



Status Quo and Prospect for Chinese Secondary Copper Industry

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1 Status Quo

1.1 Production

Chinese secondary copper production was 2.0 mln t in 2007, it fell to 1.9 mln t in 2008 affected by the economic crisis. With the continuous impact from the crisis, the secondary copper production in the first nine months was around 1.2 mln t, down by 27.3% yoy.

Table 1 Chinese secondary copper output and import of copper scrap

	2002	2003	2004	2005	2006	2007	2008	Jan.- Sep.09
Output of secondary copper	88	93	116	142	168	200	190	120
Import of copper scrap	308	316	396	482	494	558	558	299
Cons. of copper semis	326	402	497	539	586	619	790	

1 Status Quo

1.1 Production

The domestic generated copper scrap cannot satisfy demand at the moment, imported copper scrap accounted for about two thirds of total demand from secondary producers. Because the cumulation copper containing products is small, it is not peak time for them to be discarded and recycled, besides, the policy on recycling and recycling system needs to be improved.

About 600-700kt copper scrap (metal weight) is recycled in China, accounting for one third of total demand for the scrap.

1 Status Quo

1.2 Industrial structure

Utilization: direct use-45%, indirect use, 55%

Product-mix: more low class products, less high value-added products

Regional distribution: import of copper scraps is concentrated in Zhejiang, Guangdong and Tianjin, domestically recycling scraps are concentrated in Linyi in Shandong, Miluo in Hunan and Changge in Henan. While most are utilized in Zhejiang, Guangdong, Jiangsu, Anhui, Shandong, Tianjin, Hebei, etc.

Production cap.: the average capacity is low

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1.3 Equipment and technology

Dismantling and pre-treating: barker, copper wire crusher and crusher are widely used, semi-automatic, but most used motors, hardware, mixed scrap needs to be dismantled and separated by handwork

Smelting: reverberatory furnace used most, tilting anode furnace and shaft furnace used less.

Direct use: there are typical equipments and technology to directly use copper scrap, for example, continuous casting, produce low-oxygen copper rod with copper scrap, Use brass scrap to produce brass

Progress has been achieved, but the technology and equipment in general remain in low level. More work needs to be done in reducing ~~energy cons, environmental protection, clean production and quality~~ improvement.

1 Status Quo

1.4 Copper scrap supply

Copper supply was insufficient in 2009, attribute to three factors:

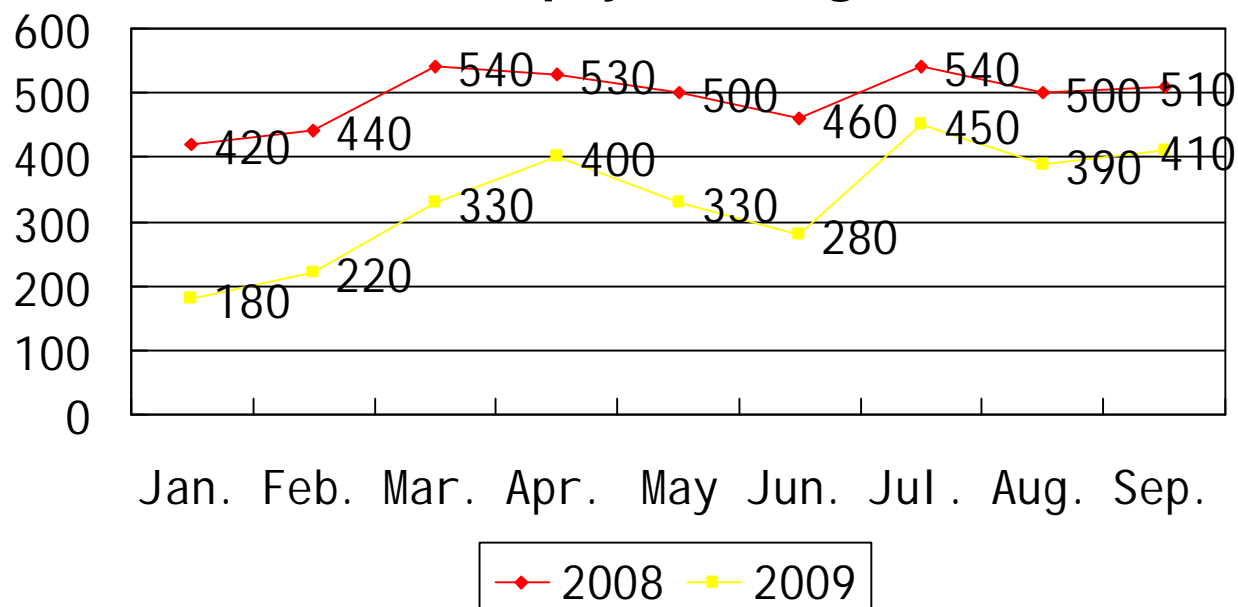
- a. Nearly no scrap available in Q1 due to financial crisis
- b. The Customs strengthen examination on imported metal scrap
- c. The amended policy on VAT impacts domestically recycling

The supply in H1 remained tight, it did not recovered to normal despite the refined copper price breaking 50,000yuan/t

1 Status Quo

1.4 Supply

**Chart1: Import of copper scrap in Jan.-
Sep.2008 and 2009
tonne, physical weight**



1 Status Quo

1.4 Supply

- a. The monthly import in 2009 saw yoy fall
 - b. Bigger fluctuation in 2009
 - c. The import in Q1, Q2 and Q3, 2009 was 52%, 68% and 81% of that in the same period last year, indicating the import in 2009 is recovering gradually, supply is turning better
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1 Status Quo

1.5 Fixed assets investment

Chart 2 Part projects using copper scrap

	Company	Products	Cap. kt	Status		Company	Products	Cap. kt	Status
1	Ganzhou Jiangxi Tungsten	Rod	12	Commissioned	8	Western Mining	Copper cathode	20	Feasibility study
2	Dawufeng	Rod	12	Under construction	9	Zhejiang Hongma	Strip	5	
3	Ningbo Shimao	Copper cathode, rod and wire	10	Stage 1 commissioned	10	Anhui Xingle	Rod	6	
4	Jiangxi Jintian	bar	8		11	Anhui Jiuhua	Wire	6	
5	Jiangxi Jinlong	Rod	12		12	Fujian Xinyu		3	
6	Guangxi Nonferrous Group	Copper cathode	30	Designed	13	Ji'an Sirui		3	
7	A company in Guangxi	rod	10	Feasibility study	Total			137	

1 Status Quo

Conclusion

Secondary copper accounts for 25% of copper semis consumption, secondary refined copper accounts for one third of total refined production, secondary copper plays important role in Chinese copper industry.

Chinese secondary copper represented 30.6% of world secondary production in 2008, being the No.1 producer.

2 Problems

2.1 Understanding about secondary copper industry needs to be improved

Mr. Wang Chang'an, former secretariat of Jieshou City, Anhui Province says, secondary metal industry has changed

From difficulty in environmental protection,

hotspot concerned by crowd,

focus concerned by media

To highlight of industries

pilot in recycling economy

contributor to local GDP

The position of secondary industry has been improved greatly, but during the development of the industry, some obstacle is met. So people's

understanding about secondary copper industry needs to be improved further, to regulate the industry and to promote the development of the industry

2 Problems

2.2 Supply tends to be tight

u Various central governments are paying more attention to scrap resources, and they are adopting more measures to protect local resources

u The secondary metal industry in India, Vietnam, Thailand and other SE Asian countries develops rapidly in recent years, which intensifies competition for metal scrap

u Suggestions on metal scrap import, ① widen the types of metal scrap ② perfect classification standard of metal scrap ③ improve and unify inspection mechanism for metal scrap import ④ improve customs clearing efficiency ⑤ lower import cost ⑥ reduce approval procedure, regulate and encourage import of metal scrap, and promote the development of recycling economy

2 Problems

2.3 Un-improved policy, legislation and standard

uRecycling: Policy on VAT, planning for parks for dismantling imported materials and market for recycled materials transaction

uUtilization: no unified standard for equipments, verifying in shape, size, energy efficiency, pollutants emission, which not beneficial for upgrading equipment and technology

uStandard for products: copper rod made with scrap

2 Problems

4、 lacking in capability of technology innovation

5、 low industrial concentration

6、 management to be improved

Conclusion:

after years of development, Chinese secondary copper industry has laid foundation for industrial upgrading and leap-forward development. Facing problems, fast growth and contradiction is co-existing

3 Prospect

3.1 Resource

It is the best choice to develop secondary copper industry to ease tightness of copper raw materials.

3.2 Environment

The comprehensive energy consumption of secondary copper is 18% of primary copper

3.3 Government's policies

The policies issued by the State Council including the Support Plan for Nonferrous Metal Industry, pointing that secondary metal industry is playing important role, which ~~brings new opportunities~~

3 Prospect

3.4 Primary copper producers involve in secondary sector

The participation of large scale primary copper producers into the secondary copper sector will help upgrade the technology, management, environmental protection and enhance industrial concentration.

Conclusion:

Secondary copper accounts for only around 25% of copper semis consumption in China currently, while in the developed countries, the proportion is 50-70%, there is big potential for China to develop secondary copper sector.



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