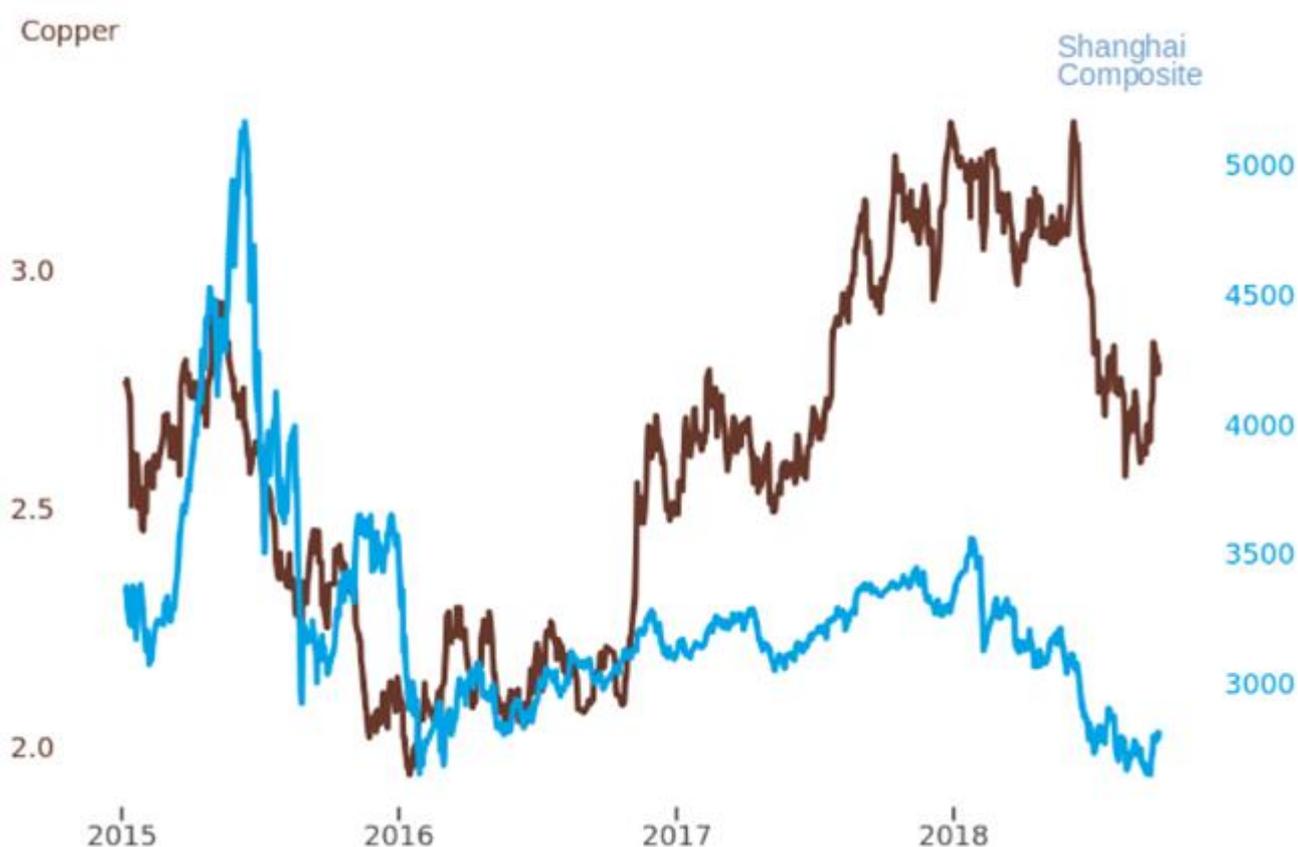


China weighs on copper prices

Copper is a fascinating and important asset. Traders have known for decades that “Dr. Copper” can foretell recessions, and indeed, we’ve found that including front-month copper futures in our models improves their ability to forecast nominal GDP.

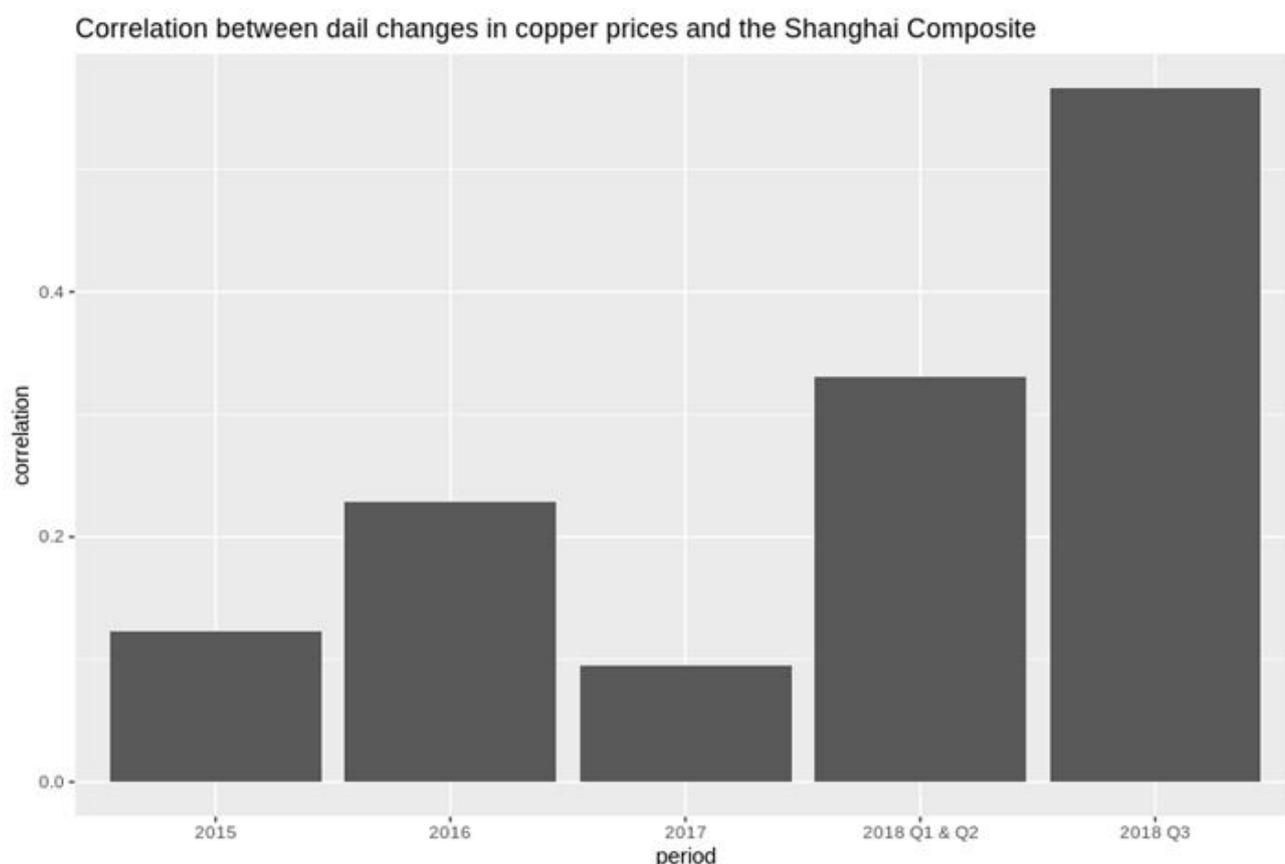
Despite the general bullish turn in most asset prices, copper is down substantially from last year, trading around \$2.60 per pound, from around \$3.40 at the start of the year. I’d proposed in my [last post on this subject](#) that this was due to the increasingly weak Chinese economy. This thesis has held up upon deeper investigation.



Eyeball the plot above, comparing co-movements between copper and the Shanghai index, suggests there could be a link. In fact, the co-movement shows up at (at least) the frequency of daily changes and has strengthened in 2018, when the US-China trade war really began.

The plot below reports the correlation coefficient between the Shanghai Composite stock index and copper prices, based on daily log differences in both time series (a statistically sound way of measuring co-movement between two assets). The association was

fairly weak in 2015, 2016 and 2017, with the correlation coefficient holding below 0.3. Given that we're measuring daily log changes, a correlation coefficient of around 0.2 is still fairly high. The association, however, jumped markedly in the first half of 2018 and has soared in the second half, to 0.57 for the quarter which has just ended.



Chinese economic data are not useful for fine-grained detail. Official inflation and GDP series simply don't exhibit the stochasticity that characterizes data from other countries, and tellingly they are harder to model than data from other countries.

Instead, Chinese figures appear to be sanitized. They're plausible when averaged over a few years, but not always year-to-year and certainly not quarter-to-quarter. We simply don't know quite what is going on in China's economy today as a result. The markets at least, suggest that growth is slumping substantially, keeping copper (and likely other commodities) cheap.
