



# Management Discussion and Analysis

## 1. OPERATING ENVIRONMENT

### 1.1 Macro-environment

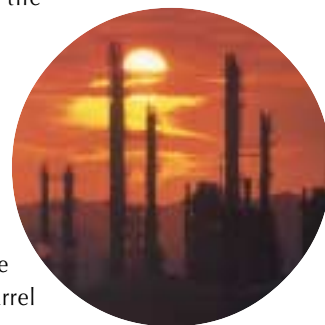
In 2003, the world economy recovered amid twists and turns. Despite the SARS outbreak, the domestic economy continued to grow at a rapid pace.

The gross domestic product (“GDP”) increased by 9.1% year on year. During the year, the domestic throughput of crude oil rose by 10.8% to 243 million tonnes, when compared with that of the previous year. The consumption of petroleum products (including gasoline, diesel, kerosene) in 2003 amounted to 133.97 million tonnes, representing an increase of 7.22% from that of the previous year.



### 1.2 International oil prices

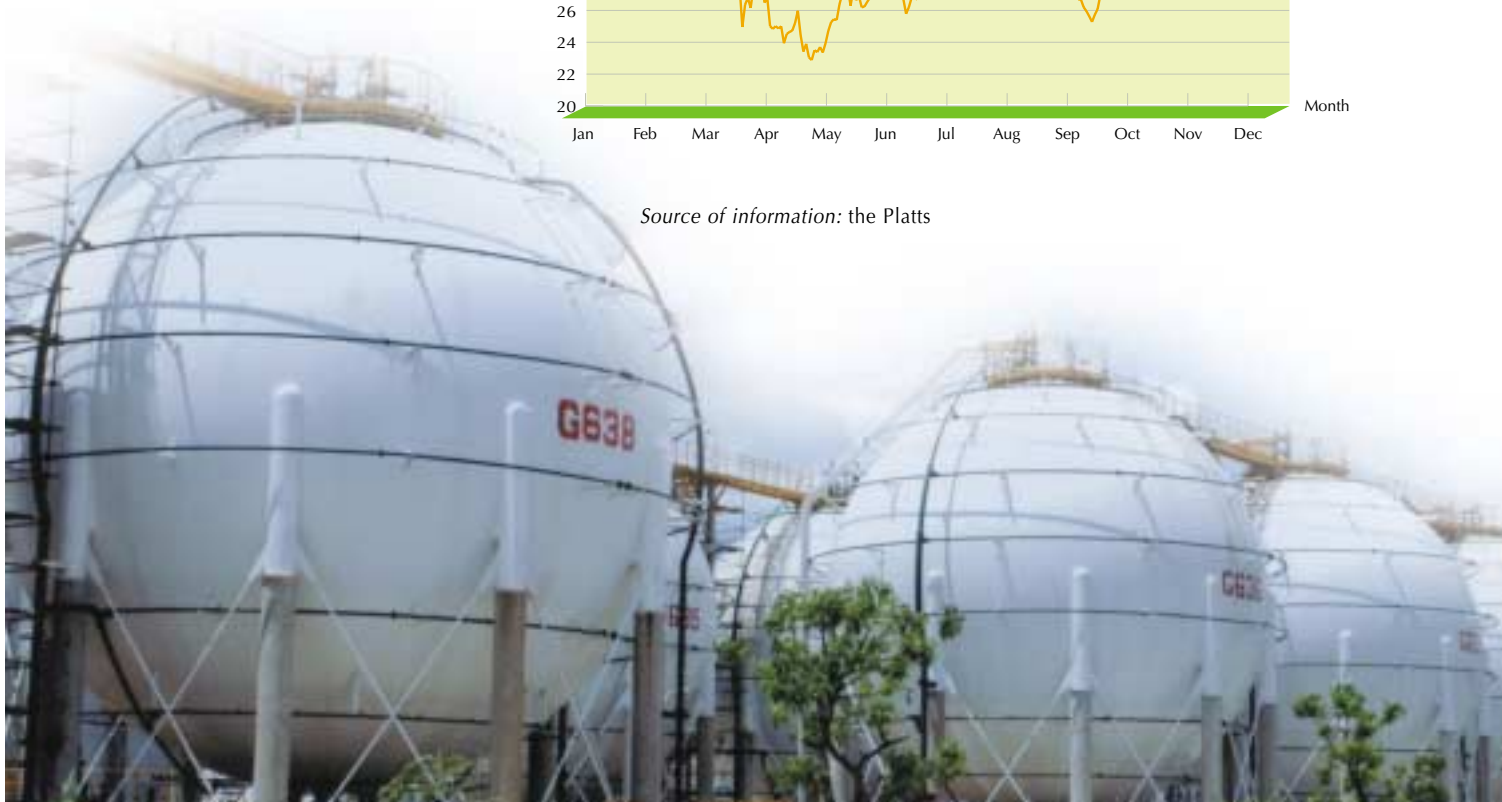
Affected by the US-Iraqi war, the price of crude oil in the international market fluctuated wildly at high levels during the first half of 2003. In the second half of the year, the crude oil price remained high due to factors such as substantial increase in the global demand for petroleum products and a weak US dollar. The average dated price of Brent crude oil in 2003 was US\$28.83 per barrel (“\$/bbl”), which was 15.50% higher than that of the previous year.



Price movement of dated BRENT crude oil in 2003



Source of information: the Platts



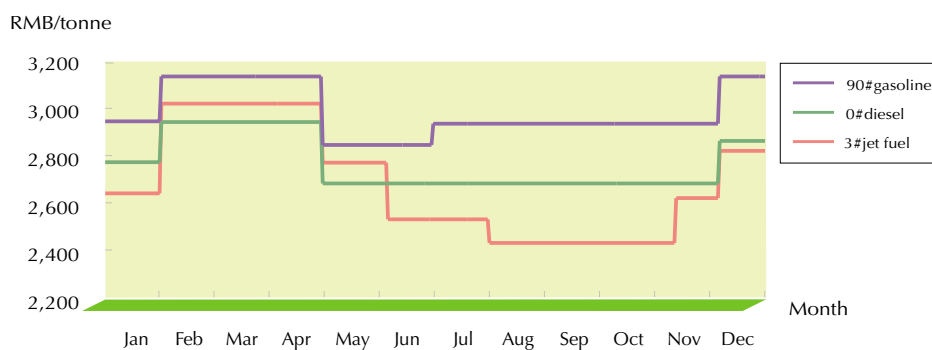


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## 1.3 Domestic price of petroleum products

During 2003, three adjustments had been made to the prices of gasoline and diesel in February, May and December respectively in China. Prices of jet fuel had been adjusted six times during the year. Since 1 July 2003, a new benchmark gasoline for vehicular use has come into effect in China and the basic price of 90# gasoline has been raised by RMB100 per tonne.

The movement of ex-factory prices of the Company's major products in 2003 (inclusive of tax)



## 2. FEEDSTOCK THROUGHPUT, REFINING MARGIN AND UNIT COMPLETE EXPENSE

### 2.1 Feedstock throughput

The Company's feedstock throughput increased by 14.10% from the previous year to a record high of 13,631,000 tonnes in 2003 and continued to rank first in the domestic refining industry. The following table shows the composition of the feedstock throughput:

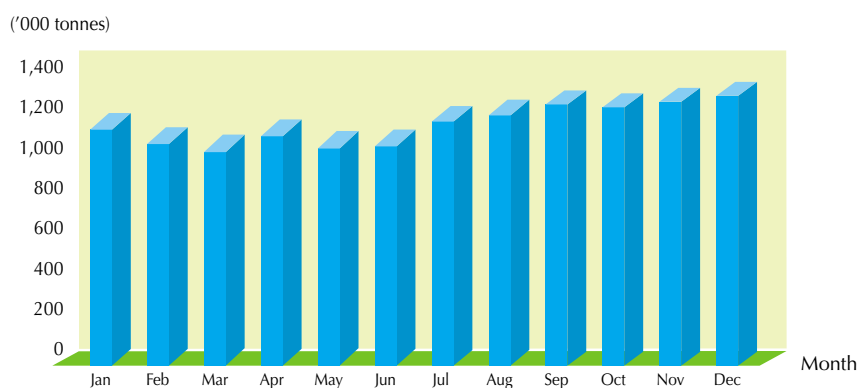
Unit: '000 tonnes

		2003	Percentage share (%)	2002	Percentage share (%)
By feedstock type	Imported crude oil	10,896.93	79.94	9,186.80	76.90
	Off-shore crude oil	1,469.11	10.78	1,324.10	11.08
	On-shore crude oil	1,243.70	9.12	1,371.90	11.48
	Purchased feedstock	21.30	0.16	63.50	0.54
By business type	The Company's own operation	12,776.44	93.73	11,393.00	95.37
	Third party processing	854.60	6.27	384.50	3.22
	Imported material processing	0.00	0.00	168.80	1.41

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In 2003, the rapid growth in the domestic economy had led to increase in the demand for petroleum products. The Company availed itself of its overall competitiveness and substantially increased its throughput of feedstock. In particular, the throughput of feedstock rose by 18.68% to 7,397,800 tonnes in the second half of the year when compared with that of the first half of the year, to meet the robust market demand. The throughput of crude oil for the full year accounted for 5.61% of the national crude oil processing volume and ranked first in the domestic refining industry.

**The Company's monthly throughput in 2003**



As the base for processing imported crude oil, the Company processed 10,896,900 tonnes of imported crude oil during the year, which was 18.62% more than that of the previous year. Imported crude oil accounted for 79.94% of the Company's total throughput of feedstock and accounted for 11.96% of the country's total imported crude oil.

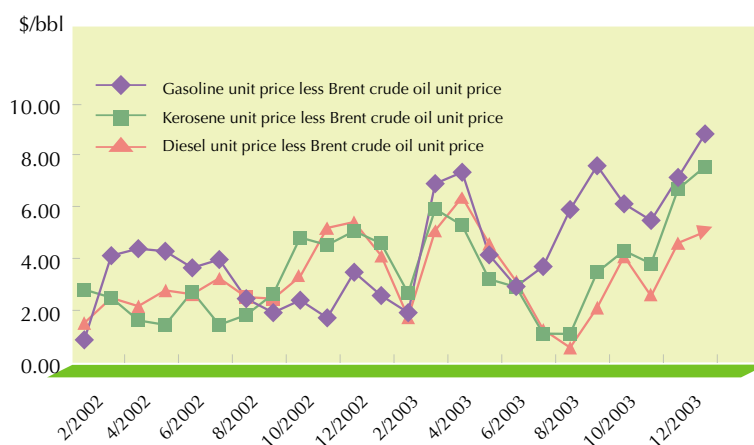
The Company actively developed its third-party processing business. The throughput of crude oil for third-party processing business for the full year reached 854,600 tonnes, which represented an increase of 122 per cent from that of the previous year. As a result, the Company further enlarged its total throughput and product output.

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## 2.2 Refining margin

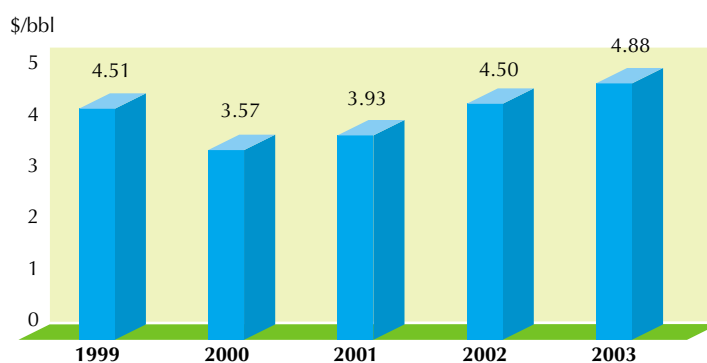
In 2003, as the global refining business environment substantially improved, there had been a relative large increase in international refining margin.

**Spread prices of different products in the Singapore market in 2002-2003**



Source of information: the Platts

**Refining margins achieved by the Company in recent years**



In 2003, the Company's refining margin defined as the refining business's net sales less feedstock expenses, and divided by the throughput of feedstock (excluding the third-party processing business) was RMB294.97 per tonne (about 4.88 \$/bbl), representing an increase of 8.44% from that of the previous year. The rise in refining margin was mainly due to the increase in the average price of products offsetting the pressure from the increase in the average price of crude oil. The average price of all products increased by RMB319.25 per tonne (excluding subsidiaries, about 5.28 \$/bbl) or 16.25% from that of the previous year. The average price of feedstock increased by RMB284.92 per tonne (about 4.71 \$/bbl) or 18.91% from that of the previous year.

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## 2.3 Unit complete expense

In 2003, despite the trial run expenses of the new facilities such as the PX unit, increases in fuel and power expenses and in the consumption of auxiliary materials after the commissioning of the new facilities, the Company's unit refining cash operating cost rose by only RMB2.63 per tonne to RMB87.04 per tonne (about 1.44 \$/bbl).

In 2003, the Company's unit complete expense was RMB148.30 per tonne (about 2.45 \$/bbl), which was 2.50% lower than that of the previous year. The main reason for the decline in unit complete expense was the substantial increase in feedstock throughput, which had led to relative large decreases in unit depreciation expense and financial expense. The unit complete expense for the full year remained at a leading level in the domestic industry.

### Unit refining cash operating cost and unit complete expense

(RMB/tonne)	2003	2002	Change (%)
Unit refining cash operating cost (note 1)	87.04	84.41	3.12
Unit complete expense (note 2)	148.30	152.11	(2.50)

#### Notes:

1. Refining cash operating cost = Refining complete expense-depreciation and amortisation-net financing costs. Unit refining cash operating cost = Refining cash operating cost/feedstock throughput.
2. Refining complete expenses refer to the costs and expenses of the refining business (excluding chemical business and subsidiaries) for the period under review except for the cost of feedstock. Unit complete expense = Refining complete expenses /feedstock throughput.

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## 3. ANALYSIS OF OPERATING RESULTS <sup>1</sup>

### 3.1 Analysis of major operating results

The following table shows the major income and expenses listed on the Group's consolidated income statement for the period under review:

	2003 (RMB'000)	2002 (RMB'000)	Change (%)
Turnover	<b>29,070,343</b>	22,484,667	29.29
Less: Business tax and surcharges	<b>1,161,365</b>	990,170	17.29
Net sales	<b>27,908,978</b>	21,494,497	29.84
Cost of sales	<b>25,628,659</b>	19,484,384	31.53
Gross profit	<b>2,280,319</b>	2,010,113	13.44
Selling, administrative and other operating expenses	<b>551,865</b>	552,471	(0.11)
Profit from operations	<b>1,696,357</b>	1,457,884	16.36
Net financing costs	<b>81,907</b>	74,650	9.72
Profit from ordinary activities before taxation	<b>1,609,552</b>	1,393,066	15.54
Profit attributable to shareholders	<b>1,087,987</b>	973,257	11.79

<sup>1</sup> The following discussion should be read together with the Group's financial statements and their notes contained in the annual report for this year.

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## 3.2 Net sales

The Company's net sales for 2003 amounted to RMB27,909 million, representing an increase of RMB6,415 million or 29.84% from RMB21,494 million of 2002. The main reason for the increase in net sales was the rise in the international petroleum and petrochemical product prices, and the Company's capturing of the market opportunities to increase its throughput and sales volume. As a result, there had been substantial increase in the sales volume of major petroleum and petrochemical products.

The following table shows the composition of net sales:

	2003		2002	
	Net sales (RMB'000)	Sales volume ('000 tonnes)	Net sales (RMB'000)	Sales volume ('000 tonnes)
Gasoline	4,815,426	2,061	3,468,478	1,710
Diesel	11,380,343	5,068	9,121,518	4,630
Kerosene	2,390,155	1,031	1,958,904	962
Naphtha	1,376,707	624	1,278,215	667
Other chemical feed oil	665,655	258	815,580	370
Fuel oil	167,756	114	53,893	51
LPG	1,809,013	687	1,237,433	556
Solvent oil	301,837	114	195,997	85
Intermediate petrochemical products	1,858,863	466	1,440,282	477
PX	321,628	65	—	—
Asphalt	887,649	574	506,452	387
Urea	635,056	558	612,700	579
Miscellaneous and service income	991,858	468	586,390	358
Income from subsidiaries	307,032	—	218,655	—
<b>Total</b>	<b>27,908,978</b>	<b>12,088</b>	<b>21,494,497</b>	<b>10,832</b>

The Company operates on a market-oriented basis and strives to have its product mix in line with market demand. While increasing the production and sales volume of gasoline and diesel, the Company also tried its best to adjust its diesel to gasoline ratio according to market demand — from 1.9 when demand for gasoline was at its peak to 2.9 when there was a shortage in diesel. The sales volume of gasoline and diesel ranked the highest in the domestic refining industry, while that of jet fuel ranked third. The sales volume of high-standard clean gasoline (93# or up) rose by 16.45% to 1,082,200 tonnes when compared with that of the previous year.



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The Company made great efforts to increase the output of high value-added products. During the year, the sales volume of high value-added products including LPG, solvent oil, propylene and BTX (including PX), etc. increased by approximately 212,700 tonnes. The proportion of net sales from the Company's self-distributed products to the Company's total net sales (excluding income from subsidiaries) increased from 25.36% in 2002 to 27.07%.

In 2003, the Company seized on the opportunities of robust demand for PX in the domestic and overseas markets. The Company timely completed a 450,000 tpa PX unit and became the largest PX commercial supplier in China. In 2003, the Company launched its PX to the market for the first time, with total sales volume amounting to 65,100 tonnes. The Company's biggest PX customer is Sinopec Yizheng Chemical Fibre Company Limited ("Yizheng Chemical").

The Company continued to raise the quality of asphalt products. High quality paving asphalt accounted for 94.50% or 542,600 tonnes of the sales volume of asphalt. Heavy traffic paving asphalt and Styrene Butadiene Styrene ("SBS")-modified asphalt produced by the Company won, among bidders of international renowned brands, the open tender to be the sole supplier of asphalt for the construction of a top-class international grade A racing circuit — Shanghai F1 international racing circuit.

After replacing residue with de-oiled asphalt as chemical fertiliser feedstock in 2002, the Company completed the chemical fertiliser fuel conversion project of "replacing oil by coal as a source of energy" in 2003, which further lowered production cost. With the recovery in chemical fertiliser market demand in 2003, the average price of urea during the year was RMB1,138.09 per tonne, representing an increase of 7.55% from that of the previous year. The chemical fertiliser division realised profit from ordinary activities before taxation 34% higher than that of the previous year.

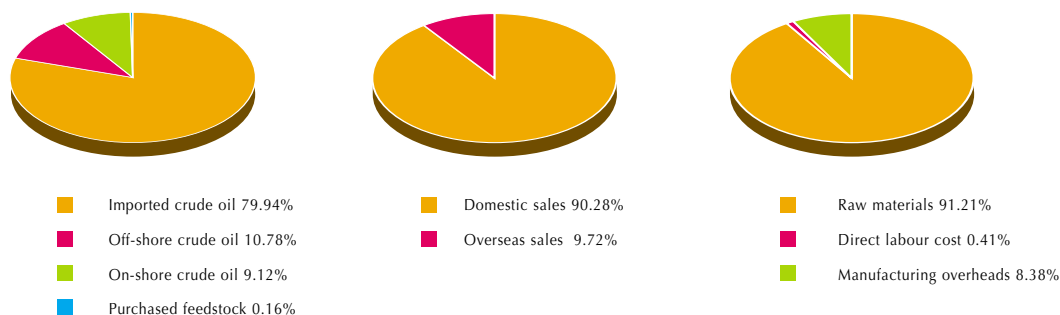
The Group's net sales by geographic region for the year:

Geographic region	Net sales (RMB million)	Percentage share (%)
Domestic	25,197.29	90.28
Other countries and regions	2,711.69	9.72
Total	27,908.98	100

In 2003, the Company timely adjusted the proportion of its output for exports in accordance with the change in the domestic market demand structure. As a result, the export volume increased year on year. In the face of the SARS outbreak in the first half of 2003, the Company actively adjusted its sales strategy and increased its exports of jet fuel. During the second half of 2003, the Dong Hai

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(東海) — brand urea produced by the Company was exported to Vietnam for the first time. The Company also captured the opportunities for the export of high-standard gasoline to Australia (with olefin content up to European standard III) by making preparations for production and sales. In January 2004, the Company exported 30,000 tonnes of high-standard gasoline.



### 3.3 Cost of sales

The Group's cost of sales in 2003 rose by 31.53% to RMB25,629 million when compared with that of the previous year mainly because of a hike in the price of feedstock. Cost of raw materials, manufacturing overheads and cost of direct labour accounted for 91.21%, 8.38% and 0.41% of cost of sales respectively.

As a result of a substantial rise in sea transportation expenses in 2003 on the previous year's, the Company's cost of processed feedstock was 0.79 \$/bbl higher than the average dated price of Brent crude oil (FOB). At the same time, owing to the increase in international crude oil price, the average price of the Company's processed feedstock during the year was RMB1,791.80 per tonne, representing an increase of RMB284.92 per tonne or 18.91% from that of the previous year.

In 2003, the Company went all out for lowering the cost of feedstock through the processing of sour crude oil and heavy crude oil, timely capturing of opportunities arising from the crude oil market and the adoption of measures such as transporting crude oil by large tankers. The proportion of sour crude oil to feedstock throughput (excluding third-party processing business) rose by 2.30 percentage points year on year. The average price of processed imported crude oil was 29.02 \$/bbl, which was 0.78\$/bbl lower than the national average price of imported crude oil of 29.80 \$/bbl.

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## 3.4 Gross profit

The Group's gross profit rose by 13.44% from the previous year to RMB2,280 million in 2003. This was mainly because increased sales volume led to lower unit cost.

In 2003, the Group's gross profit margin (the Group's net sales-cost of raw materials)/cost of raw materials was 19.39%, which dropped by 3.68 percentage points year on year. The main reason was that the proportion of cost of raw materials to cost of sales rose from 89.64% in 2002 to 91.21% in 2003.

## 3.5 Expenses during the period

In 2003, the Company tightened its control on various expenses. The total amount of administrative expenses, selling expenses and net financing costs increased by 3.59% to RMB594 million year on year. Administrative expenses dropped by RMB18.41 million to RMB412.75 million, while selling expenses rose by RMB31.71 million to RMB98.90 million and net financing costs increased by RMB7.26 million to RMB81.91 million.

Decline in administrative expenses was not only a result of the various cost control measures imposed by the Group, but was also attributable to the implementation of a flattened management structure, which led to changes in the classification of some expenses. Increase in the selling expenses was mainly due to rise in sales volume of products and changes in classification. The net financing costs increased because the capitalisation of interest expenses on long-term borrowings had ceased after the construction of fixed assets had been completed.

## 3.6 Profit attributable to shareholders

	2003 (RMB'000)	2002 (RMB'000)	Change (%)
Earnings before interests, taxes, depreciation and amortization ("EBITDA")	2,528,102	2,211,804	14.30
Earnings before interests and taxes (EBIT)	1,682,654	1,462,351	15.06
Profit from ordinary activities before taxation	1,609,552	1,393,066	15.54
Income tax expense	521,565	419,809	24.24
Profit attributable to shareholders	1,087,987	973,257	11.79

In 2003, the Company's EBITDA was RMB2,528 million, which was 14.30% higher than that of the previous year. The depreciation and amortisation amounted to RMB845 million, representing an increase of 12.81% year on year. EBIT rose by 15.06% to RMB1,683 million. Due to substantial increase in net sales, EBIT/net sales fell from 0.07 times to 0.06 times. EBIT/interest expense rose from 21.11 times to 23.02 times.

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The Company's profit from ordinary activities before taxation in 2003 amounted to RMB1,610 million. Due to recycling of "three kinds of waste materials" and the use of domestic equipment in technical transformation projects, the Company enjoyed preferential enterprise income tax policy and could therefore offset an enterprise income tax expense of RMB39.27 million (2002: RMB43.08 million). As a result, the profit attributable to shareholders rose by 11.79% from RMB973 million in 2002 to RMB1,088 million in 2003.

The Company's effective enterprise income tax rate in 2003 was 32.40%, representing an increase of 2.26 percentage points.

## 4. ASSETS, LIABILITIES, SHAREHOLDERS' EQUITY AND CASH POSITION

### 4.1 Assets, liabilities and equity

As at 31 December 2003, the Company's total assets, total liabilities and shareholders' equity amounted to RMB13,489 million, RMB4,259 million and RMB9,229 million respectively, representing increases of 15.51%, 31.86% and 9.26% respectively. Assets-liabilities ratio (total liabilities/total assets) was 31.58%, representing an increase of 3.92 percentage points year on year. Current ratio and quick ratio stood at 111.43% and 64.78% respectively. The return on capital employed ("ROCE") stood at 11.53%. Return on net assets for the whole year was 12.31%. The Company's assets structure remained healthy, with satisfactory returns on capital.

#### Assets, liabilities and shareholders' equity

	2003	2002	Changes
Current assets	3,843,819	3,309,779	534,040
Non-current assets	9,644,766	8,367,819	1,276,947
Total assets	13,488,585	11,677,598	1,810,987
Current liabilities	3,449,440	2,200,292	1,249,148
Non-current liabilities	810,000	1,030,000	(220,000)
Total liabilities	4,259,440	3,230,292	1,029,148
Shareholders' equity	9,229,145	8,447,306	781,839
Including:			
Share capital	2,523,755	2,523,755	0
Reserves	4,954,675	4,682,249	272,426

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Total assets as at 31 December 2003 increased by RMB1,811 million from RMB11,678 million as at 31 December 2002. Current assets were RMB3,844 million as at 31 December 2003, representing an increase of RMB534 million from that as at 31 December 2002. The increase in current assets was primarily due to an increase of RMB303 million in cash and cash equivalents. Non-current assets amounted to RMB9,645 million as at 31 December 2003, representing an increase of RMB1,277 million from that as at 31 December 2002. The increase in non-current assets was primarily due to an increase of RMB1,280 million in fixed assets such as property, plant and equipment and construction in progress.

Total liabilities as at 31 December 2003 increased by RMB1,029 million from RMB3,230 million as at 31 December 2002. Current liabilities amounted to RMB3,449 million as at 31 December 2003, representing an increase of RMB1,249 million from 31 December 2002. This increase in current liabilities was mainly due to an increase of RMB487 million in bank borrowings due within one year and an increase of RMB600 million in accounts payable — third parties. Non-current liabilities were RMB810 million as at 31 December 2003, representing a decrease of RMB220 million from 31 December 2002.

Shareholders' equity as at 31 December 2003 rose by RMB782 million from RMB8,447 million as at 31 December 2002. Of the shareholders' equity, reserves increased by RMB272 million.

As at 31 December 2003, the Group's assets-liabilities ratio rose from 27.66% as at 31 December 2002 to 31.58%, mainly due to increase in bank borrowings as a result of capital expenditure needs.

## 4.2 Cash position

In 2003, the Group's primary source of capital came from operating activities, short-term and long-term loans. And capital was primarily applied to operating expenses, capital expenditure and repayment of short-term and long-term loans. The net increase in cash and cash equivalents for the full year was RMB303 million, realising a good capital cycle.

### Cash flow in 2003

Unit: RMB'000

Principal items in cash flow statement	2003	2002	Change (%)
Net cash generated from operating activities	<b>2,503,958</b>	2,256,564	10.96
Net cash used in investing activities	<b>(2,038,340)</b>	(1,853,064)	10.00
Net cash used in financing activities	<b>(162,455)</b>	(121,340)	33.88
Net increase in cash and cash equivalents	<b>303,163</b>	282,160	7.44

In 2003, the Company's net cash generated from operating activities was RMB2,504 million, representing an increase of RMB247 million or 10.96% year on year. The net cash generated from operating activities was mainly obtained from the realisation of a EBITDA of RMB2,528 million.



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The Company's net cash used in investing activities in 2003 was RMB2,038 million, which was mainly applied to the construction of new facilities including PX, CFB and PP units.

The Company's net cash used in financing activities in 2003 was RMB162 million. Cash inflow from financing activities was mainly due to an increase of RMB8,645 million in bank borrowings, while cash outflow was mainly due to the repayment of RMB8,378 million during the year, the payment of dividends of RMB328 million and the payment of interest expense of RMB97 million.

## 5. CAPITAL EXPENDITURE

Capital expenditure for the year 2003 reached a record high of RMB2,569 million, which was mainly used in the 450,000 tpa PX unit, 1 million tpa continuous catalytic reforming unit, the chemical fertiliser fuel conversion project of "replacing oil by coal as a source of energy" and 200,000 tpa PP unit.

In 2004, the Company will commence a 20 million tpa refining capacity expansion project. Capital expenditure for the year 2004 is expected to be over RMB1.3 billion. It will mainly be applied to the capacity expansion of a 3 million tpa atmospheric and vacuum distillation unit, the technical upgrading of the RFCC unit for improved output of propylene, the construction of a 1 million tpa delayed coking unit and the construction of the disproportionation of aromatics sector for the production of PX.

## 6. HEALTH, SAFETY AND ENVIRONMENT ("HSE")

The Company introduced advanced management system adopted by international petrochemical industry and established HSE management system, and incorporated it in various activities including production and operation. On 8 September 2003, the Company held a press conference regarding its HSE management system, and formally launched the HSE integrated management. The Company will gradually establish and fine-tune the long-term mechanism of its HSE management, in order to achieve top-class international HSE results, which include accident-free, safe for people, environmental-friendly at its best.

The Company began to work on hazard identification and risk assessment and environmental factor identification and assessment. The Company formulated detailed objectives and management policies aimed at the causes of hazard, to ensure safety production. In 2003, the Company was named as an "advanced unit of safety production" by China Petrochemical Corporation.

The Company continued to promote environmental-friendly work, insisted on adopting sustainable development strategy, strove to create a fine and clean working and living environment for its staff and society. During the year, the Company had attained the required levels of all the environmental protection standards. The treatment rate of industrial sewage reached 100%, the overall acceptance rate of discharged wastewater was 100%, industrial waste gas emission level reached 100% of the standard level. The amount of wastewater discharged for every tonne of processed crude oil was 0.23 tonne, reaching internationally advanced level.

The Company has been devoted to offering cleaner fuel to society. Since 1 July 2002, the Company has dutifully complied with the new national standard of light diesel, and starting from 1 July 2003, the Company has dutifully complied with the new standard of gasoline for vehicular use in China.