

The Outlook for Mongolia's key commodities

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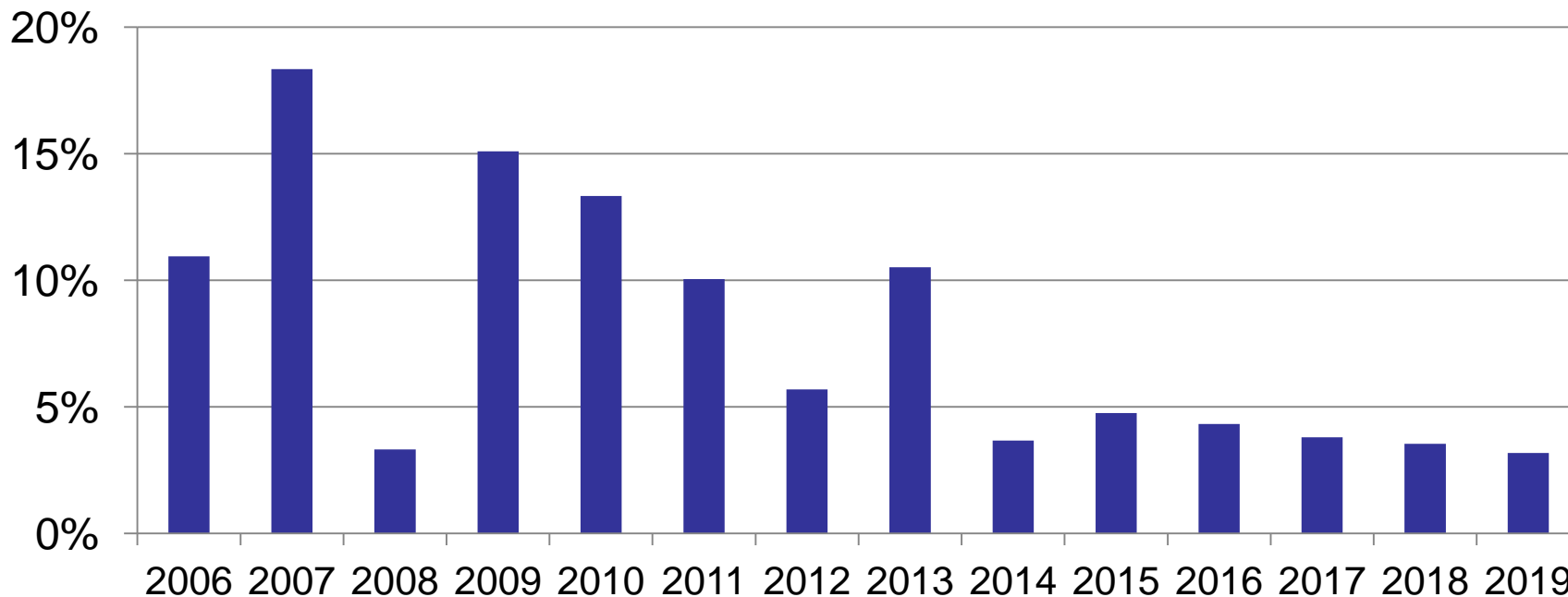
Tokyo, 11 December 2014

The downcycle of almost everything

- Several common trends are affecting the attractiveness of the mining industry, and all of these impact Mongolia disproportionately:
 - A marked slowdown in Chinese demand and stagnation elsewhere;
 - Government efforts to rein in production limited by momentum, leading to oversupply;
 - Construction costs for mine and infrastructure soaring;
 - Capital cost increases exacerbated by political risk premiums and limiting the attractiveness of buying at the bottom of the cycle;
 - Equity inactivity reducing the reliability of market valuation;
 - Competition from recovering sectors elsewhere for capital.
- The solutions for Mongolia have to be project-specific: make the most of a bad market by protecting margin: major gains to be made in cost position.

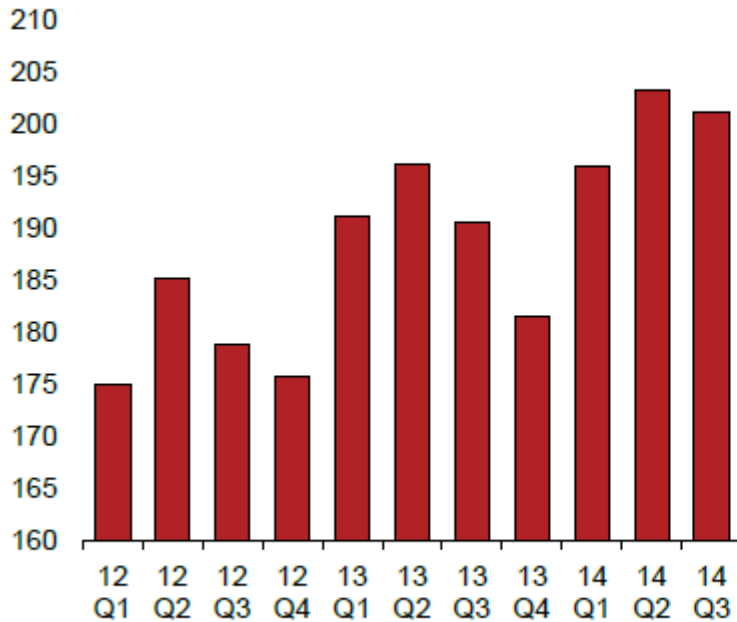
China's slowdown has hit hardest this year than at any point since 2014, and the near future is not much rosier...

China 10 commodities y-o-y % consumption

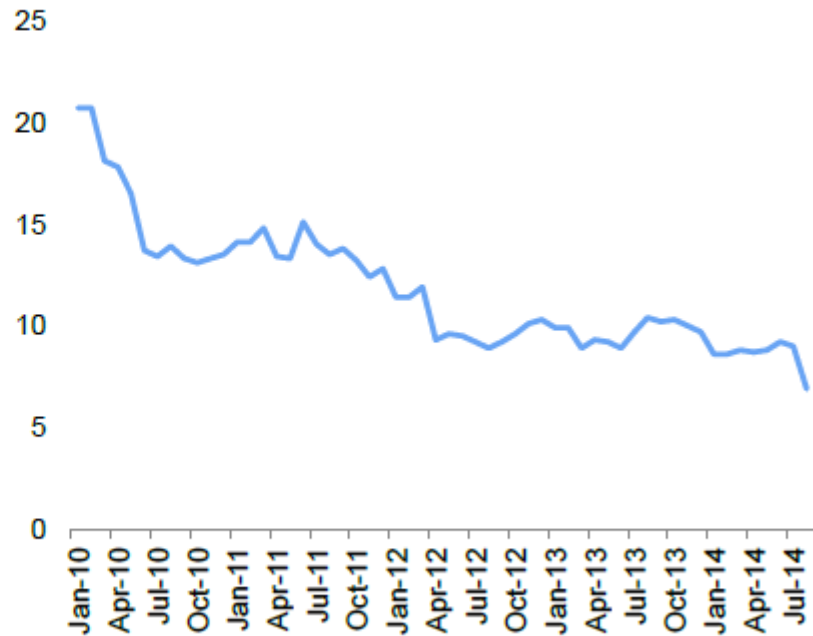


The disconnect between macroeconomic conditions and mill production continues, in spite of efforts to control output

Chinese crude steel production, Mt

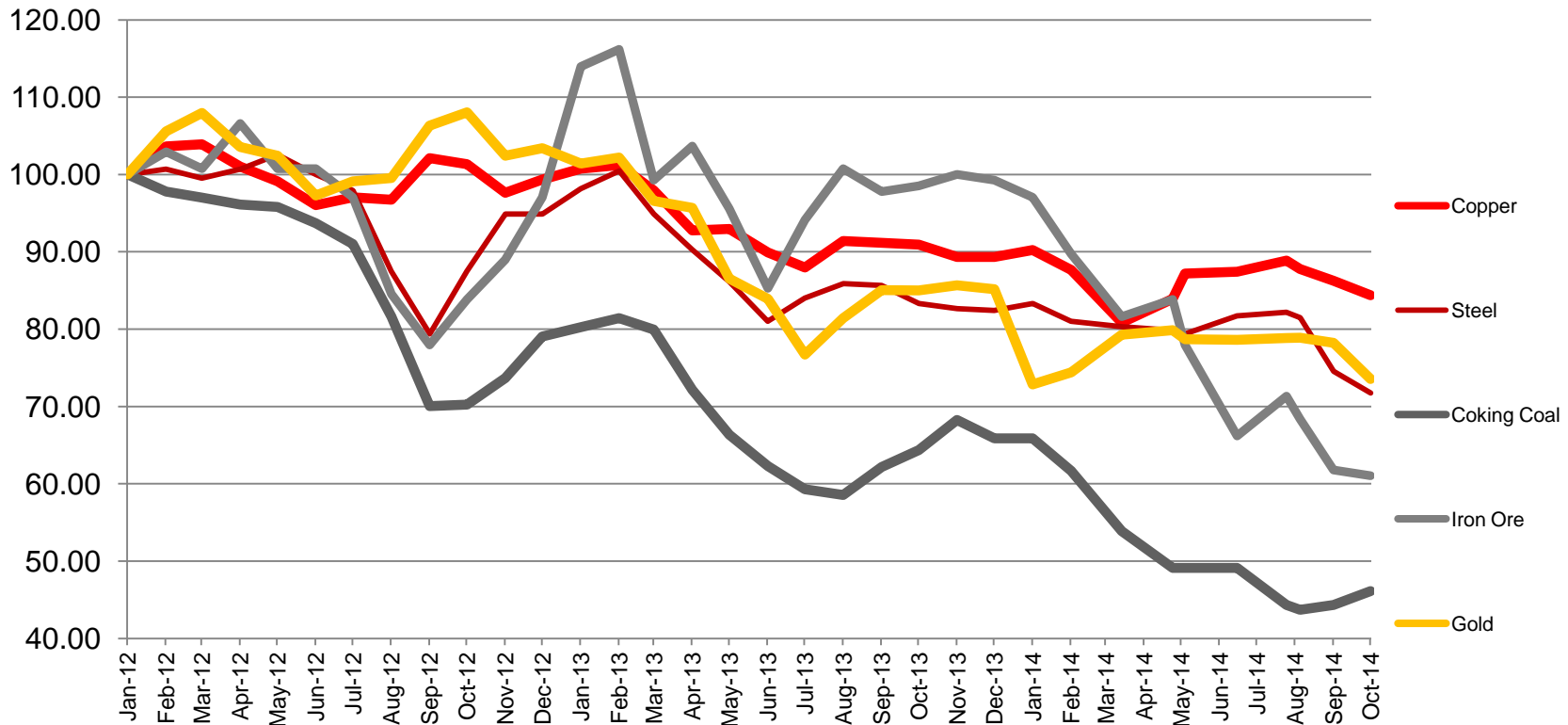


y/y change in Chinese industrial production, %

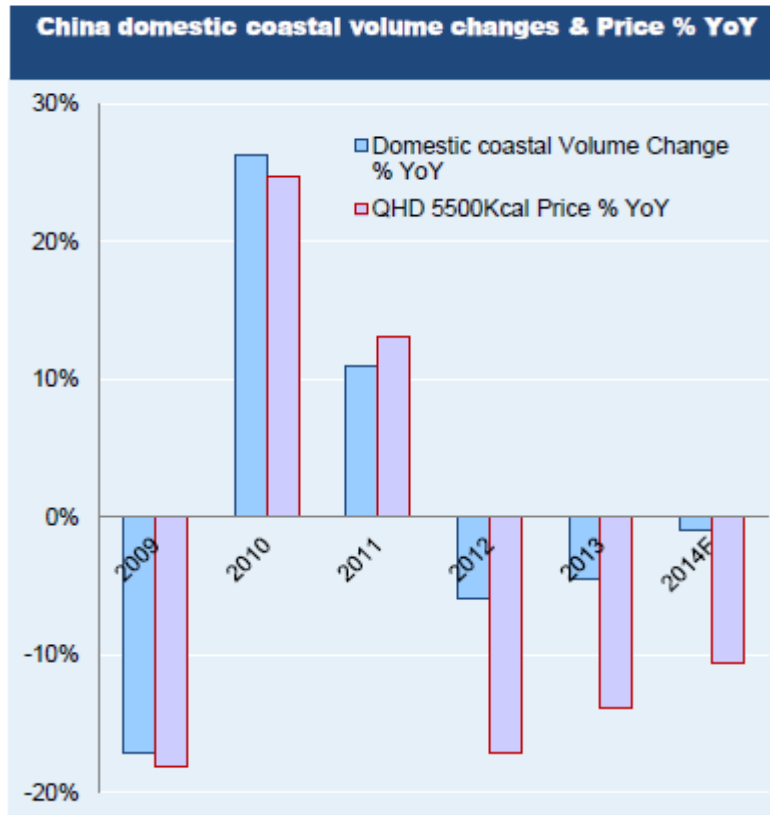
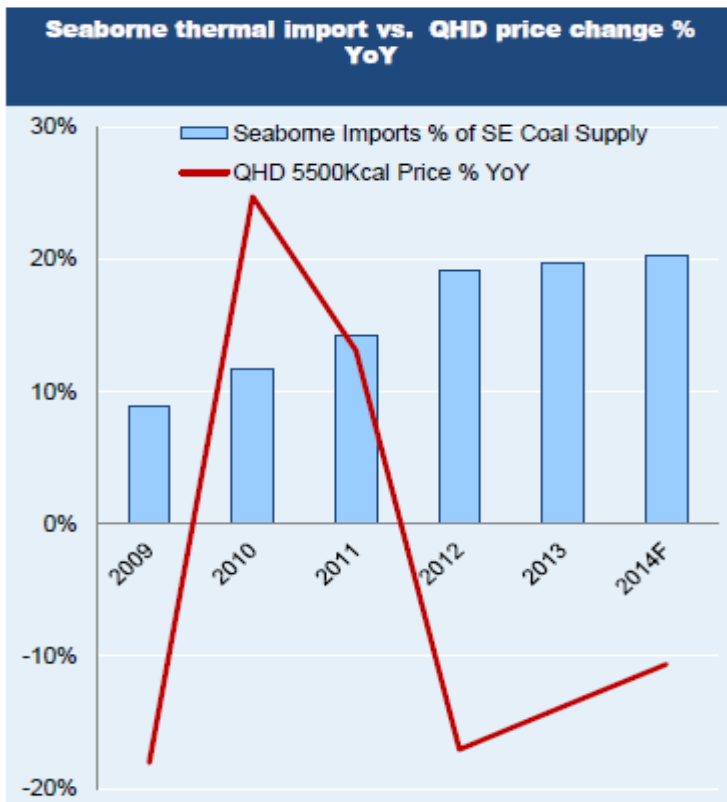


Data: CRU, CEIC.

The economic slowdown, coupled with persisting over-supply, has pushed all Chinese benchmarks down



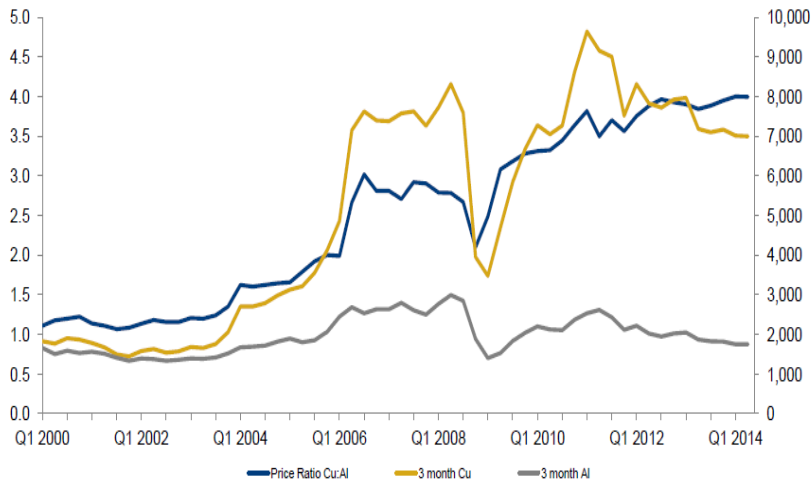
THERMAL COAL: The benchmark is set by Chinese intercoastal trade, and drops are felt very strongly



COPPER: Demand dependent on Chinese real estate development and losses from substitution

Higher price ratios to increase the pull of substitution

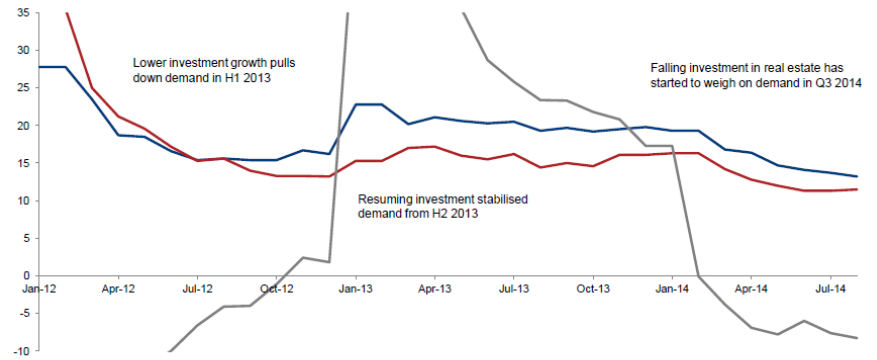
Left axis – Cu/Al price ratio, Right axis – Cu/Al 3M price \$/t



Main threat is from Low Voltage Cable usage, where aluminium is already making gains in US, Europe and (soon) China.

Declining real estate investment growth to impact copper demand

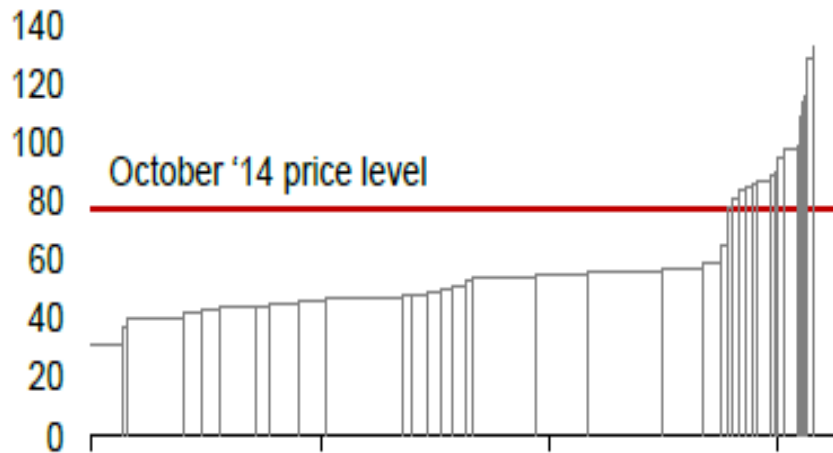
Year on year % growth in Chinese real estate: investment (blue), floor space (red), and sales (grey)



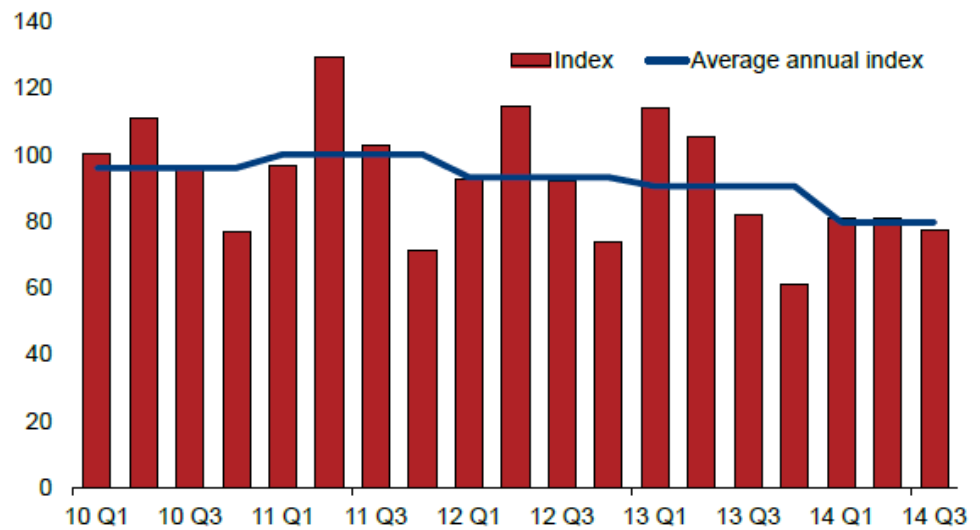
Collapsing sales will inhibit further construction, and prevent utility build-up in already-built areas.

IRON ORE: Majors continue to add volumes, squeezing juniors and private-owned Chinese producers out – floor dropping

X-axis: Cumulative Australian iron ore production, Mt
Y-axis: Value adjusted cost curve, \$/t, CFR China



Indexed Chinese iron ore production, 2010 Q1 = 100



Some hope for Mongolia's Tier I assets

- Fraser Institute ranks Mongolia 1st globally in mining potential assuming no land use restrictions and industry best practices (but 79th of 96 on current regulations);
- Both Tavan Tolgoi and Oyu Tolgoi would rank comfortably in the first two quartiles in OPEX ex-works;
- Improvement in East-West transmission lines and railway capacity in China will reduce transport costs to market, especially for coal.
- Low OPEX can attract investors interested in quick pay-back potential, for whom the capital risk premium may be less of a hindrance.
- Key requirements are regulatory stability and infrastructure development – the latter is more easily shown to be established on a project-by-project basis



Thank you

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