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China Rare Earth Industry Report, 2009

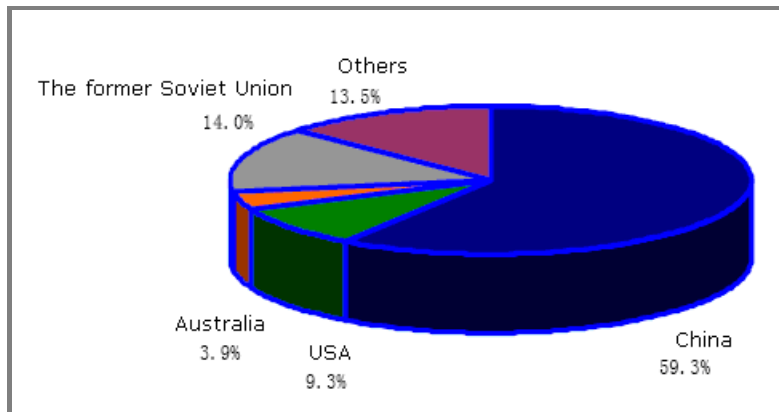
Oct/2009

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1.2 Rare Earth Resources

China is the world’s largest rare earth country, as well as the largest rare earth producer, consumer and exporter. According to USGS, China’s rare earth industrial reserves and basic reserves reached 27 million tons of ROE and 89 million tons of REO respectively in 2008, accounting for 30.7% and 59.3% in the world. In addition, China’s rare earth ore output covered 96.8% in the global total in 2008.

Rare Earth Reserves in Key Global Countries, 2008



Source: ResearchInChina; USGS

By May 2008, geological workers have found over 1,000 mineral deposits, sites and mineral production regions in more than two thirds of China’s total provinces (autonomous regions). In addition to regions with rich rare earth reserves like Baiyunebo of Inner Mongolia, South of Jiangxi, North of Guangdong, Sichuan Liangshan, etc, rare earth deposits are also found in Shandong, Hunan, Guangxi, Yunnan, Guizhou, Fujian, Zhejiang, Hubei, Henan, Shanxi, Liaoning, Shaanxi, Xinjiang, etc, with much fewer resources though. 98% of China’s total rare earth resources are distributed in Inner Mongolia, Jiangxi, Guangdong, Sichuan, Shandong, etc regions, with the characteristic of light rare earth products in the north and heavy rare earth products in the south. Bayun Obo Mine located in Baotou is the largest symbiotic mine with iron, rare earth and niobium and other elements. Its rare earth is mainly light rare earth, and the basic reserves accounts for 87.2% of China’s reserves and more than 40.0% of the global reserves.

China's Rare Earth Reserves (Unit: 10000 tons)

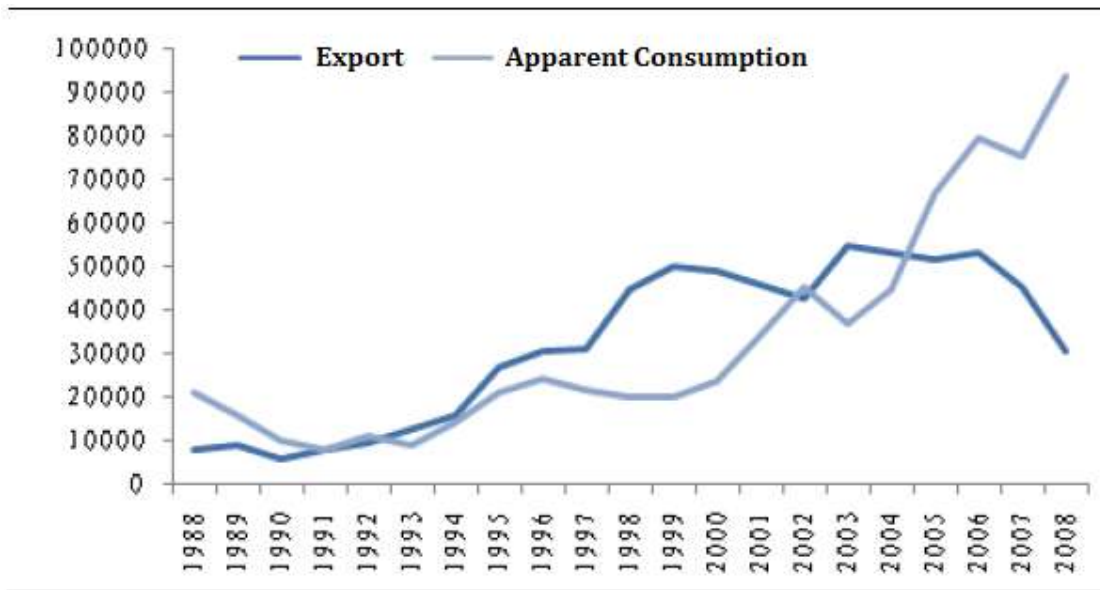
No.	Area	Proved Reserves	Industrial Reserves	Long-term Reserves
1	Bavun Obo. Baotou	10600	4350	> 13500
2	Huishan, Shandong	1270	400	> 1300
3	Seven Provinces in South	840	150	5000
4	Liangshan, Sichuan	240	150	> 500
5	Zhijin, Guizhou	70		> 150
6	Others	150	150	> 225
7	Total	12270	5200	> 21000

Source: ResearchInChina; www.cre.net

2.5.1 Export Volume Trend

Starting from 2003, China's rare earth export has decreased year after year. In 2003, the export volume amounted to 54,900 tons (REO), and the figures in 2007 and 2008 fell respectively, and the export in 2008 registered 30,921 tons with a decrease of 32% from the year of 2007. According to new planning, China's export quota will be controlled less than 35,000 tons annually in next six years, and such rare earth metals as dysprosium, terbium, thulium, lutetium、yttrium etc will prohibit exporting. At the same time, China also plans to carry large-scale mergers & reorganizations of rare earth industry. In the course of standardizing industrial operation, approximately 20 backbone corporate groups will be established.

China's Rare Earth Export Volume (REO) and Apparent Consumption, 1988-2008

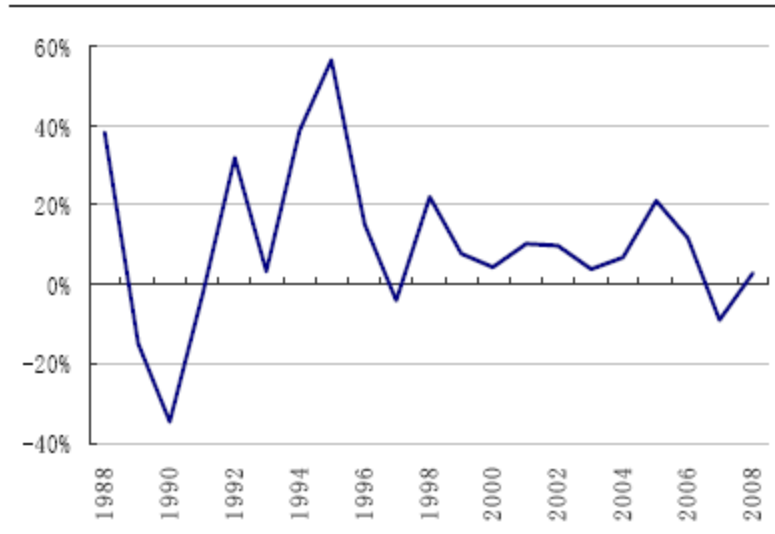


Source: Bohai Securities, ResearchInChina

3.2 Rare Earth Output

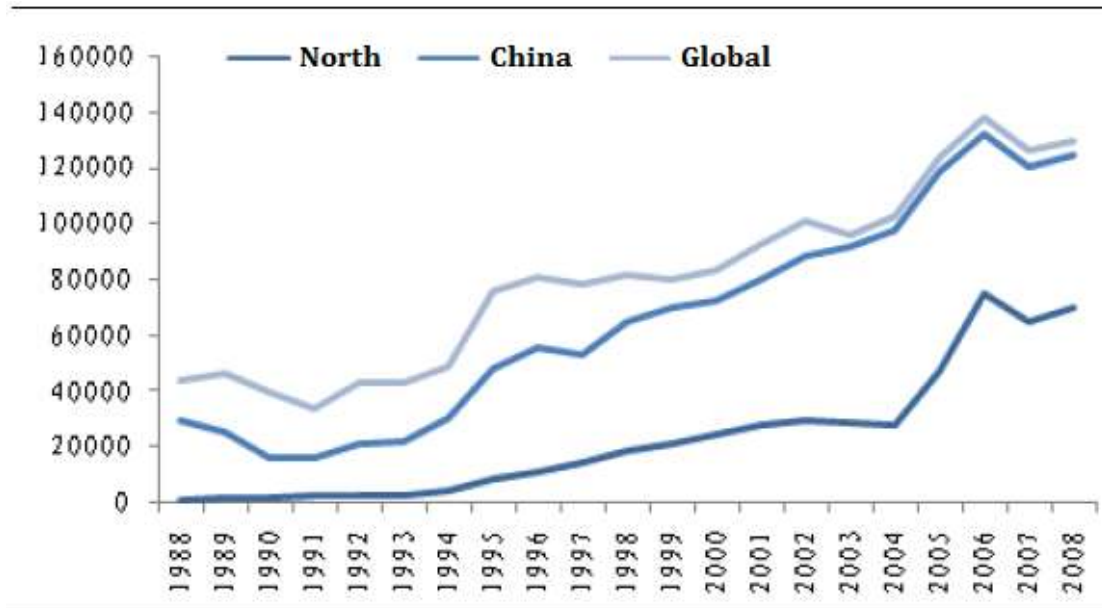
The world's rare earth concentrate has increased year by year since 1990, and China has played a more and more important role in the world since 1980s when it began to exploit rare earth. After 2003, China's refined rare-earth minerals accounted for more than 95% global share. In 2008, China produced 129,600 tons of rare earth (REO), accounting for 96% of global production.

China Rare Earth Ore Output Change, 1988-2008



Source: Essence Securities; ResearchInChina

China and Global Rare Earth Concentrated Ore Output, 1988-2008



Source: Bohai Securities; ResearchInChina

6.3 Inner Mongolia Baotou Steel Rare-Earth (Group) Hi-Tech Co., Ltd

6.3.2 Operation

Profit of Baotou Steel Rare Earth (Group) Hi-Tech Co., Ltd, 2008-1H2009 (Unit: RMB)

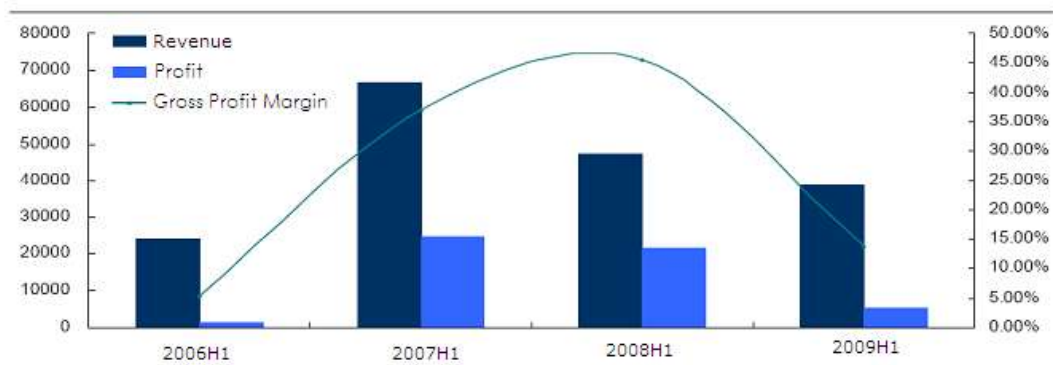
	Reporting Period (Jan-Jun)	Reporting Period of Previous year	Y-o-Y (%)
Operating profit	-119,973,798.87	328,628,330.65	-136.51
Total profit	-99,216,174.95	344,282,936.98	-128.82
Net profit	-67,187,102.48	247,135,141.27	-127.19

Source: Baotou Steel Rare Earth; ResearchInChina

According to 2009 interim report, its rare earth oxide achieved the revenue of RMB386 million, down 79.25% year-on-year; and the main business revenue in foreign market declined 85.82% year-on-year. The gross profit margin of rare earth oxide was 13.86%, falling 13.66 percent year-on-year. The sharp drop was mainly attributed to the price of rare earth oxide had fallen to the lower level in history.

Revenue, Profit and Gross Profit Margin of Baotou Steel Rare Earth Oxide, 2006-1H2009

(RMB10,000; %)



Source: Baotou Steel Rare Earth; ResearchInChina

Baotou Steel Rare Earth Overview by Industry and Product, 1H2009

Item	Main Business Revenue (RMB)	Main Business Cost (RMB)	Main Business Profit Margin (%)	Y-o-Y of Main Business Revenue (%)	Y-o-Y of Main Business Cost (%)	Y-o-Y of Main Business Profit Margin (%)
By Industry						
Ore products processing	91,397,746.25	70,787,554.47	22.55			
New materials application	687,190,418.41	611,144,587.19	11.07	-21.55	9.33	-25.12 percent
By product						
Mixed carbonate rare earth	91,397,746.25	70,787,554.47	22.55			
Rare earth oxide	386,757,448.03	333,152,865.73	13.86	-18.33	34.50	-33.84 percent
Rare earth	199,595,187.61	176,721,579.11	11.46	-23.08	-7.39	-15 percent

Source: Baotou Steel Rare Earth; ResearchInChina

→ Related Reports

- **China Alumina Industry Report, 2009**
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- **Xiamen Tungsten Co., Ltd (XTC) And China Tungsten Industry Report, 2009**
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