
中国石化
SINOPEC

Operating Summary of Refining Segment

	2001	2000	1999	% change in 2001 compared to 2000
Crude processing volume (mbbls/day)	2,042.4	2,110.0	1,760.0	-3.20
Of which: Sour crude processing volume (mbbls/day)	387.6	276.0	120.0	40.4
Refinery utilization (%)	77.9	81.0	67.7	-3.1 percentage point
Gasoline, diesel and kerosene production (million tonnes)	61.14	62.58	52.42	-2.30
Of which: Gasoline (million tonnes)	18.74	20.15	17.1	-7.00
Diesel (million tonnes)	37.93	37.53	31.0	1.07
Kerosene (million tonnes)	4.47	4.90	4.4	-8.78
Diesel to gasoline production ratio	2.02	1.86	1.81	0.16
Light product yield (%)	72.33	71.57	70.7	0.76 percentage point
Composite commercial yield (%)	92.23	92.25	91.2	-0.02 percentage point

Note: Crude oil processing volume is converted at 1 tonne = 7.35 barrels

(3) Marketing and Distribution Segment

In 2001, the Company continued with its acquisitions, upgrading of petrol stations and building of new petrol stations amid keen competition. Whilst it maintained a moderate growth in the total sales volume of refined oil products, it emphasized on expanding the retail volume and direct distribution volume. For the year, 3,803 petrol stations have been newly increased, total domestic sales volume of refined oil products amounted to 67.74 million tonnes, of which the retail sales volume of refined oil products amounted to 30.43 million tonnes, representing an increase of 27.1% over the previous year; direct distribution volume amounted to 11.64 million tonnes, whereby the aggregate of retail sales volume and direct distribution volume amounted to 62.1% of the total domestic sales volume. The market share of the Company's retail volume of gasoline and diesel in its principal markets was 65%, representing an increase of 4% over the previous year. In addition, the export volume of the Company in refined oil products in 2001 was approximately 3.73 million tonnes.

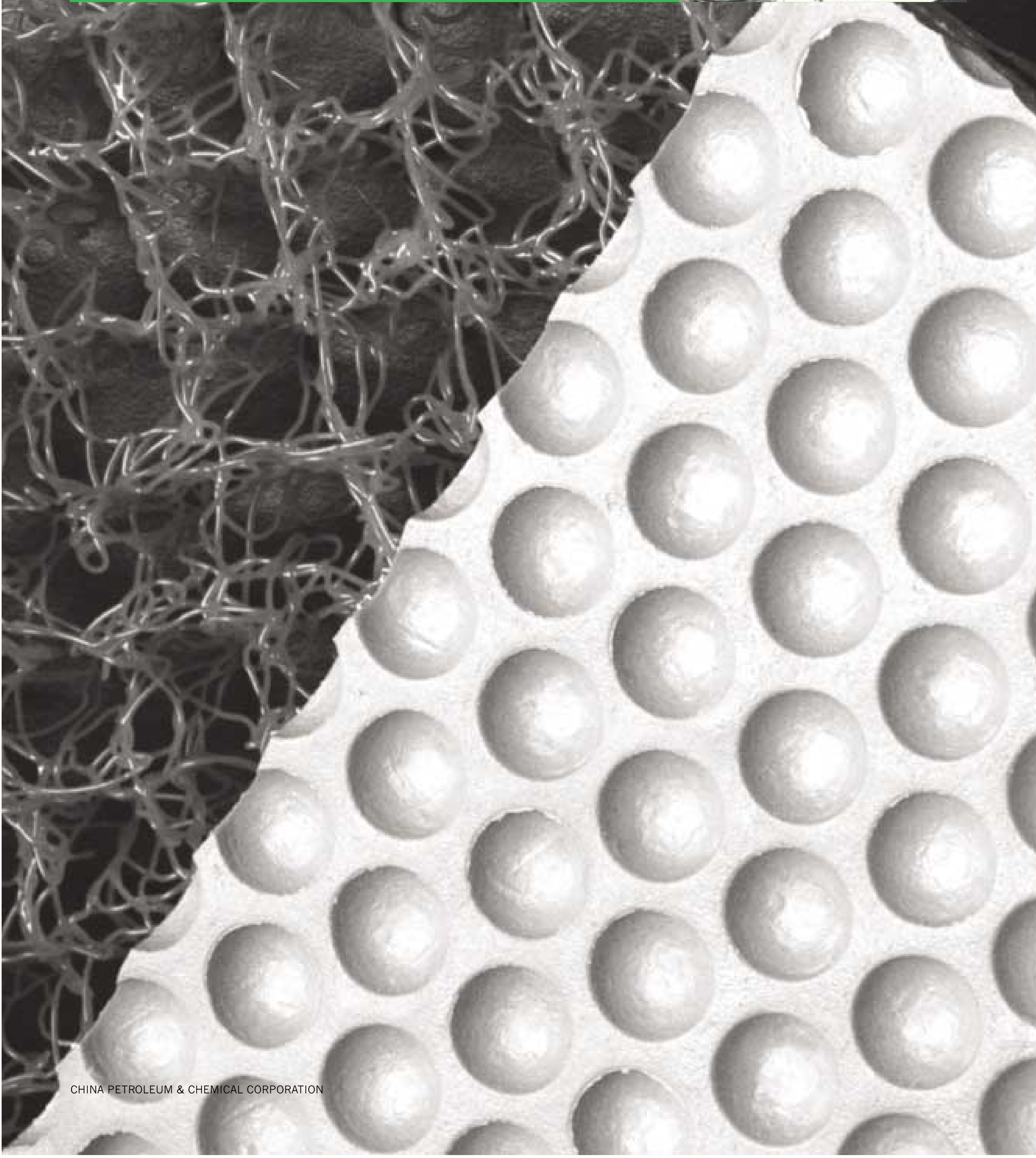
In 2001, the Company has actively rationalized its allocation of resources, cut distribution costs, intensified corporate reform, flattened management hierarchy, merged a number of county-level oil companies and reduced management expenses.

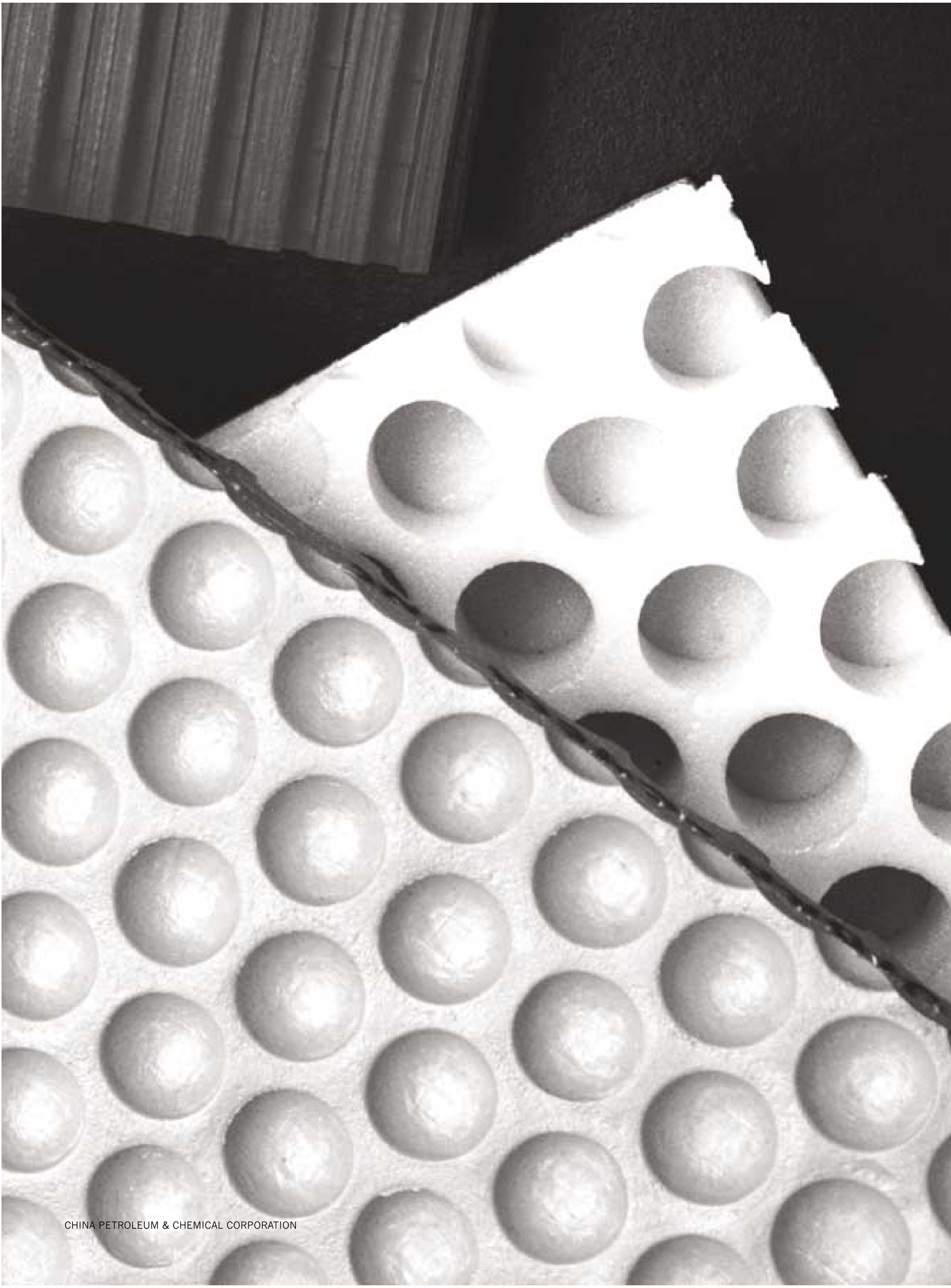
Operating Summary of Marketing and Distribution Segment

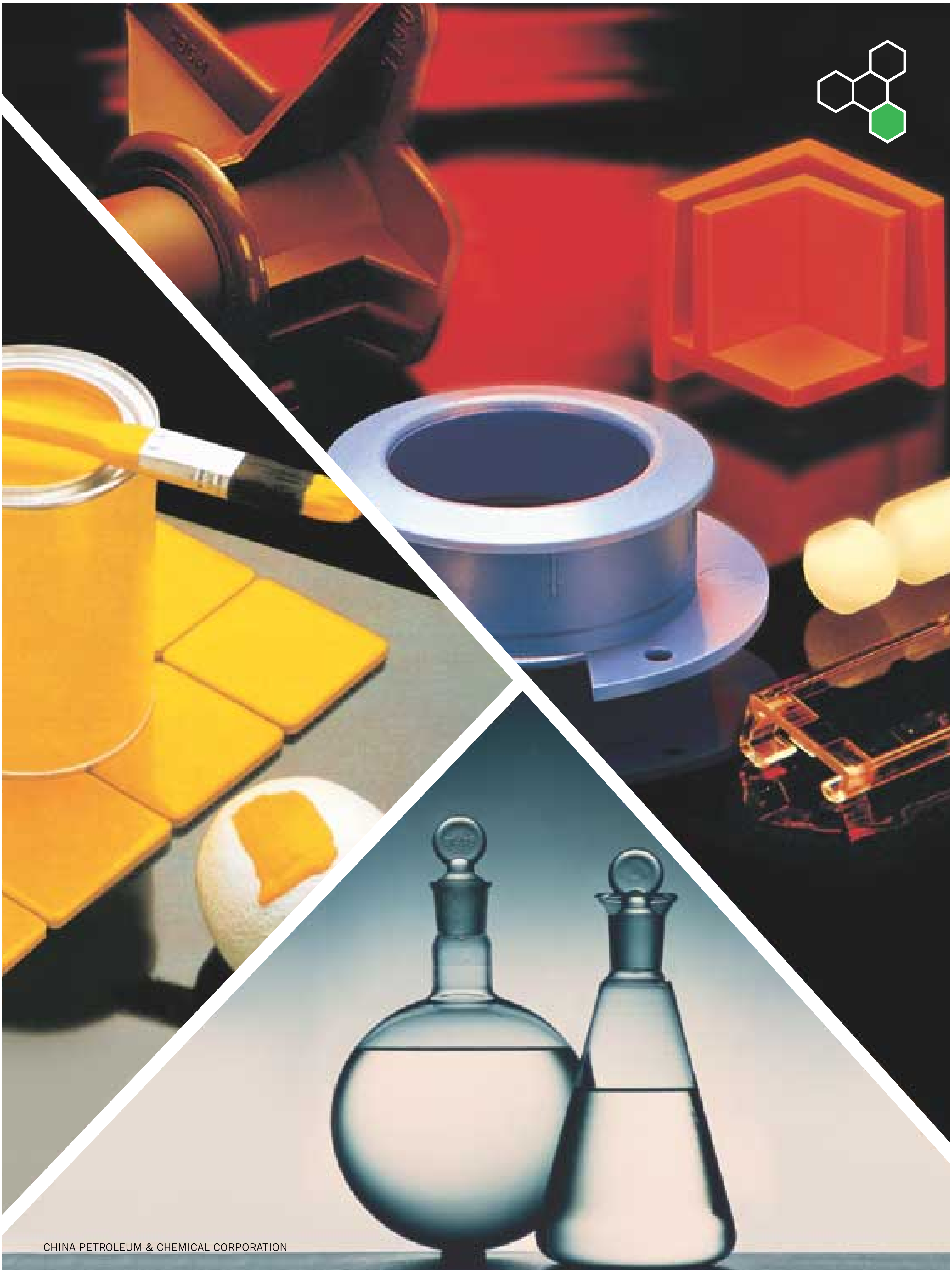
	2001	2000	1999	% change in 2001 compared to 2000
Total domestic sales of refined oil products (thousand tonnes)	67,740	67,690	64,500	0.07
Of which: Wholesale volume (thousand tonnes)	25,670	43,750	52,160	-41.3
Direct Distribution volume (thousand tonnes)	11,640	NA	NA	NA
Retail volume (thousand tonnes)	30,430	23,940	12,340	27.1
Average annual throughput per petrol station (tonne/station)	1,473	1,402	1,084	5.1
Number of total petrol stations under SINOPEC brand at year-end (stations)	28,246	25,493	11,374	10.8
Of which: Number of petrol stations operated at year-end (stations)	24,062	20,259	11,374	18.8
Number of franchised petrol stations at year-end (stations)	4,184	5,234	NA	-20.1
Percentage of retail volume to total sales volume (%)	44.9	35.4	19.1	26.8
Capacity of oil storage (thousand cubic metres)	15,134	14,640	13,680	3.4

CHEMICALS

THE COMPANY PRODUCES AND SELLS MORE CHEMICAL PRODUCTS THAN ANY OTHER PRODUCERS IN CHINA. OUR RANGE OF PRODUCTS INCLUDES INTERMEDIATE PETROCHEMICALS, SYNTHETIC RESINS, MONOMERS AND POLYMERS FOR SYNTHETIC FIBERS, SYNTHETIC FIBERS, SYNTHETIC RUBBER AND CHEMICAL FERTILISERS.






CHINA PETROLEUM & CHEMICAL CORPORATION

(4) Chemicals Segment

In 2001, the Company continued with its upgrading efforts of its chemical facilities in spite of the market being in a trough of the cycle, and the second round upgrading of the Yanhua ethylene facilities has undergone a trial run, whereas the Company is working on the second round upgrading of the Shanghai and Yangzi ethylene facilities. It is expected that they will be in operation by the second or third quarter of 2002. In 2001, the Company made timely arrangements for shutdown for maintenance while market sentiment was weak, and it adopted the measure of "knock down, shut down, combine and transform those chemical facilities of low efficiency" to ensure that those chemical facilities of high efficiency continued to maintain at high utilization rate. In this way, further improvements had been made in product mix. As the Yanhua ethylene facilities have been suspended for expansion, the annual production of ethylene was 2.15 million tonnes, representing a slight decrease over the previous year. Growth was seen in production of key chemical products such as synthetic resins and synthetic rubbers. The proportion of high added-value products grew such that performance compound resins reached 48% of synthetic resins, representing an increase of 2.59 percentage point over the previous year. Differential fibers reached 31.7% of synthetic fiber, an increase of 5.2 percentage point over the previous year. The percentage of direct sales of chemical products rose, and the value of e-commerce trading amounted to RMB 15.9 billion, representing approximately 27% of the sales of chemical products.

Production of Major Chemicals (1,000 tonnes)

	2001	2000	1999	% change in 2001 compared to 2000
Ethylene	2,153	2,170	2,050	-0.78
Synthetic resins	3,204	3,183	2,847	0.66
Of which: Performance compound resins	1,332	1,280	870	4.06
Synthetic rubbers	398	317	316	25.55
Monomers and polymers for synthetic fibers	3,598	3,795	3,440	-5.19
Synthetic fibers	1,028	1,068	970	-3.75
Of which: Differential fibers	326	283	194	15.19
Urea	2,342	2,923	4,440	-19.88

(5) Technology Development

In 2001, the Company actively pressed forward with technology advancements and innovations, and achieved some significant results relating to production operations The key areas included:

- Exploration: The Company achieved breakthroughs in a series of 13 technologies, such technologies included: complete reservoir geological modeling based on the technology of enhancing the oil recovery rate for high water content principal oil fields, reservoir remaining oil monitoring and description, improving water plugging through adjusting geological profile; series technology of polymer drive and tertiary-compound drive; mobile multi-floats drilling platforms for shallow water.
- Refinery : the complete set of technologies for the Maoming 2 million tonnes/year residual oil hydrogenation facility, the Qilu 600 thousand tonnes/year continuous reforming facility, the Qilu 80 thousand tonnes/year sulphur recovery facility, the Changling 500 thousand tonnes/year low pressure combine bed model Catalyst Reform facility have been developed successfully.
- Chemical engineering: the 100 thousand tonnes/year year cracking furnace at Yanhua, a jointly developed facility, has become the key furnace for the production of ethylene; the complete set of technologies for the 89 thousand tonnes/ year liquid phase molecular-sieved ethylbenzene facility (at Yanhua) and the 100 thousand tonnes/year polyester facility (at Yizheng) have been developed successfully and inspections of their industrial operations have been completed. The complete set of self-developed technologies for the 66 thousand tonnes/year year acrylic fibers facility is adopted by Shanghai Petrochemical. It is already in operation.

(6) Safety and environmental protection
The Company has been moving positively towards the management system of health, safety, and environment (HSE), whereby it promotes a clean environment of production both in breadth and in depth and takes great care to protect the health of its employees, and to diligently perform its social responsibilities.

- In respect of safety: on 4th April, 2001, the HSE management system was officially announced and has been implemented throughout the Company; by leveraging on the safety monitoring system based on IT technology, safety management is effected; a sound scientific evaluation system on safety and environmental protection has been established to improve the overall level of safety management.
- In respect of environmental protection: a full-scale and on-going practice of clean production is carried out, and a strategy of sustainable development has been implemented, whereby the total volume of contaminants discharged has been reduced by 8 % as compared to 2000, and the volume of contaminants discharged in 2001 was contained within the Company's target.

(7) Reduction of costs
In 2001, the Company has made serious efforts in carrying out its cost reduction plan. On the basis that costs of major purchases such as crude oil should be reduced as far as possible, attention was drawn to minimising material consumption and energy consumption and selling, general and administrative expenses. As such, the result in reducing costs was remarkable.

The Company has effectively reduced costs by RMB 2.281 billion in 2001, which exceeded the original target set to reduce costs by RMB 2.19 billion. Of which, the cash operating cost of exploration and production was reduced from US$6.21 per barrel to US$6.15 per barrel, the cash operating cost of refining was reduced from US$2.14 per barrel to US$2.07 per barrel, the cash operating cost of ethylene was reduced from US$183.17 per tonne to US$160 per tonne. As a result of adjustments made to the sales structure and the continued improvement of the retail to distribution ratio, cash flow expenses for the sales were contained at RMB 163 per tonne. Moreover, the Company has speeded up its employee reduction. In 2001, some 68,000 employees were reduced from the payroll, which exceeded the original plan of reducing 27,000 employees by 152 %, and approximately RMB 2.546 billion was used for the reduction. It is estimated that an annual saving of approximately RMB 1.57 billion a year can be achieved in labour costs in each subsequent year.

(8) Capital expenditure
With maximizing the returns on investments as its target, the Company effected the decision-making process precisely as planned and exercised control on investment, made adjustments to the structure of investments and optimized the projects. In 2001, capital expenditure was RMB 58.829 billion. Of which, expenditure for the exploration segment was RMB 20.276 billion, including expenditure of Sinopec National Star at RMB 2.7 billion. With the investment, the Company succeeded in raising the production volume of crude oil and natural gas significantly. In some of the promising areas, a number of oil and gas wells of high production potential and fields with huge reserves were identified. In spite of the fact that the prices of crude oil had slipped significantly compared to the previous year, proven reserves of oil and gas had nevertheless increased, at the year end. For five consecutive years, the Company had a greater than 100% annual reserve replacament ratio. Capital expenditure for the refinery segment was RMB 8.992 billion, with which a total of 14 facilities were put on trial operation for the year, thereby raising the capacity of both hydrogenation and processing of sour crude oil. In addition, it acquired the Huangdao crude oil depots in Qingdao, which facilitates the crude oil depots of crude oil resources and helps reduce the logistic cost of crude oil before it is delivered to the processing plants. Capital expenditure for the chemicals segments was RMB 11.947 billion, with which a total of 18 facilities were put on trial operation, and during the year an additional capacity of 210 thousand tonnes/year for ethylene, an additional capacity of 200 thousand tonnes/year for synthetic resins, an additional capacity of 60 thousand tonnes/year for synthetic fibers monomers and polymers and an additional capacity of 155 thousand tonnes/year of synthetic fibers were achieved. Capital expenditure for the marketing and distribution segment was RMB 17.256 billion, of which a total of RMB 2.96 billion was paid for the acquisitions of petrol stations contracted in 2000 and which were inspected and delivered in 2001, whereas the remaining capital expenditure was for the acquisition or construction of 4,090 new petrol stations, the upgrading of 920 petrol stations, the acquisition, construction and upgrading of distribution terminals or depots for refined oil products, the newly added storage capacity of 494 thousand cubic metres, thereby further consolidating the Company's leading position in the regional market, brand recognition and customer loyalty in the Company's principal markets.

In 2001, the Company has achieved outstanding results in joint ventures with overseas partners. Sinopec Corp.'s joint ventures include: the ethylene project with BASF in Nanjing, the gasification project with Shell in Hunan and the ethylene project with bp in Shanghai. These joint ventures pave the way for the Company to introduce state-of-the-art technologies and experience in the management of leading international companies, which will further enhance the competitiveness of the Company.

3. BUSINESS PROSPECTS

(1) Market analysis
The Company expects the macroeconomic conditions in 2002 to exhibit the following features:

- Looking closely at the international market, there will still be a number of uncertainties: firstly, the prices of crude oil will likely be low, and it is estimated that the crude oil price for Brent will remain at approximately US$ 20 per barrel; secondly, refining margin will likely remain at low levels; thirdly, the chemical products will likely be in the cyclical trough.
- The steady economic growth of the PRC will drive the growth in demand for oil and chemical products. It is estimated that in 2002, in GDP growth of China will reach 7%, and it is estimated that growth in the consumption of refined oil

products in China will reach approximately 4%, whereas growth in consumption of principal chemical products (represented by ethylene) in China will be slightly higher than the growth in GDP. Increases in demand of the domestic market serve to generate business opportunities for the sustainable development of the Company.

- 2002 is the first year after China's accession to the World Trade Organization. Upon China's joining the World Trade Organization, challenges will come together with opportunities. Pursuant to the agreement for joining the WTO, the tariff for crude oil in 2002 will be reduced from RMB 16 per tonne to zero, and the tariff for gasoline will be reduced from 9% to 5%, whereas the average tariff for principal chemical products will be lowered by 3 percentage points to 4 percentage points. Under the current pricing mechanism for chemical products, reductions or allowances in the above-mentioned tariffs may lead to a decreasing trend of prices for domestic oil and chemical products, which represents a favourable factor for the Company to reduce costs of crude oil. However, it will also at the same time have an unfavourable effect to the sales revenues of the Company. The permitted volume of refined oil products (including fuel oil) to be imported in 2002 will be 22 million tonnes (of which non-State operation trading will be 4.6 million tonnes), whereas the quota for urea will reach 1.3 million tonnes. These factors will have an adverse impact on the refinery and fertiliser production of the Company. While the Company is confronted with these challenges, the Company will also be presented with opportunities: firstly, the opening up will lead to a further reform in China and standardization of the market order. The State is in the active process of drawing up the necessary policies, with laws and regulations to be implemented in accordance with its undertakings for joining the WTO and continued efforts will be made in cracking down on smuggling and in customs control as well as standardizing the import of fuels and chemical products. As for the Company, internal reforms will be stepped up in order to improve its competitiveness; secondly, in respect of the market, lower import tariffs for vehicles following China's accession to the WTO will help to boost the consumption of vehicles, and developments in export-related industries such as textiles will give additional impetus to the market demand for refined oil products, particular the retail segment and chemical fibres products; thirdly, opening up of the market favours the Company's move to make greater use of foreign capital and to introduce advanced technology and professional management experience, and thereby increase the Company's competitive strength.

(2) Production operations

Faced with both opportunities and challenges in 2002, the Company will adopt a flexible operating straregy and emphasize the following areas and will flexibly arrange its production and operations and shall:

- Expand resources: Firstly, efforts will be made in the exploration and development of oil and gas. By means of adjusting the works in tapping reserve potential, tackling problems in a comprehensive way, expanding oil zone, speeding up exploration in shallow water areas and deep layers of the eastern region, especially through the use of advanced technology, both the reserves to recovery ratio and recovery rate can be increased, thereby increasing the reserves of old oilfields and steadying as well as increasing their production. At the same time, the Company will step up its efforts in the exploration of new areas, and will focus on resource replacement areas such as Tarim, Junggar, Ordos, Chuanxi and East China Sea in order to discover more resources. The Company intends to produce 38 million tonnes of crude oil and 5 billion cubic metres of natural gas in 2002. Secondly, it will import crude oil from multiple sources. It will continue to import crude oil from places such as the Middle East, Africa, Southeast Asia, Northern Europe and Russia. It will also sign long-term contracts with companies in major oil-producing countries, so as to make it possible to import oil from multiple sources, thereby diversifying the risk. Thirdly, it will optimize the allocation of resources: The Company's production will be effected strictly in accordance with the market demand so that crude oil resources will be allocated in priority to the refining and chemical production units which operate at low costs and high efficiency, and the product quality of which is superior. The processing capacity for sour crude oil will be suitably increased so as to optimize the internal system of mutual supply of materials and fuel energy. The flow of crude oil will be optimized so as to minimize the transport cost.

- Expand market: Firstly, the Company will expand the market for its refined oil products, and will focus on speeding up the revamping and upgrading of petrol stations, improvement in services, flexible promotion of sales, commencing of value-added operations, raising the pumping volume per station, increasing the total retail volume, thereby increasing its profitability. It will also speed up and improve the distribution system and put more emphasis on distribution operations, explore potential market and at the same time continue to increase its wholesale volume, thereby consolidating its leading position in its principal markets. The Company has set a production target of 70.30 million tonnes of refined oil products in 2002, of which the retail volume will be 36 million tonnes and distribution volume will be 14 million tonnes. By means of expanding the total operating volume, maintaining and increasing the volume of throughput, in 2002, the set target for crude oil to be processed will be 104 million tonnes. Secondly, the Company will expand the market for chemical products. It is estimated that in 2002, demand for the three major synthetic materials will continue to increase signifcantly in China. By producing the right products and products which have high added value, it will expand its market. In addition, further improvements will be made on the means of sales and marketing of chemicals. Direct sales will be expanded further. Development of e-commerce will go ahead. To make the most of the strength of group operation; emphasis will be made in the reforms of the sales system. In 2002, production of chemicals will be in full swing as before in order to expand the scale, in the course of which it is intended that 2.58 million tonnes of ethylene will be produced, and the throughput of the three major synthetic materials will also be increased. Thirdly, the international market will be explored. It is a pressing need, upon China's accession to the WTO when imports of refined oil products and urea may recover and imports of chemical products may increase, for the Company to maintain the full-load utilization of refinery and chemical facilities. It is necessary to speed up mechanism transformation and improve product quality on one hand, and on the other hand the Company has to adapt itself to operate on the international standard operation and endeavour to increase its exports of refined oil products and chemical products. Other than Southeast Asia, refined oil products will also be exported to the Middle East, Africa, Europe and the United States. Fourthly, the Company will expand the market for natural gas. The Company shall improve the matching of production with sales and focus on the regions in the Yangtse River delta and Shangdong. The Company shall implement projects such as "West gas to East" pipeline and "Ocean gas to land" for users of natural gas, and the Company shall work hard to increase (or to import) LPG and LNG, and with major cities as the Company's focus, the Company shall expand gas stations and the clean fuel market for household use.

- Reducing cost: The Company would adopt all measures to reduce costs substantially. Firstly, it will place more emphasis on "achieving the set target". By reference to the best historical level in the PRC and the advanced international level, the gaps can be identified and actions can be taken, thereby lifting the overall level of technical and economic indicators. Secondly, it will make serious efforts in reducing various administrative expenses and streamlining non-production costs. Thirdly, it will further explore the advantages of the Group and centralize capital management, cutting down the number of bank accounts and unify the clearing and settling of accounts, and by clearing up accounts receivables so as to speed up the turnover of funds and minimize the tying up of capital, financial cost can be reduced. Fourthly, the Company will make every effort to reduce the purchasing cost of crude oil and other raw materials. In 2002, the Company intends to reduce costs by RMB 2.50 billion. In addition, on the basis of reduction in cost of RMB 0.65 billion following the reduction of the number of 68,000 employees in 2001, the labour cost will be further reduced to approximately RMB 0.92 billion in 2002.

- Disciplining investments: The Company will continue to adhere to its decision-making process for its investments, which is a centralized decision-making process. It will spend according to its means, control the total, adjust its structure and optimize its investments. Through these measures, it looks forwards to increase the returns on investment. The Company intends that capital expenditure for the year will be approximately RMB 34.5 billion, representing a decrease of approximately RMB 24.3 billion over 2001. Of the expenditure, RMB 16.475 billion will be allocated to exploration and production segment, RMB 4.894 billion will be allocated to the refinering segment, RMB 8.262 billion will be allocated to the chemicals segment, RMB 4.533 billion will be allocated to the marketing segment, and RMB 0.337 billion will be allocated for other purposes. Capital expenditure for 2002 compared with capital expenditure for 2001 is characterized by the followings: Firstly, investments will be streamlined in order to maintain a sound financial position. Secondly, the investment structure has been adjusted so that investment in exploration will be increased to 48% as opposed to 34% in 2001 in order to increase replacement resources. Thirdly, it will put more emphasis on tapping the potential of mature oilfields and the existing refinery and chemicals segments and enhancing their efficiency, and the percentage of technical innovations will be increased further. Fourthly, the Company will focus on the world-class Sino-foreign joint ventures for ethylene production, and the construction of long-distance pipelines for crude oil and refined oil products will commence.

(i) Exploration and production: Firstly, the Company will work on the technological upgrading of mature oilfields and more efforts will be placed to minimize their increasing tendency of declining production throughput of mature oilfields so as to keep production flat. Secondly, it will strengthen the edge extending exploration of mature oilfields and building up of production capacity. Thirdly, it will expand the exploration in the western region and south. The Company has registered for an acreage of 220,000 sq. km in the western region to be explored. This represents the most important area for replacement resources in future, and Tarim, Junggar and Hexi corridor are the targeted areas; Fourthly, it will speed up the exploration of natural gas in accordance with its strategic moves for the "west to east" project and priority to be given to the East China Sea, whereby five supply bases of natural gas, namely East China Sea Xihu Trough (a joint venture with CNOOC Company Limited), Zhongyuan, Southern Chuanxi and Chuannan, Tarim, north of Ordos have been formed.

(ii) Refining: Firstly, the Company will emphasise the upgrading of the quality of gasoline and diesel produced by entities in Jinan, Shijiazhuang, Anqing, Changling and Wuhan, the 2 million tonnes refining and processing facility for Tamen dense oil in Jingmen, and on the raising of export volume produced by several refinery entities in the coastal region. Secondly, it will speed up the progress in the construction of storage and transport facilities for the Ningbo to Shanghai to Nanjing pipeline, and speed up the improvement of the eastern pipeline network, optimize the allocation of resources, so as to reduce the transport cost of oil. Thirdly, it will work on the coordination of refinery and chemicals in Hangzhouwan and Shanghai, and the focus will be on raising the export volume of refined oil products, supply of raw materials for the production of ethylene and planning the upgrading of the refinery in Hangzhou.

(iii) For the chemicals segments: Firstly, the Company will continue to pay close attention to the second round upgrading works of ethylene production at the Shanghai and Yangzi projects, and it will pay special attention to the construction of ethylene projects which are joint ventures with BASF of Germany and with bp respectively. It will also proceed with the second round upgrading works for the ethylene facilities in Guangzhou and Qilu. Secondly, it will continue with the construction of facilities for raw materials of synthetic fibers, where it will stress the Zhenhai PX works and Yizheng PTA works. Thirdly, it will stress the upgrading works of the chemical fertiliser and coal substitute for oil project facilities, with the focus on the upgrading of Dongdan chemical fertiliser plant and the Zhenhai chemical fertilizer plant.

(iv) For marketing and Distribution: Firstly, it will speed up the construction of regional pipelines for refined oil products, with the focus on the commencement of construction of the refined oil products pipelines in the southwestern region. Secondly, it will speed up the upgrading of petrol stations, improving their service capability, increasing their pumping volume per station and acquiring or constructing (as appropriate) 1,000 new stations for gas and oil in accordance with the urban transportation strategy. Thirdly, it will pay close attention to remedying the latent safety issues of oil depots, and will adjust the locations of oils depots according to the rational distribution directions of refined oil products. Small oil depots will be shut down and the capability of transit oil depots will be enhanced, so as to improve the distribution system.

- Continued efforts in strengthening the Company's foreign cooperation: The Company will pay close attention to the joint ventures with BASF and bp, which are ethylene projects located in Nanjing and Shanghai respectively, and will pursue the construction of a coal gas utilisation facility in Dongting, Hunan with Shell, a joint venture project. It will also pay close attention to the joint venture projects on petrol stations with Shell, bp and Exxon Mobile, and will speed up the joint venture with CNOOC on the exploration of the oil and gas resources in the East China Sea with foreign capital to be introduced. It will actively pursue a joint venture with Exxon Mobile Saudi Aramco to proceed with the preparation for the integrated petrochemical project in Fujian province.

- The establishment of IT systems: The Company will continue to promote the combination of industrialisation and information utilisation. Serious efforts will be made on the implementation, final report and promotion of the ERP plan, and push ahead with the IT networks for the sales of refined oil products and financial management, the business networks for electronic trading, and will put on a pilot promotion at selected sites for the use of IC pumping cards. It will implement a control system for the optimisation of production processes, and a computer system for the optimisation of crude oil resources to assist in decision-making.

The year to come will present the Company with both opportunities and challenges, The Company will endeavor to further improve its competitiveness amid the tough market conditions through the dedicated efforts of its staff.