	
Net finance costs	(8.4	)	(5.2	)	(7.2	)
Income from investments	5.7		1.0		3.4	
Earnings before income tax	82.8		22.1		80.6	
Tax (expense)/benefit	(24.7	)	2.9		(16.1	)
Net income	58.1		25.0		64.5	
Attributable to:						
Equity shareholders of the Company	55.9		28.5		61.8	
Minority interests	2.2		(3.5	)	2.7	
	58.1		25.0		64.5	

Year Ended December 31, 2009 Compared with Year Ended December 31, 2008

In 2009, our total operating revenues were RMB 1,345.0 billion, representing a decrease of 6.9% over the year of 2008. Our operating income was RMB 84.4 billion, representing an increase of 220.9% over the year of 2008. The increase in our operating income was primarily due to our efforts to respond to the international financial crisis, including our development in the markets we compete, enhancement in marketing and services quality, improvement of our raw material structure and further leveraging on our strength in business scale and integration. These efforts were coupled with the reform on pricing mechanism and taxation and fee policies for refined oil products by the PRC government and the increase in demand for chemical products in domestic market.

## **Operating Revenues**

In 2009, our operating revenues from sales of goods were RMB 1,315.9 billion, representing a decrease of 6.9% over 2008. This was mainly due to the decrease in the price of crude oil, refined oil and petrochemical products over 2008. In addition, in 2008, we received RMB 50.9 billion of government subsidy as a result of the PRC government's tight

control over refined petroleum products prices in 2008 (categorized as other income), and we did not receive any such subsidy as a result of the reform on pricing mechanism and taxation and fee policies for refined oil products by the PRC government in 2009.

The following table sets forth our external sales volume, average realized prices and the respective rates of change from 2008 to 2009 for our major products:

	2008	Real	ized Price 2009		Rate of Change from 2008 to 2009		Sal 2008	es Vo	lume 2009		Rate of Change from 2008 to 2009
	(RMB)		(RMB)		(%)						(%)
Crude Oil	4,190	(1)	2,303	(1)	(45.0	)	4.39	(2)	4.92	(2)	12.1
Natural Gas	911	(3)	933	(3)	2.4	-	6.28	(4)	6.49	(4)	3.3
Gasoline	6,409	(1)	6,367	(1)	(0.7	)	37.73	(2)	39.04	(2)	3.5
Diesel	5,629	(1)	5,092	(1)	(9.5	)	80.24	(2)	82.34	(2)	2.6
Kerosene	6,063	(1)	3,918	(1)	(35.4	)	9.22	(2)	11.35	(2)	23.1
Basic chemical feedstock	6,238	(1)	4,359	(1)	(30.1	)	10.67	(2)	13.27	(2)	24.4
Synthetic Resin	10,094	(1)	8,072	(1)	(20.0	)	7.83	(2)	8.67	(2)	10.7
Synthetic Fiber	10,488	(1)	9,140	(1)	(12.9	)	1.35	(2)	1.42	(2)	5.2
Synthetic Rubber	16,160	(1)	11,448	(1)	(29.2	)	0.98	(2)	1.12	(2)	14.3
Synthetic Fiber Monomer and											
Polymer	8,054	(1)	6,530	(1)	(18.9	)	3.99	(2)	4.65	(2)	16.5
Chemical fertilizer	1,729	(1)	1,657	(1)	(4.2	)	1.66	(2)	1.77	(2)	6.6

- (1) per tonne
- (2) million tonnes

(3) per thousand cubic meters

(4) billion cubic meters

Sales of crude oil and natural gas

Most of crude oil and a small portion of natural gas we produced were internally used for refining and chemical production and the remaining were sold to other customers. In 2009, the total revenue from crude oil, natural gas and other upstream products that were sold externally amounted to RMB 19.3 billion, representing a decrease of 26.7% over 2008. The change was mainly due to the decrease in the price of crude oil.

Sales of refined petroleum products

In 2009, our refining segment and marketing and distribution segment sell petroleum products (mainly consisting of gasoline, diesel and kerosene which are referred to as the refined oil products and other refined petroleum products) to external parties. The external sales revenue realized by these two segments were RMB 874.2 billion, accounting for 65.0% of our operating revenues and representing a decrease of 6.5% over 2008. The decrease was mainly due to the decrease in price of refined oil products. The sales revenue of gasoline, diesel and kerosene was RMB 712.3 billion, accounting for 81.5% of the total revenue of petroleum products and representing a decrease of 5.0% over 2008. Sales revenue of other refined petroleum products was RMB 161.9 billion, accounting for 18.5% of the total turnover of petroleum products and representing a decrease of 12.8% over 2008.

Sales of chemical products

Our external sales revenue of chemical products was RMB 192.7 billion, accounting for 14.3% of our operating revenues and representing a decrease of 12.3% over 2008. This was mainly due to the decrease in the price of chemical products.

Other income

In 2008, we received RMB 50.9 billion of government subsidy as a result of the PRC government's tight control over refined petroleum products prices in 2008. We did not receive any such subsidy as a result of the reform on pricing mechanism and taxation and fee policies for refined oil products by the PRC government in 2009.

## Operating expenses

In 2009, our operating expenses were RMB 1,260.6 billion, representing a decrease of 14.2% over 2008, among which:

Purchased crude oil, products and operating supplies and expenses were RMB 990.5 billion, representing a decrease of 23.0% over 2008, accounting for 78.6% of the total operating expenses, of which:

Crude oil purchase expenses were RMB 405.4 billion, representing a decrease of 41.3% over 2008. In 2009, the total throughput of crude oil that was purchased externally was 135.14 million tonnes (excluding the amount processed for third parties), representing an increase of 0.2% over 2008; the average unit processing cost for crude oil purchased externally was RMB 3,000 per tonne, representing a decrease of 41.5% over 2008.

In 2009, our other purchasing expenses were RMB 585.1 billion, representing a decrease of 1.7% over 2008. This was mainly due to the decrease in the cost of gasoline, diesel, kerosene and other feedstock purchased externally.

Selling, general and administrative expenses totaled RMB 40.5 billion, representing an increase of 2.8% over 2008. This was mainly due to the increase in the expenses of community services and culture, education and healthcare and the increase in rental charges of some gas stations.

Depreciation, depletion and amortization was RMB 50.5 billion, representing an increase of 8.8% over 2008. This was mainly due to the depreciation resulting from the our continuous capital expenditure on property, plant and equipment.

Exploration expenses were RMB 10.5 billion, representing an increase of 26.5% over 2008, reflecting our enhanced exploration activities in northeastern Sichuan, west Sichuan and Erdos regions.

Personnel expenses were RMB 28.8 billion, representing an increase of 23.1% compared with 2008, reflecting our accrual of staff annuity and housing subsidy.

Taxes other than income tax were RMB 132.9 billion, representing an increase of 132.3% compared with 2008. This was mainly due to the reform on pricing mechanism and taxation and fee policies for refined oil products by the PRC government, which led to the increase in the consumption tax, urban construction tax and educational surcharge by RMB 101.4 billion over 2008. In addition, the special oil income levy decreased by RMB 25.7 billion compared to 2008 as a result of the decrease in the price of crude oil in 2009.

Other operating expenses were RMB 6.9 billion, representing a decrease of 14.8% over 2008.

#### Operating income

In 2009, our operating income was RMB 84.4 billion, representing an increase of 220.9% over 2008.

#### Net finance costs

In 2009, our net finance costs were RMB 7.2 billion, representing an increase of 38.5% over 2008. Our interest expenses in 2009 were RMB 7.4 billion, representing a decrease of RMB 4.5 billion over 2008; our foreign currency exchange gains were RMB 0.4 billion, representing a decrease of RMB 2.9 billion over 2008. We also incurred a loss of RMB 0.2 billion with respect to the fair value change of embedded financial derivative instruments in convertible bonds as a result of the change in our H share's trading price, compared with a gain of RMB 3.9 billion with respect to the fair value change of embedded financial derivative instruments in convertible bonds as a result of the change in our H share's trading price, compared with a gain of RMB 3.9 billion with respect to the fair value change of embedded financial derivative instruments in 2008.

Earnings before income tax

In 2009, our earnings before income tax were RMB 80.6 billion, representing an increase of 264.7% over 2008.

### Income tax

In 2009, we recognized an income tax expense of RMB 16.1 billion, increased by RMB 19.0 billion. The increase was mainly due to substantial growth of earnings before income taxes over 2008.

Net income attributable to minority interests

In 2009, our net income attributable to minority interests was RMB 2.7 billion, representing an increase of RMB 6.2 billion compared with 2008.

Net income attributable to equity shareholders of the Company

In 2009, our net income attributable to our equity shareholders was RMB 61.8 billion, representing an increase of 116.8% over 2008.

Year Ended December 31, 2008 Compared with Year Ended December 31, 2007

In 2008, our sales of goods, other operating revenues and other income were RMB 1,495.2 billion, representing an increase of 24.0% over 2007. Our operating income in 2008 was RMB 26.3 billion, representing a decrease of 69.2% over 2007. This was primarily due to the losses suffered by our refining segment due to the distortion of the correlation of domestic refined petroleum product prices and the international crude oil prices.

#### **Operating Revenues**

In 2008, our sales of goods and other operating revenues were RMB 1,444.3 billion, of which sales of goods were RMB 1,413.2 billion, representing an increase of 20.8% over 2007. The increase was primarily due to the increase in our sales of goods, which was the result of our increased average realized price and sales volume of refined oil products and the increase in volume of our trading business. In 2008, our other operating revenues were RMB 31.1 billion, representing an increase of 0.3% over 2007.

The following table sets forth our external sales volume, average realized prices and the respective rates of change from 2007 to 2008 for our major products:

	Average 2007 (RMB)	Real	ized Price 2008 (RMB)		Rate of Change from 2007 to 2008 (%)		Sal 2007	es Vo	lume 2008		Rate of Change from 2007 to 2008 (%)	e
Crude Oil	3,110	(1)	4,190	(1)	34.7		4.43	(2)	4.39	(2)	(0.9	)
Natural Gas	811	(3)	911	(3)	12.3		5.82	(4)	6.28	(4)	7.9	,
Gasoline	5,408	(1)	6,409	(1)	18.5		35.18	(2)	37.73	(2)	7.2	
Diesel	4,724	(1)	5,629	(1)	19.2		76.92	(2)	80.24	(2)	4.3	
Kerosene	4,728	(1)	6,063	(1)	28.2		7.05	(2)	9.22	(2)	30.8	
Basic chemical feedstock	6,182	(1)	6,238	(1)	0.9		10.57	(2)	10.67	(2)	0.9	
Synthetic Resin	10,204	(1)	10,094	(1)	(1.1	)	7.88	(2)	7.83	(2)	(0.6	)
Synthetic Fiber	11,605	(1)	10,488	(1)	(9.6	)	1.50	(2)	1.35	(2)	(10.0	)
Synthetic Rubber	13,763	(1)	16,160	(1)	17.4		0.96	(2)	0.98	(2)	2.1	

Synthetic Fiber Monomer and

Polymer	9,112	(1) 8,054	(1) (11.6	) 4.07	(2) 3.99	(2) (2.0	)
Chemical fertilizer	1,659	(1) 1,729	(1) 4.2	1.58	(2) 1.66	(2) 5.1	

- (1) per tonne
- (2) million tonnes
- (3) per thousand cubic meters
- (4) billion cubic meters

Sales of crude oil and natural gas

Most of the crude oil and a small portion of natural gas produced by us were internally used for refining and chemicals production and the remaining were sold to other customers. In 2008, the total revenue of crude oil, natural gas and other upstream products that were sold externally amounted to RMB 26.4 billion, representing an increase of 29.2% over 2007 and accounting for 1.8% of the sales of goods and other operating revenues. The increase was mainly due to the increase in the price of crude oil and the expansion of our natural gas business.

### Sales of refined petroleum products

Our refining segment and marketing and distribution segment sell petroleum products (mainly consisting of gasoline, diesel and kerosene which are referred to as the refined oil products and other refined petroleum products) to external parties. In 2008, the external sales revenue of petroleum products by these two segments were RMB 935.0 billion, accounting for 64.7% of our sales of goods and other operating revenues, and representing an increase of 19.9% over 2007. This was primarily the result of the increased selling price of refined petroleum products, expansion of the sales volume of our petroleum products, and the optimizing of our sales structure. The sales revenue of gasoline, diesel and kerosene was RMB 749.3 billion, accounting for 80.1% of the total turnover of refined petroleum products was RMB 185.7 billion, representing a decrease of 3.7% compared with 2007, and accounting for 19.9% of the total turnover of the refined petroleum products.

## Sales of chemical products

Our external sales revenue of chemical products was RMB 219.7 billion, accounting for 14.7% of our sales of goods and other operating revenues, and representing a decrease of 0.2% over 2007. This was primarily due to the general decrease in the selling prices and sales volume of our chemical products (other than synthetic rubber and chemical fertilizer).

### Other income

In 2008, we recognized grant income of RMB 50.9 billion compared to RMB 4.9 billion in 2007 for compensation of losses incurred due to the distortion of the correlation of domestic refined petroleum product prices and the international crude oil prices, and the measures we took to stabilize the supply in the PRC refined petroleum product market during the year. There are no unfulfilled conditions and other contingencies attached to the receipts of the grant. There is no assurance that we will continue to receive such grant in the future.

### Operating expenses

In 2008, our operating expenses were RMB 1,468.9 billion, representing an increase of 31.1% over 2007, among which:

Purchased crude oil, products and operating supplies and expenses were RMB 1,286.1 billion, representing an increase of 32.4% over 2007, accounting for 87.6% of the total operating expenses, of which:

Crude oil purchase expense was RMB 691.1 billion, representing an increase of 40.1% over 2007. This expense accounted for 47.1% of the total operating expense, representing an increase of 3.1 percentage points. With the rapid economic development in China and the expanded market demand, we increased the amount of crude oil that was purchased externally. In 2008, the total throughput of crude oil purchased externally reached 134.8 million tonnes (excluding the amounts processed for third parties), representing an increase of 6.6%. The average unit processing

cost for crude oil purchased externally was RMB 5,126 per tonne, representing an increase of 31.4% over 2007.

In 2008, our other purchasing expenses reached RMB 595.0 billion, accounting for 40.5% of the total operating expenses, representing an increase of 24.3%. The increase was mainly due to the increased volume in our trading business and the increased cost for other outsourcing materials.

Selling, general and administrative expenses totaled RMB 39.4 billion, representing an increase of 20.1% over 2007. This was primarily due to the RMB 2.6 billion increase in products delivering costs and other

miscellaneous charges caused by the increased sales volume of our refined petroleum products as well as the increased unit transportation costs.

Depreciation, depletion and amortization was RMB 46.4 billion, representing an increase of 6.4% over 2007, mainly due to the increased depreciation resulted from our continuous capital expenditures on property, plant and equipment in recent years.

Exploration expenses reached RMB 8.3 billion, representing a decrease of 25.2%. This was mainly due to the decrease in upstream exploration activities over last year.

Personnel expenses were RMB 23.4 billion, representing an increase of 2.2% over 2007.

Taxes other than income tax were RMB 57.2 billion, representing an increase of 64.8% over 2007. The increase was mainly due to the increase of the special oil income levy in the amount of RMB 21.6 billion as a result of the high crude oil price in 2008.

Other operating expenses were RMB 8.1 billion in 2008 compared to RMB 3.6 billion in 2007, that are primarily due to impairment losses on long-lived assets, which were RMB 8.5 billion in 2008 compared with RMB 3.1 billion in 2007. The impairment losses were caused by the lower price of crude oil which led to the decrease in reserves estimated and higher production and development cost in certain field blocks.

#### Operating income

In 2008, our operating income was RMB 26.3 billion, representing a decrease of 69.2% over 2007.

#### Net finance costs

In 2008, our net finance costs were RMB 5.2 billion, representing a decrease of 38.1% over 2007. The decrease was mainly attributable to the increase in unrealized gain on embedded derivative component of convertible bonds by RMB 7.1 billion, partially offset by the increase in interest expense by RMB 4.2 billion.

Earnings before income tax

In 2008, our earnings before income tax were RMB 22.1 billion, representing a decrease of 73.3% over 2007.

#### Income tax

In 2008, we recognized an income tax benefit of RMB 2.9 billion compared to income tax expense of RMB 24.7 billion in 2007. See Note 10 to our consolidated financial statements for a reconciliation between the actual income tax benefit and the expected income tax expense at the applicable statutory tax rate.

Net income attributable to minority interests

In 2008, loss for the year attributable to the minority interests of our Company was RMB 3.5 billion. This was primarily due to the losses incurred by our subsidiaries shared by the minority shareholders.

Net income attributable to equity shareholders of the Company

In 2008, net income attributable to our equity shareholders was RMB 28.5 billion, representing a decrease of 49.0% compared with 2007.

## C. DISCUSSIONS ON RESULTS OF SEGMENT OPERATIONS

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

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

	Years Ende 2007 RMB	d December 31, 2008 RMB (in billions)	2009 RMB	Consolida Revent Elin	rcentage of ted Operating ues Before nination egment Sales 2009 (%)	Cons Operatin After Eli	rcentage of olidated g Revenues mination of gment Sales 2009 (%)
Exploration and Production External							
sales(1)	38.2	45.1	36.8	1.6	1.6	3.0	2.7
Inter-segment sales	107.5	151.4	87.0	5.3	3.7		
Total operating revenue	145.7	196.5	123.8	6.9	5.3		
Refining							
External sales(1) Inter-segment	127.2	178.2	99.7	6.2	4.2	11.9	7.4
sales	541.6	692.5	603.9	24.3	25.7		
Total operating revenue Marketing and	668.8	870.7	703.6	30.5	29.9		
distribution	((2.)	012 (	700 7	20.5	22.2	54.4	50.0
External sales(1)	663.0	813.6	780.7	28.5	33.2	54.4	58.0
Inter-segment sales	2.8	3.2	2.4	0.1	0.1		
Total operating revenue	665.8	816.8	783.1	28.6	33.3		
Chemicals			1050	- 0	0.4		
External sales(1) Inter-segment	227.5	226.2	197.3	7.9	8.4	15.1	14.7
sales	16.5	27.3	21.1	1.0	0.9		
Total operating	244.0	252 5	010 4	0.0	0.2		
revenue Corporate and	244.0	253.5	218.4	8.9	9.3		
others	150.0	222.1	230.5	8.1	9.8	15.6	17.2
External sales(1) Inter-segment	150.0	232.1	250.5	0.1	9.0	15.0	17.2
sales	303.6	484.3	291.4	17.0	12.4		
Total operating	505.0	-TOT.J	<i>271.</i> 7	17.0	12.7		
revenue	453.6	716.4	521.9	25.1	22.2		
	2,177.9	2,853.9	2,350.8	100.0	100.0		

Total operating revenue before					
inter-segment eliminations					
Elimination of					
inter-segment					
sales	(972.0	) (1,358.7 )	(1,005.8)		
Consolidated operating					
revenues	1,205.9	1,495.2	1,345.0	100.0	100.0

(1)include other operating revenues. See Note 33 to the consolidated financial statements for other operating revenues of each of our operating segments.

The following table sets forth the operating revenues, operating expenses and operating income/(loss) by each segment before elimination of the inter-segment transactions for the periods indicated, and the rate of changes from 2007 to 2009.

	Years End 2007 (RMB in 1		December 2008 ons)	31,	2009		Rate of Change from 2009 to 2009	8
Exploration and Production								
Total operating revenues	145.7		196.5		123.8		(37.0	)
Total operating expenses	(96.9	)	(129.9	)	(104.2	)	(19.8	)
Total operating income	48.8		66.6		19.6		(70.6	)
Refining								
Total operating revenues	666.9		829.7		703.6		(15.2	)
Other income	1.9		41.0				(100.0	)
Total operating expenses	(679.8	)	(934.3	)	(680.5	)	(27.2	)
Total operating income/(loss)	(11.0	)	(63.6	)	23.1		—	
Marketing and distribution								
Total operating revenues	662.8		806.9		783.1		(2.9	)
Other income	3.0		9.9				(100.0	)
Total operating expenses	(629.9	)	(778.3	)	(752.8	)	(3.3	)
Total operating income	35.9		38.5		30.3		(21.3	)
Chemicals								
Total operating revenues	244.0		253.4		218.4		(13.8	)
Total operating expenses	(230.7	)	(266.4	)	(204.8	)	(23.1	)
Total operating income/(loss)	13.3		(13.0	)	13.6		_	
Corporate and others								
Total operating revenues	453.6		716.5		521.9		(27.2	)
Total operating expenses	(455.1	)	(718.7	)	(524.1	)	(27.1	)
Total operating loss	(1.5	)	(2.2	)	(2.2	)	0.0	

**Exploration and Production Segment** 

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

Year Ended December 31, 2009 Compared with Year Ended December 31, 2008

In 2009, the operating revenues of this segment were RMB 123.8 billion, representing a decrease of 37.0% over 2008. This is mainly attributable to the decrease in the selling price of crude oil.

The segment sold 40.24 million tonnes of crude oil and 7.03 billion cubic meters of natural gas in 2009, representing an increase of 2.1% and 2.2% respectively over 2008. The average realized price of crude oil and natural gas were RMB 2,409 per tonne and RMB 959 per thousand cubic meters respectively, representing a decrease of 43.6% and an increase of 1.9% respectively over 2008.

In 2009, the operating expenses of this segment were RMB 104.2 billion, representing a decrease of 19.8% over 2008. The was mainly due to the decrease of special oil income levy by RMB 25.7 billion over 2008, which reflected the decrease in crude oil price.

The lifting cost for oil and gas was RMB 90.51 per BOE in 2009, representing an increase of 1.9% over 2008.

The segment's operating income was RMB 19.6 billion in 2009, representing a decrease of 70.6% over 2008, which was mainly caused by substantial decline in prices of crude oil in 2009.

Year Ended December 31, 2008 Compared with Year Ended December 31, 2007

In 2008, the operating revenues of this segment were RMB 196.5 billion, representing an increase of 34.9% over 2007. The increase was mainly attributable to the increase in the sales volume and sales price of crude oil and natural gas.

In 2008, this segment sold 39.41 million tonnes of crude oil and 6.9 billion cubic meters of natural gas, representing an increase of 1.4% and 9.5% respectively over 2007. The average realized price of crude oil was RMB 4,269 per tonne, representing an increase of 37.9%. The average realized price of natural gas was RMB 941 per thousand cubic meters, representing an increase of 14.4% over 2007.

In 2008, the operating expenses of this segment were RMB 129.9 billion, representing an increase of 34.1% over 2007. The increase was mainly due to the following reasons:

- The purchased raw materials, products and operating supplies and expenses increased by RMB 2 billion, which was primarily caused by the increased price of raw materials and fuels.
- The impairment losses increased by RMB 5.5 billion over 2007, attributable to the lower in price of crude oil which led to the decrease in reserves estimated and higher production and development cost in certain field blocks.
- The increase in depreciation, depletion and amortization amounted to RMB 3.9 billion was primarily due to the continuous investment in oil and gas assets.
- Special oil income levy increased by RMB 21.6 billion, primarily due to the high crude oil price in 2008.

In light of the high crude oil price in 2008, we developed more marginal oil reserves to increase oil and gas production. Water and electricity charges associated with oil and gas production increased from RMB 601 per tonne in 2007 to RMB 630 per tonne in 2008, or an increase of 4.8%, due to our development of marginal oil reserves.

In 2008, the operating income of the segment was RMB 66.6 billion, representing an increase of 36.5% over 2007.

### **Refining Segment**

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

Year Ended December 31, 2009 Compared with Year Ended December 31, 2008

In 2009, the operating revenues of this segment were RMB 703.6 billion, representing a decrease of 15.2% over 2008. This was mainly attributable to the decrease in prices of the refined petroleum products.

The table below sets forth sales volume and average realized prices by product for 2008 and 2009, as well as the percentage changes in sales volume and average realized prices for the periods shown.

	Sales	Rate of change from 2008 to		Average re	ealized prices	Rate o change from 2008 te	e	
	2008	2009	2009		2008	2009	2009	
	(millio	(million tonnes)			(RMB	per tonne)	(%)	
Gasoline	28.73	31.34	9.1		5,586	5,591	0.1	
Diesel	68.73	63.10	(8.2	)	4,934	4,646	(5.8	)
Chemical feedstock	23.60	26.98	14.3		5,983	3,333	(44.3	)
Kerosene and other refined petroleum products	41.90	44.08	5.2		4,391	3,208	(26.9	)

In 2009, the segment's sales revenues of gasoline were RMB 175.2 billion, representing an increase of 9.2% over 2008; the sales revenues of diesel were RMB 293.2 billion, representing a decrease of 13.6% against 2008; the sales revenues of chemical feedstock were RMB 89.9 billion, representing a decrease of 36.3% against 2008; and the sales revenues of other refined petroleum products were RMB 141.4 billion, representing a decrease of 23.1% against 2008.

The segment's operating expenses were RMB 680.5 billion in 2009, representing a decrease of 27.2% against 2008, which is mainly attributable to the decrease of crude oil processing cost caused by decrease of crude oil sales price.

In 2009, the average unit cost of crude oil processed was RMB 2,911 per tonne, representing a decrease of 41.9% against 2008. Refining throughput were 167.08 million tonnes (excluding the volume processed for third

parties), representing an increase of 0.9% over 2008. In 2009, the total costs of crude oil processed were RMB 486.3 billion, representing a decrease of 41.4% against 2008.

The refining margin was RMB 309 per tonne in 2009, an increase of RMB 722 per tonne over 2008, primarily reflecting the reform on pricing mechanism and taxation and fee policies for refined oil products by the PRC government, and our optimization of production scheme, adjustment in product mix as well as our higher load operations.

In 2009, the unit refining cash operating cost (defined as operating expenses less the purchase cost of crude oil and refining feedstock, depreciation and amortization, taxes other than income tax and other operating expenses, and divided by the throughput of crude oil and refining feedstock) was RMB 136 per tonne, representing an increase of RMB 6.4 per tonne, i.e. 4.9% compared with 2008. This was mainly due to lower quality of crude oil and the higher cost in upgrading oil products quality.

The segment's operating income was RMB 23.1 billion in 2009, an increase of RMB 86.7 billion compared with 2008.

Year Ended December 31, 2008 Compared with Year Ended December 31, 2007

In 2008, the operating revenues of this segment were RMB 829.7 billion, representing an increase of 24.4% over 2007. The increase was mainly attributable to the increase in the price and sales volume of each refined petroleum products.

The table below sets forth sales volume and average realized prices by product for 2007 and 2008, as well as the percentage changes in sales volume and average realized prices for the periods shown.

	Sales	Rate of change from 2007 to	change from Average r			Rate of change from 2007 to	
	2007	2008	2008		2007	2008	2008
	(millio	on tonnes)	(%)		(RMB	(%)	
Gasoline	24.54	28.73	17.1		4,640	5,586	20.4
Diesel	62.48	68.73	10.0		4,057	4,934	21.6
Chemical feedstock	25.67	23.60	(8.1	)	4,986	5,983	20.0
Kerosene and other refined petroleum products	42.62	41.90	(1.7	)	3,903	4,391	12.5

In 2008, the sales revenues of gasoline by the segment were RMB 160.5 billion, representing an increase of 40.9% over 2007 and accounting for 19.3% of this segment's operating revenues. The sales revenues of diesel by the segment were RMB 339.1 billion, representing an increase of 33.8% over 2007 and accounting for 40.9% of this segment's operating revenues. In 2008, the sales revenues of chemical feedstock by the segment were RMB 141.2 billion, representing an increase of 10.3% over 2007 and accounting for 17.0% of this segment's operating revenues. The sales revenues of refined petroleum products other than gasoline, diesel and chemical feedstock were RMB 184.0 billion, representing an increase of 10.6% over 2007 and accounting for 22.2% of this segment's operating revenues.

In 2008, this segment's operating expenses were RMB 934.3 billion, representing an increase of 37.4% over 2007. The increase was mainly attributable to the increase of raw materials prices.

The average cost of crude oil processed was RMB 5,008 per tonne, representing an increase of 33.1% over 2007. Refining throughput were 165.6 million tonnes (excluding the volume processed for third parties), representing an increase of 5.0% over 2007. In 2008, the total costs of crude oil processed were RMB 829.3 billion, representing an increase of 39.7%, and accounting for 88.8% of the segment's operating expenses, up by 1.5 percentage points over 2007.

In 2008, due to the high international crude oil price and the PRC government's tight control over refined petroleum products prices, our refining segment incurred significant losses. The refining margin was negative RMB 414 per tonne in 2008, a decrease of RMB 519 per tonne over RMB 105 per tonne in 2007.

In 2008, the unit refining cash operating cost was RMB 129 per tonne, representing a decrease of RMB 3 per tonne, i.e. 3% compared with 2007. This reflects the segment's effort to reduce the costs and expenses coupled with the increase in production volume.

After recognizing the subsidy of RMB 41.0 billion received by this segment, the operating losses for the segment was RMB 63.6 billion, representing an increase in loss of RMB 52.6 billion over 2007.

Marketing and Distribution Segment

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

Year Ended December 31, 2009 Compared with Year Ended December 31, 2008

In 2009, the operating revenues of this segment were RMB 783.1 billion, representing a decrease of 2.9% compared with 2008.

In 2009, the sales revenues of gasoline, diesel and kerosene were RMB 248.7 billion, RMB 421.0 billion and RMB 44.4 billion, representing an increase of 2.9% and a decrease of 7.3% and 20.3% respectively compared with 2008.

The following table sets forth the sales volumes, average realized prices and the respective rates of changes of the four major product categories in 2008 and 2009 in different forms of sales channels.

	Sales	Volume	Rate of Change from 2008 to	Average F	Realized Prices	Rate of Change from 2008 to	e
	2008	2009	2009	2008	2009	2009	
	(millio	n tonnes)	(%)	(RMB per	tonne)	(%)	
Gasoline	37.71	39.07	3.6	6,410	6,366	(0.7	)
Retail sale	29.83	31.47	5.5	6,524	6,540	0.2	
Direct sale	2.61	2.38	(8.8	) 6,013	5,554	(7.6	)
Wholesale	5.27	5.22	(0.9	) 5,964	5,687	(4.6	)
Diesel	80.65	82.70	2.5	5,629	5,091	(9.6	)
Retail sale	48.90	41.94	(14.2	) 5,704	5,374	(5.8	)
Direct sale	22.31	28.14	26.1	5,561	4,844	(12.9	)
Wholesale	9.44	12.62	33.7	5,402	4,697	(13.1	)
Kerosene including jet fuel	9.19	11.33	23.3	6,065	3,919	(35.4	)
Fuel Oil	11.46	17.89	56.1	3,692	2,952	(20.0	)

The operating expenses of the segment in 2009 was RMB 752.8 billion, representing a decrease of 3.3% over 2008, which was mainly attributable to the decrease in purchasing costs of gasoline and diesel.

In 2009, the segment's unit cash selling expenses of refined oil products per tonne (defined as the operating expenses less the purchasing costs, taxes other than income tax, depreciation and amortization and divided by the sales volume) was RMB 163.6 per tonne, representing an increase of 6.8% over 2008. This was primarily attributable to the repair and maintenance expenses for gas station and increase of rental and storage charges.

The operating income of the segment in 2009 was RMB 30.3 billion, a decrease of 21.3% over 2008, which was primarily attributable to the smaller price gap resulting from the reform on pricing mechanism and taxation and fee policies for refined oil products by the PRC government as well as high level of supply and severe competition in the refined oil products market.

Year Ended December 31, 2008 Compared with Year Ended December 31, 2007

In 2008, the operating revenues of this segment were RMB 806.9 billion, up by 21.7% over 2007. The increase was mainly attributable our adjustment of sales policy and expansion in sales volume.

In 2008, the operating revenues from sales of gasoline and diesel were RMB 695.7 billion, accounting for 86.2% of the operating revenues of this segment. The percentage of retail in the total sales volume of gasoline and

diesel increased to 68.1% from 65.9% in 2007. The percentage of direct sales in the total sales volume increased to 20.1% from 16.9% in 2007. The percentage of wholesale volume in the total sales volume of gasoline and diesel decreased from 17.2% in 2007 to 11.8% in 2008.

The following table sets forth the sales volumes, average realized prices and the respective rates of changes of the four major product categories in 2007 and 2008 in different forms of sales channels.

	Sales	Volume	Rate of Change from 2007 to	Average 1	Realized Prices	Rate of Change from 2007 to
	2007	2008	2008	2007	2008	2008
	(millio	n tonnes)	(%)	(RMB per	tonne)	(%)
Gasoline	35.12	37.71	7.4	5,410	6,410	18.5
Retail sale	26.73	29.83	11.6	5,542	6,524	17.7
Direct sale	2.61	2.61	0.0	5,036	6,013	19.4
Wholesale	5.79	5.27	(9.0	) 4,967	5,964	20.1
Diesel	77.29	80.65	4.3	4,723	5,629	19.2
Retail sale	44.99	48.90	8.7	4,832	5,704	18.0
Direct sale	17.03	22.31	31.0	4,742	5,561	17.3
Wholesale	15.26	9.44	(38.1	) 4,381	5,402	23.3
Kerosene including jet fuel	7.01	9.19	31.1	4,729	6,065	28.3
Fuel Oil	13.16	11.46	(12.9	) 2,923	3,692	26.3

In 2008, the subsidy income recognized by the segment was RMB 9.9 billion.

In 2008, the operating expenses of the segment were RMB 778.3 billion, representing an increase of 23.6% compared with 2007. The increase was mainly due to the increase in the purchasing cost of refined oil products.

In 2008, the segment's unit cash selling expenses of refined oil products per tonne was RMB 153.0 per tonne, representing an increase of 10.2% over 2007. This was primarily attributable to the increase in repairing expenses and rental and employment expenses resulting from the increase in consumer price.

In 2008, the operating income of the segment was RMB 38.5 billion, representing an increase of 7.2% over 2007.

**Chemicals Segment** 

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

Year Ended December 31, 2009 Compared with Year Ended December 31, 2008

The operating revenues of the chemicals segment in 2009 were RMB 218.4 billion, representing a decrease of 13.8% against 2008, which was mainly attributable to the dramatic drop in chemical product sales prices.

The sales revenues of our six major categories of chemical products (namely basic organic chemicals, synthetic fiber monomers and polymers for synthetic fiber, synthetic fiber, synthetic rubber and chemical fertilizer) of the segment in 2009 were approximately RMB 201.0 billion, representing a decrease of 12.8% compared with 2008, accounting for 92.0% of the operating revenues of the segment.

The following table sets forth the sales volume, average realized price and the respective rates of changes for each of these six categories of chemical products of this segment from 2008 to 2009.

	Sales	Volume	Rate of Change from 2008 to	Change from Average Realized Prices				
	2008	2009	2009	2008	2009	2009		
	(millio	on tonnes)	(%)	(RMB per to	onne)	(%)		
Basic organic chemicals	13.39	16.66	24.4	6,392	4,296	(32.8	)	
Synthetic resins	7.85	8.68	10.6	10,097	8,073	(20.0	)	
Synthetic fiber monomers and								
polymers	4.02	4.69	16.7	8,052	6,519	(19.0	)	
Synthetic rubber	0.99	1.12	13.1	16,180	11,448	(29.2	)	
Synthetic fiber	1.35	1.42	5.2	10,488	9,140	(12.9	)	
Chemical fertilizer	1.66	1.77	6.6	1,729	1,657	(4.2	)	

The operating expenses of the segment in 2009 were RMB 204.8 billion, representing a decrease of 23.1% over 2008, which was mainly attributable to the decrease of the unit cost of raw materials, resulting in the decrease of raw material costs by RMB 60.1 billion.

The segment proactively expanded the market in 2009, strengthened the integration of manufacturing, sales and research operations, improved customer services and strengthened strategic alliance with key customers and hence achieved operating income of RMB 13.6 billion, an increase of RMB 26.6 billion over 2008.

Year Ended December 31, 2008 Compared with Year Ended December 31, 2007

In 2008, operating revenues of this segment were RMB 253.4 billion, representing an increase of 3.9% over the year of 2007.

In 2008, the sales revenues of our six major categories of chemical products (namely basic organic chemicals, monomers and polymers for synthetic fiber, synthetic resin, synthetic fiber, synthetic rubber and chemical fertilizer) totaled approximately RMB 230.4 billion and accounting for 90.9% of the operating revenues of this segment.

The following table sets forth the sales volume, average realized price and the respective rates of changes for each of these six categories of chemical products of this segment from 2007 to 2008.

	Sales Volume		Rate of Change from 2007 to		erage red Prices	Rate of Change from 2007 to
	2007	2008	2008	2007	2008	2008
	(millio	on tonnes)	(%)	(RMB per tonne)		(%)
Basic organic chemicals	12.95	13.39	3.4	5,999	6,392	6.6
Synthetic resins						