International Metal Study Groups
Joint Forecasting Seminar, Lisbon 2008

Metals’ price behaviour under industrial raw material parameters, 1992-2004; modifications produced by long-only investors 2005-2008

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Section A, slides 1-5

Base metals’ price relationships in the period 1992-2004, when they were typical industrial raw materials markets

The original “fundamentals” - but looked at properly
1. LME copper price to stock relationship, 1992-2004

Question: what causes the scatter within Zone A?

Note: Weak price to stock relationship in Zone A

Note: Strong price to stock relationship in Zone B
2. Effect of global IP Growth rate on price to stock relationship, 1992-2004

*Price becomes much more sensitive to IP growth if stocks < 375 kt; i.e. the “pinch point” effect is conditional*

Note that at any given stock level price is partly IP dependent - so drawing a trend line through the distribution is destroying information. The scatter is signal not noise.
3. Effect of dollar strength/weakness on price to stock relationship, 1992-2004

A stronger dollar yields lower dollar price at any given stock level

At any given stock level, the price is partly dependent on dollar strength. The scatter of data around any trend line is more important than the trend.
4. Proper representation of a typical base metal’s price relationships, 1992-2004 (this example happens to be aluminium)

A family of 3-D surfaces rather than the single 2-D relationship of

- Dollar Index = 110
- Dollar Index = 90
- Dollar Index = 70
5. BME price model for copper in the period 1992-2004

*When copper was simply an industrial raw material*
Section B, slides 6-10

Changes in base metals’ price relationships over 2005-2008 under the twin influences of:

(i) Long-only investment as a new source of demand for futures

(ii) Rising production costs
6. The BME hypothesis on what has been happening to price to stock relationships over 2005-2008

The counter-parties to investment longs are speculative shorts. The investment holdings are passive. The equilibrium price of a base metal thus becomes the price at which speculative shorts will roll forward their positions each month.
7. LME nickel price to stock relationships through time
8. LME lead price to stock relationship through time
9. LME aluminium price to stock relationship through time
10. LME copper price to stock relationships through time
Section C, slides 11-15

Interactive price models that

i. for the base metals, accommodate the impact on price of both physical market fundamentals and commodity index fund (CIFs) investment holdings

ii. for precious metals, accommodate two new forms of investment demand: ETFs and CIFs
11. Copper price model output shown as a layer diagram (1990-June 2008)

Money of the day

- SWC - Index Funds Interactions
- Stock as Weeks' Consumption
- IP % change y-o-y
- Dollar Index
- Base (related to production costs, including nickel pig iron)
- Modelled price
- Actual Price
13. Lead price model output shown as a layer diagram (1994-June 2008)

Lowest ever stock ratio interpreted as a pinch point; that it coincided with a technical squeeze might be an alternative interpretation.
14. Zinc price model output shown as a layer diagram (1990-June 2008)
14. Gold price model output shown as a layer diagram (1990-June 2008)
Bloomsbury Minerals Economics Limited, subsidiary BME Price Models Limited; associated companies BME Mining Equities Limited and BME Energy Limited provide (between them)

For copper
- Conventional fundamental market analysis

For exchange traded metals
- Interactive fundamental/investment based price models

For anything that has an opening, close, high and low price
- Technical analysis expert systems working from intra-day to long-term (for individual markets and arbitrage)
- Sector rotation analysis
- Black box trading systems

For more information contact Christopher Welch or Peter Hollands
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