Commodities

Copper: How Does The Story Play Out?

Commodities | Australia

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- Copper remains our preferred base metal for equity investment exposure, and by a wide margin. Quite simply, we believe demand growth is outpacing supply due to a variety of constraints that are well understood by the market.
- We have a high conviction that the market is moving into a period of acute shortage. Our base case forecast is for gradually widening annual deficits over a five-year period (2010-2014), with gradually rising annual average prices.
- But commodity markets seldom evolve so smoothly. We consider an alternative scenario wherein a larger deficit develops more rapidly - perhaps as soon as 2011 - and causes a dramatic price spike. We think that new mine production will arrive only slowly, so that a significant degree of demand destruction would have to occur to rebalance the market. If a large enough substitution "event" occurred, the outlook for copper could change significantly and the price could then collapse quite quickly.
- For equity investors, the good news is that we believe the copper price would almost certainly have to go considerably higher before such a substitution event and price collapse would occur. This means that we would continue to recommend equity exposure to copper as the early stages of such a scenario unfolded. The bad news is that the durability of the copper investment proposition would be considerably shorter than our base case forecast implies.
- We stress that this article is provided as food for thought, rather than as a change in our view of the copper market. There are no changes to our copper price forecast (Table 1).

COPPER: How Will the Deficit and Price Profile Likely Evolve?

Table 1:

Refined Copper: Base Case Market Balance and Price Outlook

		2006	2007	2008	2009	2010f	2011f	2012f	2013f	2014f
Consumption:										
OECD Countries	('000t)	9399	9135	8447	6809	7189	7495	7716	7782	7793
China	('000t)	3998	4777	5055	6383	7053	7653	8265	8761	9287
Other Emerging Mkts	('000t)	3970	4226	4431	3838	4244	4483	4690	4896	5108
Global	('000t)	17367	18138	17933	17030	18487	19632	20671	21439	22187
% change		*3.2*	*4.4*	*-1.1*	*-5.0*	*8.6*	*6.2*	*5.3*	*3.7*	*3.5*
Supply										
Global	('000t)	17174	17841	18073	18129	18365	19417	20410	21219	21833
% change		*3.9*	*3.9*	*1.3*	*0.3*	*1.3*	*5.7*	*5.1*	*4.0*	*2.9*
Surplus/(deficit)	('000t)	-193	-297	140	1099	-121	-214	-260	-220	-354
Inventory / Consumption	(days)	12.4	11.4	14.5	21	18	14	10	10	9
Annual average price	(USc/lb)	305	323	315	234	340	406	415	420	425

Source: CRU International; GS&PA Research estimates

From the outset, we need to be very clear that copper remains our preferred base metal for equity exposure, and by a wide margin. The arguments are well-understood; the incumbent mines are struggling with lower ore grades, and the availability of large greenfield projects for rapid development is poor. Because of these constraints, demand growth, courtesy of the emerging markets, is outpacing supply.

We therefore have a very high degree of conviction that we are moving into a period of more acute shortage which, as its most visible barometer, is likely to see declining LME/Comex stockpiles over the next six - twelve - twenty-four months.

Essentially, we believe this to be a consensus view, so we add very little value by restating the fact that we like copper. This article is not intended to be either bearish or contrarian; rather, we are looking to provide some food for thought, by exploring an alternative scenario to our base case through which the copper story might play out over the medium term.

The three issues that are exercising our minds at the moment are:

1. **How quickly will the market deficit develop?** We currently model gradually widening deficits over the next four years. But if a larger deficit were to eventuate in 2011, what would be the implications for subsequent years, given the limited amount of inventory available to the market?
2. **How should we map a price outcome onto such a scenario?** We currently model a gradual rise in annual average prices over the next four years, but markets seldom evolve so smoothly. What is the likelihood of a price spike in 2011, and if that happened how would prices evolve in subsequent years?
3. **How much is already priced in for the impending copper shortage?** In 2009, we had a c. one million global copper surplus; this year we will end up with a modest deficit, probably between 100,000 and 200,000 tonnes. A decade ago, this pattern of large surplus transitioning to modest deficit might have yielded a price perhaps 15% above the ninth decile of the cost curve - which would suggest to us a "fair price" of around 200c/lb in today's terms. So why are we currently trading closer to 400c/lb?

Let's start with the third of these questions. Commodity sceptics might be inclined to dismiss the difference between the "fair price" of 200c/lb, and today's cash price of 375c/lb as "speculative froth". We think that would be harsh. Compared with a decade ago, markets have become much more forward-looking in their pricing of metals. The market believes that, with a 12-month view, a copper shortage is far more likely than a surplus, and is therefore already inclined to price copper towards a level that would ration demand. Based on our reading of copper's fundamentals, we think the market is right; availability of copper will continue to decline, and in the absence of sufficient new supply, demand needs to be rationed to balance the market. So our base case forecast (Table 1) assumes that copper's fundamentals "catch-up" with the price over the next few months.

ALTERNATIVE SCENARIO: Larger 2011 Deficit - Price Spike - Price Collapse

But what would happen if next year's deficit is 500,000 tonnes (or more) rather than the 214,000 tonnes we are currently modelling? In our view this could easily happen. Suppose China's demand grows at 10% (instead of our forecast 8.5%), and mine production grows at only 4% instead of our projected 6.6%. Under these circumstances, LME/Comex stocks could reasonably fall back below the 50,000 level (as occurred in 2006); panic buying (China) could ensue, "momentum investors" could further exacerbate the tightness, and the price could spike dramatically. Furthermore, there is a possibility that by mid-2011 part of the remaining LME stockpile could be quarantined by physically-backed ETFs. After what happened in the nickel market in 2007 (US$24/lb), it would be a brave analyst to deny the *possibility* of $5, $6, $7 copper price or even higher.

How would this play out in subsequent years? The one thing of which we can be reasonably assured is that new copper mine production will be slow in coming to the rescue. Scrap availability would improve somewhat, but nowhere near enough to prevent demand rationing. Therefore we see that it would be demand that has to give way.

Let's suppose - and this is certainly NOT our base case assumption - that copper price and unavailability get to a stage whereby governments in certain emerging markets legislate to allow aluminium, or even copper-clad aluminium building wire. This is a deliberately extreme example of what would be a major substitution event, and there are technical reasons as to why we think it unlikely - currently, at least! But the reality is that the physical copper market can't go to "negative inventory", and if adequate supply growth is not forthcoming, the price will rise and the risk of a major demand destruction event increases.

Within the space of a couple of years the copper market outlook could swing dramatically, with demand growth slowing just at a time when new capacity is starting to come to market. Copper would fall out of favour with investors, and prices would collapse. The quicker the deficit develops and the higher the price rises, the more likely that it all "ends in tears".

We offer two observations:

1. In our opinion it is the risk of this type of scenario that should guide regulatory authorities charged with considering the approval of physically-backed ETFs for industrial metals, particularly for metals that are already in short supply. In our view, ETFs are not in the longer term interests of either metal consumers or producers.
2. From the perspective of equity investors, the good news is that for the copper story to "end in tears" in the manner that this scenario suggests, the price would almost certainly have to go considerably higher before a substitution event and price collapse occurs. This means that we would continue to recommend equity exposure to copper as the early stages of this (hypothetical) scenario unfolded. The bad news is that the durability of the copper investment proposition would be considerably shorter than our base case forecast currently implies.

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