

Forecast has zinc more than doubling and copper and lead up +50%

☒ Gold and silver bugs are such inveterate fans that the recent slowdown in the 2016 price rise (read reversal) has not fazed them in the least. The fact that the most serious weakening has been happening while the world reels from the outrages in Brussels and with the background music of the death rattle of the EU has seemingly also escaped them. Some were ready to lash me for my modest projections at the turn of the year and yet these have proven to be closer to the current situation price-wise than the bulls would have had us hoping. Some of these people seriously thought we would be looking at \$1,500 gold before year end. Silver was also supposed to move proportionately. It will need some serious encouragement to even stand a chance of getting to that territory this year. Indeed we might posit that by year end ISIS, which is the source of political instability par excellence for the last two years, might even be routed from most or all of their territory. This would leave only the prospect of a Trump presidency as the bogeyman of choice to ginger up the gold/silver pairing. As we have noted before the bugs will need to be betting on a “solid gold bathroom fittings at the White House” led rally to gussy up their favorite metals.

So we remain on the more mooted side for both of these and see no reason to change tack. Ironically we see ourselves as gold/silver bulls for taking such a stance. So while our January outlook was only targetted at 18 months we have been asked by many to go farther out, including a request from the major provider of research estimates to the institutional investors community, so we thought it a good idea to share our longer term view in the interests of stirring up discussion

and fleshing out our “bigger picture”.

Cold Comfort for the Gold & Silver Fans

Probably to the infuriation of the precious metals fans, our five year projections give them precious little to fuel the fires of their enthusiasm, then again they do not need us to do that! So while the prices of both may have spikes over the coming years, the gold price in particular is not expected by us to close over \$1,400 at a year end and indeed we have it at \$1,330 by the end of 2019. Silver is held in higher regard but even there our 2019 forecast ends with it at \$15.80. Industrial usage will keep demand strong but a healthier lead/zinc picture should increase by-product supply and dampen the ardour of those that think shortages are even vaguely likely.

So here are all our projections..



Base Metals – A Mixed Bag

By far the biggest uplift should come, in our estimation, in the most beaten down base metals. We have zinc more than doubling, copper up 50% and lead up nearly 50%. Nickel, due to the massive new mines that Vale controls (Goro etc) and Ambartovy strikes us as a metal with more limited uplift potential and we have it only rising 10% over the next three years. The uplift will be in underinvested minerals with zinc being the strongest mover. Lead's fate is more closely tied to the battery market which we see as being stable to declining. However the massive attrition in zinc/lead mines shall precipitate a flip in the balance of power between sellers and buyers with the former coming out on top for the first time since the middle of last decade. Underinvestment in copper shall also have its effect with high capex of sizeable mines being the biggest deterrent to anyone contemplating mega-projects until prices have stabilised for a long while over \$3

per lb. In our version even that felicitous situation won't happen until 2018 or 2019.

Specialty Metals – Chronicle of a Crisis Foretold

This is well-trodden, and much-written, territory for us and our jeremiads should start to bear fruit as massive underinvestment in key metals such as tin, antimony, tungsten and cobalt start to impact. Except for a few primary Cobalt mines that might catch a tailwind from offtakers in the battery space the rest of the supply picture is made up by the strict by-product ratios that join this metal “at the hip” with the nickel and copper mining of the very largest players. The dependence of the metal on copper mines in the DRC and Zambia for its by-product status is a long term sleeper benefit with the old story of “what can go wrong, will go wrong” being apt. A sloppy nickel price projection plays into the hands of Cobalt as it means it is unlikely Vale or Sherritt will “go wild” with their production volumes and thus over-produce cobalt. Moly is somewhat similar with its symbiotic relationship with copper mines, particularly those in Chile.

Tungsten and Antimony are staring at declining Chinese market share through peak production having been passed in recent years while tin is vulnerable to the declining alluvial output of Indonesia and Malaysia. **The only bright spot is Almonty's consolidation strategy which should supply the select few (offtakers) who have made a long term bet on that stock.** Everyone else will get scrapings, which is a good scenario for this metal. Likewise in Antimony mines don't come out of nowhere and there is zero pipeline of new (or more likely, reactivated) mines. Most of the specialty metals need a consolidator along the lines of the Almonty model.

Conclusion

In retrospect the Mining Supercycle looks less monolithic than

it really was. Looking at a few metals we can see that while many rose steadily from 2001, some peaked early and have never been the same since. Zinc and nickel reached their "recent" highs in 2006 and 2007 while copper, cobalt and Moly never recovered from the battering of the 2008 crash. Copper got going again but didn't retake its pre-crash highs. Moly was reduced to a third of its highs and has never staged more than a fleeting recovery. With this in mind we might then think that its not 2011 we should be looking back to but 2007 and that is nearly ten years ago now. Using any sort of theory of cycles or waves, there should be a tide coming in (oversupply issues notwithstanding in nickel) in the next five years.

The same cannot be said for gold and silver which both peaked more recently. These therefore do not have much political and international risk going for them, nor inflation scenarios nor cycles/waves. Broadly speaking the longer since the last peak the more likely that production set in motion at that peak will have been either high cost or past its prime in terms of production volumes. The steady attrition of Zinc/Lead mines in recent years being a good example. In Antimony its even worse with the spike to \$16,000 per tonne resulting in only one mine opening and that was quickly sold to the Chinese and then shuttered. That was a boomlet that "left no footprints".

Looking through our estimates, none of them are asking too much of the markets. Anyone who expects the peaks of the last 15 years to be retested in ANY metal needs their head read and as they say "to avoid disappointment" should abstain from metals markets.