The following discussion and analysis should be read in conjunction with our financial statements together with the accompanying notes, included elsewhere in this annual report. The financial statements have been prepared in accordance with accounting policies which conform with accounting principles generally accepted in Hong Kong ("HK GAAP"), which differ in certain material respects from the generally accepted accounting principles in the United States ("U.S. GAAP"). A discussion of the material differences is contained under the heading "Supplementary Information". Our financial statements and operating data present, and the discussion and analysis in this annual report pertain to, the results of operations of the business transferred to us by Chinalco and are based on the historical financial information of Chinalco.

Overview

The Group is engaged principally in alumina refining and primary aluminum smelting operations. We organise and manage our operations according to the following business segments:

- Alumina segment, which consists of mining and purchasing bauxite and other raw materials, refining bauxite
 into alumina, and selling alumina both internally to the Group's primary aluminum smelters and externally to
 customers outside the Group. To a lesser extent, this segment also includes the production and sales of
 alumina hydrate, alumina chemicals and gallium.
- Primary aluminum segment, which consists of procuring alumina and other raw materials, supplemental materials
 and electricity, smelting alumina to produce primary aluminum, and selling substantially all primary aluminum
 products to external customers. In addition, this segment includes production and sales of carbon products.
- Corporate and other services segment, which includes the headquarters' operations, sales of alumina products
 related to research conducted by the Group's research institutes and provision of the Group's research and
 development services to third parties.

Results of Operations

The following table sets forth, for the periods indicated, information relating to certain income and expense items from the Group's profit and loss account:

Year ended December 31, 2001 2002 (pro forma) (consolidated) (percent)

	(регоеп	(регоспі)	
Turnover	100.0%	100.0%	
Cost of goods sold	72.8	79.5	
Gross profit	27.2	20.5	
Other revenues	3.9	3.1	
Expenses related to other revenues	3.7	2.7	
Other revenues, net	0.2	0.4	
Selling and distribution expenses	2.1	3.0	
General and administrative expenses	6.7	4.3	
Research and development expenses	0.9	0.8	
Other expenses (income)	(0.8)	0.1	
Operating profit	18.5	12.7	
Finance costs	3.4	2.9	
Operating profit after finance costs	15.1	9.8	

Revenues

The Group's total revenues amounted to RMB 17,315.6 million for the year ended December 31, 2002, representing an increase of RMB 706.1 million, up 4.3%, from the previous year's RMB 16,609.5 million. Total revenues include turnover and other revenues. Turnover accounted for 96.3% and 97.0% of the Group's total revenues for the years ended December 31, 2001 and 2002, respectively. The Group's turnover increased by 5.0% from RMB 15,987.9 million for the year ended December 31, 2001 to RMB 16,792.8 million for the year ended December 31, 2002, representing an increase of RMB 804.9 million. The increase was primarily due to the increase in the Group's sales volume. The Group's external sales volume of alumina increased by 16.6% from 3,207,800 tonnes for the year ended December 31, 2001 to 3,740,500 tonnes for the year ended December 31, 2002. The Group's external sales volume of primary aluminum increased by 8.4% from 699,800 tonnes for the year ended December 31, 2001 to 758,600 tonnes for the year ended December 31, 2002. However, the above increase in sales volume was offset by the decrease in price. The average external sales price per tonne for the Group's alumina decreased by 12.9% from RMB 1,896.0 for the year ended December 31, 2001 to RMB 1,649.7 for the year ended December 31, 2002. The average sales price per tonne for the Group's primary aluminum decreased by 3.2% from RMB 11,885.7 per tonne for the year ended December 31, 2001 to RMB 11,500.2 per tonne for the year ended December 31, 2002. This price decrease was primarily a result of the decrease in international alumina and primary aluminum spot prices as of December 31, 2002 as compared with December 31, 2001. The percentage of decrease was largely the same for the Group's average sales price versus the international spot price.

Cost of Goods Sold

The Group's cost of goods sold increased by 14.7% from RMB 11,646.3 million in 2001 to RMB 13,358.4 million in 2002. Although the unit costs of primary aluminum and alumina decreased, the cost of goods sold for primary aluminum and alumina still increased by 5.6% and 23.6% respectively as a result of the increase in sales volume of primary aluminum and alumina.

Selling and Distribution Expenses

The Group's selling and distribution expenses consist of freight and transportation, packaging and advertising for the Group's products and other related expenses. The Group's selling and distribution expenses increased by 49.7% from RMB 335.2 million in 2001 to RMB 501.8 million in 2002. The Group took measures to integrate its sales networks to enhance their efficiency in 2002. However, the market conditions for sales of alumina in the first ten months were not very satisfactory. To promote sales, the Group paid transportation, packaging and loading expenses on behalf of its customers. As a result, selling and distribution expenses increased by RMB126.8 million.

General and Administrative Expenses

The Group's general and administrative expenses include management and staff salaries and welfare expenses, office equipment maintenance and repairs, provision for doubtful accounts receivable, government levies and surcharges and other miscellaneous expenses. General and administrative expenses decreased by 32.5% from RMB 1,074.4 million in 2001 to RMB 725.0 million in 2002. The decrease was mainly due to the recovery of the accounts receivable in 2002 for the years prior to 1999 and such amount recovered was set off against a portion of the provision for doubtful accounts receivable. As a result, general and administrative expenses decreased by RMB 151.3 million. The centralization of management in 2002 reduced a number of administrative expenses, including the remunerations payable to executive staff, which decreased by RMB35.63 million

Research and Development Expenses

The Group's research and development expenses relate to activities associated with developing new technologies to improve production efficiency at the Group's plants. The Group's research and development expenses decreased by 8.4% from RMB 144.0 million in 2001 to RMB 131.9 million in 2002. The decrease was primarily due to the centralization of project management and controls imposed by the Group's headquarters to avoid redundant projects.

Other Income / Expenses

The Group's other income net of other expenses decreased from a net income of RMB 136.3 million in 2001 to a net expense of RMB16.09 million in 2002. The Group recorded a gain in 2001 of RMB 103.0 million relating to a settlement reached with State Development Bank for settlement of the outstanding interest payable by the Company. The Group experienced an exchange loss of RMB28.28 million in 2002 and an exchange gain of RMB9.91 million in 2001 due to the fluctuation in exchange rates for its foreign currency short-term deposits and foreign currency bank loans.

Operating Profit

The Group's operating profit decreased by 28.2% from RMB 2,958.1 million in 2001 to RMB 2,122.7 million in 2002. The Group's operating profit as a percentage of turnover decreased from 18.5% in 2001 to 13.0% in 2002.

Finance Costs

The Group's finance costs decreased by RMB 58.8 million, or 10.7%, from RMB 549.4 million in 2001 to RMB 490.6 million in 2002. The decrease was mainly attributable to the centralization of the cash management function from the plant level to the Company's headquarters which reduced the level of idle funds and emphasized the effective use of funds across the Group. In addition, the Group expedited the collection of accounts receivable and reduced its inventory levels so that the level of funds employed was reduced. The Group co-ordinated closely with banks for funding in order to reduce the interest rates of short-term loans.

Income Taxes

The Group's income tax expense decreased from RMB 756.8 million in 2001 to RMB 183.4 million in 2002. The decrease was mainly because the three plants of the Group situated in Guizhou Province, Pingguo and Qinghai Province in the western region of the PRC were entitled to preferential treatment in connection with the national policy to develop the western region, so that the income tax rate was reduced from 33% to 15%. The preferential tax rate is applicable to qualified operations in specified regions with retroactive effect from January 1, 2001 for a ten-year period to December 31, 2010 as long as the three plants continue to engage in qualified operations in their respective regions. Meanwhile, the decrease in taxable profit for 2002 also led to a decrease in income tax expense.

During 2002, the Group's effective tax rate was 11.2%, which was lower than the statutory tax rate of 33.0%. This was mainly due to a combination of factors including certain income that was not subject to income tax, the preferential income tax treatments enjoyed by the three plants in the western region and a subsidiary of the Company at a reduced income tax rate of 15% and an 18% income tax refund in respect of the income tax paid by the three plants at the rate of 33% in 2001.

Minority Interests

Minority interests decreased from RMB 63.713 million in 2001 to RMB 46.822 million in 2002 primarily as a result of the decrease in the profit of the Company's subsidiary, Shandong Aluminum Co. Ltd., which has minority shareholders.

Net Profit for the Year

As a result of the foregoing, the Group's net profit for the year decreased by 11.7% from RMB 1,588 million in 2001 to RMB 1,402 million in 2002.

Discussion of Segment Operations

The Group began accounting for its operations on a segmental basis, that is, the alumina and primary aluminum segments as well as the corporate and other services segment commencing from July 1, 2001. Although the Group had not divided its operations into these segments in the first half of 2001, for the purposes of the following discussions, the Group has reconstructed the financial results on a segmental basis also for the first half of 2001. Consequently, the Group would like to caution investors not to place undue reliance on historical segmental operating revenues, operating expenses or operating income. However, the information can be used as a reference for evaluation of the economic efficiency of these segments.

Unless otherwise indicated, also included in these segments are other revenues derived from such activities as supplying electricity, gas, heat and water to affiliates, selling scrap and other materials, and providing services including transportation and research and development to third parties. Interest income and dividends from unlisted securities investments, included in other revenues, are not attributed to any segments. For additional data and information relating to the Group's business segments and segment presentation, see Note 3 to the financial statements.

The following table sets forth (i) revenues by segment for the periods indicated, and (ii) the contribution of external sales and inter-segment sales for 2002 as a percentage of turnover for such period, both before and after elimination of inter-segment sales.

Year ended 2001 <i>RMB</i>	December 31, 2002 <i>RMB</i>	Before Elimination of Inter-segment Sales 2002	After Elimination of Inter-segment Sales 2002
(in r	nillions)		
7,056.7	7,459.0	39.0%	44.4%
2,124.6	2,320.6	12.2%	
9,181.3	9,779.6	51.2%	44.4%
8,888.1	9,268.1	48.5%	55.2%
43.1	65.7	0.3%	0.4%
18,112.5	19,113.4		
(2,124.6)	(2,320.6)		
15,987.9	16,792.8		
	2001 RMB (in n 7,056.7 2,124.6 9,181.3 8,888.1 43.1 18,112.5 (2,124.6)	7,056.7 7,459.0 2,124.6 2,320.6 9,181.3 9,779.6 8,888.1 9,268.1 43.1 65.7 18,112.5 19,113.4 (2,124.6) (2,320.6)	Year ended December 31, Sales 2001 2002 2002 2002

The following table sets forth, for the periods indicated, turnover, costs of goods sold, other costs net of other revenues and other income, and operating profit (loss) by segment before and after elimination of inter-segment transactions.

	Year ended	December 31,
	2001	2002 <i>RMB</i>
	RMB	
	(in n	nillions)
Alumina:		
Turnover	9,181.3	9,779.6
Cost of goods sold	(6,228.3)	(7,697.5)
Other costs, net of other		
revenues and other income	(831.6)	(702.4)
Operating profit	2,121.4	1,379.7
Primary aluminum:		
Turnover	8,888.1	9,268.1
Cost of goods sold	(7,479.9)	(7,902.6)
Other costs, net of other	,	,
revenues and other income	(190.7)	(222.0)
Operating profit	1,217.5	1,143.5
Corporate and other services:		
Turnover	43.1	65.7
Cost of goods sold	(38.3)	(48.0)
Other costs, net of other	(,	(/
revenues and other income	(30.5)	(75.6)
Operating profit	(25.7)	(57.9)
Segment operating profit before		
unallocated operating profit and		
inter-segment elimination	3,313.1	2,465.3
Unallocated operating loss	(330.6)	(311.7)
Inter-segment elimination	(24.4)	(30.9)
Total operating profit	2,958.1	2,122.7

Alumina Segment

Turnover

The Group's total turnover of the alumina segment increased by RMB 598.3 million to RMB9,779.6 million in 2002, up 6.5% over 2001.

The Group sold alumina to its smelters and to external domestic smelters. Revenue from the external sales of alumina in 2002 rose by RMB 88.7 million, up 1.5% compared with 2001, mainly due to an increase in the external sales volume of alumina from 3,207,800 tonnes in 2001 to 3,740,500 tonnes in 2002, up 16.6%. Affected by the decline in international alumina market price, the external sales prices of alumina were adjusted downward a number of times during 2002 to keep in line with the declining import prices of alumina. The effect of the rise in sales volume was offset by the decline in the external sales prices of alumina.

Turnover from the sales of alumina to the Group's smelters in 2002 rose by RMB 196 million, up 9.2% from 2001 due to an increase in the Group's internal sales volume from 1,200,000 tonnes in 2001 to 1,390,000 tonnes in 2002, up 15.8%. The internal sales volume of alumina as a percentage of the total sales volume dropped from 28% in 2001 to 27% in 2002.

Cost of Goods Sold

The total alumina segment cost of goods sold in 2002 increased by RMB 1,469.2 million, up 23.6% compared with that of 2001. The total production costs of the alumina segment increased by 9.5% from RMB 6,411.4 million in 2001 to RMB 7,017.7 million in 2002. Production costs consist of raw materials and supplemental material costs, fuel and power costs, manufacturing expenses, labour costs and depreciation expenses. While production cost is generally a good proxy for analysing cost of goods sold, differences can arise due to inventory changes. Production costs increased mainly because the production volume of alumina products increased by 15.1%. The decrease in unit production costs of alumina was not enough to offset the increase in volume of alumina being sold at lower prices. The production costs of alumina made up 92.2% and 94.0% of the production costs of the alumina segment in 2001 and 2002, respectively. The production costs of alumina increased by 11.6% from RMB 5,908.5 million in 2001 to RMB 6,594.1 million in 2002.

The unit production costs of alumina including depreciation expense decreased by 3.4% from RMB 1,336.5 per tonne in 2001 to RMB 1,290.8 per tonne in 2002. The unit production costs of alumina not including depreciation expense decreased by 5.8% from RMB 1,146.9 per tonne in 2001 to RMB 1,080.2 per tonne in 2002. The decrease was mainly due to the reduction in consumption as a result of technological renovation, but this decrease was partially offset by the increase in domestic coal prices in 2002 and the increase in production volume.

Operating Profit

Total operating profit for the alumina segment decreased by 35.0% from RMB 2,121.4 million in 2001 to RMB 1,379.7 million in 2002 primarily as a result of a 23.6% increase in the cost of goods sold, which was partially offset by an increase of 6.5% in turnover of this segment. The Company's operating profit as a percentage of the turnover decreased from 23.1% in 2001 to 14.1% in 2002.

Primary Aluminum Segment

Turnover

The Group's total turnover of the primary aluminum segment increased by RMB 380 million to RMB 9,268.1 million in 2002, up 4.3% over 2001. This is mainly attributable to an increase of 8.4% in the sales volume of primary aluminum, which was partially offset by a 3.2% decrease in the average sales price for the Group's primary aluminum.

Cost of Goods Sold

The total cost of goods sold for the Group's primary aluminum segment increased by 5.7% from RMB 7,479.9 million in 2001 to RMB 7,902.6 million in 2002 mainly due to the increase in primary aluminum sales volume. Production costs of the primary aluminum segment increased by 16.3% from RMB 7,351.1 million in 2001 to RMB 8,548.3 million in 2002. Production costs of the primary aluminum segment include raw materials and supplemental materials costs, fuel and power costs, labour costs, manufacturing expenses and depreciation expenses in the production of primary aluminum and carbon. The increase in production cost was attributable to an increase in production volume of primary aluminum. Production costs of primary aluminum accounted for 83.1% and 74.7% of the total production costs of the segment for 2001 and 2002, respectively.

The unit production costs of primary aluminum as a product including depreciation expense increased by 1.6% from RMB 9,673.7 per tonne in 2001 to RMB 9,823.8 per tonne in 2002. The unit production costs of primary aluminum not including depreciation expense increased by 2.5% from RMB 8,774.5 per tonne in 2001 to RMB 8,990.8 per tonne in 2002. The increase was mainly due to a change in the Group's practice of charging cost prices for internal sales during January to June, 2001 to selling at market prices for internal sales for alumina from July 1, 2002. If the transfer price was computed on the same basis as in the previous year, the unit production costs of primary aluminum not including depreciation expense amounted to RMB 8,514.9 per tonne, representing a decrease of 3.0% as compared with that in the previous year.

Operating Profit

Operating profit of the primary aluminum segment decreased by 6.1% from RMB 1,217.5 million in 2001 to RMB 1,143.5 million in 2002. The operating profit of the Group's primary aluminum segment as a percentage of that segment's turnover decreased from 13.7% in 2001 to 12.3% in 2002.

Corporate and Other Services Segment

The Group's corporate and other services segment reflected the expenses for the Company's headquarters and research and development services and profit from product sales of the Group's research institute to external customers. Operating profit for the segment amounted to a loss of RMB 57.9 million for the year ended December 31, 2002.

Liquidity and Capital Resources

The Group's primary sources of funding are cash provided by operating activities, and short-term and long-term borrowings. The Group's primary uses of funds have been production-related working capital, repayment of short-term and long-term borrowings and capital expenditures.

The Group has historically taken advantage of the significantly lower interest rates on short-term debt to reduce financing costs on the Group's capital expenditures. Interest rates on short-term debt in the PRC have generally been approximately 1% to 2% per annum lower than those on long-term debt. As a result, the Group has incurred a substantial amount of revolving short-term borrowings. The Group's current liabilities as of December 31, 2002 exceeded the Group's current assets by RMB 2,450.9 million. As of December 31, 2002, the Group's short-term debt amounted to RMB 5,103.3 million (including the current portion of long-term debt, which was RMB1,054.0 million) and comprised 50.77% of the Group's total debt.

In addition, most of the government funding for the Group's capital expenditure projects has been in the form of loans from state-owned banks and commercial banks. As of December 31, 2001 and 2002, the Group had long-term loans of RMB 5,391.9 million and RMB 4,949.3 million, respectively.

The Group's leverage ratio, or the Group's total debt divided by the aggregate of the Group's total debt plus owners' equity, has significantly decreased from 43.54% as of December 31, 2001 to 39.30% as of December 31, 2002. This was primarily the result of retained earnings and the proceeds from the exercise of the Over-allotment Option from the Company's Global Offering.

In addition to internally generated funds as well as the remainder of the proceeds from the Global Offering, the Group may continue to rely on bank borrowings to finance its capital expenditure plans.

In view of the Group's credit and the availability of funds in the PRC, the Group currently does not foresee significant difficulties in obtaining bank borrowings. The Company plans to finance its capital expenditure projects and related expenditures principally through cash provided by operating activities, short-term and long-term debts and the remainder of the net proceeds from the Global Offering. The Group has also established standby credit facilities with domestic banks for an aggregate of RMB 18,043 million to finance any capital shortfall related to its alumina and primary aluminum projects and for relevant working capital purposes. The Group believes that the Group's working capital is sufficient to meet its present needs.

Cash and Cash Equivalents

Included in the cash and cash equivalents of the Group as of December 31, 2002 were amounts denominated in foreign currencies of RMB674.6 million, comprising US\$73,743,000 and HK\$58,553,000.

The following table sets forth, for the periods indicated, a condensed summary of the Group's statement of cash flow:

	For the year ended December 31,	
	2001	2002
	RMB	RMB
	(in m	illions)
Cash flows from operating activities:		
Net cash provided by operations (1)	4,678.1	4,101.1
Net change in working capital (2)	(1,630.1)	(201.6)
Net interest paid for investment	(480.7)	(862.4)
Profit distributed to Chinalco and		
dividends paid	(142.2)	(218.0)
PRC income tax paid and others	(484.2)	(323.3)
Total	1,940.9	2,495.8
Cash flows from investing activities:		
Capital expenditures	(2,944.5)	(3,894.2)
Sale of fixed assets and net sales of investments	(102.8)	(3.8)
Net increase in bank deposits	471.7	75.1
Total	(2,575.6)	(3,822.9)
Cash flows from financing activities:		
Net borrowings	807.6	(956.9)
Net proceeds from issue of shares	3,098.6	_
Net (distributions to) contributions from	(750.3)	205.4
Chinalco and minority shareholders		
Others (3)	(47.8)	101.0
Total	3,108.1	(650.5)
Net increase/(decrease) in cash and cash equivalents	2,473.4	(1,977.6)

⁽¹⁾ Represents income/(loss) before income tax and minority interests as adjusted for depreciation expense, loss on disposal of fixed assets, interest waived written back, interest income and interest expenses.

⁽²⁾ Represents decrease/(increases) in inventories, accounts receivable and other receivable, accounts payable and other payables, including amounts due from and due to related parties.

⁽³⁾ Represents increases in bank deposits pledged and acquisition of minority interests.

Net Cash Flow from Operating Activities

Net cash provided by operations decreased by 12.3% from RMB 4,678.1 million for the year ended December 31, 2001 to RMB 4,101.1 million for the year ended December 31, 2002. The decrease was primarily the result of decreases in sales prices for alumina and primary aluminum, which were partially offset by the increase in sales volume of alumina and primary aluminum in 2002. Of the net cash provided by operations during the year ended December 31, 2002, RMB 862.4 million was used for interest payment (net of interest received), RMB 323.3 million was used to pay PRC income tax, and RMB 218.0 million was used for profit distribution to shareholders.

The Group has begun to implement a centralised cash management system. The Group expects that this system will help:

- centralise and simplify internal clearing and settlement procedures;
- utilise excess bank deposits to reduce bank borrowings;
- reduce accounts receivable; and
- improve the overall efficiency of the Group's internal funds management.

Cash Flows from Investing Activities

During the years ended December 31, 2001 and 2002, 100.0% of the cash from investing activities was used for capital expenditures. The Group's cash outlays for capital expenditure projects amounted to RMB 2,944.5 million and RMB 3,894.2 million for the years ended December 31, 2001 and 2002, respectively. In 2002, the Group's capital expenditure program was the major contributor to the Group's increase of 580,000 tonnes alumina production capacity and 42,000 tonnes increase in primary aluminum production capacity.

Cash Flows from Financing Activities

Cash out flows from financing activities amounted to RMB 650.5 million in 2002 including a decrease of RMB956.9 million in net loan borrowing and decrease in bank deposits pledged of RMB 101.0 million.

Foreign Exchange Rate Risk

The Group conducts its business primarily in Renminbi. As of December 31, 2002, the Company still had loans of 19.99 million Euro and 10.62 million Danish Krone and bank loans of US\$73.74 million and HK\$58.55 million. The discussion on gain/loss recognized during the period in respect of exchange rate fluctuations has been covered in "Other Income/Expenses" in this section.

To avoid taking foreign exchange rate risk, the Company repaid foreign currency loans of 18.64 million Euro and 1.09 million Danish Krone in February 2003.

The Renminbi is not a freely convertible currency. The fluctations in Renminbi exchange rates will affect the Group's ability to perform its foreign exchange denominated obligations. Such fluctuations will also affect the Company's ability to pay dividends in Hong Kong Dollars or to pay dividends in respect of American depositary receipts in United States Dollars. The Company believes that it is able to obtain sufficient foreign exchange for the performance of such obligations.