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Tim Murray
+852 2534 7405
tim@jcapitalresearch.com

Survey Structure

13 copper fabricators and suppliers to copper fabricators:

- ▶ 3 cable and wire manufacturers
- ▶ 2 transformer manufacturers
- ▶ 2 copper pipe makers
- ▶ 1 copper sheet and strip company
- ▶ 3 traders in copper anode
- ▶ 2 scrap traders (1 domestic, 1 international)

Regional:

- ▶ 5 East China
- ▶ 4 South China
- ▶ 3 Central China
- ▶ 1 North China

Ownership type:

- ▶ 5 SOE
- ▶ 5 private
- ▶ 3 Central China
- ▶ 3 foreign

The total amount of copper consumed/traded by the survey group is 885,000 tons (approx. 10% of total copper consumed in China). 3 companies trade/consume 690,000 tons and the other 10 companies typically consume around 10 – 30,000 tons.

- ▶ **Repeat sources: All**
- ▶ **Interviews Apr 11 - 15**

Objectives

To understand the current demand and outlook for copper from different sectors and in total. We survey, sales, price, inventory, financing, and the industry environment to build a picture of demand and outlook. competition environment.

Copper Survey Q1 2016

Demand down 4–5% in Q1 2016

- ▶ **Copper demand down 4-5%.** Nine out of 13 respondents to our survey said end demand for copper had fallen YoY. The two respondents who saw sales grow supplied the auto sector and the power grid. Auto manufacturing capacity is rising much faster than auto demand. We expect materials demand in autos to grow this year and then stagnate and fall.
- ▶ **Construction demand down 10%.** Cable and wire manufacturers said construction demand was down sharply. Everyone in the value chain, copper traders, scrap copper traders and copper pipe manufacturers all stated that construction demand for copper was down.
- ▶ **White goods demand down 5%.** Cable and wire and copper pipe manufactures said that white goods producers have slowed production and are struggling with excess inventory. It is telling that the National Bureau of Statistics has yet to release any data for 2016 for cable and wire or whitegoods production.
- ▶ **Copper is no longer being used** for financial speculation by players in the industry. Many gray market lenders that operate as copper traders to extend loans to processors have exited or are reducing exposure to the sector. Bonded stocks have increased, however, since international prices were lower than Chinese prices in March.
- ▶ **Processors have very low inventory levels.** Even in a rising-price environment inventory is not going up. Reasons given are falling demand, uncertainty about price and tighter financing. Traders and processors stated that given current excess supply, copper can always be purchased when needed.
- ▶ **Copper imports have increased** as there has been a surge in copper futures trading, pushing China domestic copper prices up faster than LME prices throughout March by around USD 100/ton. The trading volume surge in copper futures was well below that of iron ore.

No Rebound Evident in Copper Markets

Table 1. Demand Estimates Q1 2016

	Share of Market Demand	Q1 2016 Demand Growth YoY
Power Grid	26%	0%
Construction	35%	-10%
White Goods	14%	-5%
Auto	8%	25%
Industrial	10%	-20%
Electronics	7%	-5%
Total		-4.5%

Source: J Capital

Despite the flow of data from China indicating that real estate and property construction are improving, we have found that construction demand for copper and the closely related demand for white goods are down. The slow release of data from the NBS on copper does not surprise us, as the demand picture does not match the government’s positive narrative about a rebound.

Copper prices did not experience the same rally as did those for steel and iron ore. Copper prices rose in early March only to fall back again to recent lows. The copper price is back up, and we feel that is more due to the peak demand season in Q2. The outlook for Q2 is slightly more positive, with six out of 13 respondents believing copper demand will rise, but most gave seasonal reasons for improvement.

Demand from the auto sector was the standout in Q1. We had expected power grid demand to be stronger as, according to Wind, power grid investment is up 41% YTD March 2016, but the respondents reported flat demand.

Traders tell us that domestic production of copper anode is down this year and imports increased. National statistics on production of copper for any month in 2016 have yet to be published. Customs data show copper imports are up 29% YTD March and copper scrap down -5% for the same period. Trader told us imports increased as imported copper was USD 100 cheaper than domestic copper for most of March.

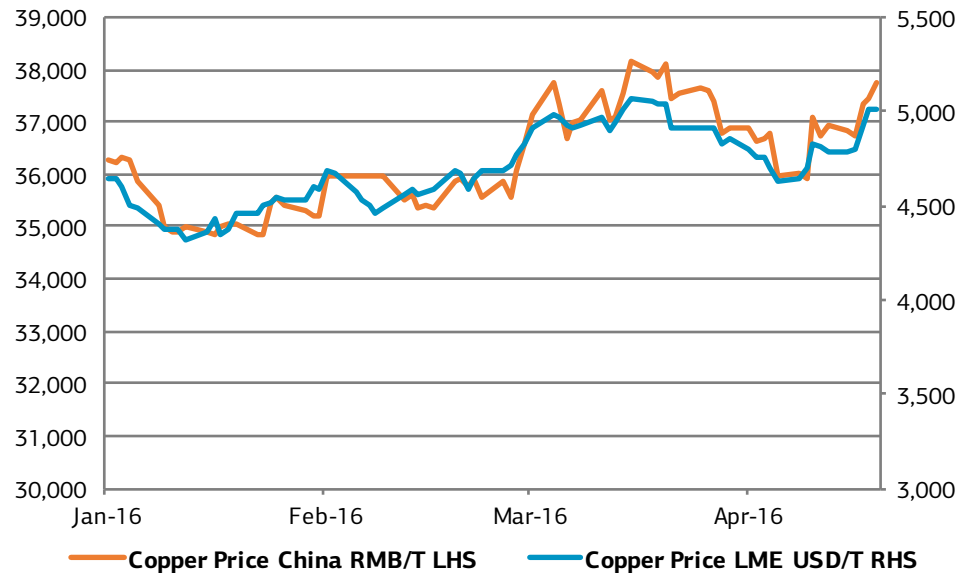
Demand from the auto sector was the standout in Q1

April 26, 2016

The Chinese futures market experienced a surge in volume in March that pushed up Chinese futures faster than LME copper prices. Futures trading in China was sequentially up but within the trading range of the past 18 months, unlike iron ore futures, where volume has been more than five times above the average of the preceding 12 months.

We expect continued industry consolidation. Survey respondents indicated that the rate of companies exiting the industry is double the normal rate. Two major SOE copper processors, Chinalco East China Copper and Shanghai Copper, have merged. Yunnan Copper has stopped production. Most survey participants said a number of SME processors and traders have exited the market.

Chart 1. Copper Price LME and China Domestic Prices



Source: Wind, J Cap

Table 2. Copper Demand Q1 2016 and Outlook for Q2 2016

Company	Supplies	Type/Region	Sales Vol 2016 1Q PoP	Sales Vol 2016 1Q YoY	Demand Drivers	2016 Q2 YoY Estimate	Demand Outlook
Cable and wire	10,000 tons to Autos, White goods	Foreign/South China	10%	30%	They have 3 new auto parts customers	35%	Positive about opening new accounts
Cable and wire	20,000 tons to construction industry and grid	Foreign/East China	-10%	- 5%	Construction projects are consuming less, progressing slower and some have stopped.	Improving	Expecting orders delayed in Q1 to be placed in Q2

April 26, 2016

Company	Supplies	Type/Region	Sales Vol 2016 1Q PoP	Sales Vol 2016 1Q YoY	Demand Drivers	2016 Q2 YoY Estimate	Demand Outlook
Cable and Wire	7,000 tons to power and communications industry, warehouse automation, control systems, cable harness factories	Private/ East China	-10%	- 15%	Long holiday period. The entire economy is down, orders are less and finance is tighter. The real estate sector is down and this has directly led to a sharp downturn in cable and wire sales. Machine building is also down	Improvement	Q2 is peak season.
Transformer Manufacturer	140,000 tons of High voltage transformers to grid (30%), auto, chemicals, coal, rail, metallurgy	SOE/ North China	-70%	-23%	Demand is falling. They have won less State Grid tenders.	Flat	Increased orders from State Grid, demand from new energy projects will improve.
Transformer Manufacture	3,000 tons to grid, power plants, industrial and rail	Private/ central China	-5%	150%	There are less projects than Q4. State Grid tenders were earlier this year.	10%	A few new power plants will place orders.
Copper Pipe	10,000 tons to power plants, auto, bathroom plumbing, electronics	SOE/ Central China	-15.6%	-32.6%	The market contracted. We changed product offering and reduced work force. Power grid synchronous condenser (machines that regulate voltage) have stopped using copper pipes and now use stainless steel.	-10%	Q2 is the peak period and so sales should improve. With less employees we cannot achieve the same level as last year.
Copper Pipe	400,000 tons to 80% White goods, 20% construction	Private/ Central China	20%	-5%	Q4 was a low period. Q1 was the start of the peak season. The fall YoY is due to high stock levels at our end users and lower demand from whites goods manufacturers	-10%	Clients are reducing production

April 26, 2016

Company	Supplies	Type/Region	Sales Vol 2016 1Q PoP	Sales Vol 2016 1Q YoY	Demand Drivers	2016 Q2 YoY Estimate	Demand Outlook
Copper sheets and strip	15,000 tons to electronics Sector	SOE/ East China	Flat	Flat	The market is down but we are increasing market share. Mobile phone and computer demand is down but the new apple product is up.	Down	Peak season is over now.
Trader – Copper anode	150,000 tons, White goods, processors, traders	Private/East China	-30%	10%	Processors and trader demand has fallen	20%	Expecting demand to improve
Trader – Copper anode	150,000 ton to grid, white goods	SOE/South China	60%	Sales not started in Q1 2015		30%	Ecommerce platform that is disintermediated traders. Taking market share and Q2 is the peak period.
Trader – Copper anode	20,000 tons to construction, auto and trading	SOE/ South China	-40%	-40%	Wealth management product returns are down so less investment interest in copper. There is a lot of inventory in the market, trading is difficult. The market was down in 1Q, particularly construction. We are getting out of the financing business.	Down	Looking for new customers
Scrap Trader - imported	40,000 tons to Scrap processors, refineries, brass processors	Foreign/East China	20%	-5%	Peak period so demand is up but less than last year. Global the rate of scrap copper collection is falling. Cable demand is lower than last year.	Flat to down	Orders will be good in April and May.
Scrap Trader - domestic	20,000 tons to White goods, clothing	Private/South China	20%	-20%	Overall environment is down, we have fewer downstream customers. Supply is greater than demand. Construction demand is down and electronics is worst. No sector has good demand	-20%	End demand is declining

April 26, 2016

Table 3. Copper Inventory in Industry

Company	Supplies	Inventory YoY	Reason	Outlook for 2016	Customer Inventory Levels	Why	Outlook for 2016
Cable and wire	10,000 tons to Autos, White goods	Flat	Only buying when orders come in.	Flat	Flat	Customers can purchase and receive goods on the same day. So no need for inventory	Flat
Cable and wire	20,000 tons to construction industry and grid	Flat	Holding just enough for rushed orders. Zero inventory strategy	Flat	Flat	Price is volatile, hard to pick when to hold stock	Inventory will increase as there are more projects in Q2 and expect price to rise.
Cable and Wire	7,000 tons to power and communications industry, warehouse automation, control systems, cable harness factories	Flat	Zero inventory strategy	Flat	Down	Supply is greater than demand and so consuming inventory	Inventory may rise. There is virtually no financial speculators in copper now.
Transformer Manufacturer	140,000 tons of High voltage transformers to grid (30%), auto, chemicals, coal, rail, metallurgy	flat	Zero inventory strategy	Small increase	Industry no inventory. Grid down 10%.	Grid companies are not doing well as electricity consumption is down.	Down, as the overall economic environment is worse than last year.
Transformer Manufacture	3,000 tons to grid, power plants, industrial and rail	Flat	Demand is down	Flat	None	Demand poor and finance tight	Expect demand to improved but this is seasonal
Copper Pipe	10,000 tons to power plants, auto, bathroom plumbing, electronics	-60%	Purchasing when we have orders	Up	Down 15%	Tighter credit conditions	Expect they will increase.
Copper Pipe	400,000 tons to 80% White goods, 20% construction	Zero inventory	No change	No change	Down 1%	Customers have huge inventory pressure. They have reduce output and are trying to reduce inventory	White goods sector has sufficient inventory for one year of sales.

April 26, 2016

Company	Supplies	Inventory YoY	Reason	Outlook for 2016	Customer Inventory Levels	Why	Outlook for 2016
Copper sheets and strip	15,000 tons to electronics Sector	-15%	Controlling costs and conserving funds	Flat	Flat	Lower over the previous period as there was restocking at the end of last year.	The market outlook is not positive, demand is poor and customers are changing requirements
Trader – Copper anode	150,000 tons, White goods, processors, traders	25%	Spot prices are lower than futures and so holding more stock.	Depends on price differential with futures. Expect to increase	Down – no inventory	Total inventory in Guangdong is only 46,000 tons	End demand is improving we can see that in buyers keen to get stock.
Trader – Copper anode	50,000 ton to grid, white goods	Flat	Industrial demand is down	Increase as expect industrial demand to improve	Small Increase	Stocks are low and prices are rising	Price increase got ahead of demand. Demand has not improved.
Trader – Copper anode	20,000 tons to construction, auto and trading	Zero inventory	We finance copper sales as the core of our business	Flat	Down	Supply is greater than demand and customers are trying to consume inventory	May increase as there are no speculators left in the market. Regulations have forced them out.
Scrap Trader - imported	40,000 tons to Scrap processors, refineries, brass processors	-15%	Low supply of scrap. Demand fell after CNY. Factories are operating at low rates.	5% We are optimistic demand will improve	Flat	Q1 is a peak time	No increase
Scrap Trader - domestic	20,000 tons to White goods, clothing	35%	Sales are poor, last year everyone followed us around for sales. Not this year.	flat	10%	Poor sales in peak season. Electrical machinery is up as is clothing.	Nobody is willing to restock this year like they did last year

Table 4. Finance

Company	Type/Region	Financing	Rates	AR
Cable and wire	Foreign/South China	Increasingly difficult, there is less bank credit, risk is rising.	BAN 5% (only use BAN no grey market loans)	AR were 60 days and now are 90. Around 20% of customers are in default. They are all SME. 20% default is not industry standard.

April 26, 2016

Company	Type/Region	Financing	Rates	AR
Cable and wire	Foreign/East China	Banks have tightened lending and grey market lenders are leaving the industry.	BAN cash discount rate is 6%	AR days have been extended but they are not experiencing default. They are cutting off customers before they go bad. .
Cable and Wire	Private/ East China	As the economic environment deteriorates we have increasing bad debts. It is harder for us to raise capital.	BAN 3.6% (annualized), grey market 8 – 20% or more.	A portion of customers have longer AR and some are now in default.
Transformer Manufacturer	SOE/ North China	Finance channels are less.	Grey market loans are 3% per month.	AR period is longer but defaults are very few.
Transformer Manufacture	Private/ central China	Started to get worse last year and is now the same.	BAN 1.5 – 3%	About 5-10% of customers have extended AR by 3 – 4 months.
Copper Pipe	SOE/ Central China		BAN costs went up from 4.35% to 5.63%	Long term customers paying on time. Casual customers must pay use before taking delivery.
Copper Pipe	Private/ Central China	No Change	No response	We control payments and all are being made on time.
Copper sheets and strip	SOE/ East China	About the same, slightly harder to get funds	Standard bank rates	Slightly worse, but we are controlling well.
Trader – Copper anode	Private/East China	Funding is much better than last year. Banks still prefer to give loans to SOEs and large listed companies.	1 Year Bank BAN discount to cash is 3.4%. LOC 3.7%	We require prepayment
Trader – Copper anode	SOE/South China	We cannot get financing for copper but we can use other metals we trade to get finance.	BAN 180 days has a rate of 3.3%, shadow banks are 12–18% (For SOEs)	No change in payments.
Trader – Copper anode	SOE/ South China	We reducing our copper financing business, our bank loans are shrinking. There is less funds from WMP's	Shadow bank loans are 12-15%	We are reducing days of pays of payments. Many traders are exiting g the market.
Scrap Trader - imported	Foreign/East China	We have our own source of funds. Demand is high but supply of finance is low.	USD LOC increased from 1.1 to 1.6%	AR payments are slowing. We previously required payment when goods arrived at port, now it is 2 – 3 weeks later.
Scrap Trader - domestic	Private/South China	We use our own funds	There is almost no gray-market financing in the copper trade now.	We don't have any bad debts and our terms have tightened this year.

April 26, 2016

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