
INDUSTRY OVERVIEW

This section contains certain information and statistics derived from official government publications and industry sources as well as a report we commissioned from CRU, an Independent Third Party. We believe that the report prepared by CRU is an appropriate source of information that has been extracted for inclusion in this section and partially the section headed “Business” of this prospectus and we have taken reasonable care in extracting and reproducing such information.

We have no reason to believe that such information is false or misleading or that any fact has been omitted that would render such information false or misleading. The information derived from the above sources has not been independently verified by us, the Selling Shareholders, the Sole Global Coordinator, the Sole Sponsor, the Sole Bookrunner, the Joint Lead Managers, any of the Underwriters, any of our or their respective directors, officers, employees, agents or representatives of any of them or any other parties involved in the Global Offering and no representation is given as to its accuracy.

SOURCE OF INFORMATION

We commissioned CRU, a London-based independent research and consulting company specialising in the international metals, mining and fertiliser industries, to conduct an analysis of, and to report on the copper, scrap copper, copper semis product and wire and cable market in the PRC and globally, mainly covering the period from 2007 to 2016. The report commissioned has been prepared by CRU independent of our influence. CRU has charged our Company a total fee, net of applicable PRC sales tax, of GBP99,000 (or approximately HK\$1,262,755) for the preparation of the commissioned report. CRU has compiled its report based on historical and forecast data from its regularly published reports, as released in July 2013, with updated supply, demand and price information release.

Where published data may not be available, up-to-date or objective, CRU had to make estimates based on first-hand information or personal contact with industry participants such as producers, consumers and traders, as well as secondary sources such as conference presentations, news articles and company reports. CRU has also undertaken further market analyses based on its databases, and additional quantitative and qualitative research, where required. CRU's price forecasts are based upon a range of data, sources and analytical techniques depending upon the commodity and time frame being considered. Forecasts and analyses for short time frames (under one year) are often based upon prevailing trends, contact with market participants and knowledge of the markets' underlying fundamentals.

While CRU has exercised every effort to provide a realistic assessment of the scrap copper, semis, wire and cable industry and associated metal markets, prices and competitive conditions depend on a number of factors of an inherently unpredictable nature. These include, but are not limited to, macroeconomic conditions affecting metals and scrap demand, substitution of alternative materials, the availability and price of the metals, scrap and other raw materials, changes in production technology, speculative and financial conditions affecting the price of metals and scrap in terminal commodity markets and government taxes and other actions, including environmental regulations, affecting the production, trade and consumption of metals and scrap. Accordingly,

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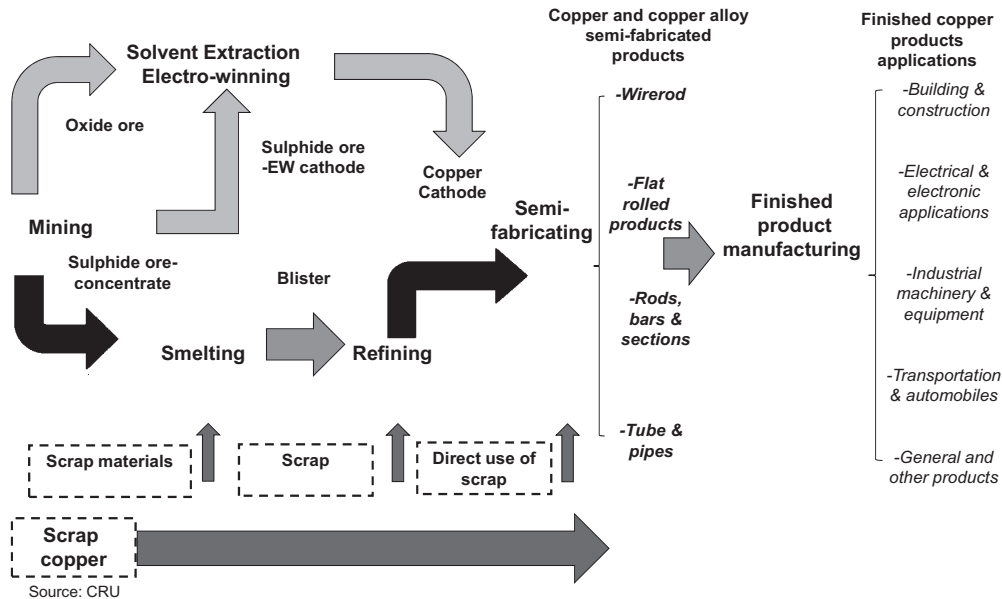
neither we nor CRU can guarantee the accuracy of any forecasts or other forward-looking statements contained in CRU's report or any information extracted therefrom. Our Directors confirm that, after taking reasonable care, there has been no adverse change in the market information, since the date on which CRU issued its report.

THE CHINA COPPER MARKET

Properties of Copper and Its End Uses

Copper is a malleable, ductile, water resistant metal, and is a good conductor of heat and electricity. These properties allow a range of uses, including in pipes, electronics, household products, coinage and biomedical applications and in structural engineering. Copper is used mainly in the construction, electrical and electronics, transportation and industrial machinery industries, and in consumer products. Copper is consumed as concentrate, cathode, semi-fabricated products, or semis, scrap and as part of alloys in combination with other elements, including bronze (copper and tin), brass (copper and zinc) and copper nickel alloys.

Cathode is the standard form of output for copper, and is traded on the London Metal Exchange. Copper cathodes are shipped as melting stock to mills and semis producers, from where it can be further transformed into various semi-fabricated copper and brass products before final use in manufacturing. The following chart shows the process how copper is typically produced and manufactured.



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China Refined Copper Market Overview

In 2012, Chinese refined copper consumption amounted to 8.2 million metric tons, increasing by 4.9% on the previous year. The demand for copper was weak in 2011 and 2012 compared with 2010 due to a slowdown in copper consuming end-uses caused by the government's macroeconomic policies. Chinese refined copper consumption is forecast to grow at 6.0% in 2013 and at a CAGR of 5.8% per annum between 2012 and 2016, reaching about 10.2 million metric tons by 2016. The key drivers supporting China's copper consumption include:

- An increase in government housing for low income families is expected to support copper demand from 2013 and beyond, offsetting slowdown elsewhere in real estate, noting that copper usage occurs at later stages of housing construction. The construction and furnishing of such housing is copper intensive and is expected to support copper demand in the period between 2011 to 2015; and
- The investment in power infrastructure and rising consumption of home appliances should underpin the growth in copper consumption over the next four years.

Chinese copper production has lagged copper demand, and Chinese imports of refined copper peaked in 2009 at 2.36 million metric tons. This deficit is forecast to shrink from 2013 onwards due to an increase in smelting and refining capacity in China. However, China is expected to remain a major importer of copper concentrates, as domestic copper concentrate supply cannot meet domestic demand while imports are expected to fall gradually over the forecast period.

(In thousands of metric tons)	2007	2008	2009	2010	2011	2012	2013E	2014E	2015E	2016E	CAGR 2007-2012	CAGR 2012-2016
Refined production	3,515	3,752	4,014	4,602	5,163	5,714	6,289	7,578	8,495	9,013	10.2%	12.1%
Refined copper consumption	4,775	5,050	6,372	7,199	7,782	8,163	8,653	9,163	9,695	10,247	11.3%	5.8%
Balance	-1,260	-1,298	-2,359	-2,597	-2,619	-2,449	-2,364	-1,585	-1,200	-1,234		

Source: CRU

THE CHINA SCRAP COPPER MARKET

China Scrap Copper Supply Overview

As a result of the rapid growth in refined copper production, the concentrate supply cannot meet the demand; therefore refineries need to use scrap, blister and anode as an alternative feed. The use of scrap copper is not only in line with environment protection and a green economy, but also significantly offsets the shortage of copper concentrate's supplies, which have already imposed huge pressure upon the development of China's copper industry.

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China's scrap copper pool is smaller and less mature than that in developed economies, and the quality of its scrap is generally considered poorer. This is attributable to comparatively lower disposable income level in China and in turn longer home appliances lifecycles, as well as a less developed classification and collection system. Since China is a major net exporter of finished home appliances, its scrap pool is growing at a slower rate than its total metal consumption. These factors have made China the world's largest importer of scrap copper to meet internal demand, accounting for more than half of reported global imports, and with imports of more than four times the next largest importer. The table below sets out China's historical and estimated availability of scrap copper between 2007 and 2016:

(In thousands of metric tons)	2007	2008	2009	2010	2011	2012	2013E	2014E	2015E	2016E	CAGR 2007-2012	CAGR 2012-2016
Domestic scrap generation	700	600	850	1,100	1,214	1,350	1,466	1,589	1,728	1,878	14.0%	8.6%
Year-on-year % change	2.9%	-14.3%	41.7%	29.4%	10.3%	11.2%	8.6%	8.4%	8.8%	8.6%		
Net imports of scrap*	1,702	1,626	1,608	1,649	1,771	2,037	2,291	2,521	2,850	3,004	3.7%	10.2%
Total supply availability	2,402	2,226	2,458	2,749	2,984	3,386	3,757	4,110	4,578	4,882	7.1%	9.6%
Domestic generated scrap as a % of total supply availability	29.1%	26.9%	34.6%	40.0%	40.7%	39.9%	39.0%	38.7%	37.8%	38.5%		
Imported scrap as a % of total supply availability	70.9%	73.1%	65.4%	60.0%	59.3%	60.1%	61.0%	61.3%	62.2%	61.5%		
Domestic scrap stock	610	1,078	423	703	1,088	1,270	1,269	1,541	1,512	1,489	15.8%	4.1%
Net scrap supply	3,012	3,305	2,881	3,452	4,072	4,657	5,027	5,651	6,090	6,371	9.1%	8.1%

* Net imports include net imports and smuggling

Source: CRU, China Customs

Note: Availability is calculated as a residual value based on data of primary metal supply versus production levels. All data are shown in terms of pure metal content, and imported scrap is those containing at least 35% of copper.

Domestic generation of scrap copper in China has grown at a CAGR of 14.0% from 2007 to 2012, and is going to retain strong growth between 2013 and 2016 with a CAGR of 8.6% to reach over 1.8 million metric tons by the end of 2016, which accounts for 38.5% of total supply availability. From early 2010, the domestic scrap generation increased because of home appliance recycling schemes, as well as improvement in industrial activities outside China.

Import of scrap copper will continue to increase and still be the dominant source to Chinese market. However, the share of imported scrap copper is expected to decline due to the combination of high copper prices and the unfavorable arbitrage between Shanghai Futures Exchange (SHFE) and London Metal Exchange (LME). Total supply availability is expected to grow at 9.6% per annum between 2012 and 2016, adding another 1.5 million metric tons to scrap supply. Total supply availability is expected to approach 4.9 million metric tons by 2016, which is expected to meet approximately 77% of China's net scrap supply requirements; with domestic stock accounting for the remaining 23%.

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China Scrap Copper Prices Overview

In the absence of a terminal market exchange for scrap, the prices for scrap in the tables below are collected by CRU, which regularly speaks to scrap market participants to estimate prevailing scrap prices and discounts. Every scrap transaction is the result of an individual negotiation, and therefore there is no single price for a certain grade of scrap at a certain time. Instead, the prices shown in this section are indicative of general market movements. The pricing of scrap is dependent on a series of variables, which are briefly discussed below:

- *Metal content, quality, and physical make-up of the scrap (including any impurities and by-products):* typically the higher the metal content (and the lower the impurities) of the scrap material, the higher its price, subject to market conditions.

- *The level of demand for scrap and its availability:* typically the lower the availability of scrap, the higher its price, subject to market conditions. For example, scrap copper availability declined from 2009 due to decreasing use of copper in developed countries, resulting in higher imported scrap copper prices for certain scrap copper from the United States.

- *Amount and difficulty of the sorting or further processing:* the greater the extent of sorting completed by the seller, the higher the scrap price to the buyer. Equally, the greater the requirement for further processing by the buyer, the lower the scrap price is.

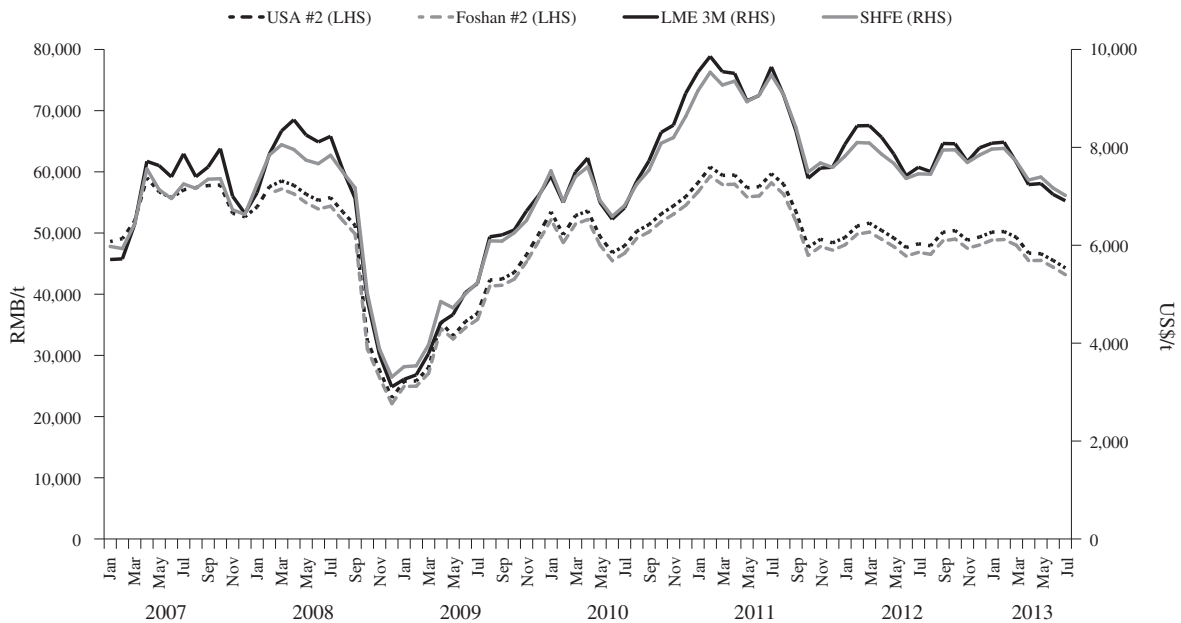
- *The relative performance of the benchmark price:* scrap prices are typically linked to benchmark metals prices. For example, scrap copper is priced on the basis of the LME: the tonnage of scrap is multiplied by its copper content, and then a discount is made to cover the cost of refining the scrap into metal. Usually high copper price would lead to a high scrap price.

- *Arbitrage between Chinese and benchmark world prices:* Chinese buyers have featured increasingly in world scrap markets over the last decade. As a result, the prices they pay for their imported material are closely linked to the scrap prices of major exporting regions, such as the United States and Western Europe, and the LME and Commodity Exchange (COMEX) metal prices. Conversely, the buying activity of Chinese scrap consumers can determine the price of scrap in regional markets. Chinese scrap consumers will tend to purchase material in foreign markets when local metal prices (SHFE) are higher than the prices in other key overseas regions (LME). This buying activity in overseas markets can exert upward pressure on scrap prices in these regions.

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The chart below sets forth historical benchmark metal prices and scrap prices from 2007 to 2012. Note that we select domestic No.2 copper (92-93% copper content) Foshan price as the reference price for domestic scrap price. The scrap prices illustrated in the chart show a strong positive correlation to benchmark copper prices. The limited availability of concentrates has partly supported copper price rise in 2007 which in turn led to a high scrap price. However, the rise in scrap prices halted during the second half of 2008, when copper prices collapsed in line with lower demand from end-use sectors and weakened investor's confidence.

Historical benchmark prices and scrap copper prices, 2007-2013



* Note that domestic No.2 copper prices before February 2008 are not available because Chinese market did not have domestic No.2 copper as a separate category until then.

Source: CRU

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THE CHINA COPPER SEMIS MARKET

China Copper Semis Industry Overview

The copper semis industry lies between the industry that produces copper and the users of copper in finished products. Semis fabricators process refinery shapes such as cathodes, ingots, and billet slabs into semi-finished copper and copper alloy products. Common semis and their applications are set out below.

Copper Semis and Applications

	Semi-products	Applications
	Copper wirerod	Copper wire and cable (electrical and telecoms)
FLATROLLED	Copper sheet, strip and plate (SSP)	Electrical interconnects, electronic devices, automotive strip, architectural applications
	Copper foil	Electrical inter-connects, devices
	Alloy sheet, strip, plate and foil	Same as for Copper SSP
EXTRUDED	Copper tube	Plumbing and air-conditioning tube
	Copper alloy tube	Copper wire and cable (electrical and telecoms)
	Copper alloy rods, bars and sections	Electrical products, construction (brass locks and fittings), industrial machinery
	Alloy wires	Consumer, misc applications
	Copper rods, bars and sections	Electrical applications
	Foundry products	Intermediate products

Source: CRU

Among the applications of copper semis, the largest is construction, which consumes large quantities of electrical wires and tubing for electrical, plumbing, heating, and air-conditioning systems. The second largest category is electrical and electronic products, including those for telecommunications, wiring devices, electric motors and power utilities. Copper used in industrial machinery and equipment includes industrial valves and fittings, heat exchangers and various other types of heavy equipment and machine tools. Transportation applications include automobile and truck parts such as copper motors, radiators, connectors and brakes. New generation airplanes and trains also extensively use copper semis.

China Copper Semis Industry

The copper semis industry in China has witnessed rapid development over the last two decades. Overall growth in semis production in China has increased at a CAGR of 9.2% in the period from 2007 to 2012, reaching at 10.2 million metric tons by the end of 2012. China is both the largest producer of copper semis, producing over 40% of the world's total output, and the largest consumer of copper semis.

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Demand for semis is growing strongly on the back of intense industry activities. From 2007 to 2012, domestic demand for copper semis has increased at a CAGR of 8.9%. Among the major products, consumption of wirerod grew fastest at a CAGR of 11.5%, exceeding that of the production, as the demand is being fuelled by increases in consumption of both low voltage energy cables (e.g. building wire, appliance wire and automotive wire) and copper power wires. These are driven by the continuing economic development of China (building wire and copper power wire) and by the strengthening manufacturing base that is developing in China (appliance and automotive wires).

The following table presents Chinese copper semis supply and demand by products for the following years.

(Thousands of metric tons)	2007	2008	2009	2010	2011	2012	CAGR 2007-2012
Copper semi-fabricated products production							
Copper Wirerod	3,611	4,148	4,752	5,264	5,552	5,846	10.1%
Rods, Bars and Sections	1,037	1,095	1,124	1,191	1,260	1,318	4.9%
Strip, Sheet, Plate & Foil	815	825	1,150	1,429	1,504	1,597	14.4%
Tube	1,076	1,105	1,155	1,322	1,363	1,392	5.3%
Total semis production	6,539	7,173	8,181	9,206	9,679	10,153	9.2%
Copper semi-fabricated products demand							
Copper Wirerod	3,881	4,507	4,986	5,669	6,241	6,678	11.5%
Rods, Bars and Sections	970	919	895	949	965	994	0.5%
Strip, Sheet, Plate&Foil	1,198	1,193	1,241	1,519	1,575	1,624	6.3%
Tube	924	917	921	1,177	1,390	1,391	8.5%
Total semis demand	6,973	7,536	8,043	9,314	10,170	10,686	8.9%

Source: CRU, China Non-ferrous Metals Industry Association, International Wrought Copper Council

Note: Production is gross weight, including alloy content.

The copper semis manufacturing industry in China is extremely dispersed. According to CNIA statistics, there are in excess of 2,000 fabricators of copper semis in China concentrated primarily in the south-eastern coastal area, the Yangtze River Delta and the Pearl River Delta. CRU expects China's semis production to grow as a result of the government promotion of investment in copper-intensive sectors under the 12th Five-Year Plan.

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China Scrap Based Semis Market

CRU forecasts the use of scrap in copper semis production to continue increasing from 2012 onward. However, continued high copper prices may cause substitution away from copper semis which are predominantly produced from scrap, leading to a fall in percentage of scrap used in semis (compared to refined metal) over the forecast period. The following table shows the CRU historical and forecast of scrap consumption for semis production from 2012 to 2016.

<i>(Thousands of metric tons)</i>	2012	2013E	2014E	2015E	2016E	CAGR 2012- 2016
Refined consumption	8,203	8,719	9,347	9,952	10,585	6.6%
Scrap consumption	<u>2,448</u>	<u>2,202</u>	<u>2,485</u>	<u>2,565</u>	<u>2,657</u>	2.1%
Total production	<u>10,651</u>	<u>10,922</u>	<u>11,832</u>	<u>12,517</u>	<u>13,242</u>	5.6%
Scrap contribution %	23.0%	20.2%	21.0%	20.5%	20.1%	

Source: CRU

The following table sets forth the five largest Chinese copper wirerod producers that use scrap copper as their only raw materials, based on production capacity as of December 31, 2012.

Company name		Location	Production capacity (Thousands of metric tons)	
1	Baoding Dawufeng	保定大無縫銅業	Hebei	120
2	Jiangwu Group	江錫集團	Jiangxi	120
3	Jiangxi Jinlong	江西金龍銅業	Jiangxi	120
4	Ningbo Shimao	寧波世茂銅業	Zhejiang	100
5	Hunan Jinlong	湖南金龍銅業	Hunan	65

Source: CRU

On the national level, based on production capacity of 46,800 metric tons as at December 31, 2012, we are a medium-sized recycled copper wirerod producer.

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Recycled Non-Ferrous Industry Development and Promotion Plan

In January 2011, the Ministry of Industry and Information Technology, the Ministry of Science and Technology and the Ministry of Finance of the People's Republic of China jointly published the Recycled Non-Ferrous Industry Development and Promotion Plan (再生有色金屬產業發展與推進計劃) to encourage the development of the non-ferrous recycling industry. The key elements of this plan include:

- optimizing industry locations and increase industry concentration – focusing on existing key scrap metal and processing industry park locations; supporting companies with capacity in excess of 50,000 metric tons to realize economies of scale; encouraging the development of value-added recycle metal products; building reliable raw material sources and achieving value chain integration.
- promoting technology upgrade – encouraging the research and development and commercialization of new technologies; encouraging the adoption of advanced technologies and the use of technologically advanced equipment; strengthening quality control and supporting industrial application of recycled metals.
- focusing support on key projects – developing large-scale new recycled model projects in certain industrial regions, including the Pearl River Delta, the Yangtze River Delta, the Bohai Economic Zone and the Chengdu-Chongqing Economic Zone.
- strategizing scrap metal collection system – further utilizing, regulating and consolidating existing scrap metal collection channels and increasing the size, rather than the number, of key collection zones and trading markets.

To assure the execution of the Recycled Non-Ferrous Industry Development and Promotion Plan, the government has been increasing barriers of entry; contributing more resources in promoting research and development; executing trial and role-model projects; more aggressively eliminating obsolete capacities; perfecting legal and regulatory systems relating to the industry and strictly enforcing its regulations relating to the industry. Under the plan, incineration equipment without a flue gas treatment control system, blast furnaces, cupola furnaces, and traditional stationary reverberatory furnaces (with capacity less than 50 metric tons) were stipulated as obsolete equipment.

The Group's businesses are located in Sichuan and Hunan Provinces, both of which are key recycle metal development regions targeted by the Recycled Non-Ferrous Industry Development and Promotion Plan. The areas where we source our raw materials, including the Pearl River Delta, the Yangtze River Delta and the Chengdu-Chongqing Economic Zone are also key industrial regions where the government plans to focus its support under the plan. We believe we will benefit from a reliable supply of raw materials due to the favorable policies expected to be promulgated. In addition, our new Tongxin facility is more technologically advanced than our existing facilities and uses more environmentally friendly technology. Together with its estimated annual production capacity of 100,000 metric tons of recycled copper products, our Tongxin facility is the type of facility that is expected to enjoy the favorable government policies under the plan.

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OVERVIEW OF THE COPPER WIRE AND CABLE INDUSTRY

Copper Wire and Cable Introduction

Copper is the most widely used material in wire and cable products due to its conductivity, ductility and corrosion resistance.

In terms of different applications, copper wire and cable products can be categorized into the following groups:

- *Low voltage and medium voltage (LV-MV) energy cables*: which refers to cable rated below and including 35kV in China, or below and including 60kV outside China. The three main product sub-sectors are building wires, automotive wires and appliance wires.
- *Power cables*: which refers to cable rated above 110kV in China, or above 60kV outside China and includes High Voltage (HV), Extra High Voltage (EHV) and Ultra High Voltage (UHV) power cables.
- *Communication cables*: which refers to telecommunication cables using copper as the material. It includes both external telecom cable and internal telecom (or data) cable.
- *Winding wires*: which refers to copper wires coated with a layer of insulation used in transformers, motors, electrical and electronic goods.

Copper wires and cable products account for over 50% of total global copper usage, which is mostly produced from wirerod. Copper wires and cables are used for power generation, transmission, telecommunications, electronics and electrical equipment.

The Chinese Metallic Wire and Cable Industry

China is the largest producer of metallic wires and cables globally by volume. The Chinese metallic wire and cable market expanded at a greater rate than the world as a whole between 2002 and 2012, increasing from under 20% of global market share to 32% during this period. The highest growth has been seen in the power cable segment, which has increased at a CAGR of 10.4% from 2007 to 2012. And China's total consumption of copper wire and cable increased at a CAGR of 8.2% from 2007 to 2012.

The Chinese metallic wire and cable industry is highly fragmented. There are approximately 7,000 metallic wire and cable producers in China, more than half of which are private companies. Most manufacturers are located in East China, including Jiangsu, Zhejiang, Hebei, Anhui and Guangdong provinces. According to National Bureau of Statistics data, the top 19 metallic wire and cable producers accounted for less than 12% of total production by value. Price competition has become intense, particularly since 2009, as a result of the global economic recession and a rapid surge in new production capacity. There are currently more than 500 metallic wire and cable manufacturers in Sichuan Province alone.

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Chinese Domestic Demand for Copper Wires and Cables

The Chinese metallic wire and cable market, which is dominantly copper wires and cable, has exhibited strong growth over the last decade. By 2012, China's consumption of metallic wire and cable accounted for 31% of the global market and is expected by CRU to remain approximately at this level in the coming few years. Copper cable market growth slowed down in 2011 and 2012. Total copper wire and cable consumption in China will grow at CAGR of 4.9% over the forecast period compared to 8.2% in the period from 2007 to 2012. The following table sets out historical or estimated Chinese copper wire and cable consumption from 2007 to 2016.

	2007	2008	2009	2010	2011	2012	2013E	2014E	2015E	2016E	CAGR 2007- 2012	CAGR 2012- 2016
(Thousands of metric tons of conductor)												
Low Voltage												
Energy	1,233	1,392	1,588	1,695	1,779	1,830	1,908	1,990	2,072	2,158	8.2%	4.2%
Power cable	1,058	1,246	1,467	1,588	1,650	1,738	1,837	1,941	2,042	2,141	10.4%	5.2%
External												
Telecom	43	32	22	20	19	18	17	16	15	13	-15.6%	-7.9%
Internal												
Telecom/Data	36	46	71	80	105	112	119	124	129	134	25.8%	4.0%
Winding Wires	928	957	978	1,130	1,131	1,198	1,246	1,318	1,392	1,469	5.2%	5.6%
Total	3,297	3,674	4,127	4,513	4,684	4,896	5,127	5,389	5,650	5,915	8.2%	4.9%

Source: CRU

The growth in Chinese production and consumption of copper wires and cables is primarily driven by the following factors:

Demand for LV energy cable: The three main product sub-sectors in the LV energy cable sector are building wires, automotive wires and appliance wires. In addition, there is also a significant output of flexible cables, plus other demand from industry and from sectors such as shipbuilding, mining and railways. Flexible cables are used in cord-sets, mainly power leads for domestic appliances and extension cables, and China is a major exporter of these products. China's LV energy cable demand grew at a CAGR of 8.2% between 2007 and 2012.

- *Demand from the building and construction industry:* A significant amount of wires is used in the construction industry, and in particular the real estate sector. The Chinese construction industry experienced production growth in excess of 10% between 2005 and 2009 but has since slowed due to government's credit and buying control policies on the residential market. In February 2013, the Chinese government announced a new policy to control the property market that may further negatively impact sales. However, the PRC government's announced plan to complete 4.7 million units of government housing for low-income families and start construction of 6.3 million units in 2013 will lend support to the consumption of building wires.

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- *Demand from the automotive industry:* It is estimated that automotive wire production has broadly grown in line with automotive production, with each new car requiring around 65 sets of wiring harnesses according to the China Electronic Components Association. China has become the world's largest producer and consumer in the auto industry. Chinese automotive production was 20.6 million units in 2012, up 7.3% year-on-year. Chinese automotive production and sales grew between 5% and 10% in 2011 and 2012 following dramatic growth of between 30% and 50% in 2009 and 2010. Annual growth in Chinese automotive production is forecast to regain the momentum and stabilize above 10% each year until 2016.
- *Demand from home appliance:* China's home appliance industry saw huge growth in 2009 and 2010 driven by stimulus packages, while its output declined a little recently. Sales in the urban areas also fell due to macro controls on the property market and the expiration of stimulus plan. Looking ahead, the negative factors affecting the white goods industry include the global economic turmoil; RMB appreciation and the volatile commodity prices. While the opportunities include the effects on demand of continuing urbanization; social housing construction; lower inflation and opportunities for industry upgrading. Overall, growth rates of home appliance production are expected to rebound in 2013, and likely to stabilize beyond 2013.
- *Demand from mining cable:* Mining cable refers to flame retardant cable used in coal mining. China's coal production has increased significantly over the past decade to meet the soaring demand from power, metallurgical and chemical industries, growing from 1.4 billion metric tons in 2000 to 3.2 billion metric tons in 2010. However, due the recent regulation on coal mining in China (including Sichuan Province) and subdued prices, the growth rate of coal production slowed in 2012. In the 12th Five Year Plan, Chinese coal production is anticipated by CRU to reach 4.1 billion metric tons by 2015, with a CAGR of 4.8% from 2010 through 2015, which will continue to support moderate growth in the demand for mining cable.

Demand for power cable: China's power industry development was driven by growing power generation from 2005 through 2010 and is expected to be driven by power grid construction from 2011 through 2015 as well as the upgrading of provincial power grids. Moreover, there is an increasing trend towards long distance and ultra high voltage power transmission. A UHV (Ultra High Voltage) power grid will be built as the backbone of the PRC's smart grid, supported by a communication platform, through intelligent control, including electricity generation, transmission, substation, distribution, electricity consumption and dispatching which will cover all voltage levels. China's demand for power cable has grown at CAGR of 10.4% over 2007 to 2012 to 1.7 million metric tons of conductor. CRU has a cautiously optimistic outlook for power cable usage in power infrastructure in 2013 based on the following: 1) strong power investment will continue to boost wire and cable demand, and 2) in terms of power cables, the government will continue to improve electricity accessibility and encourage industrialization in the inland and western region of the country, which will have great potential of both consumption and production growth. China's power industry investment from 2011 to 2015 is forecast at RMB6.1 trillion, up 88.3% compared to the past five years, including a power generation investment of RMB3.2 trillion and a power grid investment of RMB2.9 trillion. In terms of the long-term market, CRU believes that the strong investment in the electric power industry will boost power cable consumption.

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Demand for copper telecom cables (both external and internal): China's demand for copper telecom cables (both external and internal) grew 4.7% in 2012, and China accounted for 11% of the world market. The share is anticipated to keep steady by 2016. China's demand for internal telecom/data cable has experienced a significant growth with CAGR of 25.8% by volume and 25.3% by value from 2007 to 2012. They are mostly used in financial, government, transportation industries and large international firms, and the demand is expected to grow steadily going forward. However, the demand for external copper telecom cables has declined at a CAGR of 15.6% from 2007 to 2012, which is expected to continue down at a CAGR of 7.9% up to 2016 by volume. The reasons for these substantial reductions arise from the switch in China from net additions of fixed lines using traditional copper twisted pairs in all previous years to a net reduction in recent years, as families decide that a fixed landline is not needed in addition to mobile cellular service.

Demand for winding wire: The continuing growth of the Chinese economy and a growing middle class with disposable income meant that there has been strong demand growth for domestic appliances, electrical and electronic goods, motors, transformers, etc, and therefore winding wire as well. China's domestic consumption of winding wire grew at a CAGR of 5.2% during the period from 2007 to 2012, which is expected to continue at CAGR of 5.6% over the forecast period. China's winding wire consumption growth increased by 5.9% in 2012 from 2011 compared to 0.1% in 2011 from 2010 due to appliances and motors.

The Supply of Chinese Copper Wires and Cables

In 2002, China became the world's largest producer of copper cables by volume. The total output of copper wires and cables reached 5.6 million metric tons in 2012, up from 3.6 million metric tons in 2007, growing at a CAGR of 9.5% over the period. The largest contributors are LV energy cable, power cable and winding wire sectors, but there has also been rapid growth in internal telecom cable output. The overall production of copper wire and cable in China is likely to almost double in 2016 from 2007 levels, albeit a slower CAGR of 5.1% over the forecast period.

The following table sets out historical or estimated Chinese copper wire and cable production from 2007 to 2016.

(Thousands of metric tons of conductor)	2007	2008	2009	2010	2011	2012	2013E	2014E	2015E	2016E	CAGR 2007-2012	CAGR 2012-2016E
Production Volume												
Low Voltage Energy	1,447	1,675	1,921	2,094	2,206	2,335	2,429	2,549	2,675	2,803	10.0%	4.7%
Power cable	1,071	1,270	1,497	1,624	1,704	1,812	1,911	2,023	2,143	2,262	11.1%	5.7%
External Telecom	44	33	24	22	21	20	19	17	16	15	-14.8%	-7.2%
Internal Telecom/Data	145	168	176	198	223	235	247	257	266	273	10.1%	3.8%
Winding Wires	872	940	994	1,127	1,201	1,235	1,286	1,365	1,445	1,527	7.2%	5.4%
Total	3,579	4,086	4,612	5,064	5,355	5,637	5,892	6,211	6,545	6,880	9.5%	5.1%

Source: CRU

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The largest PRC domestic producers of copper wires and cables ranked by production value in 2012 are set out in the table below.

(US\$ million)									
Company		LV energy	Power	Copper telecom	Int/Data	Winding wire	Fibre	Total	% of Total
Jiangsu Shangshang	江蘇上上電纜集團有限公司	613	1,001	0	0	0	0	1,615	2.8%
Shanghai Shenghua	上海勝華電纜集團	525	860	0	0	10	0	1,395	2.5%
Far East Holding Group	遠東控股集團有限公司	332	980	0	0	0	0	1,312	2.3%
Tongling Jingda	銅陵精達特種電磁線股份有限公司	0	0	0	0	1,186	0	1,186	2.1%
Baosheng Group	寶勝集團	247	853	0	10	0	0	1,110	2.0%
Xingle Group	興樂集團	520	370	0	20	55	0	965	1.7%
Suli Group	天津塑力線纜集團	370	480	0	45	0	0	895	1.6%
Wuxi Jiangnan Cable	無錫江南電纜有限公司	210	587	0	0	0	0	797	1.4%
Hengtong Group	亨通集團有限公司	105	146	65	82	0	388	786	1.4%
TBEA	特變電工股份有限公司	120	520	0	0	0	0	640	1.1%
Total in the PRC		22,689	16,053	676	2,481	11,068	3,785	56,752	100%

Source: CRU

Note: Value of production is the product of the weight of copper in the wires and cables produced and the average copper price during the relevant period.

Global Copper Wire and Cable Prices

CRU's estimates for average prices of certain wire and cable products from 2007 to 2012 are in the following table. This shows that after two years of rising prices in 2010 and 2011, total prices fell as a result of lower average metal prices. The average price of copper in 2012 fell by almost US\$900 per metric tons compared to that of 2011. CRU estimates that the average price of energy cables and winding wire fell by around 8% in 2012 from 2011 while the average price of communication cables fell 6% in 2012 from 2011, with the metal content of these cables being generally lower.

(US\$ per metric ton of conductor)	2007	2008	2009	2010	2011	2012E	CAGR 2007- 2012
Low Voltage Energy	10,487	10,407	8,307	10,690	11,868	10,914	0.8%
Copper Power	10,971	11,137	9,039	11,206	12,395	11,413	0.8%
External Telecom	13,231	13,443	11,770	13,616	15,185	14,260	1.5%
Internal Telecom/Data	18,543	18,377	16,006	18,015	18,959	17,879	-0.7%
Winding Wires	8,515	8,436	6,573	8,944	10,283	9,449	2.1%

Source: CRU