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CURRENT SITUATION OF THE CHINESE STEEL INDUSTRY

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CURRENT SITUATION OF THE CHINESE STEEL INDUSTRY

SUMMARY

1. The National People's Congress, China's Parliament, adopted the country's 11th Five-Year Plan in March 2006. This plan which enshrined a major shift of economic policies from rapid development led by heavy investment in urban construction and industry to sustainable development focusing on rural development, sci-tech progress and a reduction in energy consumption and pollutant discharge. The plan projects an 8% GDP growth rate for 2006 and an average growth of 7.5% for the five years up to 2010. Over the last five years, China has maintained an average 9.5% growth rate. In 2005, it rose to 9.9% and per capita GDP exceeded USD 1 700.

2. Affected by the change in economic circumstances, the Chinese steel sector is predicted to enter a period of more stable growth this year after an era of rapid development. According to China Iron and Steel Association (CISA), the country's crude steel production would show a relatively modest increase of 10% in 2006 after having increased by more than 20% in the past four years.

3. The sector is also expected to enter a more difficult phase of structural adjustments this year. In December 2005, the Chinese central government declared its intention to carry out structural adjustments in the sector through the strict execution of the New Steel Policy (issued in July 2005) and continuous application of macro economic control measures to curb investment in the sector. During past rapid development, the sector has caused or aggravated several structural problems, including over-capacity, lack of industrial concentration, imbalanced product mix, and wasting natural resources and energy. In particular, over-capacity in the sector has caused concern in the global steel industry and market because it is regarded as the main cause of the country's current excessive production and surging exports. The sector's over-production led to a slump in 2005 with a sharp fall of steel prices and a rapid increase of steel inventories.

4. The central government plans to limit the country's overall steelmaking capacity to 400 million tpy (tonnes per year) during the 11th Five-Year Plan (2006-2010) and intends to eliminate existing backward upstream facilities, *i.e.* about 100 million tonnes of iron-making capacity and 55 million tonnes of steelmaking capacity in line with the New Steel Policy. The government will also encourage steelmakers through consolidation and cross shareholdings to reduce their numbers and create stronger entities.

5. The success of the sector's restructuring seems to depend greatly on the central government's initiatives and the local governments' concerted practices as it would not be achieved without resolving conflicts of interests and taking measures against expected negative effects, *e.g.* a rise in unemployment, decreases in local governments' tax revenue and increases in bad loans held by banks.

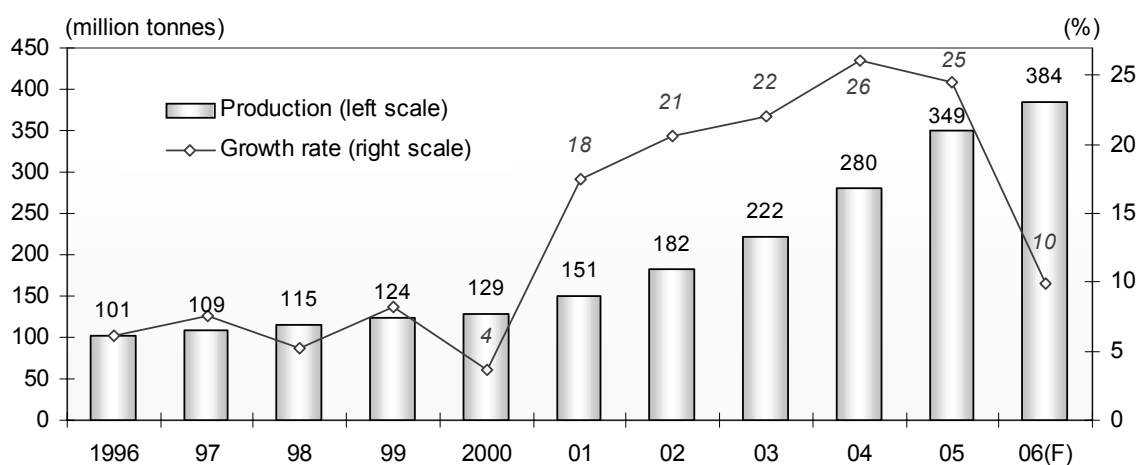
CURRENT SITUATION OF THE CHINESE STEEL INDUSTRY

I. Steel supply and demand in China

Crude steel production

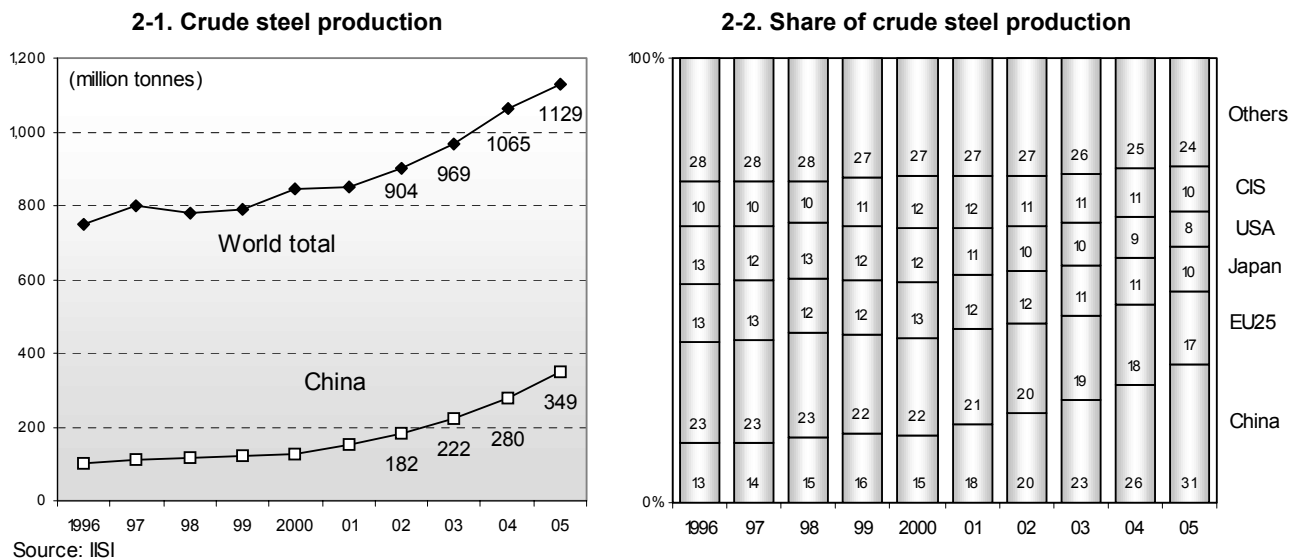
6. In 2005, China's crude steel production increased by 25% or from 280 million tonnes in 2004 to 349 million tonnes in 2005, putting China at the top of the world steel producing countries for the tenth consecutive year. The production growth rates have continuously exceeded 20% during the past four years despite the central government's implementation of macro economic control policy since mid 2003 to cool down the over heated investment in the sector. China's production share in the world also increased from 26% in 2004 to 31% in 2005. China Iron and Steel Association (CISA) forecasts that the country's crude steel production will slow down to 384 million tonnes in 2006, increasing by 10% or 35 million tonnes from 2005 (Figures 1, 2).

Figure 1. Crude steel production in China



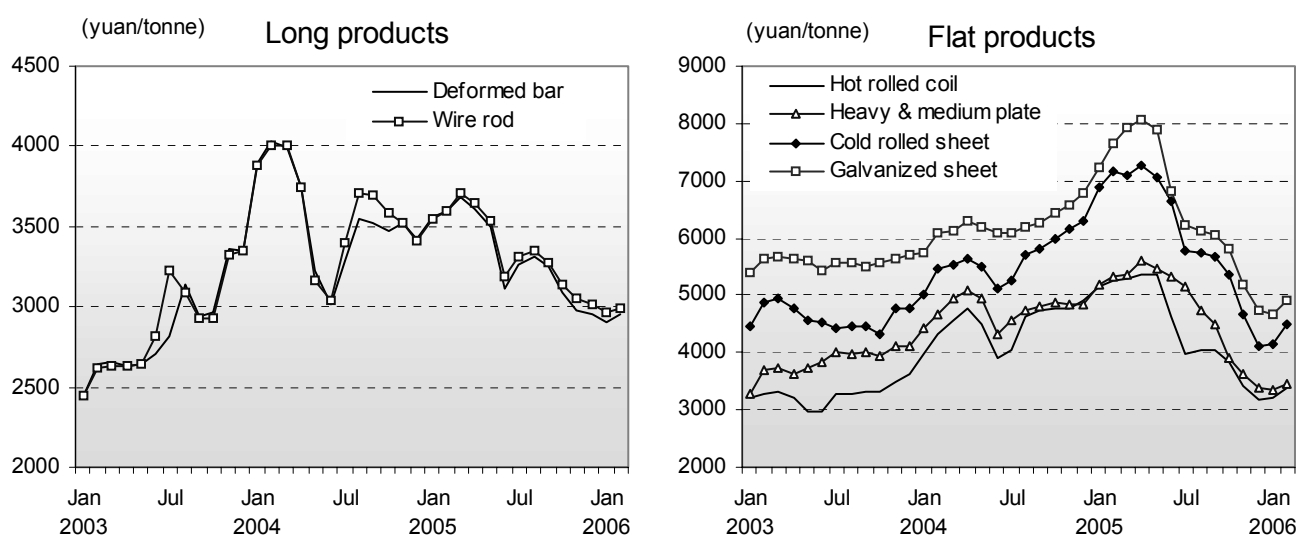
Source : National Statistics Bureau, CISA

Figure 2. Share of China's crude steel production in the world

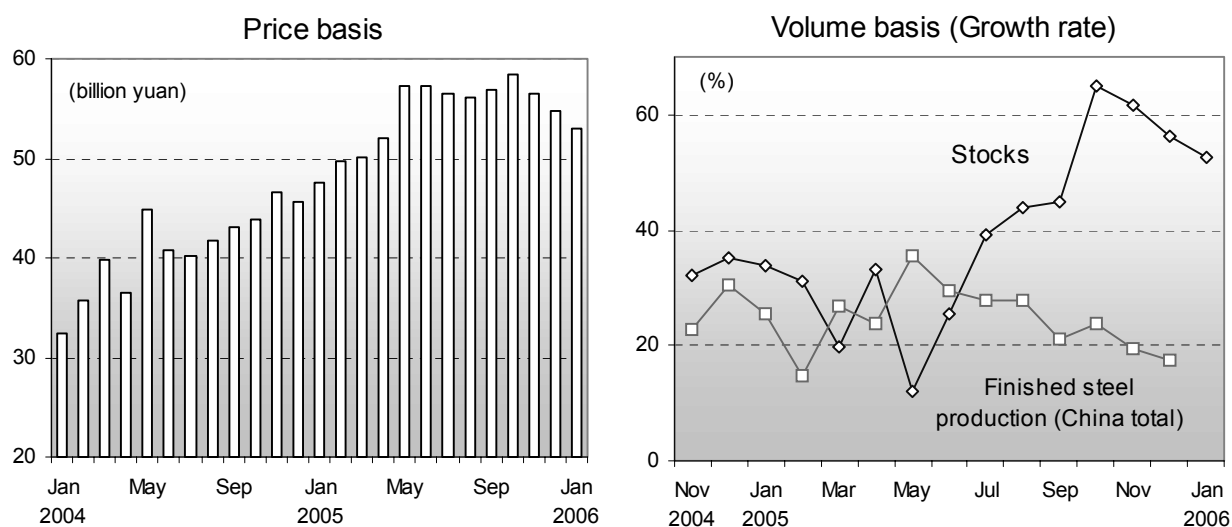


Domestic steel supply and demand

7. Trends in China's domestic steel prices and stocks have been showing signs of a slump since the second quarter of 2005 when the central government implemented restrictive measures on steel exports. Domestic prices of long products dropped by 19-20% from March to December 2005 and those of flat products also fell sharply by 40-43% from April to December 2005 (Figure 3). On the other hand, stocks of steel products held by major steelmakers built up significantly since June, and the growth rate exceeded 60% in October and November despite the major steelmakers' agreement to cut production of certain hot rolled flat products by 5% in the fourth quarter of 2005, aiming at inventory reduction and price stabilisation (Figure 4).

Figure 3. China's domestic steel prices

Source: China Materials Information Central

Figure 4. Stocks of steel products held by major Chinese steel mills

Source: CISA (China Iron & Steel Association)

Note: OECD Secretariat converted stocks at price basis into volume basis by using average domestic steel prices.

8. The Chinese steel sector's recent slump was basically caused by its excessive production, especially of long products and common grade flat products, mainly used for construction. Rapid growth of steel production has outstripped consumption growth since the second quarter of 2004 when the central government announced the tightening of measures to control construction activities (Figure 5).

9. According to a forecast made by China's State Council Development Research Centre (DRC) in December 2005, the country's finished steel supply (including imports) and domestic demand would be

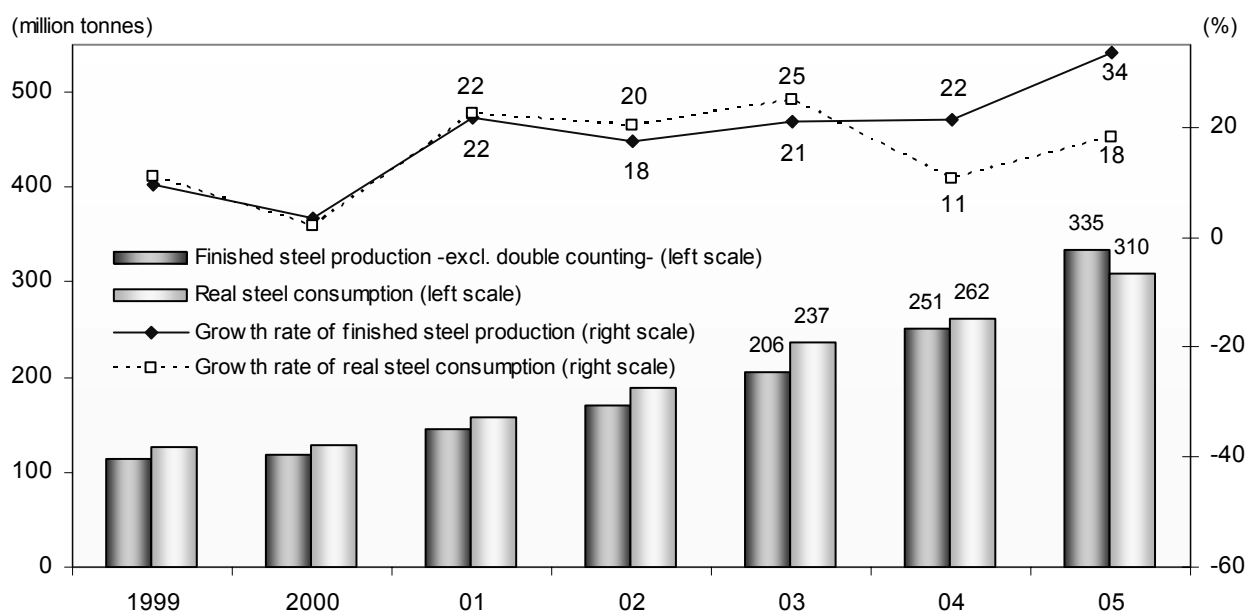
399 million tonnes and 337 million tonnes respectively in 2006. Net oversupply, would be about 30 million tonnes, excluding 30 million tonnes of semi-finished steel which is re-used in finished steel production.

10. In China, over half of the steel produced is used for construction but steel demand has been slowing down due to the central government’s measures to cool down the over heated investment. According to an analysis made by World Steel Dynamics, a private steel think-tank in the United States, the construction sector’s steel consumption growth rate declined from a peak of 33% in 2003 to 9% in 2005. And the sector’s steel consumption share, which accounted for 60% in 2004, shrank by 5% points to 55% in 2005 (Figure 6).

11. China’s fixed asset investment growth, which is said to show high correlation with construction activity in the country, has also been declining gradually since 2004. CISA forecasts that it would slow down to 18-20% in 2006 from 25.7% in 2005 (Figure 7).

12. However, other major steel consuming industries, *i.e.* machinery, automotive, home appliance and container, showed stable steel consumption growth in 2005 although their shares were lower: consumption share of machinery: 12%, automobile: 5%, home appliance: 2%, container: 2% (Figure 6).

Figure 5. Production and real consumption of finished steel in China



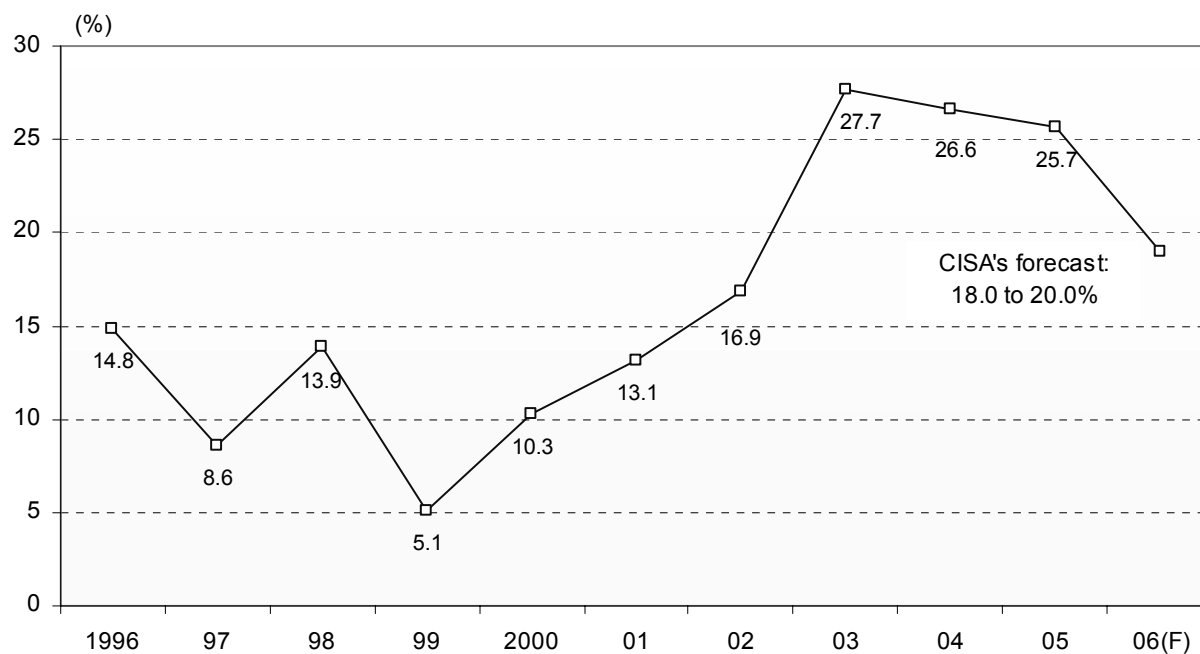
Source: National Statistics Bureau, World Steel Dynamics Inc.

Figure 6. Consumption of finished steel in Chinese industries

	2001	2002	2003	2004	Unit: million tonnes		Growth rate %		
					2005	Share %	2003	2004	2005
Construction	90	105	140	157	171	55	33	12	9
Machinery	24	28	30	33	38	12	10	9	15
Automobile	9	11	12	13	14	5	7	6	12
Home appliance	4	5	5	5	5	2	4	4	9
Container	2	2	3	4	5	2	68	40	20
Shipbuilding	2	2	3	4	4	1	27	21	22
Railway	3	3	3	3	4	1	-3	-3	23
Petroleum	2	3	3	4	3	1	14	12	-10
Others	23	31	38	40	65	21	23	5	63
Total	158	190	237	262	310	100.0	25	11	18

Source 2001-2002 by CISA (China Iron and Steel Association), 2003-2005 estimated by World Steel Dynamics Inc.

Figure 7. Fixed asset investment in China (Growth rate)



Source: National Statistics Bureau, CISA (China Iron and Steel Association)

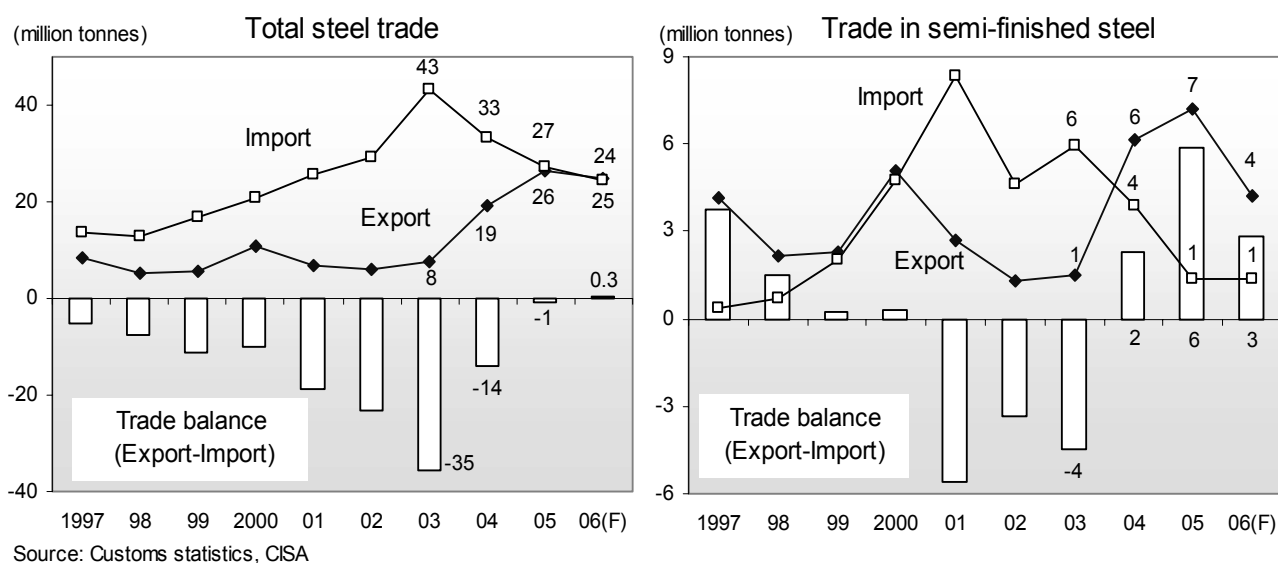
Steel trade

13. Against a backdrop of domestic steel over-supply and a comfortable overseas market situation, China's steel exports have been surging since 2004. In contrast, steel imports have been decreasing sharply with the coming on-stream of massive new steel production facilities in the country. In 2005 China's steel exports soared by 37.3% to 26.4 million tonnes and imports dropped by 17.9% to 27.2 million tonnes, resulting in a net trade deficit of 0.8 million tonnes (Figure 8).

14. In order to curb the surging steel exports, the central government has already implemented some restrictive measures. The government removed a 13% tax rebate for steel billet and ingot exports in April 2005. It also slashed the tax rebate for exports of steel products from 13% to 11% and in May 2005 prohibited steelmakers in China from making steel products for foreign clients with imported iron ore provided by overseas firms. The iron and steel processing trade in China was free from tariffs and value added-taxes on raw material imports and finished products exports.

15. CISA forecasts for the country's steel trade in 2006 that both exports and imports would show slight decreases from the previous year and they are expected to be balanced generally: steel exports 24.7 million tonnes (including 4.2 million tonnes of semi-finished steel), steel imports 24.4 million tonnes (including 1.4 million tonnes of semi-finished steel), steel trade surplus 0.3 million tonnes.

Figure 8. Steel trade in China



16. China's semi-finished steel exports left from 1.49 million tonnes in 2003 to 6.16 million tonnes in 2004 along with rapid steelmaking capacity expansions. However, it slowed down to 7.24 million tonnes in 2005 mainly due to the government's abolition of a 13% tax rebate in April. CISA expects that they would decrease by 3.0 million tonnes to 4.2 million tonnes in 2006. China exports 74% of semi-finished steel to ASEAN5 countries, Vietnam and Chinese Taipei, attracted by lower freight costs, booming steel demand for construction and insufficiency of upstream production capacities in those regions.

17. China's finished steel exports also soared from 6.1 million tonnes in 2003 to 13.1 million tonnes in 2004, and it increased by 6.1 million tonnes to 19.2 million tonnes in 2005 despite the government's cut in the tax rebate from 13% to 11% in May. Although the Chinese steel sector is likely to take a more cautious attitude to steel exports to avoid trade friction, over-capacity, lower domestic steel prices and an 11% tax rebate will remain key factors which foster steelmakers' exports. In these circumstances, CISA expects that China's finished steel exports would increase by 1.3 million tonnes to 20.5 million tonnes in 2006.

Figure 9. Export of finished steel by product category

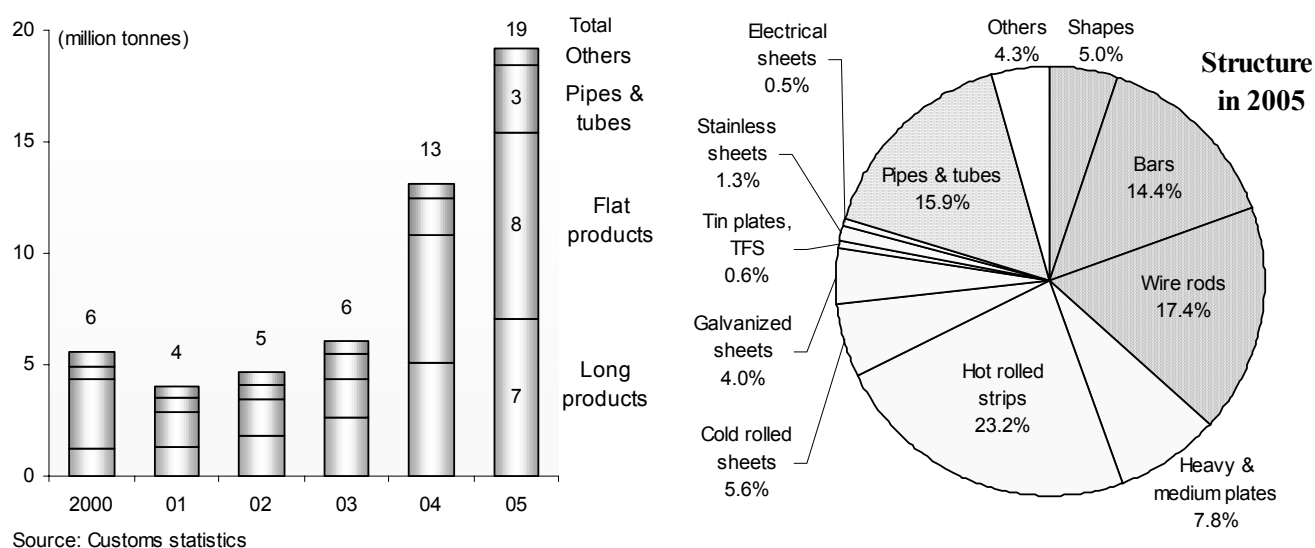
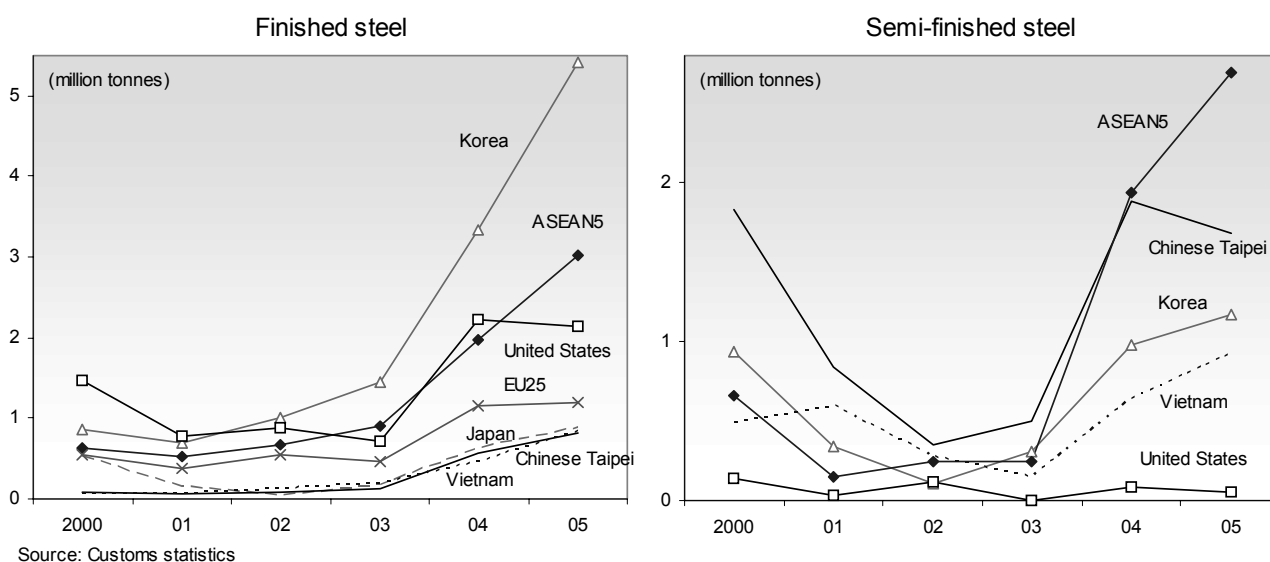


Figure 10. Export of finished and semi-finished steel by major destination



18. Although China's steel imports have been decreasing significantly, the country still depend on import for high value-added products which are insufficient on the domestic market. Breaking down China's finished steel imports by product categories, flat products' account for 84%, including 29% of cold rolled sheets, 15% of galvanized sheets, 14% of hot rolled strips, 10% of stainless sheets, 5% of electrical sheets and 3% of heavy and medium plates. 58% of imported finished steel products originate from Japan, Korea and Chinese Taipei. CISA expects that China's finished steel imports would decrease by 2.8 million tonnes, to 23.0 million tonnes in 2006(Figure 11). **Figure 11. Imports of finished steel by product category**

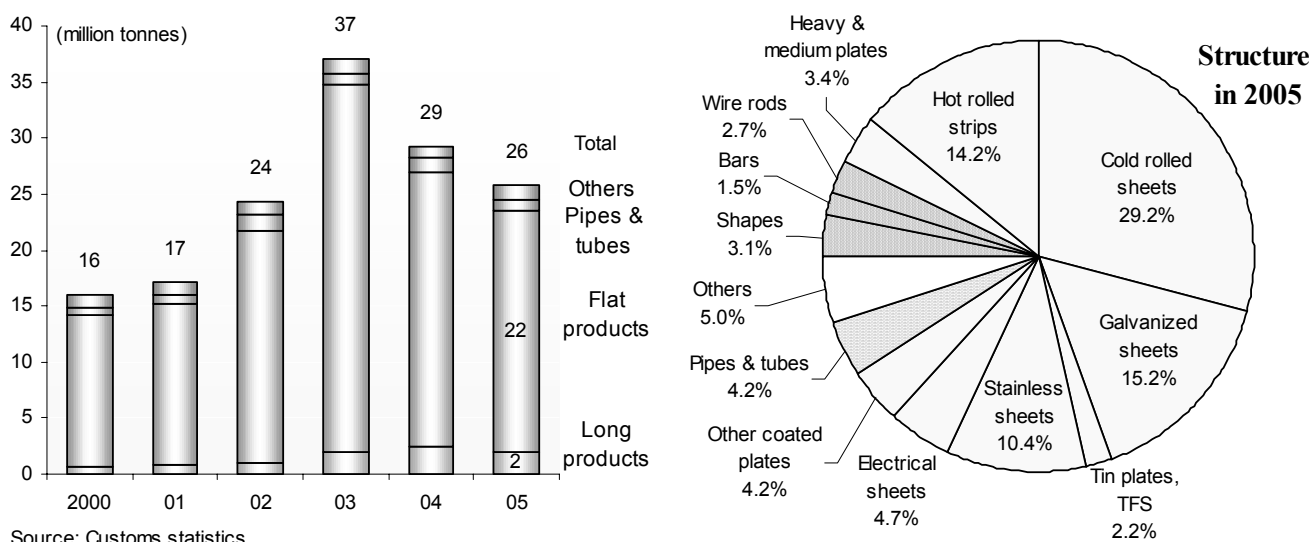
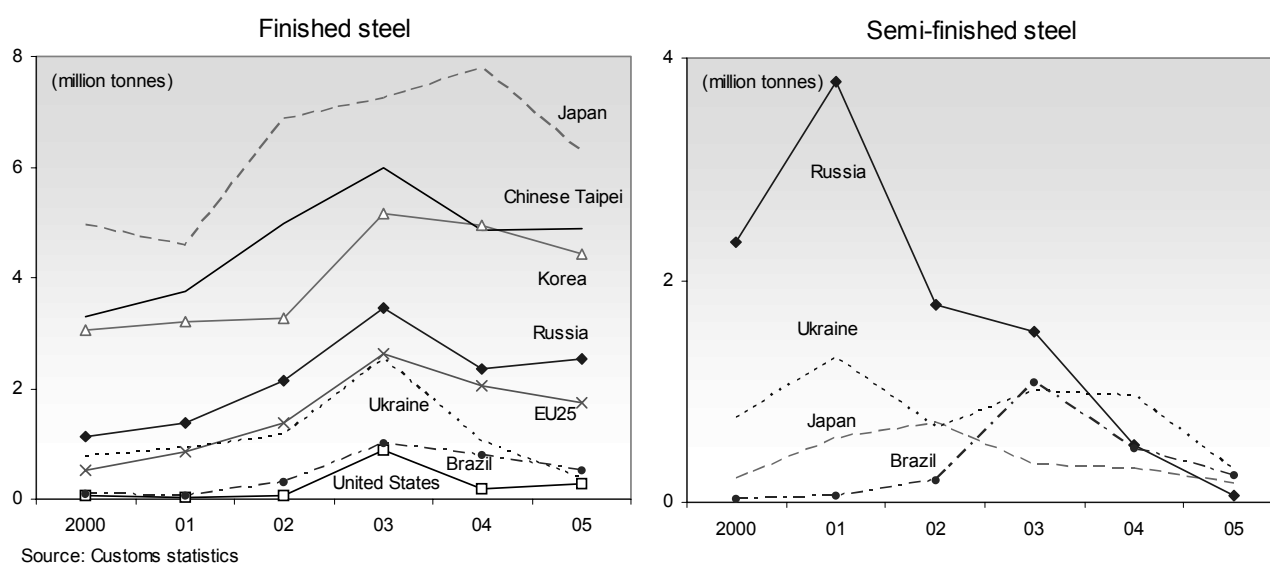


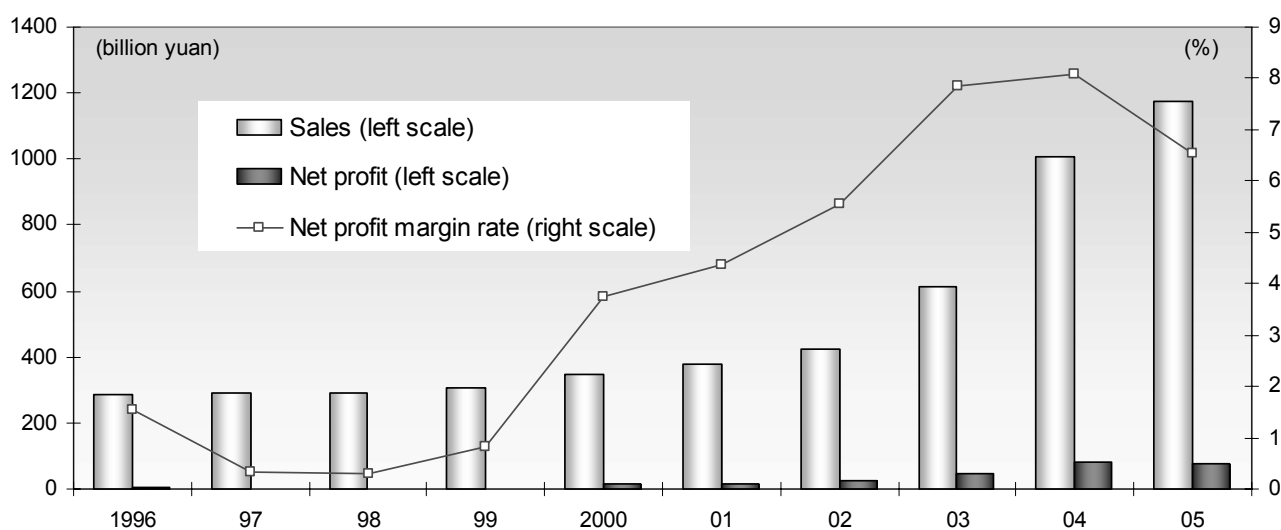
Figure 12. Import of finished and semi-finished steel by major origin

Financial situation in the steel industry

19. Although the Chinese steel sector kept an upward sales trend in 2005, profit margins shrank considerably, affected by domestic steel over-supply, sagging steel price and high production costs. Looking at the results of CISA's 66 member steelmakers in 2005, annual sales increased by 16.4% to 1 175.3 billion yuan from the previous year. But net profit decreased by 10.6% to CNY 76.9 billion and the net profit margin rate declined from 8.1% to 6.5%.

20. Cost pressures on the sector have increased stronger particularly since acceptance of a 71.5% price hike in long-term purchasing contracts for iron ore with major overseas suppliers in February 2005. Amid higher costs and declining domestic steel prices, some steelmakers have reportedly been compelled to make below cost sales in the second half of 2005 and 14 CISA members reported losses in November. In addition, there were some domestic reports that vulnerable small-sized steelmakers would disappear from the sector as they fail to endure the lower domestic steel prices and higher costs given that profit margins of their products are slim and cost pressure is not expected to ease in the short-term.

21. In March 2006, the National Development and Reform Commission (NDRC), the country's top economic policy planning body, released a report on the steel sector's predicted performance in 2006. The report warns that domestic steelmakers' profits will drop further this year and the whole sector will probably return lower profits or even losses. The NDRC predicts that production capacity will increase in 2006, putting pressure on the domestic steel market. In addition, benchmark iron ore import prices would stay high or even increase in 2006, even though prices jumped 71.5% in 2005. Chinese steelmakers are now negotiating long-term iron ore price contracts with overseas suppliers and are trying to get lower prices. Prices of other raw materials including coal, power and oil may also rise, adding to the costs for the steel sector, the report says.

Figure 13. Financial indicators in the Chinese steel industry

Source: China Iron and Steel Association (CISA)

Note: CISA's major member companies basis (1996-2004: 89 members, 2005: 66 members)

II. Structural problems in the Chinese steel industry

22. The steel sector's over-capacity in China, the main cause of current excessive production and surging export, has been a focus of concern in the global steel industry and market. It is also regarded as a pressing problem in the country itself. Faced with the sector's recent slump, in December 2005 the central government declared its intention to carry out structural adjustments in the sector by strict execution of the New Steel Policy and continued application of macro economic control measures to curb investments in the sector.

23. Together with that declaration, the NDRC announced that it planned to limit the country's overall steelmaking capacity to 400 million tonnes annually during the 11th Five-Year Plan (2006-2010). To achieve this target, in line with the New Steel Policy, it also intends to eliminate existing out-of-date upstream facilities, *i.e.* about 100 million tonnes of iron-making capacity and 55 million tonnes of steelmaking capacity. However, it has been pointed out that the success of the new policy would greatly depend on its penetration into the local governments which fear the decrease in tax revenues and a rise in unemployment rates.

24. The New Steel Policy was issued by the NDRC in July 2005, laying out a blueprint for the sector over the next 15 years. It aims to lead the sector to sustainable and healthy development by overcoming several structural problems which have occurred or have aggravated the process of its rapid development in the past few years, *e.g.* (i) over-capacity caused by irrational investments; (ii) lack of industrial concentration; (iii) imbalanced product mix (excess of lower grade products, shortage of high value-added products); (iv) poor industrial layout (difficulty in transportation, pollution in the cities); and (v) waste of natural resources and energy, pollutant emissions. The policy's main goals are as follows:

Main goals (summary):

- i) The steel sector's competitiveness should be improved to reach the level of the major advanced steelmaking countries. Steel production capacity should be kept at a suitable level to meet the needs for the country's economic and social development, resources and energy utilisation, and environmental protection.
- ii) The proportion of quality steel products should be improved substantially, and a majority of steel products basically meet the needs of domestic demand, by 2010.
- iii) Industrial concentration should be improved by consolidation and restructuring. The production share of the country's top ten steelmakers should account for over 50% of total production in 2010 and 70% in 2020.
- iv) The industrial layout should be improved to be in line with resource and energy supply, transportation, market, and environment by 2020;
- v) For the environmental protection and effective utilisation of natural resources, consumption of energy and water (per crude steel tonne) should fall from 0.76 tonnes of coal equivalent and 12 tonnes of water in 2005 to 0.73 and 8 tonnes respectively in 2010, and 0.7 and 6 tonnes in 2020. Steelmakers should develop power generation systems to reuse waste heat and energy at their plants; and
- vi) All pollutant emissions should comply with national and local standards by the end of 2005.

25. Details of selected key issues and the related provisions in the New Steel Policy are described in the following sections: Imbalanced product mix, Lack of industrial concentration and Over-capacity.

Imbalanced product mix

26. Whereas the Chinese steel sector has excess capacity for producing long products and common grade flat products, the capacity for producing quality steel products is still insufficient. The sector's product mix in 2005, consists of 51% of long products, 38% of flat products and 7% of pipes and tubes. Self-sufficiency ratios of long products, heavy & medium plates, hot rolled strips and pipes & tubes are generally over 100%. In contrast, those of cold rolled sheets (76%), galvanized sheets (73%) and electrical sheets (69%) are still low and China greatly depends on imports to satisfy domestic demands for these high value-added products (Figure 14).

27. The New Steel Policy states that the steel sector should improve the proportion of high value-added products and a majority of products should meet domestic demand by 2010. This provision is also aimed at strengthening the sector's competitiveness in the global market, and applying limited resources and energy to producing high value-added products rather than low-end ones which have small profit margins. The policy also provides that the government should support steelmakers' product development, technology innovation and R&D, and important new steel mill projects which use new domestic technologies and facilities should be supported by tax reductions, subsidies or other policy measures.

Figure 14. Product mix, self-sufficiency ratio and import dependency ratio of finished steel in 2005

	Production		Self-sufficiency ratio %	Import dependency ratio %
	1000 t	Proportion %		
Shapes & rails	34,124	9.2	100.5	2.4
Bars	95,973	25.9	102.5	0.4
Wire rods	60,511	16.3	104.5	1.2
Heavy & medium plates	68,922	18.6	100.9	1.3
Hot rolled strips	41,751	11.2	101.9	9.0
Cold rolled sheets	19,855	5.3	75.5	28.6
Galvanized sheets	8,473	2.3	72.7	33.8
Electrical sheets	2,407	0.6	68.5	34.4
Pipes & tubes	26,142	7.0	108.1	4.5
Others	13,012	3.5	74.6	32.3
Total	371,170	100.0	98.2	6.8

Source: National Statistics Bureau, Customs statistics.

Note: Self-sufficiency ratio = Production / Apparent consumption (%)
 Import dependency ratio = Import / Apparent consumption (%)

Lack of industrial concentration

28. The Chinese steel sector is comprised of a few advanced steelmakers and a mass of small and medium-sized ones which mainly produce low-end steel products. According to CISA, China currently has as many as 871 iron and steelmakers, 264 of which own crude-steelmaking facilities. The average volume of crude steel production by the 264 steelmakers is estimated to be only 1.3 million tonnes in 2005 and Baosteel Group is China's only steelmaker capable of producing over 20 million tonnes a year so far (Figure 15). In terms of ownership, 107 steelmakers out of 871 are state-owned, 706 are private-owned and 58 are owned by foreign investors. The state-owned steelmakers' production share is 57% and the private-owned makers 39%.

29. The steel sector's fragmentation is the main obstacle to co-operative production cuts and price stabilisation in a recession and it has been one of the main causes of irrational expansion by steelmakers competing for a larger market share. The New Steel Policy provides that the top ten steelmakers' production share should be over 50% of the total in 2010 and 70% in 2020. In the 10th Five-Year Plan (2001-2005), the central government tried to increase the production share of the top ten steelmakers from 50% in 2000 to 80% in 2005. But it had decreased gradually and dropped to 34.6% in 2004 with a background of fierce competition by small and medium-sized steelmakers for more market share (Figure 16).

30. Whilst aiming to improve the steel sector's industrial concentration and enable big players to control more production, the New Steel Policy also provides for the central government support of steelmakers' consolidation and cross shareholdings in order to reduce the number of steelmakers and create two 30 million tpy steelmakers and several 10 million tpy Steelmakers by 2010. Since the announcement of the policy in July 2005, some progress has been made, *e.g.* creation of Anben Steel Group, Wugang Liugang (Group) United and New Tangshan Iron & Steel Group (Figure 17). The number of steelmakers capable of producing over 10 million tonnes a year also increased to eight in 2005, from only two in 2004.

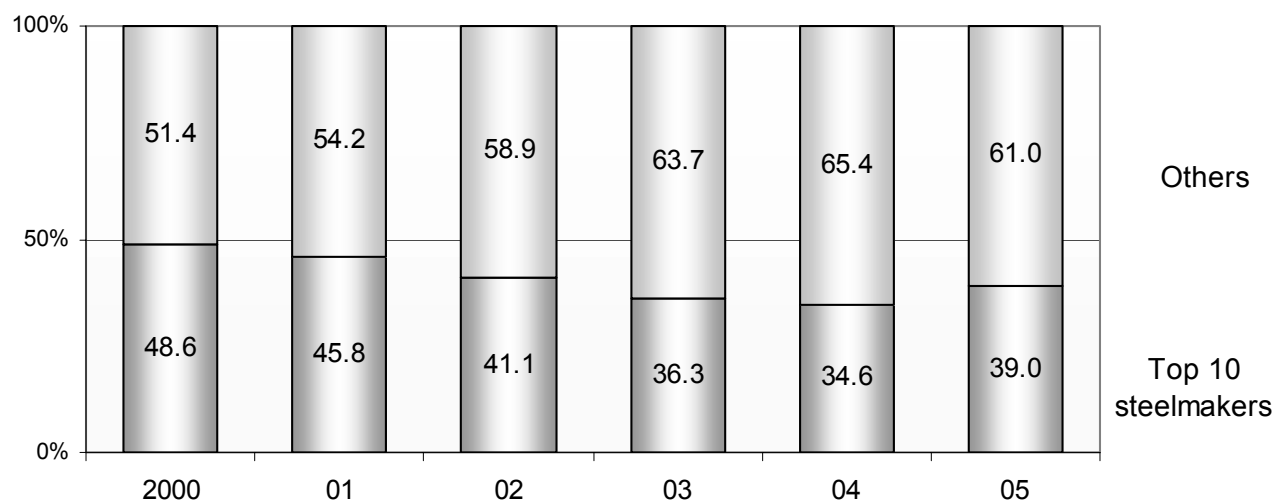
31. It is reported that leaders in the steel sector have a common aim that, in the future, Chinese steelmakers should be combined into 30-50 big groups which are cross-provincial border entities and internationally competitive. However, there are many problems to be resolved in the consolidation process, *e.g.*, conflicts of interest between/among local governments (distribution of tax revenue, rise in unemployment rate etc.), conflicts of interest between/among steelmakers (distribution of profit, personnel reduction, selection of executives etc.). Differences in ownership and product mix also complicate the process.

Figure 15. Structure of the Chinese steel sector in 2005

Scale of crude steel production	The number of steelmakers	Crude steel production total (million tonnes)	Production share (%)
20–24 million tonnes	1	22.7	6.5
15–19 million tonnes	3	51.9	14.9
10–14 million tonnes	4	43.7	12.5
5–9 million tonnes	7	50.1	14.3
1–4 million tonnes	44	107.7	30.8
Less than 1 million tonnes	205	73.3	21.0
Total	264	349.4	100.0

Source: National Statistics Bureau, CISA (China Iron and Steel Association)

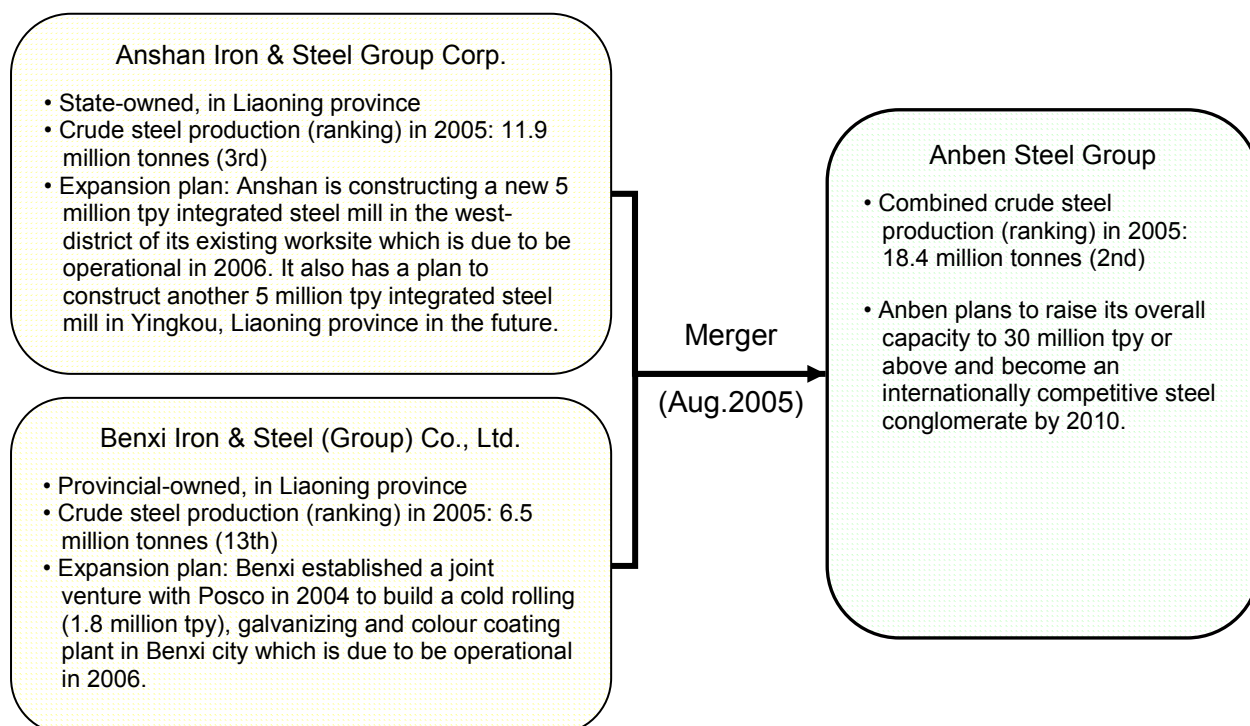
Figure 16. Production share of the top 10 steelmakers (crude steel basis)



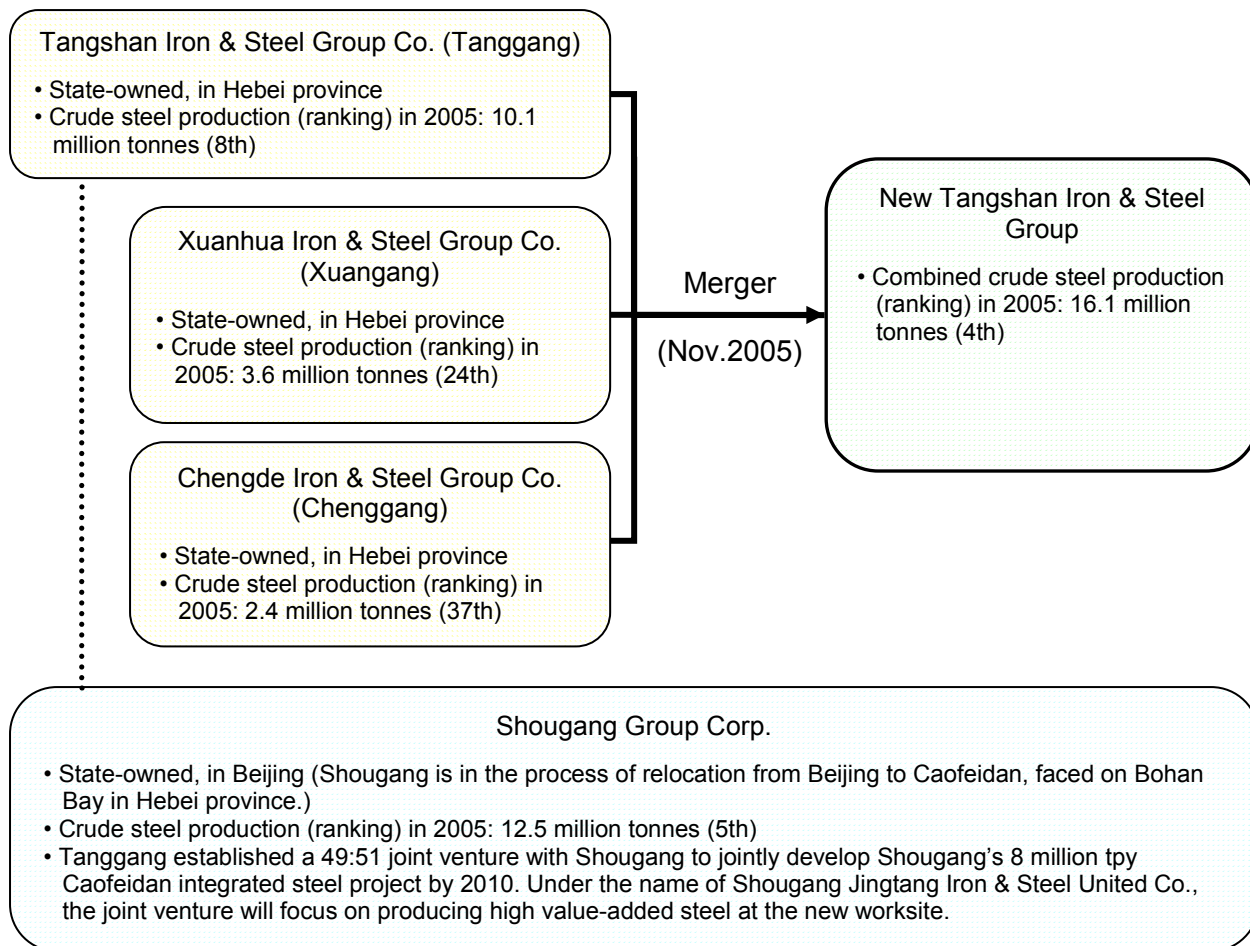
Source: China's Iron and Steel Statistics

Figure 17. Recent major consolidation in the Chinese steel sector

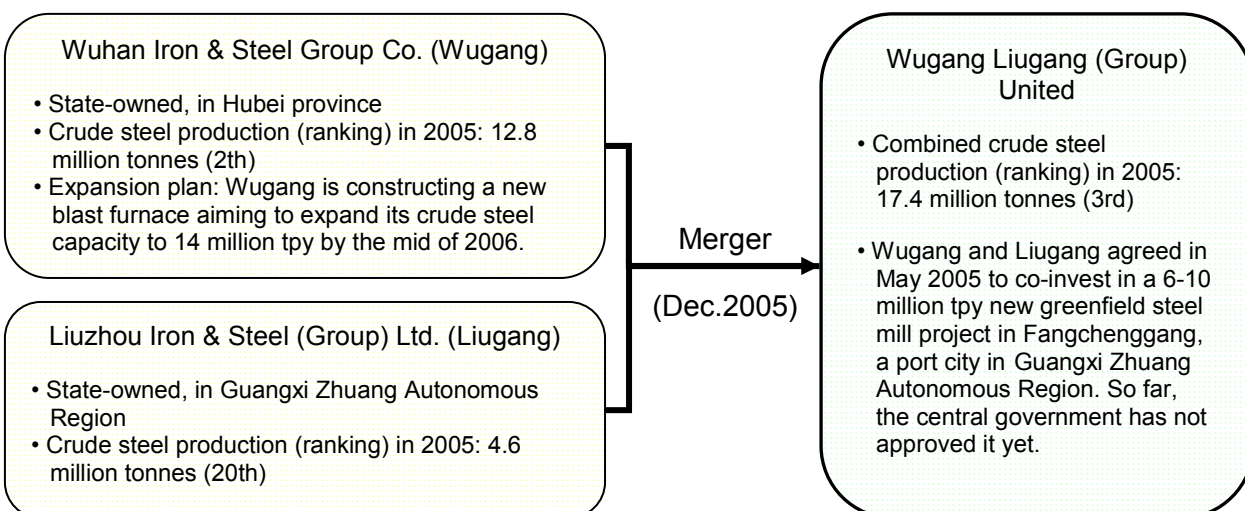
17-1. Creation of Anben Steel Group (August 2005)



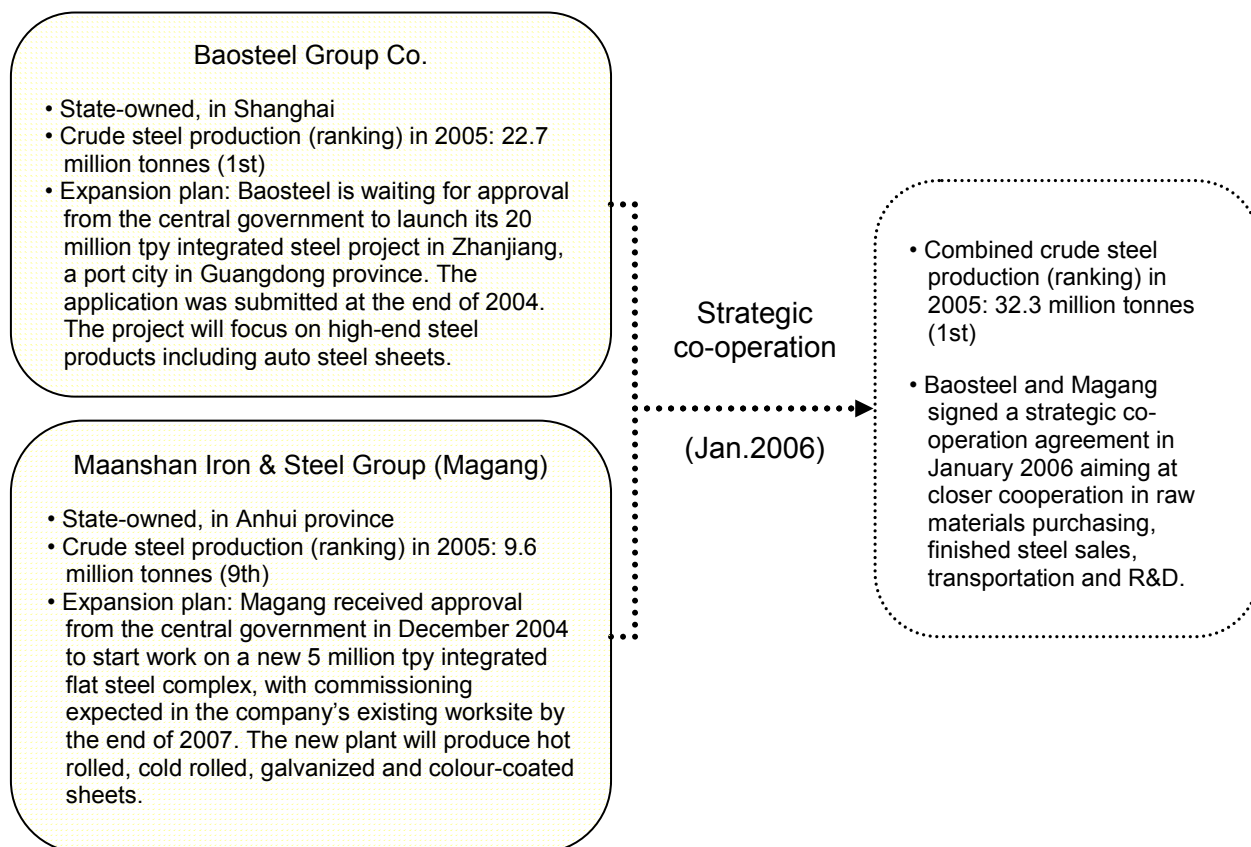
17-2. Creation of New Tangshan Iron & Steel Group (November 2005)



17-3. Creation of Wugang Liugang (Group) United (December 2005)



17-4. Strategic co-operation between Baosteel and Magang (January 2006)

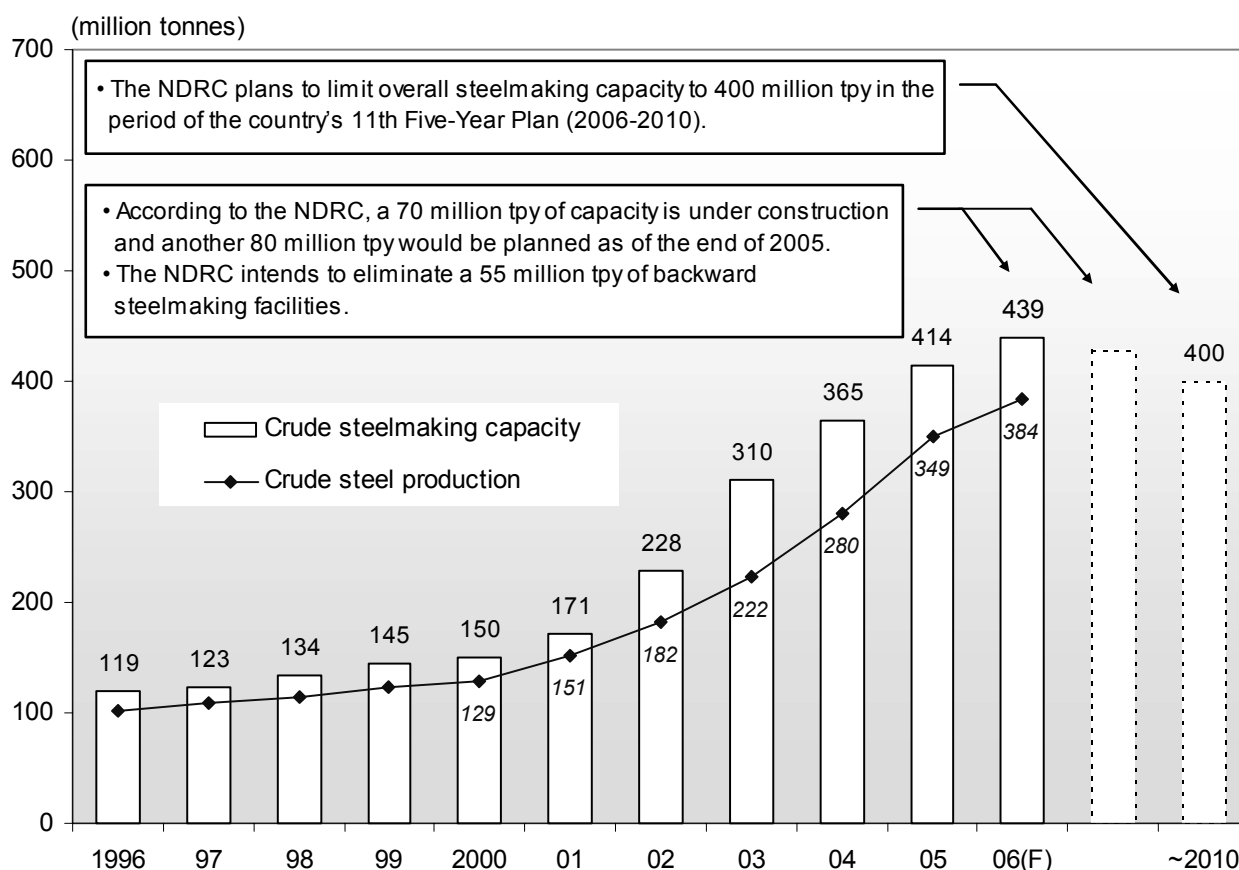


Over-capacity

32. The central government regards the steel sector's over-capacity as a pressing problem and intends to accelerate the pace of structural adjustments in line with the New Steel Policy. In order to control the sector's overall capacity, the government has four core measures (i) Imposing a 400 million tpy cap on the overall steelmaking capacity; (ii) Elimination of out-of-date facilities; (iii) Application of new standards for the level of the sector's facilities; and (iv) Restrictions on new steel mill projects. The government will also depend on the market mechanism to screen out unprofitable steelmakers and intends to strictly apply domestic environmental protection regulations and production safety to close down offenders.

33. **Imposing a 400 million tpy cap on the overall steelmaking capacity:** The NDRC plans to limit the country's overall steelmaking capacity to 400 million tpy during 11th Five-Year Plan (2006-2010). According to CISA, China has 414 million tpy of crude steelmaking capacity as of end 2005 and it would increase by 25 million tpy to 439 million tpy in 2006. (Figure 18). The NDRC estimates that a 70 million tpy of new capacity is currently under construction and another 80 million tpy is planned in the sector as of end 2005.

Figure 18. Steelmaking capacity in China



Source: Capacity figures during 1996-2006 by CISA (China Iron and Steel Association)

34. **Elimination of backward facilities:** The NDRC intends to forcibly eliminate existing out-of-date facilities in line with the New Steel Policy. Currently, the Chinese steel sector has 98.80 million tpy of small blast furnaces (300 cubic metres or less) and 55.08 million tpy of small crude steelmaking facilities (both converters and electric arc furnaces with 20 tonnes or less) which should be eliminated in line with the New Steel Policy (Figure 19). If the government raises the criterion for converters from the current '20 tonnes or less' to '30 tonnes or less', an additional 46 million tpy of crude steelmaking capacity would fall into the category for elimination. In terms of down-stream facilities, the New Steel Policy lists certain types of facilities to be abolished including: out-of-date hot strip mills (pull-over type), narrow-width hot strip mills, out-of-date bar/rod mills.

35. According to a news source, the NDRC has already identified about 500 steelmakers currently using out-of-date production facilities listed in the New Steel Policy and, firstly, it intends to eradicate in 2006 blast furnaces that have a volume of 200 cubic metres or less (capacity total: over 40 million tpy).

Figure 19. Existing backward upstream facilities in the Chinese steel sector

	Capacity total	Deadline for elimination
Blast furnaces (300 cubic metres or less)	98.80 million tpy	By the end of 2007
Crude steelmaking facilities	55.08 million tpy	No information
Converters (20 tonnes or less)	34.13 million tpy	No information
Electric arc furnaces (20 tonnes or less)	20.95 million tpy	No information

Source: CISA (China Iron and Steel Association)

36. **Application of new standards for the level of the sector's facilities:** The New Steel Policy provides new standards for the level of the sector's facilities in order to strictly prohibit constructing small-sized inefficient facilities (Figure 20). It also provides that existing steelmakers must make efforts to meet the standards by the replacement of out-of-date facilities with advanced ones. In addition, it is prohibited for steelmakers to make use of either domestic or foreign worn-out, out-of-date, or second hand steel production facilities.

Figure 20. New standards for the steel sector's facility level (summary)

	New standards	New standards for the steel mill project in deep-water ports
Coke ovens	6 metres high and above	---
Blast furnaces	1,000 cubic metres and above	3,000 cubic metres and above
Converters	120 tonnes and above	200 tonnes and above
Electric arc furnaces	70 tonnes and above	---
Annual crude steel production	---	8 million tonnes and above

Source: The New Steel Policy (issued in July 2005)

37. **Restriction on new steel mill projects:** Together with eliminating many out-of-date facilities, the central government intends to limit construction of new steel mills. In this regard, the NDRC declared in December 2005 that, in principle, it would not grant approval for any new steel mill projects in 2006.

38. The New Steel Policy also has restrictive provisions for new steel mill projects, capacity expansions and investments in the steel sector. While eliminating out-of-date facilities, the Chinese steel sector has to introduce new facilities for producing high value-added steel products which are currently insufficient in the country. The following provisions show the central government's intention to restrict the entry of new comers into the sector and encourage existing stronger steelmakers to produce high value-added steel products.

Related provisions in the New Steel Policy (summary):

- In principle, independent, new integrated iron and steel works and iron/steel mills should no longer be built and construction of independent new rolling mills is not to be encouraged.
- Expansion or transformation of facilities must be made mainly by the qualified existing steelmakers along with consolidation or relocation. In addition, expansion or transformation should be made in superior areas in terms of water resources, raw material, transportation, market demand and so on.
- Installation of new production facilities should be made in combination with elimination of out-of-date facilities and, in principle, large-scale increases in capacity will not be allowed.
- Every new steel mill project must satisfy the requirement for equity capital of 40% or more.
- Domestic steelmakers looking to construct a new integrated steel mill in other areas of the country must have a minimum production of 5 million tonnes of crude steel or 500 000 tonnes of special steel in the previous year; and
- Foreign steelmakers looking to invest in the Chinese steel sector must have a minimum production of 10 million tonne of crude steel or 1 million tonnes of special steel in the previous year, and must have their own intellectual property rights on steel technology. Foreign investors shall, in principle, be barred from becoming majority shareholders in Chinese steelmakers.

39. In December 2005, the NDRC approved Handan Iron & Steel's new greenfield steel mill project. This case demonstrates the government's principles for granting approval after the proclamation of the New Steel Policy in July 2005.

Handan Iron & Steel (Hangang) won approval from the NDRC for a new 4.6 million tpy greenfield steel mill project on 31 December 2005 despite the government's stance on reducing steelmaking capacity as set out in the steel policy. Hangang had been waiting for approval since February 2005 on its plan to shrink its steel production at its existing plants and to establish a new greenfield production base in the west of Fuxing district by 2010. The new base would focus on high value-added products that are in short supply in the domestic market. It will also reduce its consumption of coal and water and will eliminate outdated production facilities at its current works in order to ensure there is no overall steel capacity increase in the Handan area. All of these measures fall in line with the requirements of the government's steel policy. The new works will include two 3 200 cu metre blast furnaces, two 200 tonne converters, a 2 250 mm hot rolling mill and 2 030 mm cold rolling, galvanizing and colour coating facilities. By the end of 2010, Hangan aims to have 3 million tpy hot rolling capacity at the plant, 1.49 million tpy cold rolling capacity, 1.1 million tpy hot dipped galvanizing, 800 000 tpy medium and heavy plate, 440 000 tpy for colour coating, 400 000 tpy for electrical steel plate, and 210 000 tpy for oiled and pickled hot rolling. During the period, Hangang plans to dismantle old facilities that will shrink pig iron capacity by 1.71 million tpy, crude steel capacity by 2.14 million tpy and rolling capacity by 2.04 million tpy.

Source: Metal Bulletin 09 Jan 2006

III. Raw materials

Iron ore

40. The Chinese steel sector's demand for iron ore has been escalating year by year and apparent finished iron ore consumption hit a new high of 515 million tonnes in 2005 with an increase of 41.9% or 152 million tonnes from previous year. China's finished iron ore production and import of iron ore grew sharply by 54.8% and 32.3% respectively to 240 million tonnes and 275 million tonnes in 2005. Reflecting insufficient domestic production and increasing demand for high-quality iron ore, the country's iron ore imports have been increasing remarkably and it accounted for 43% of the world's total iron ore shipments in 2005. The imports dependency ratio has also remained at over 50% since 2003.

41. CISA forecasts that growth of domestic iron ore production and imports would slow down to 10.0% and 9.1% growth respectively in 2006, corresponding to a modest increase of pig iron production. The association predicts that the steel sector's pig iron production would increase by 10% or 30 million tonnes, to 360 million tonnes in 2006.

42. Chinese steelmakers are now in long-term iron ore price contract negotiations with overseas suppliers and are trying to get lower prices after accepting a 71.5% price hike in 2005. Long-term iron ore prices between major suppliers and buyers are usually settled before April. But negotiations this time could reportedly be extended beyond April due to the two sides insisting on vast differences in prices.

43. Meanwhile, the central government cut the number of qualified iron ore importers sharply in May 2005 by limiting import licences to trading firms which imported over 300 000 tonnes of iron ore in 2004 or 100 000 tonnes in the first two months of 2005 and to steelmakers who produced crude steel of 1 million tonnes or above in 2004. The restrictions cut the number of importers from 523 to 118 (including 48 traders and 70 steelmakers) and helped to prevent irrational competition for iron ore and stabilised spot prices.

Figure 21. Supply and demand of iron ore in China

Unit: million tonnes

	Production		Import		Apparent consumption		Import dependency ratio %
	Crude iron ore (Finished iron ore)	Growth rate %		Growth rate %		Growth rate %	
2000	224 (112)	-5.6	70	26.6	182	4.6	38.5
2001	217 (108)	-3.1	92	31.9	200	10.4	46.0
2002	233 (115)	7.2	111	20.8	226	13.4	48.9
2003	261 (131)	12.2	148	32.9	279	22.4	53.2
2004	310 (155)	18.8	208	40.4	363	30.3	57.3
2005 (E)	480 (240)	54.8	275	32.3	515	41.9	53.4
2006 (F)	528 (264)	10.0	300	9.1	564	9.5	53.2

Source: Customs statistics, CISA, IISI

Note: (1) Crude iron ore mined in China is low-grade one with an average iron content of 30-35% compared to imported iron ore with 60-65% from Australia and Brazil. Finished iron ore, made from crude iron ore through the concentrating and refining process, has the same level of iron content as imported iron ore.

(2) Apparent consumption = Finished iron ore production + Import

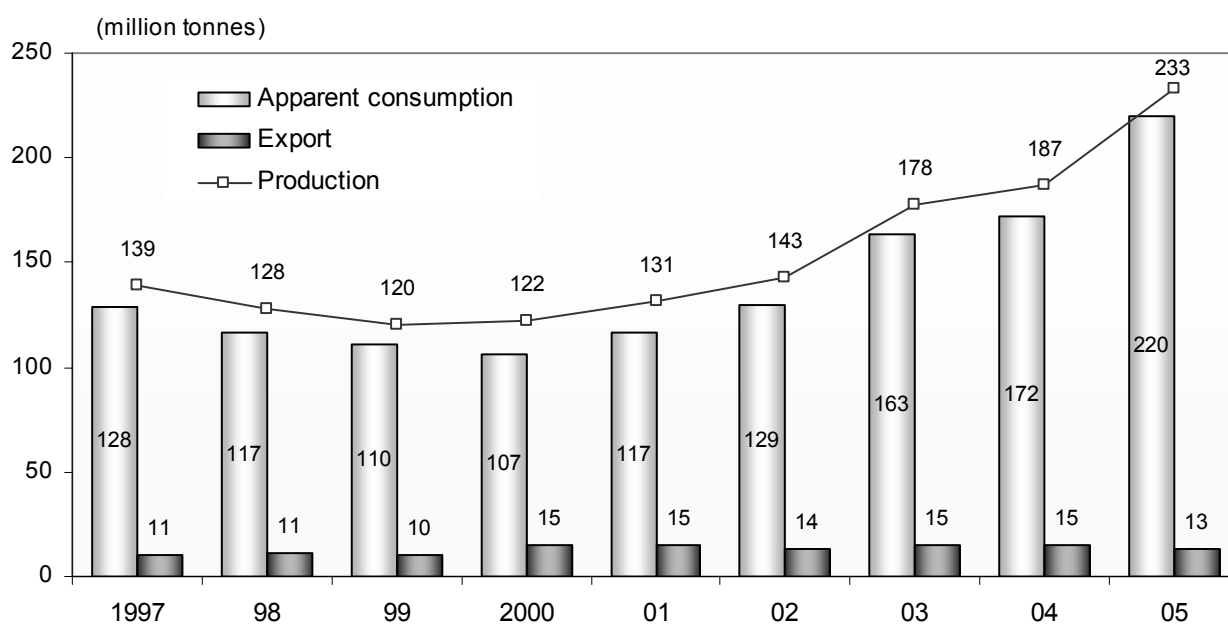
(3) Import dependency ratio = Import / Apparent consumption (%)

Coke

44. The Chinese coke industry, which supplies about 80% of its products to the domestic steel sector, has also suffered from fragmentation and over-capacity. At the end 2005, China had 1 480 coke producers, and a total production capacity of 300 million tonnes. But demand only stood at roughly 200 million tonnes in 2005 and capacity exceeded demand by as much as 100 million tonnes. Furthermore, new coke facilities capable of producing 30 million tonnes are being planned across the country. The over-capacity has led to decreasing coke prices, causing many coke producers in China to complain of losses due to squeezed margins. It is expected that the domestic steel sector's coke demand in 2006 would be 233 million tonnes, corresponding to a modest increase in pig iron production.

45. In 2005, the NDRC introduced a series of regulations to lift the threshold for coke producers and a major proportion of China's small coke producers has been shut down already, accounting for about one-third of the country's total coke production. In addition, the NDRC reportedly intends to draft a new coke industry policy no later than April 2006, aiming to enhance industry consolidation and eliminate out-of-date facilities that waste energy. The government is also encouraging big steelmakers to acquire coke production facilities, expecting greater synergy by the combination of the two sectors.

Figure 22. Supply and demand of coke in China



Source: National Statistics Bureau, Customs Statistics

IV. ANNEX

Forecast for the situation of the Chinese steel sector in 2006

(By China Iron and Steel Association in Feb 2006)

		Unit	2005	2006(F)	Change	
					Volume	% point
	General economy					
1	GDP	Growth rate %	9.9	8.0		-1.9
2	Fixed asset investment	Growth rate %	25.7	18.0 to 20.0		-5.7 to -7.7
	Steel sector					
3	Crude steel consumption	Million tonnes	335.5	375.8 to 386.0	40.3 to 50.5	
		Growth rate %	14.0	12.0 to 15.0		-2.0 to 1.0
4	Finished steel consumption	Million tonnes	377.8	410.5	32.7	
	(Apparent consumption basis)	Growth rate %	19.9	8.7		-11.2
5	Steel export (incl. semis)	Million tonnes	26.4	24.7	-1.7	
		Growth rate %	37.3	-6.5		-43.8
6	Steel import (incl. semis)	Million tonnes	27.2	24.4	-2.8	
		Growth rate %	-17.9	-10.4		7.5
7	Crude steel production	Million tonnes	349.4	384.0	34.6	
		Growth rate %	24.6	10.0		-14.6
8	Pig iron production	Million tonnes	330.0	360.0	30.0	
		Growth rate %	31.0	10.0		-21.0
9	Finished steel production	Million tonnes	371.2	408.0	36.8	
		Growth rate %	24.1	10.0		-14.1
10	Steelmaking capacity	Million tpy	414	439	25	
		Growth rate %	13.4	6.0		-7.4
11	Iron-making capacity	Million tpy	391	414	23	
		Growth rate %	n.a.	5.9		---
12	Rolling capacity	Million tpy	420	463	43	
		Growth rate %	n.a.	10.2		---
	Raw materials					
13	Raw coal output	Billion tonnes	2.11	2.20	0.09	
		Growth rate %	7.7	4.3		-3.4
14	Iron ore output	Million tonnes	480	528	48	
		Growth rate %	54.8	10.0		-44.8
15	Iron ore import	Million tonnes	275	300	25	
		Growth rate %	32.3	9.1		-23.2