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THE REFORM OF THE CHINESE STEEL INDUSTRY

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THE REFORM OF THE CHINESE STEEL INDUSTRY

I. The situation and the reform

1. Present situation

OUTPUT & CONSUMPTION

- *Output:* Chinese crude steel production has been increasing rapidly at a rate of 8-9% in average, to fit the huge demand of domestic market with which GDP grew at an average rate of 11% since China started the economic reform. The output and its share in the world total have been increasing obviously.

- *Consumption:* The steel consumption has been increasing at a high rate in past 10years too. If China may successfully obtain again an average economic growth at 7-8% GDP in coming years, then it will remain a stable increased apparent domestic consumption of steel products. A demand for steel products 115 -120 million tonnes will be expected in the year of 2000, and 140 million tonnes in the year of 2010.

- *Consumption characteristics*: in terms of consumption tonnage, long products mainly for construction accounting for 55.8%; flats and sheets taking only 35.8%; tubes merely 7.4%.

- In 1996, China consumed flats and sheets 37.53 million tonnes, among which 73% produced domestically, 27% imported.

- As a feature of a developing country, long products will continue to play its important role as major consumption during a certain period of time, but the share of flats and tubular products may expect to raise rapidly from present less than 44% to the share of 50% by the year of 2010.

- At present, the steel products produced domestically take about 88% share in Chinese steel consumption. Most import contains high valued-added products. China is still a net importer despite its limited export.

PRODUCT MIX

- Since "eighth five-year plan" in early 90's, numerous new lines and plants for various steel products have been built and put into production. But for the reasons of weak background of Chinese steel industry before its economic reform and an unbalanced expansion and development after the reform, today's steel product mix is far from satisfactory, while low-end products exceeding and high value-added products still facing an obvious shortage.

TECHNOLOGY & EQUIPMENT

- Through technical renovations for years, converter (mainly BOF) steel has increased, and OH steel decreased obviously. Cupola and OH will be shut down by the year 2000. The C.C. ratio and the crude steel produced by C.C. have been increased rapidly separately, up to 68.8% in 1998.

- But we have to see that in terms of capacity, only about 20% among the existing production lines and equipment have already coped with international-standard technology. Domestic-standard and the out-of date still remain over 50%.

- Some imported large and advanced equipment failed to bring into full play. Apart from the problem in management, over-installation and repeated-construction of same or similar equipment caused certain idle capacity.

ORGANIZATIONAL STRUCTURE

- At present, China still has hundreds of steel plants. Among which, there are14 big steel enterprises with capacity over 2 million tonnes crude steel production in China, such as Shanghai-Bao Steel Group Corp., Anshan Steel Group Corp. etc. And there are 18 with capacity over 1 million tonnes. The accumulated production of the above 32 big steel companies accounts for near 75% of total of China. They are all the state-owned or mainly state hold. The other 25% stands for all medium and small plants.

- Because of the historic ignorance in industrial specialisation and the heavy burden of over-employment on the back of steel enterprises which left over old planned-economy system, most Chinese steel enterprise are still suffering from two evident shortcomings of low-efficiency and low productivity.

- By 1996, China had 1.3 million employees working on production lines. The productivity was 73.8t/per.year. when the world average steel productivity was 182t/per.year.

2. Reform targets and main measures for adjustment

China steps up strategic adjustment of steel industry structure while the national economy has entered a new stage in which accelerating technology advancement, conducting structure adjustment are vital to pushing forward industries.

SETC to implement major technical renovation plans

In face of the existing conflicting economic structures, the State Economic and Trade Committee (SETC) will embark on mapping out the state plan of major technical renovations in steel industry:

- Use high-efficiency continuous casting and frequency conversion technologies to reform traditional steel industry;

- Adjust product structure of important product varieties such as auto sheet, meridian tire, etc.

Reform aspects

Similar with other heavy industries, steel industrial economic structure adjustment encompasses the following aspects:

- Adjust industrial structure, Small factories with old facilities, backward technologies, products with low quality and heavy pollution will be definitely phased out.

- Adjust product structure. Ban or restrict products with low added value, highly energy consumption and heavy pollution.

- Adjust the organising structure of enterprises. Build large competitive conglomerates with capital and market as the tie.

- Adjust the structure of ownership. Being consistent in encouraging the development of individual and private sector.

- Adjust the structure of labor force. Enhancing the social security network, and helping the re-employment of laid off workers.

MAIN MEASURES EMPHASIS ON

- The division of specification and structure optimisation
- Restructuring old iron and steel bases
- Modernising existing facilities
- Improving product variety and quality, especially developing high-tech and high value-added products
- Saving energy

- Protecting environment
- Developing BF-BOF and EAF route paralleled
- Planning some DRI projects
- Establishing enterprise groups

TARGETS TO BE ACHIEVED BY 2000

- Decreasing the specific energy consumption from 1392kg now to 1286kg per tonne steel
- Raising ratio of flat product and tubular product to 44%-45%
- Raising C.C. ratio to 80%, PCI rate to 120kg/t and gas recovering from BOF to 70m3/t
- Shutting down cupola and open hearth furnace
- Increasing productivity to 150 tonne/year/capita
- Increasing the production share of large and medium sized works, which are over one million tonnes in capacity, in the nations total from present 70% to 80% by restructuring

Long product quality improvement

To work together with steel-consumer industries to set up new standards and push the improvement the quality of Chinese long products. For example, Ministry of Construction (MC) and the State Administration of Metallurgical Industry (SAMI) jointly set out 5 targets and 9 plans for technical co-ordination of construction steel production. The 5 targets include:

1. To popularize new varieties of construction steel and their connection technology; enhance the product and application quality

2. To help swap information between steel suppliers and users

3. To establish model project in using new varieties of construction steel

4. To work out standards for certain construction steel and specify the fields they can be used

5. To work out policies on the production and application of construction steel.

II. The role of the Government in financing the restructuring of the steel sector

Two main measures has to be taken to finance the restructuring of Chinese steel sector when in these years most steel enterprises struggling in curbing the declining of profits and both international and domestic prices for steel products suspending at bottom of the market.

1. Transit debt into state shares

The government plans to complete the transit by three batches. There are about 100 enterprises in the first batches accommodated by the State Economy & Trade Committee (SETC), among which about 10 from the steel industry, they are Anshan Steel, Panzhihua Steel, Tianjin Seamless Tube, Benxi Steel, Baotou Steel, Xining Special Steel, Shuicheng Steel, Meishang Steel, etc.

At present, all the selected enterprises are under the preparation work, only Meishang Steel Co. is going through the formality with the financial institution.

Enterprises selected:

- Those who built-up in the periods of "seventh five-year plan", " eighth five-year plan" and "ninth five-year plan" and invested mainly by commercial loans (including foreign loans), and also were suffering severe difficulties of repayment.

- Those who are in the list of "state-owned important enterprises" and suffering severe lost by heavy loan burdens formed during technical innovation and extension in past years, or shorting of equity funds.

- A few of trading companies will be chosen as pilot projects

*Prerequisite**:***

- The selected steel enterprises or projects must be potentially excellent ones who possess competitive products, advanced processes and equipment, no environmental problems, sound operational management and standard financial management, and an efficient management group.

- Measures formed and run by the enterprises must be efficient, and whose process of reduction of staff must get the agreement of the local governments.

Relation between the selected enterprises and state-owned financial assets management companies (FAMC):

- FAMC become shareholders after the debt transiting into FAMC's shares. FAMC will exercise its authority according to the law.

- The enterprises need to reorganise their management and re-register in local commercial administration offices.

- FAMC are able to transfer its shares to both domestic and overseas investors or list public according to the relative regulations. The shares also can be re-purchased by the creditor enterprises by the law. The state must ensure holding those enterprises or projects who are important to national economy and people's livelihood.

2. Financial interested-discounting loans and bonds to support technical renovation

In order to accelerate the reform of state-owned enterprises (SOE), to improve their competitive edge, target their quality perfection, variety enrichment and efficiency improvement, the central government has decided to allocate 60 billion RMB investment including financial interested-discounting loans and interested-discounting fiscal bonds for technology renovation.

The State Administration of Metallurgical Industry has chosen two batches of projects to enjoy the loans and bonds. The first batch investment will support around 30 steel enterprises in technical innovation.

Prerequisite:

- The technology renovation must solve some protruding problems and make some important achievements related with key products and key technology.

- The SOEs who use the fiscal bonds must have an efficient management group, high quality assets, capability of repaying loans and credit rating of AA or above.

- The policy also prefers three priorities:
  1) the key state-owned large-sized steel works
  2) the works located in the north-east industrial base
  3) the key technology and key products.

The loans and bonds are expected to drive the realisation of the following targets:

- To raise the market share of 13 most short-handed steel products (called key products) from present 62% to 80%.

- The 13 key products need to be developed refer to: high-strength plates for ship-building, power station, tube and containers; heavy rail and steel for high-speed railway; automobile IF sheet; galvanized sheet; application sheet; oil tube; model steel; bear steel; meridian tire steel; 400MPA reinforcing bar; cold-rolled sheet, cold-rolled silicon chip; cold-rolled stainless plate, etc.

- To basically meet the need of domestic market for car sheet, container sheet, galvanised steel sheet, high-carbon wire, etc.

- To considerably raise the share in domestic market of the products of high-speed train-way rail, application sheet, silicon sheet, oil tube, tin plate and bear steel.

- To meet the technical targets as follows by year of 2000:
  1) End up the use of O.H.furnaces
  2) C.C ratio ≥ 80%
  3) small continuous rolling ratio around 60%, end up multi-heating rolling process
  4) B.F. coal injection from present 7.8 million tonnes to 12 million tonnes
  5) Decline Comprehensive energy consumption to 1180kg standard coal/ s steel.