HEARD IN ASIA

A Threat to Metals Prices: Plastics

A Shift by Manufacturers To Less-Expensive Copper Substitute Would Realign Demand

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BANGKOK, Thailand -- Amid the recent carnage in metals prices, some market watchers see a new risk, and they can sum it up in one word: Plastics.

When prices for copper, nickel and other raw materials stay high for long periods of time, big commodity users often look for alternatives. These can include an array of substitutes -- notably plastics, but also a variety of other materials -- that might not be as good as the preferred metal, but cost a lot less.

Homebuilders, for instance, can save large sums by substituting plastic pipes for copper plumbing. Makers of air-conditioning units can replace copper coils with components made from less-expensive materials, such as aluminum.

Such substitution strategies aren't expected to add serious new downward pressure to commodity prices anytime soon. Despite the recent big drops in metals prices -- copper, for instance, has fallen about 15%

over the past month amid fears of higher interest rates and slower global growth -- most analysts expect commodity costs to remain above their historical averages for some time to come.

That is because mining companies are still struggling to develop new supplies, and demand in China, India and other developing countries is expected to remain strong. At about $7,000 per metric ton, copper is still more than four times its 2001 price and about 60% higher than at the start of the year.

With higher energy costs, prices for substitutes like plastics and aluminum have risen, too, but not nearly as much as some other metals. Although plastics are often made with oil, raw materials make up a smaller percentage of the cost of the final product than they do for items like copper pipe. Meanwhile, aluminum is only up about 65% since 2001, in part because it faces fewer supply constraints than metals like copper.

Over the longer term, though, analysts say the "substitution" effect could produce some permanent changes to the market that could have a profound impact on metals prices. If more raw material users switch out of certain products, particularly copper, it could result in much lower-than-expected demand. That would allow mining companies to catch up with demand more quickly -- and perhaps even mark the beginning of the end for the current long-running commodity boom, which kicked off around 2002.

CRU, a London commodity-research firm, says some substitution is already occurring. After a recent three-month study, CRU concluded that the use of plastic pipes and other alternatives cut copper demand by as much as 250,000 metric tons last year -- roughly 1% of world-wide consumption.

While 1% might not sound like much, it could be enough to have a big impact on prices at a time when the copper market is extraordinarily tight. The loss of 1% could make the difference between a market that has excess copper and one in deficit.

CRU predicts there could be more substitution in other businesses ahead. It cites air-conditioning units, for example, as a big source of demand for copper coils, used to transfer heat.

In the U.S., Milwaukee-based Johnson Controls Inc. has begun promoting a new type of unit that uses aluminum instead of copper. Although the switch to aluminum was driven by other factors, including a desire to reduce the size of the unit, it also cut costs for the company. Analysts suggest Chinese manufacturers could follow suit -- a potentially important development since Chinese demand for air-conditioning units has been red-hot.

COMPANIES

Dow Jones, Reuters

Johnson Controls Inc. (JCI)		
PRICE	79.59	
CHANGE	-0.87	
	1:21p.m.	
BHP Billiton Ltd. ADS (BHP)		
PRICE	38.53	
CHANGE	-1.38	
	1:21p.m.	
Rio Tinto PLC ADS (RTP)		
PRICE	197.42	
CHANGE	-3.32	
	1:20p.m.	
Phelps Dodge Corp. (PD)		
PRICE	77.72	
CHANGE	-2.38	
	1:21p.m.	
Freeport-McMoRan Copper & Gold Inc. (FCX)		
PRICE	46.75	
CHANGE	-1.55	
	1:21p.m.	

* At Market Close

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If Chinese A/C makers switch out of copper, "you could see some large losses [in demand] very quickly," says Jon Barnes, an analyst at CRU.

Still, other metals analysts believe the threat to commodities markets from substitution is overstated, and say any impact is still a long way off. Many of the best substitutes are already quite expensive, these analysts note. Also, switching to different materials may require big investments in new equipment, a major deterrent to more substitution.

Also, some replacement materials just don't work that well. In China last year, producers of stainless steel decided that nickel -- a key raw material -- was getting too pricey. Producers began using less nickel and more manganese, and global nickel prices fell more than 25%, showing how sensitive markets are to substitution.

But it turned out that the new stainless steel varieties weren't sufficiently weather-resistant. Chinese producers began switching back to nickel this year, despite the high cost, and the metal's price soared to a record in May.

"People do substitute" when they can, says William Adams, a metals analyst at BaseMetals.com, a London-based commodities research outfit. But "these things do take time," he says. He reckons commodity prices might need to go even higher before they trigger widespread switching. Instead, he thinks commodity prices could decline a bit more in the near term before they "consolidate" at a level that's still well above the lows of a few years ago.

For equity investors, many analysts remain upbeat on mining companies, despite the threat of substitution. This is especially true after the shares of mining companies fell in recent weeks, creating a buying opportunity for metal bulls. A number of institutions, including CreditSuisse and Numis Securities in London, have reiterated their support for mining companies in recent days.

But investors with a long-term outlook might want to hedge their bets by sticking with mining companies that produce a range of commodities rather than individual metals that are susceptible to substitution, like copper.

Anglo-Australian mining giant BHP Billiton has oil, aluminum and other investments that could offset any declines in the price of copper. Another big Anglo-Australian firm, Rio Tinto, produces a similarly wide array of minerals. But many other big mining companies -- like U.S.-based Phelps Dodge Corp. and Freeport-McMoRan Copper & Gold Inc. -- have narrower exposure, focusing on commodities such as copper and gold.

In commodity trading yesterday:

CRUDE OIL: Futures rose for a second straight session as bargain-hunters returned to the market after two sessions of steep losses. The July crude contract on the New York Mercantile Exchange rose 36 cents to $69.50 a barrel.

GOLD: Prices took part in a broad rally in commodities, in particular aided by stronger crude oil and stocks and a softer dollar. On the Comex division of the New York Mercantile Exchange, June gold rose $4.20 an ounce to $566.50.

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