

CHINA

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In 2000, the Chinese Government issued several laws and regulations that supplemented existing law and regulations concerning mineral resource exploitation planning, land exploitation, mining power transfer, customs law, gold mining, silver imports, coal mine safety supervision, Sino-foreign contractual joint ventures, foreign capital enterprises, and mineral resources deposit size classification standards. The government will allow foreign investors to take majority shares in petrochemical and all new projects. The implementation of new laws and regulations will improve the country's investment environment and foreign investors' confidence in China. Sino-foreign joint ventures or solely foreign fund enterprises are no longer required to report their production plans to the government. Problems remained in some other existing laws and regulations concerning foreign investment and the government planned to revise them as soon as possible based on the agreements to becoming a member of the World Trade Organisation. The government also planned to amend the existing company law.

In 2000, the State Economic and Trade Commission (SETC) issued 'An Interim Regulation on using Foreign Investment by State-owned Enterprises in Asset Regrouping'. According to the circular, projects with a total investment of US\$30 million or more should be submitted by the economic and trade commission of provinces, autonomous regions, municipalities and cities to relevant departments of the State Council and then to SETC for approval before further submitted to the State Council. Projects with a total investment less than US\$30 million should be examined by relevant departments of the State Council and economic and trade commission of provinces, autonomous regions, municipalities and cities and

submitted to SETC for record. The examination and approval authority should not be delegated to lower levels. Within three months after issuing the business licence, foreign contributed capital must be paid in full.

The Chinese Government continued its effort to restructure the mining and metal sectors of the country. The SETC announced the abolishment of nine bureaus - Coal Industry, Construction Material Industry, Internal Trade, Light Industry, Machinery Industry, Metallurgical Industry, Nonferrous Metals Industry, Petroleum and Chemical Industry, and Textile Industry. Part of bureau responsibilities were transferred to relevant divisions in SETC and other responsibilities such as industrial information collection and statistical data survey were assigned to relevant industrial associations. The government also decided to dissolve three state-owned nonferrous enterprises-China Aluminium Corp. (Chalco), China Copper Lead Zinc Corp. (CCLZ), and China Rare Metals and Rare Earth Group Corp. As part of the restructuring, China Aluminium Industry Corp. (Chinalco) was established to manage the China Changcheng (Great Wall) Aluminium Corp. (Zhengzhou Aluminium Plant and Zhongzhou Aluminium Plant), the China Nonferrous Metals Industry No. 6 Metallurgical Construction Co., the China Nonferrous No. 12 Metallurgical Construction Co., the Guizhou Aluminium Plant, Luoyang Engineering and Research Institute for Nonferrous Metal Processing, the Pingguo Aluminium Industry Co., the Shandong Aluminium Co., the Shanxi Aluminium Plant, the Shanxi Carbon Plant, the Southwest Aluminium (Group) Co. Ltd, the Qinghai Aluminium Co. Ltd., and the Zhengzhou Light Metal Research Institute. Chinalco had contracted Morgan Stanley Dean Witter Co. and China International Finance Co. to advise

its share listing in New York and/or Hong Kong in 2001. The management of the rest of the enterprises and research institutes under the three former nonferrous corporations were ceded to provincial and city governments. The China National Nonferrous Metals Industry Trading Group Corp. [formerly China Nonferrous Metals Import and Export Corp.] (CNITC) has merged into the China National Metals and Minerals Import and Export Corp. (Minmetals). Two listed companies in Hong Kong which were affiliated with CNMIEC were also transferred to Minmetals. CNITC ceded its provincial branches to local governments. The Australia-based China Mining Industry International Co. Ltd. which was affiliated with former China National Nonferrous Metals Industry Corp. was merged into Minmetals. Minmetals was put in charge of all nonferrous metals trading. The government believed that transferring the management responsibility to provincial governments would help the industry become more efficient. The state-owned enterprises (SOE) will be under a 'code of conduct' which means to improve modernisation and productivity. The special treatments such as extra funding will be phased out. Overseas companies and traders, however, worried that sale contracts for raw materials and metals to those plants may no longer be valid and would need renegotiation.

In an effort to close the gap between the rich east and the poor west, US\$18.2 billion of construction and special bonds will be issued in 2001. Under the government's 'go-west' campaign, foreign and private enterprises are encouraged to invest in the country's western hinterland. Various preferential treatments, including exemption of income tax, tariff and import value-added-tax, are given to companies investing in government-sponsored sectors and state-designated priority projects such as exploration and mining in Xinjiang Uygur Autonomous Region. The government believed that technology and expertise transfer and increasing investment into inner provinces

would help the development in the western region and support sustained economic growth in China in the future.

To revitalise the stock market as a source of capital, the China Securities Regulatory Commission (CSRC) lifted the ban prohibiting SOE from participating in stock investment and allowed them to use their retained earnings to buy A-shares (domestic) issued in initial public offerings by companies with capital share more than 400 million renminbi in late 1999. In 2000, CSRC allowed SOEs to invest in initial public offerings on all companies. Stock purchase in the secondary market was lifted. The Central Bank also lifted the ban against banks to provide funds financing stock investments. Selected brokerages and fund management companies were allowed to borrow money from banks in the interbank market for a maximum of seven days. The government hoped to induce more active trading in the local bourse.

The government began to phase out the preferential taxes for foreign enterprises. The indicative industry tax preferential policy will be introduced to replace the existing preferential tax policy for foreign enterprises. Uniform tax rates for foreign and domestic enterprises will be implemented soon. Under current tax regulations, enterprises were not allowed to deduct production value-added tax (VAT) from their income tax. The production VAT will be replaced by consumption VAT to avoid repeated taxation. The export VAT rebate rate will be increased. The government prepared to draft a 'zero tariff rate' policy for exports.

The government issued guidelines to allow foreign enterprises to conduct mineral exploration in China. Explorers are entitled to extract mineral resources discovered within the exploration area. Expenses for prospecting are considered as deferred assets and will be amortised during the mining period. To encourage foreign enterprises to participate in joint ventures with

domestic mining enterprises, the government allows foreign enterprises to use advanced technologies and equipment as shares or purchase the right in prospecting and mining. For those engaged in processing tailings in existing mining areas to recover mineral resources, the associated mineral compensation fee will be reduced to half and those using the minerals from tailings will be exempted from the mineral compensation fee. Foreign investors who use advanced technology in exploiting minerals in the government's preferred list will be exempted from the mineral compensation fees for five years.

Owing to high oil prices in domestic and international markets, the government decided to delay the implementation of the fuel tax in 2000. The total value of fuel tax, VAT and consumption tax will account for more than 50% of fuel price. The government feared the addition of fuel tax would increase prices for consumer goods, especially for farmers in rural areas. The fuel tax was part of the government tax reform to eliminate irregular levies and to increase tax revenue.

Trade

At the end of 2000, China had signed bilateral agreements with 36 of the 37 World Trade Organisation (WTO) members. The negotiation of bilateral agreement between China and Mexico continued. In lengthy negotiations with WTO members, China agreed to reduce tariff rates and to eliminate import quotas. It also agreed to dismantle export subsidies. The banking, insurance, and legal services will be opened for foreign competitors. Much of the momentum generated in past two years has slowed and it might take longer for China to join the WTO. The slower approach to WTO entry may give China more time to adjust to the changes that it has committed to in bilateral agreements. However, the challenges and benefits after admission are enormous.

The National People's Congress has amended and promulgated the law on Sino-

foreign co-operative joint ventures and the law on foreign-funded enterprises to meet the requirements of the WTO rules. The government would not allow local governments to draft regulations to restrict foreign products and services which would contradict regulations that China and foreign countries agreed on. In 2001, the Ministry of Foreign Trade and Economic Corp. (MOFTEC) will establish a notification and consultation agency to answer questions related to China trade policies to WTO members and provide consultations on WTO rules, foreign countries' economic and trade policies to domestic enterprises.

According to the Customs statistics, the total trade reached US\$474.3 billion in 2000; this was an increase of 31.5% compared with that of 1999. Exports posted an increase of 27.8% to US\$249.2 billion while imports went up by 35.8% to US\$225.1 billion. Asian countries, which were China's largest export market, accounted for 62% of its total export, followed by North America 22%, of which the US accounted for 21%. The total trade of iron and steel was US\$14.1 billion; nonferrous metals, US\$10.1 billion; and nonmetallic minerals, US\$7.1 billion. Such imports as alumina, aluminium and its products, copper, copper ore, chromium ore, crude oil, diamond, and iron ore increased by more than 10%. Exports of cement, copper products, coal, coke, steel products, and zinc and its products went up more than 10%.

The government adjusted the preferential import and export tariffs on many commodities for 2001. Most adjustments were to non-minerals, but some metal products were also affected. The export duties for unwrought antimony changed from 20% to 5%; ferrosilicon from 25% to 10%; and unwrought zinc from 25% to 0%. The import duties for aluminium, lead, nickel, steel and zinc products were reduced to less than 10%. In addition, the government decided to extend special tariffs on imports of 1.45 Mt of alumina at 8%. Import tariffs for copper concentrate and copper anode were 0%, but

VAT was levied. Beginning 2001, the government decided to provide full VAT rebate for 800,000 t of copper concentrates and 200,000 t of copper anode for three years. Concentrates will be imported by Minmetals which is responsible for trade negotiation and contract signing and then distributes to major copper smelters.

The MOFTEC issued a list of commodities which required export quota licence control in 2001 which included some ferrous and nonferrous metals. Commodities which are in the government's monitor list are ammonium paratungstate; bauxite and refractory clay; concentrates of antimony, tin, tungsten and zinc; oxides of antimony and tungsten; platinum; silver; rare earths; refractory magnesium; and unwrought tin and zinc. Most export quotas are controlled by MOFTEC; however, rare-earth quota is determined by the State Development and Planning Commission (SDPC), and is distributed by SETC, and MOFTEC will issue the licences. France, Japan and the US were major destinations.

In 2000, the government approved opening a diamond exchange market in Shanghai. The exchange acted as a bonded warehouse. No duty will be levied as long as diamonds do not enter the domestic market after they have been traded in Shanghai. China has gradually become the world's eighth largest consumer of the precious stones. The actual amount of diamond consumed in China was difficult to account for because of smuggling and overseas purchases. Analysts believed that 'Great China', including Hong Kong and Taiwan, was the world's third largest diamond market after the US and Japan.

Aluminium

In 2000, the SDPC decided to continue providing preferential power prices to 13 aluminium smelters/companies. The average electricity price paid by aluminium smelters was Yu0.31/kw. In the past several years, several aluminium companies built their own power plants or formed a joint venture with

power companies to bring down the cost of electricity.

The five Chinese alumina refineries increased their production but the demand exceeded supply. Therefore, the country's imports of alumina went up by more than 15% to 1.88 Mt in 2000. Even though alumina demand exceeded supply in China, Chinese aluminium refineries reduced their alumina prices, from Yu4,000/t in July to Yu2,800/t in September because alumina prices in the world market declined and forced Chinese producers to lower their prices to compete against imported alumina. Owing to the renovation of electricity network in urban and rural areas and the development of the western part of China, consumption of aluminium increased to 3.4 Mt. Also, the government relaxed restrictions on the use of aluminium windows and doors in buildings. Building construction, packaging, communication, and transportation accounted for 51% of the total aluminium consumption. In 2000, the aluminium prices in the overseas markets were lower than the domestic market and consumers found that it was cheaper to purchase aluminium abroad than at home. In addition, the government reduced border trade tariffs on aluminium which led to a large quantity of aluminium imported from Russia which accounted for 50% of the total imports. The total imports of aluminium and its products increased by more than 46% in 2000, compared with that of 1999.

By the end of 2000, China's aluminium output capacity had increased by 473,000 t to a total of 3.31 Mt/y and the trend should continue because about 550,000 t of new capacity will begin operating in 2001. By 2005, the total output capacity aluminium will exceed 4.1 Mt/y. During that period, the alumina gap between supply and demand is expected to widen. In 2001, China will consume about 6.6 Mt of alumina, 6.2 Mt for metallurgical and 400,000 t for non-metallurgical, but domestic alumina output capacity is projected to be 4.5 Mt. The supply and demand gap will be met by imports.

The government decided to overhaul the aluminium sector and issued an order to all aluminium producers to convert all Soderberg cells into prebaked cells. Many small smelters which could not afford to undertake the technical improvements to maintain environmental standards may be forced to close down. By 2003, the government will shut down all Soderberg cell smelters. The Shanxi Government also ordered calcined bauxite producers to replace their round and shaft kilns with more environmentally friendly kilns otherwise their operations would be closed down.

The State Council approved the proposed expansion plan submitted by Pingguo Aluminium Co. to increase its alumina output capacity to 700,000 t/y from 400,000 t/y. According to Pingguo's expansion plan, the company will have output capacity of bauxite, 2.4 Mt/y; metallurgical grade alumina, 1.2 Mt/y; nonmetallurgical grade alumina, 100,000 t/y; aluminium, 300,000 t/y; and graphite block, 50,000 t/y in 2005. Pingguo signed a cooperation agreement with Pechiney of France to study the alumina expansion project. The estimated cost for alumina expansion project was US\$190 million. Pingguo will finance US\$57 million and the remainder will come from bank loans. In early 2000, Pingguo signed a debt-equity swap agreement with its creditor to convert US\$181 million of its debts to equity which reduced the company's debt to asset ratio to about 58%.

The SDPC approved the Shandong Government's proposal for the Luxi aluminium expansion plan. A 70,000 t/y aluminium output capacity will be added to the existing 10,000 t/y by 2001. The new potline will be equipped with 120 units of 190-kA prebaked cells. At the same time, all Soderberg cells in one of the initial potlines will be replaced by prebaked cells. A 100,000 t/y aluminium output capacity potline will be added to the smelter in the third phase. In 2005, the smelter will have a total aluminium output capacity of 250,000 t/y. Alumina was

sourced from Shandong Aluminium Plant and power was supplied by the Shandong Renping Thermal Power Group Co., a parent company of Luxi. The SETC also approved in principle the expansion plan for Nanshan Group Co. in Shandong Province. The company intended to add a 100,000 t/y output capacity to its smelter, using 200-kA prebaked cells. At the same time, the company also planned to replace its 16,000 t/y Soderberg cell potline by a 70,000 t/y prebaked cell potline. The total cost was estimated at US\$154 million, of which US\$109 million would come from bank loans. The SETC's final approval of this project would depend on the decision of the Shandong Government to shut down all Soderberg cells in Shandong Province.

In November, Jiaozuo Wanfang Aluminium Co. Ltd commissioned its 128,000 t/y smelter. The US\$116 million smelter was equipped with 280-kA prebaked cells. Jiaozuo Wanfang had three 60-kA Soderberg cell potlines which had a total output capacity of 53,000 t/y. Owing to environmental concern, one potline with an output of 13,000 t/y was forced to close down in 2000.

In October, Baotou Aluminium Industry Group Co. Ltd completed technical renovation of its aluminium smelter. The company replaced its 60-kA Soderberg cells with 200-kA prebaked cells, and aluminium output capacity was increased to 100,000 t/y from 30,000 t/y. The smelter also installed absorbers to reduce emission of pollutants to the environment.

Emeishan Aluminium (Group) Co. Ltd planned to invest US\$180 million in the next four years to become the largest aluminium producer in Sichuan Province. Emeishan was equipped with 116 units of 75-kA prebaked cells, producing 25,000 t/y of aluminium. The company intended to install 190 units of 300-kA prebaked cells with an output capacity of 150,000 t/y. After completion, Emeishan will have a total aluminium output capacity of 175,000 t/y and carbon anode output capacity of 120,000 t/y.

Copper

The government's tax exemption on copper imports policy may have significant effect on domestic copper producers and markets. Many analysts believed that this policy will benefit large state-owned copper smelters because the VAT rebate will be distributed to major smelters which are associated with former CCLZ based on their output capacity. But copper producers feared that the benefit would go to Minmetals instead of them. Under the new structure, Minmetals will be in charge of copper imports and will charge 0.7% commission rate which is 0.1% higher than that charged by former CCLZ. Major copper producers expressed interest to negotiate directly with overseas copper-mining companies. In September 2000, managers from six state-owned copper producers - Baiyin Nonferrous Metals Co., Daye Nonferrous Metals Co., Jiangxi Copper Co., Tongling Nonferrous Metals Co., Yunnan Copper Co. and Zhongtiaoshan Nonferrous Co. - reached an agreement to unify the import of copper concentrates into China. A trading office will be housed in Shanghai and will respond to negotiate terms of imports, including long-term contracts. Each company will respond to sign the contract. This agreement, however, may have difficulty receiving government approval.

Owing to domestic demand, China's copper producers increased their output in 2000. All major copper producers - Baiyin, Daye, Huludao Zinc Co., Jiangxi Copper Co., Tongling, Yunnan, and Zhongtiaoshan - increased their output. The output capacity of blister copper and refined copper (primary and secondary) was about 1.05 Mt/y and 1.5 Mt/y, respectively. Based on the expansion plans released by Daye, Jiangxi, Tongling and Yunnan, the output capacity of blister and anode copper and refined copper will increase to 1.5 Mt/y and 1.9 Mt/y, respectively, in 2003. Domestic copper concentrates only supplied about 50% of the country's demand. In 2000, China imported 1.8 Mt of copper concentrates, 45% more than 1999, mainly from Australia, Chile and

Mongolia. The sharp increase in concentrate imports was caused by the anticipation of a decline of treatment and refining charges (TC/RC) in 2001. Three major copper mining development projects - Tongling's Dongguashan, Western Mining's Saishitang, and Yunnan's Dahongshan were scheduled to be completed and would add a total of 100,000 t/y output capacity by 2003. Domestic mines could only supply about 40% of smelters' need.

In 2000, the total supply of copper in the domestic market was about 1.87 Mt; domestic output, 1.32 Mt; import, 665,188 t; and export, 109,767 t. China's copper consumption was estimated at 1.65 Mt. The excess supply may be stocked in the warehouse. Domestic market prices of copper declined slightly in the first two months of 2001, Yu18,000/t in December 2000 vs Yu17,300/t in February 2001 (exchange rate US\$1.00=Yu8.27). In 2000, the strong demand for copper was driven by the massive three-year power network upgrade project. The government has invested more than US\$10 billion to upgrade urban and rural power networks which will be completed by the end of 2001. Also, information technology is the fastest growing sector in China. The production of personal computers and optical communication equipment grew more than 50% in the past two years.

In September, the Ministry of Land and Resources (MLR) announced the discovery of a large porphyry copper belt in eastern Tianshan, 80 km southwest of Hami City, Xinjiang Uygur Autonomous Region. Preliminary prospecting indicated that the deposit was 800 m to 1,400 m long, 50 m to 200 m wide, and up to 380 m thick. The ore contained about 0.5 to 1.5% of copper. Geologists estimated that it contained about 10 Mt of copper, 100 t of gold, 3,000 t of silver and a significant amount of molybdenum. About 50 km to the south a 25.9-Bt coal resource is located at Nanhu. The government planned to build a 100,000

t/y copper smelter and refinery near the deposit. MLR and Xinjiang Government jointly invited domestic and foreign enterprises to bid for prospecting and developing the deposit on March 6, 2001. Billiton, Rio Tinto and WMC Ltd had visited the area and expressed interests to bid for further exploration in the area.

In August, the government approved Shenyang Smelter's declaration of bankruptcy. In the past several years, the Shenyang City government ordered the smelter to relocate to another area and to upgrade its smelting technology to avoid further pollution of the city. In addition to pollution problems, the smelter was in financial distress with debts exceeding assets. In the early 1990s, the government planned to replace Shenyang's blast furnaces with Noranda furnaces and approved US\$68 million for the renovation. The money provided by the government was not adequate and the smelter had difficulties securing other funds. Shenyang had an output capacity of 50,000 t/y of refined copper, 70,000 t/y of refined lead, and 20,000 t/y of refined zinc. The smelter was auctioned in October and Huanxin Trade Co. Ltd, an affiliate to Liaoning Provincial Economic and Trade Commission, acquired one-fourth of the smelter's compound and the main equipment for US\$15.7 million. A Shenyang Xingye Industry, Trade, and Technology Co. Ltd was established to take charge for restarting the smelter in December. The company planned to produce 20,000 t/y of refined copper, 60,000 t/y of lead and 18,000 t/y of zinc. The company also planned to install a Noranda furnace in its plant.

The CSRC approved the Jiangxi Copper Co.'s subsidiary, Jiangxi Copper Co. Ltd., to issue 230 million shares in Shanghai Stock Exchange in 2001. Jiangxi Copper Co. is listed on the Hong Kong Stock Exchange. The company's Guixi Smelter expansion plan was approved by the government. By the end of 2002, the smelter's copper output capacity will increase to 350,000 t/y from 200,000 t/y

in 2000. The output capacities of gold and silver will increase to 7.8 t/y and 158 t/y, respectively, and sulphuric acid to 1.03 Mt/y. The company also considered increasing its copper output capacity to 500,000 t/y in 2010. Construction work began in November 2000. The third phase expansion work in Guixi was estimated to cost US\$140 million, of which US\$60 million will be raised through the issue of shares, and the remaining will come from bank loans. The company also acquired Wushan Copper Mine and the exploitation right of Fujiawu Copper Mine from former CCLZ. The Wushan Mine has copper reserves of 1.1 Mt. Jiangxi planned to raise the mine's daily ore output capacity to 5,000 t from current 2,600 t. The Fujiawu mine is located just outside the boundary of Dexing Copper Mine which has an estimated copper reserve of 2.1 Mt. Concentrate supply could be a problem for Guixi Smelter. Jiangxi produced about 100,000 t/y of copper-in-concentrate from its mines. The company had to secure copper resources from domestic and overseas sources. The Chambishi mine in Zambia, which was partly owned by China Nonferrous Metals Overseas Engineering Co., may supply 40,000 t of copper concentrate in 2003. The company planned to expand its Chengmenshan Mine to 12,000 t/y from 1,200 t/y but it would take a while to go through the approval process.

Tongdu Copper Co., a subsidiary of Tongling Nonferrous Metal (Group) Co. (Tongling Group), started constructing its Dongguashan mine, located in Tongling, Anhui Province. The company acquired mining rights from the 321 Geological Team of Anhui Province for US\$4 million. The construction plan was designed by the Beijing Nonferrous Metallurgical Research Institute to mine and process 10,000 t/d of ore and was scheduled to be completed in 2003. The mine has ore with an average grade of 1.01% Cu and has proven reserves of 937,000 t of copper. A shaft 1,023 m deep was emplaced in June 2000. The total investment was estimated at US\$196 million, of which US\$121 million would come from bank loans. In 2000,

Tongdu also signed an agreement with Ausmelt Ltd of Australia to upgrade its Jinchang Copper Smelter. Under the terms of agreement, Ausmelt will install the Ausmelt furnace to replace the blast furnace at Jinchang by December 2001 and it will enable Jinchang to treat 330,000 t/y copper concentrates to produce 130,000 t/y copper matte and refined into 65,000 t of copper.

Jinlong Copper Co. Ltd., a joint venture of Tongling Group, Sumitomo Metals and Mining Corp. of Japan, and Sharpline of Hong Kong, decided to expand its Jinlong Smelter's copper output capacity to 150,000 t/y in 2002 from 100,000 t/y in 2000. The company intended to upgrade some of its existing technical facilities and to increase the capacity of the converter furnace. Zhangjiajiang United Copper Co., a subsidiary of Tongling Group, was renovating its electrolysis system to increase its copper output capacity to 60,000 t/y in 2001 from 40,000 t/y in 2000.

Daye Nonferrous Metal Co. completed its technical renovation of one of its copper refineries which would increase the refined copper output capacity by 40,000 t/y. Daye's copper smelting output capacity exceeded refining output capacity by 80,000 t/y. The company planned to add another 90,000 t/y of electrolytic copper output capacity to bring the total refined copper output capacity to 200,000 t/y by 2003. The government plans to form a Central China Copper Co. in which Daye will be the core.

Iron and Steel

China is one of the fastest-growing markets for tinplate in the world. In the past five years, the demand for tinplate increased two-fold. Tinplate consumption is expected to increase to 1.7 Mt in 2005 from 1.3 Mt in 2000. Before 1998, because of technological and output capacity problems, China produced about 220,000 t/y which accounted for about 28% of domestic market supply. During that period, China intended to reduce its dependence on imports and planned to increase its tinplate

production. Many tinplate mills were being built or expanded in that period. By 2000, China had a total tinplate output capacity of 1.5 Mt/y from Baogang, Dongyuan Sanhe Tinplate Industry Co. Ltd, Fujian Tongyi Tinplate Co. Ltd, Fujian Sino-Japan Metal Corp. Ltd, Guangdong Zhongshan Zhongyue Tinplate Co. Ltd, Guangzhou Pacific Tinplate Co. Ltd, Hainan Haiyu Tinplate Industry Co. Ltd, Jiangsu Tongyi Tinplate Co., Shanghai No. 10 Steel Plant, Shanghai Yichang Tinplate Co. Ltd, Shenyang Zhongyi Tinplate Co. Ltd and Wugang. Except for Baogang and Wugang, other producers need to import black plate to produce tinplate. In 2000, China produced about 1 Mt of tinplate which accounted for about 76% of market share and imported about 400,000 t, which was 120,000 t more than in 1999. Prices on imported tinplate were quoted 20% less than those domestic ones that caused the import surge. Also, unstable quality on domestic tinplate led consumers to prefer imported tinplate. Eight tinplate producers filed a petition with the SETC and MOFTEC to control cheap tinplate imports which depressed local prices.

In the past four years, China was the largest steel-producing country in the world with annual steel output exceeding 100 Mt. Low-grade steel products made up a large share of its output. The volume output in the domestic steel sector could basically meet the domestic market demand. Indeed, output capacities of certain steel products such as light rails, large and medium sections, and wire rods, were greater than domestic demand. To meet market demand for high-quality steel products, the country was a major importer. China imported about 16 Mt and exported 6 Mt of rolled steel products, respectively, in 2000. Since 1998, the government set output targets and urged Chinese steelmakers to reduce their output of crude steel and steel products to meet the target. By year-end, the production of pig iron, crude steel and steel products exceeded the government guidelines. In 2000, the government assigned output quotas to major steelmakers and warned that violators would

be excluded from the debt-to-equity swap programme. Major steelmakers generally complied with the production quota, however, small steelmakers which were not entitled to the debt-to-equity swap program and soft loans ignored the government guidelines. The outputs of crude steel and rolled steel exceeded the government's plan for 110 Mt and 100 Mt, respectively, in 2000. For 2001, SETC imposed a production target for crude steel at 115 Mt and rolled steel at 105 Mt. The government relied on the closure of small steel plants to meet its target. In 2000, the government identified 103 steel plants in which their output capacities were under 100,000 t/y using obsolete technology. Several major steel producers, however, had expanded their rolled steel output capacities in 2000. Also, the State Administration of Metallurgical Industry (SAMI), which oversaw the implementation of government policies, was abolished. That might affect the effectiveness of production control in 2001.

In 2000, steel prices in the domestic market showed signs of improving. Of the 23 steel products monitored by the SAMI, at year-end, only one posted a price decline, compared with those at the beginning of the year. Owing to government enforcement on production quotas and restriction on imports, the price of medium plate increased by more than 21% in 2000. The increase investment in construction for infrastructure and housing helped to boost demand for steel and stabilise domestic steel prices. Domestic steel analysts predicted that even though the government continued to adjust the country's steel products mix, domestic demand for construction and flat-rolled steel would decline in 2001. Asia is China's largest steel export market and economic growth in the region was slower than expected. China is expected to face strong competition from Japan, the Republic of Korea and Taiwan for exporting steel products to east and southeast Asian countries. Therefore, prices of steel products could fall because of production backlog and continuation of increasing imports.

China has been a major iron-ore importer and imported more than 50 Mt of ore in the past several years. Owing to high production costs, low returns on investment and low ore grade in domestic iron deposits, steel enterprises continued to look for joint-venture possibilities for iron mines in other countries. Under the 10th Five-Year Plan, the government planned to shift more steel production to the coast and to those areas best-suited to handle iron-ore imports. Officials from Heilongjiang Province and Jewish Autonomous Republic of Russia discussed developing the Kimkan iron ore deposit at Khabarovsk, Russia. A joint-venture company which will be majority-owned by Chinese will be established to secure investment funds for the development. The initial proposal was to mine 1 Mt of iron ore and to export the ore to Xilin Iron and Steel Plant in Yichun, Heilongjiang Province, which relies on imported iron ore for its production. Kimkan has reserves of 189 Mt, with the Fe content ranging between 31.7% and 35.6%, and also having some gold, manganese, germanium, titanium, and vanadium.

The demand for galvanised sheet increased sharply in the past five years. In 1999, China produced about 1.5 Mt of galvanised sheet and imported 1.5 Mt. The output and imports were about 86% and 50%, respectively, higher than those of 1998. In 1999, domestic apparent consumption was 2.6 Mt. Domestic producers had increased their share of the market to 50% in 1999 from 36% in 1992. In 2000, China's galvanised sheet output capacity was 1.75 Mt and about 750,000 t was expected to be added by the end of 2001. Major galvanised sheet producers are Baogang, Bengang, Handan, Panzhihua, and Wugang. About 60% of demand was for hot-dip galvanised and 40% for electro-zinc coat sheet. Baogang is the only domestic producer of electro-zinc.

Baogang received the CSRC approval to issue 1.8 billion shares of its subsidiary, Baoshan Iron and Steel Co. Ltd, in the

domestic stock market. Baogang planned to raise US\$948 million from Chinese investors. Baogang had hoped to be listed in the international stock market but decided to settle for the domestic. The company planned to use the stock funds for the construction of two galvanised lines, a few renovation projects, and to pay back bank loans.

Baogang, Nippon Steel Corp. of Japan, and Pohang Iron and Steel Corp. of the Republic of Korea intended to form a strategic alliance to compete against steel enterprises from Europe and America in the Asia market. Three companies planned to co-operate in finance, research, source of raw materials, and e-commerce. Nippon and Pohang had holdings of each other's shares. In 2000, Nippon, Pohang and Baogang were ranked as first, second, and the ninth largest steel producers in the world, respectively.

Rare Earths

China is the largest rare earths producer and exporter in the world. The country exported more than two-thirds of its output. In 2000, China produced about 73,000 t of ore (in rare-earth oxide content) and 65,000 t of rare-earth products, including 32,000 t of high purity individual rare earth oxides. Rare-earth concentrates were mainly produced from provinces of Jiangxi, Nei Mongol and Sichuan. In Nei Mongol, rare-earth concentrate (known as Baotou rare-earth concentrate) is the by-product of producing iron concentrates. The by-product contains oxides of the light rare-earth group - lanthanum, cerium, praseodymium, neodymium, samarium, europium and gadolinium. In Sichuan, rare earths are located in areas of Mianning and Dechang and the ore is mainly bastnasite while heavy rare earths (ionic absorption type) are found in Ganzhou, Jiangxi. The government established Ganzhou Nanfang Rare Earth Metallurgical Co. Ltd. to manage and control rare-earth output and prices in Jiangxi Province. Of the total rare-earth concentrate output, Nei Mongol accounted for more than 60%; followed by Sichuan, 18%; and Jiangxi,

17%. China's rare-earth processing capacity has expanded quite rapidly in the last several years, from 50,000 t/y in 1995 to 130,000 t/y in 2000. In 2000, the country consumed about 19,000 t, of which 27% was in the metallurgical and machinery industry, 24% was in the magnet and phosphor sector, 22% was in the oil and petrochemical area, 10% was in glass and ceramics, and 17% was in other industries.

Rare earths remained a highly controlled sector in China. The SDPC approved all mining and processing projects and export quotas. The government had successfully shut down some illegal rare-earth mining in Jiangxi and Sichuan that caused environmental damage. In 2000, China exported 46,700 t of rare-earth products, not including permanent magnets. In 2001, the export quota of rare earths was set at 45,000 t, about 2,000 t less than that of 2000. The rare-earth quota was introduced in 1999 to control exports, hoping to improve rare-earth prices in the world market. In 2000, per tonnage average export price increased by US\$120. The government intended to implement a quality control guideline for the rare-earth sector. The government also encouraged producers to export high-value-added rare-earth products and restricted the export of rare-earth concentrates. In 2000, China's rare-earth producers imported about 10,000 t of monazite to meet the gap between supply and demand.

Coal

China continued to reform its coal sector in 2000. The government closed down more than 40,000 illegal small coal mines and coal production decreased from 1,050 Mt in 1999 to about 900 Mt. At year-end, the national coal stockpile totalled about 150 Mt, which was a decline of 22 Mt from January 2000. In 2000, owing to exhausted coal resources, 257 state-owned mines were forced to shut down. The government also approved another 65 state-owned mines to declare bankruptcy and wrote off US\$110 million bank loans for these mines. The coal demand

in sectors such as chemical, construction, metallurgy and power generation increased. China exported more than 55 Mt of coal in 2000, an increase of 47% compared with that of 1999, mainly to Japan, the Republic of Korea and Taiwan. By year-end, domestic coal market prices increased by an average of US\$0.4/t. The increase in the coal price in the domestic market and coal exports helped many state-owned coal producers to improve their cash flow and to reduce deficits. The total deficit for the major state-owned coal producers declined to US\$240 million in 2000, a 50% reduction compared with that of 1999. China planned to produce about 850 Mt of coal and export 63 Mt of coal in 2001.

In 1998, the government transferred all state-owned coal producers under the supervision of the former Ministry of Coal Industry to provincial governments. The government planned to merge about 520 state-owned coal producers into seven groups in order for them to compete in the international market. According to the government plan, the seven coal groups will become enterprises similar to two oil enterprises, Sinopec and PetroChina, and will be listed on the international stock markets. These seven groups will be placed under the State Council and will not be controlled by provincial governments. The seven groups will be: Jing (Beijing)-Jin (Tianjin)-Ji (Hebei Province), East China, Northeast China, Central and South China, Southwest China, Xin (Xinjiang Uygur Autonomous Region)-Gan (Gansu Province)-Ning (Ningxia Hui Autonomous Region)-Qing (Qinghai Province), and Jin (Shanxi Province)-Meng (Nei Mongol Autonomous Region)-Shaan (Shaanxi Province).

The government continued its effort to improve coal mine safety in China. In 2000, coal mine accidents had claimed more than 5,300 lives in China. The State Administration of Coal Mine Safety Supervision and the State Administration of Safety in Production Supervision were established under SETC to oversee the country's coal mine production safety in China. The function of these two

administrations appeared to overlap. The difference is that work related to coal mine safety supervision will be executed in the name of the State Administration of Safety Supervision. In 2000, the Administration issued "provisional regulations of coal mine safety supervision" and "provisional regulations on administrative punishment for coal mine safety supervision" which would

Estimated Chinese Mineral Production (‘000t except where stated)		
	1999	2000
Metals		
Aluminium:		
Bauxite	8,500	9,000
Alumina	3,840	4,330
Metal	2,810	2,830
Antimony	84	106
Copper, refined	1,170	1,330
Iron and steel:		
Iron ore	237,200	223,900
Pig iron	125,400	131,000
Steel, crude	124,300	127,300
Steel, rolled	121,100	131,500
Lead, refined	918	1,030
Magnesium, primary	120	139
Nickel, refined	44	51
Tin, smelter	91	111
Titanium	1.6	1.9
Tungsten, mine output	20	23
Zinc, smelter	1,700	1,920
Industrial Minerals		
Asbestos	247	260
Barytes	2,800	3,200
Cement	573,000	583,000
Fertilisers	32,500	31,900
Fluorspar	2,170	2,200
Gypsum	6,700	6,800
Magnesite	2,400	2,500
Salt	28,120	31,280
Soda ash	7,650	8,340
Sulphur	4,490	5,000
Talc	3,860	3,370
Fuels		
Coal	1,050,000	880,000
Coke	121,000	96,500
Gas, natural (M m ³)	25,000	27,700
Petroleum, crude	160,000	162,600

become effective on January 1, 2001, to standardise the enforcement and implementation of coal mine safety regulations in China.

After a two-year survey, geologists discovered a large coal deposit in Fuyuan County, Yunnan Province. The deposit contains more than 8,000 Mt of low sulphur bituminous coal resources, with proven reserves of 4,000 Mt. The government planned to develop the deposit within the next five years. Initial plans were for a 2.4 Mt/y capacity coal mine, Bailongshan, in that area.

China United Coalbed Methane Co. Ltd (CUCBM) or Zhonglian Coalbed Gas Co. Ltd signed a contract with Texaco of the US to

develop coalbed methane in Baode, Junggar and Shenfu areas which were predicted to have 1 trillion m³ of gas. The exploration project covered a total area of 6,987 km². According to the contract, Texaco will prospect and explore in the area for the next five years. If resources are proven to be commercially viable, CUCBM and Texaco will develop the resources jointly. Profit share will be based on each contribution shares. CUCBM also signed a contract with Virgin Oil Inc. US to explore for coalbed methane at Hengshanbao, southeast of Yinchuan City in Ningxia Hui Autonomous Region. It covers an area of 1,708 km², which contains an estimated of 55,000 Mt of coal and 230 Gm³ of methane.

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