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Cobalt, Uranium, and The Four Horsemen of Opportunity

Hassan's big black truck holding six of us careens through Lubumbashi midnight rain back from the restaurant and casino presumably toward the Karavia Hotel with The Eagle's "Hotel California" blasting to everyone's delight. Cobalt trader Leo once purchased 2m soccer balls from a Pakistani conditional on western norms did any children make these balls? Yes. Is it fair to say that no children made these balls? No. No children made these balls correct? Of course they did their tiny hands make the best balls in the world you fool. Leo married his Russian wife in Singapore by small bald gold necklaced Justice of Peace who drove a Ferrari said afterward marrying my hobby and handed out his divorce attorney business card to bride and groom this is my real job. Leo once vacationed in North Korea. "You can check out any time you like, but you can never leave." Steve is ex special ops Marine, Somalia, Iraq, Afghanistan fought in Fallujah volunteered for water boarding to see what it was like when asked how bad is DRC 1 to 10 he said if Yemen is 10 this is 4 you listen when a guy like that opines on danger. Yves born in Kinshasa lived there for 17 years built like fullback sings falsetto along with Rihanna friends with all the provincial governors and Gécamines knows them from school. "We are just prisoners here, of our own device." Lance lost 30kgs mining for tin up in Manono was given two white doves as gift ate them. He said at top of Miwaba hill they ring a bell when a truck heads down one dirt lane no room for one coming up and broken trucks rest rusted at cliff bottom. The DRC is full of white expats like us and Chinese they say absence of dogs because of them not hungry villagers but plenty o that. At remote artisanal sites they see whites and liable to hear, "Chinwa! Chinwa!" (Swahili, Chinese) cause if you don't look black like us must be one of them. "They stab it with their steely knives, but they just can't kill the beast." Hassan who is Lebanese and lived in Congo forever yells, "Cobalt" at this and we laugh hard sure and just right lonely into the DRC dark.

URANIUM:

Dr. Faber has requested comments regarding uranium, the commodity which commenced our reportage relationship back in 2004 when the metal proceeded to run like a scalded dog from \$19 to \$132 in 2007, replete with nary a downtick. Confirmation bias being a persuasive little cur, there is nothing I would like better than to commend putting the band back together here at \$22 per pound. Let's summarize- Cameco recently announced shutting down 20% of world production and spot price shrugged. Kazakhstan (45% of world primary production) followed with the assertion they would stop growing production, and the spot price yawned.

Prices have declined 11% YTD. The majority of bullish sell side analysts are not yet aware of a Yellowcake Fund that is being marketed to purchase 8 million pounds; those in the industry who have heard merely blink laconically, once again, at \$22. Japan still holds over 100m pounds and has been renegeing on contractual obligations ever since Fukushima in 2011. Kazakh oligarchs own the rail cars, the rails, and food service to the mines – they don't particularly care where uranium trades per pound. Worth noting is that the Kazakh tenge is now more than 300 to the dollar, down from 100 to the dollar when uranium prices were higher. The vast majority of Japanese capacity will never be restarted (contrary to a chorus of misplaced optimistic observers) as solar and wind gain share. The USA is the largest single source of

demand – they are and will be suffering net nuke shutdowns. The Chinese are building reactors but have more than 5 years of uranium inventory. The USA reactors have almost 4 years of inventory. Underfeeding persists, creating more supply. I don't think price goes down, I only note there continues to be too much supply with less than compelling growth in demand. I would view any meaningful advance in spot price as both speculatively driven and...temporary, for now.

THE FOUR HORSEMEN:

The Four Horsemen of meaningful opportunity in anything but a wild Bull Market where that which is working continues to do so, are Despair, Disdain, Disinterest, and Disgust. If a commodity's supply is unable to respond to but a gentle kiss of demand, it creates the galloping denouement of tumescent price. If Dr. Faber will accept yet another effort on our part to string sentences together coherently, we would like to report as soon as possible on just such a circumstance on the periodic table which we believe will take price up by 30% in July alone. We have taken an appropriate position.

COBALT:

This is our fourth piece on cobalt for Dr. Faber. Our first article appeared here in July of 2016 when high grade cobalt metal traded at \$10.95. Today price is \$43. This ain't the Four Horsemen anymore, and yet, we maintain our position. Why?

I recently returned from my second trip to the DRC where I visited sites such as Kasulo, Kasombo, Kisenda, Likasi, Mwilo, a logistics company, and spent considerable time with associates of the Lualaba provincial government. First, there is no question that artisanal production is larger than either Benchmark Mineral Intelligence or Darton Commodities Limited suggest, which is 7,000mt and 11,000mt in 2017, respectively. At Kasulo alone daily production approximates 800mt of 3% cobalt. It is not widely understood that western exploration company exec's go to bed at night dreaming of 3% Co ore, but in the DRC it needs to be upgraded to at least 8% to be worthy of export, and ideally, refined to 25% to 50% cobalt hydroxide. I learned that the Chinese are building 7 processing plants with 2,000-3,000mt capacity to produce and export hydroxide. This requires substantial sulphuric acid and prices have doubled to nearly \$500 per ton in the last 2 years. There are bottlenecks at the Zambian border where 300 trucks per day cross. On one day I counted over 100 trucks double parked on the highway awaiting passage. It is not unusual for a driver to cross into Zambia, sell his cargo for \$100,000 cash and disappear into the bush. A company lost over \$3m before discovering that prostitutes were occupying the time of drivers, while cargoes were being stolen out the back. Insurance now requires truck escort. The DRC will be 75% of world supply by 2022 (Figure 1), but it remains an expensive place to do business.

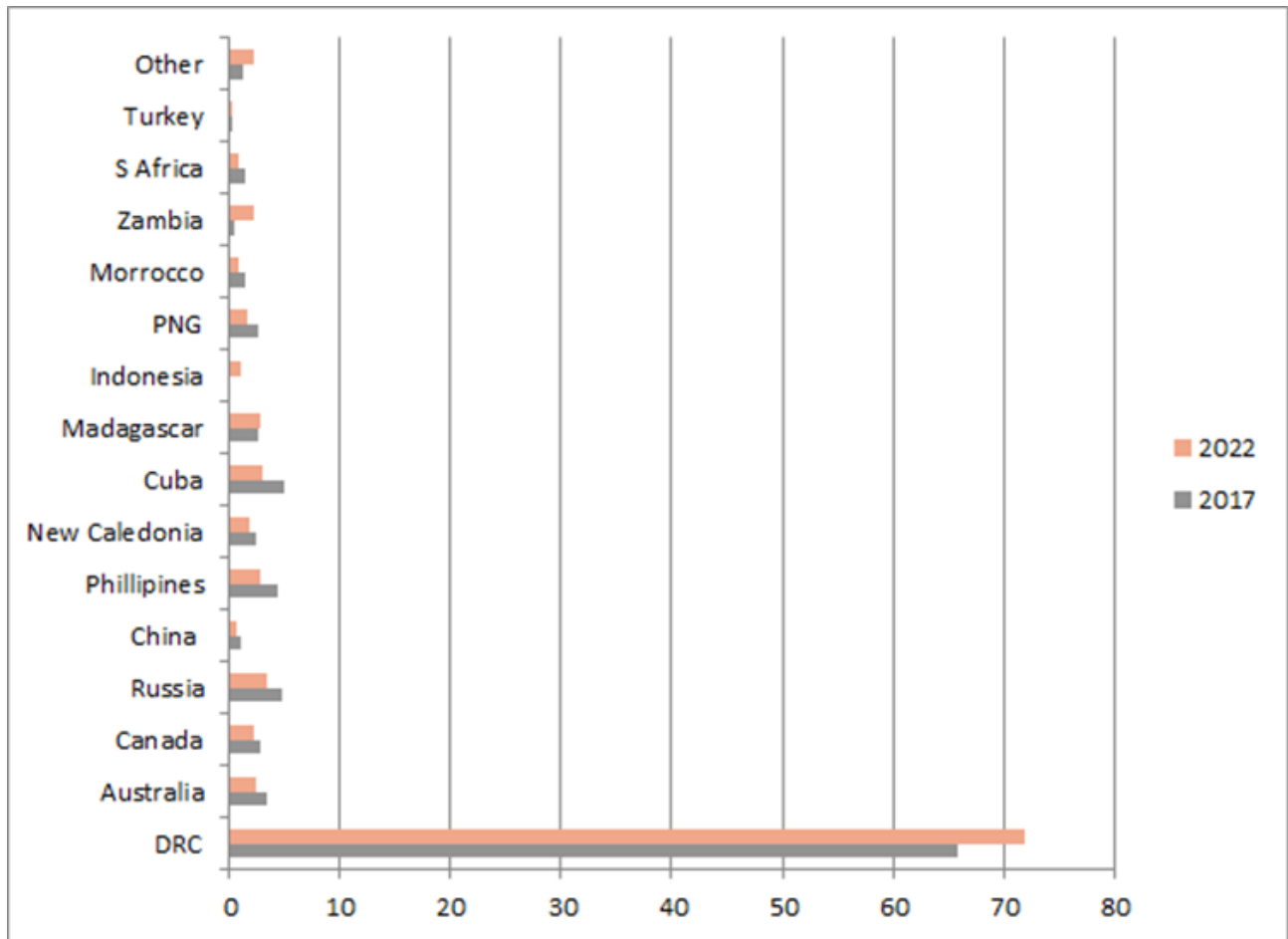


Figure 1 - Source: Company Reports, Portal Capital, LLC

A word regarding the recent hysteria of the Amnesty International Report and multiple “exposés” from the likes of CNN, Sky News, CBS, and the Washington Post highlighting child labor on artisanal sites. The DRC is a hideously impoverished nation with kleptocratic leadership. Women and children engage in horrific enterprise of all sorts to live, and picking up rocks is just one of them, a fact that is not nearly as sexy as pointing out that our phones and electric vehicles house cobalt which may have been handled by women and children. I applaud the efforts to keep them from mining cobalt, and to compensate properly their fathers and husbands who do. However, for instance, the CNN crew drove on highway N1 which is a 232 mile stretch of highway between the Zambian border, up through Lubumbashi, and into Kolwezi. On an annual basis there are 13,000 traffic fatalities on this road, as compared to 40,000 on the 4.12 million miles of road in the USA.

I promise you the narrow two lane road with no pavement markings, no sidewalks, and occupied by either SUVs traveling at speeds in excess of 80mph passing large trucks laden with copper concentrate or sulphuric acid, vans holding both adults and children on top and hanging from vehicle sides, create a crazed and lethal traffic quilt. All the while, children stand with their arms extended into the traffic, offering up fried bats (by the way, note recent outbreak of Ebola in NW DRC), flopping fish, and flapping chickens, trying their best at greater peril than picking up rocks, to attract a sale.

The Chinese cheat the artisans at the scale and under grade material. They generally provide neither proper equipment nor medical clinics. There is ample opportunity for a western company such as Cobalt Blockchain (COBC CN) to fence artisanal sites in joint venture with the provincial government, pay artisans a fair price, provide a medical clinic and proper equipment, register the material, run it through a dedicated

plant, and deliver cobalt hydroxide to western consumers, free of the taint of child or woman labor. Cobalt Blockchain is a speculative investment, but the Hooper family (CEO and COO) has good pedigree and credibility with the government, having made a 2m oz gold discovery there years ago, and more recently, running a small artisanal tin operation. Artisanal material is the last great storehouse of cheap cobalt on earth, and western competition will force the Chinese to pay higher prices, tightening the market further. If Cobalt Blockchain can execute their business plan, their stock price could trade to a multiple of its current market cap. Conflict-free, ethically sourced artisanal material will be a mainstream enterprise in the years ahead.

In summary, world trade friction is growing. More countries are beholden to the kindness of others for those commodities in high concentrations from nations that can employ them as weapons of response to adversarial tariffs. What is that worth per pound of cobalt? Nothing. Until it is. What is it worth that the DRC is a political quagmire and the country is about to be 75% of world production? Nothing. Until it is. What is it worth that China dominates cobalt chemical refining for batteries and western auto companies are still generally open on supply? Nothing. Until it is. It is likely that spot prices are about to soften a bit after an ungodly strong, unabated run. We believe that weakness is merely prelude to new highs when the Fall "mating season" begins. How do we play it? Besides our relatively small physical position, we own Cobalt 27 (KBLT CN) because they hold 3,000 metric tons of cobalt metal safely housed in western warehouses, and we believe they will further execute their business plan by acquiring a stream or streams before the end of the year and share that cash flow with shareholders in the form of a dividend. We think cobalt prices can trade past the old high of \$50 in 2008, a period during which battery demand from electric vehicles did not exist.