

## Metals Bubble A Lead Balloon

Sometimes you learn the most interesting things when you are wrong for the right reason. Consider the following from yours truly in [December 2002](#):

*Metals buyers are an unimaginative bunch unlikely to risk either running out of necessary supplies or to take a speculative fling on an ingot or two. Industrial base metals are bought shortly ahead of when they will be needed, and their price constitutes a remarkably sensitive economic barometer.*

Maybe the industrial metals buyers are still conservative and unimaginative – what, do you think they hold audiences spellbound with tales of the fast-moving molybdenum game? – but the industrial metals markets are anything but conservative these days. They are bubblier than a shaken can of warm beer.

### Big Bucks, Small Markets

Financial players often are surprised at how small physical markets are. Let's take lead and zinc, two very prosaic base metals whose prices have risen 37.5% and 199%, respectively over the past year. According to the [International Lead And Zinc Study Group](#), (yes, there is one) global mine production in 2005 was 3.309 and 10.008 million metric tons, respectively. At last Friday's closing spot prices on the London Metals Exchange, this represented \$4.193 billion of lead and \$37.309 of billion of zinc.

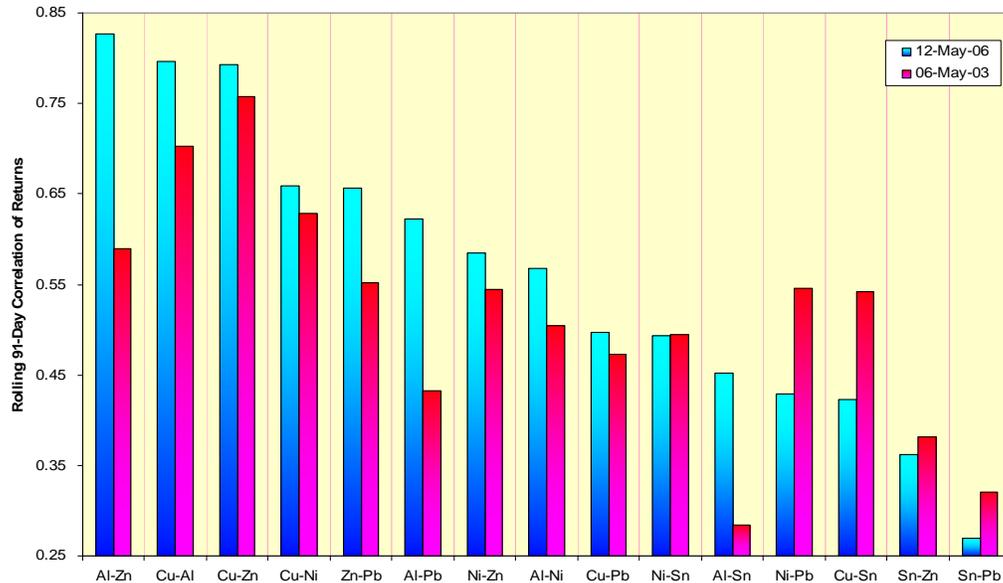
Where would such totals rank in the market capitalization of the S&P 500? Zinc would rank between Prudential Financial and Lehman Brothers at No. 76 on the list, while lead would rank between Alberto Culver and Molson Coors Brewing at No. 433 on the list. For the market capitalization of Freddie Mac, No. 67 on the list, you could have bought the entire world's 2005 combined mine production of lead and zinc. Is it any surprise that a flood of money could and has pushed the base metals markets higher?

### Convergent Movement

One telltale sign of a bubble in formation is a pattern of higher correlation amongst members of a group. We can form 15 pairs from the six base metals traded on the LME. Some of these metals, such as copper (Cu) and aluminum (Al) can be substituted for one another. But the possibilities for substitution are limited; copper is not aluminum with a good suntan. Others, such as lead (Pb) and zinc (Zn) often are produced together and therefore have the save supply trends. Nickel (Ni) and tin (Sn) do not fall into either category.

Please note how the rolling 91-day correlation of returns for various pairs has risen since the Federal Reserve successfully declared war on deflation on May 6, 2003. The highest correlation pair, aluminum-zinc is between two metals unrelated in both produced and demand. The correlation between aluminum and lead has increased significantly as well; considering how aircraft are amongst the largest users of aluminum, this one has some comic possibilities for substitution. The higher correlation between copper and zinc might be accounted for by the alloy, brass, but then we would be at a loss to explain the declined correlation between copper and tin, which alloy to form bronze. Nickel is now more correlated than before to copper, zinc and aluminum; in fairness, it is much less correlated now to lead than in May 2003.

## Rising Correlation Amongst Base Metals



These rising correlations are only for the LME base metals. If we threw in gold, silver, platinum and palladium, which also are in parallel bull markets but would expand the number of pairs to 45, we would find a large number of disparate markets rising on the basis of one common factor, money flow.

### No Economic Damage

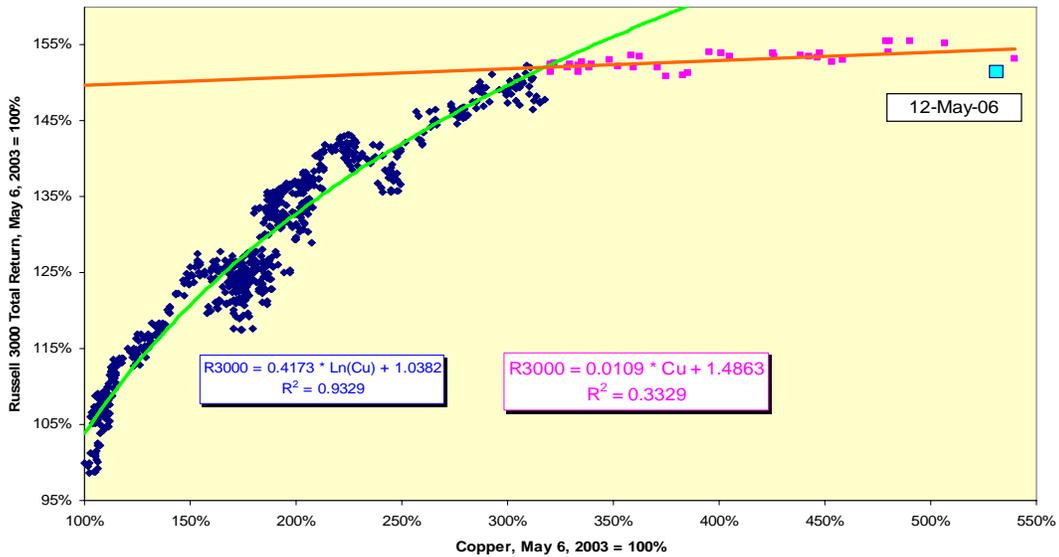
All bubbles begin in reality: We did invent and bring to market a few things in the information technology world in the 1990s, none of which could justify the excesses seen by the end of the decade. We do have growing demand in China and elsewhere today; once again, none of these developments can account for the speed and magnitude of the price gains witnessed.

Given the growing fears of inflation it is tempting to blame these conjoined rallies as investors seeking protection against currency debasement. It would also be laughably wrong. Copper and zinc are up more than 88% and 94% year-to-date, and while inflation may be rising, that's a little bit of overkill on the protection side, don't you think?

Fortunately, the reality that began this bubble was strong global economic growth, not supply shocks or inflation. And equally fortunately, the relatively small dollar sums involved in these businesses and the abilities of metals users to pass on their increased costs profitably have limited any economic damage from the higher prices. Quick: Name one aspect of your life affected by higher nickel prices.

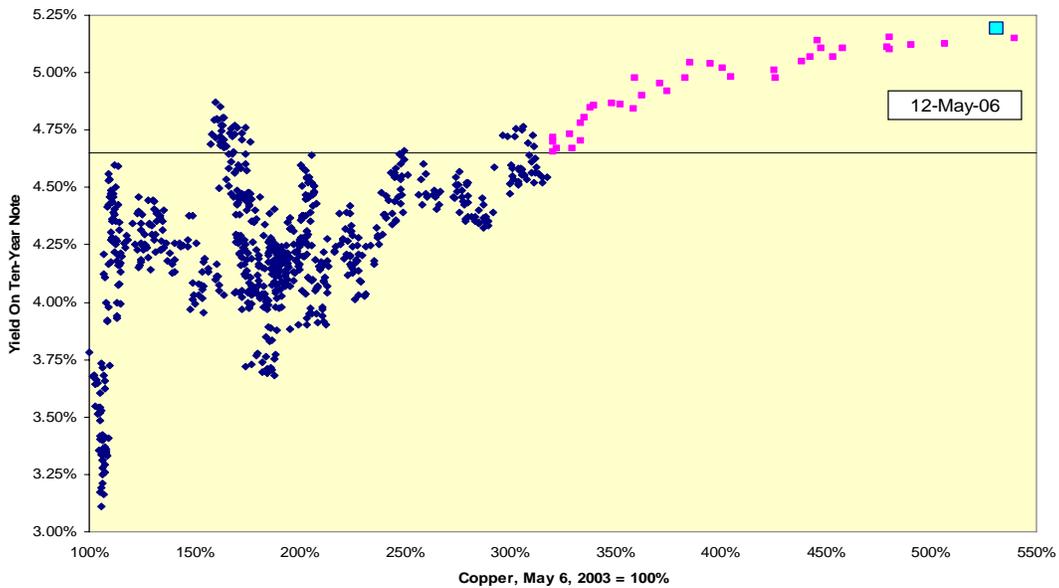
Have higher prices for copper, arguably the most important of the non-ferrous metals, have shocked the markets? If we define the breakout point for copper as March 17, 2006, when it settled at \$4,989 per metric ton en route to last Friday's \$8,634 per metric ton, we can see how the total return on the Russell 3000 flattened. It did not fall, but its pace of increase clearly slowed.

**Did Higher Copper Prices Hurt Stocks?  
Pre- And Post-March 17, 2006**



But what else was going on in the world during this period? Long-term interest rates were rising as strong global growth increased the demand for credit. The breakout in ten-year note yields and the breakout in copper prices turned out to be simultaneous events. Which is the more significant variable for equity valuations, long-term interest rates or copper prices?

**Did Strong Credit Demand Pull Copper Higher?**



It is far more plausible to argue the strong growth environment pulled both interest rates and base metals prices higher and that it was higher interest rates, not higher metals prices that contributed to the stall in U.S. stock returns. Speculators tend to flock to smaller markets rising in price, not to gigantic bond markets falling in price, in search of gaudy returns.

The jump in metals prices will end as all bubbles do, unhappily for the last buyers holding the bag. We should not confuse this with a macroeconomic event nor should we direct monetary policy toward these bubbles. And let's not fret too much about higher metals prices; the most certain way of getting lower prices is to wake up one morning to a recession. Do you really want that?