Do Iranian aluminium projects carry more risk?

Core Consultants recently evaluated the merits of Iran's various investments into their aluminum industry and the potential to procure bauxite ore from Guinea.

Guinea boasts rich, under exploited bauxite deposits. The alumina content averages above 40% and in most cases closer to 46%, while their reactive silica levels vary between 1-2.5% on average. As such the average A/S ratio varies between 20-40, rendering Guinea's deposits extremely compelling from an investment perspective.

Metallurgical bauxite is the feedstock required to produce aluminium. The aluminium industry itself is a highly capital intensive business requiring large scale investments, which creates significant barriers to entry for small and medium-sized firms. As a result, the aluminium market is characterized as an oligopoly, with ten integrated producers account for around two third of the production (~25m tonnes). Of this, it is no surprise that Chinese firms tend to dominate the integrated primary aluminum market, accounting for more than 40% of these top ten producers.

As such, Iran is not alone in its need to import bauxite and a number of newly emerged smelting operations, which are not integrated are now looking for a reliable source of bauxite or alumina. As such, Guinea has become an area of investment interest. A consideration of the chart below draws us to conclude the following:

Global aluminium position by country and processing step

- Integrated producers can be found mainly in Australia, Brazil and China
- China will seek to import alumina and bauxite as the availability of cheap credit has resulted in increased smelting capacity
- Brazil is a well-balanced producer and the quality assets are all owned by major players such as Vale and Hydro. Therefore, it is unlikely that Brazil will emerge as a supplier to Iran or any other new entrant
- Australia has six bauxite mining operations and whilst it does have an alumina industry, its share of aluminium production is relatively small. This imbalance may enable Australia to become a viable bauxite supplier. However currently the majority of this material is committed to China. However, from a freight perspective, Australia supplying the Middle East and Iran in particular is actually the most cost effective option as compared with either Guinea or Brazil.
- The Middle East has 9% market share in smelting, which is relatively minimal, but has committed funds to add refining capacity, but does not own quality bauxite resources. As such Iran as well as other Middle Eastern countries are emerging as fierce competitors for the Guinean bauxite sources. However, compared to its Gulf peers, Iran in our opinion, emerges with the short straw.

Within the Middle East, Saudi Arabia has the biggest cost advantage to ensure a successful aluminum industry, both with respect to scale and security of feedstock as well as with respect to lower power tariffs.

Table 1: GCC power tariffs

Power Tariffs (US c/kWh	
KSA	3.2
GCC	3.8

World Ave	8.5

Furthermore, there are large companies, that are partly owned by bauxite/aluminium companies such as Ma'aden (Alcoa), Sohar (Rio Tinto Alcan), Qatalum(Hydro Aluminium), which invariably means that they are somewhat assured of a bauxite source, rendering them potentially more competitive with the Gulf region.

Table 2: GCC aluminium operations

Country	Company	Capacity	Year commissioned	Ownership
Bahrain	ALBA	880,000	1971	Bahrain (67.5%); SABIC (21.5%); Public (11%)
UAE	DUBAL	1,056,000	1979	Dubai Government (100%)
Oman	Sohar	370,000	2008	Oman Oil Co. (40%)l Abu Dhabi Water & Elec. Authority (40%); Rio Tinto Alcan (20%)
Qatar	Qatalum	585,000	2010	Qatar Aluminium (50%); Hyro Aluminium (50%)
UAE	EMAL	1,255,000	2010	DUBAL (50%); Mubadala (50%)
Saudi Arabia	Ma'aden	740,000	2012	Saudi Arabian Mining Company (74.9%); Alcoa (25.1%)

As such, for these and other reasons, we feel that the establishment of Iranian refineries/smelters in general carries significant market risks, compared to other regions.

The Miners' Mating Season

For a sector that has so many participants the sole goal of which is to be taken over there is remarkably little going on and what is happening seems to be capitulation to economic reality rather than any sort of bidding war like the "good ole days".

Deals have happened sporadically over recent years though the high tide(s) for mining M&A were pre-2008 and then in the 2009-2011 period. Both periods had their share of dumb deals but only really the pre-2008 period had the type of transformative deals that we favour. A good example of what we admire is the building of Xstrata out of various disparate parts, but most particularly the roll-up of Falconbridge, Noranda and MIM (amongst other assets). Then we also admired the three-way merger that created NewGold out of a bunch of small and lower second-tier companies. The company has continued on this path of "bolting on the bite-sized" while others still fancy themselves as pythons swallowing goats.

The most odious M&A deals include RTZ's acquisition of Alcan and Vale's acquisition of INCO. Both were poor timing and ill-thought out entries into new verticals, though in the case of Vale it had the added juice of machismo. While most of the assets acquired with the Alcan deal have been sold, shuttered or fallen by the wayside, at least the INCO 'adventure" may come full circle with the announcement in recent times that the assets may be "set free" again on international markets.

A failed attempt at a "merger of equals" was Lundin and HudBay in the wake of the 2008 crash. We didn't like the sound of it at the time, and both have gone on to do good things (particularly HudBay) so we are not sure whether the failure of this deal was a good thing or not. Lundin has scarcely done any deals though (excepting the failed Inmet merger proposal) since that time. Once bitten, twice shy?

Then there are all the takeovers that were not even vaguely mergers but cases of much bigger companies taking over much smaller ones. The poster child for poor deals in this category is Kinross (see Redback, Underworld and Aurelian). Ironically though the usual fate of bad deal-doers in other sectors (getting taken over themselves) has not happened at Kinross because the past deals are still embedded in it (e.g. Tasiast) and act as a repellent for potential boarders.

And we should mention the purely nonsensical as embodied in Yamana/Agnico's "White Clown" defence of Osisko from the overtures of Goldcorp. This transaction had no commercial logic and looked like a visceral response to an interloper shaking up the cozy world of mid-tier gold miners on the TSX.

Deals – The Good, Bad and the Indifferent

We could also muse upon some other major transactions:

Barrick bidding for Equinox – an inappropriate non-synergistic deal that was too pricey

Pan American Silver acquiring Aquiline – overpaying for a non-starter

Eldorado acquiring Sinogold – the last blast of the China mining story for foreigners

KGHM buying FNQ – Removed one of the more interesting potential majors from the TSX

Freeport McMoran merging with Phelps Dodge – and then there was one, the ongoing decline of the US mining relevance in the corporate sphere

Molycorp merging with Neomaterials – one plus one equals a mere fraction of one

Nyrstar's roll-up of various zinc/lead assets and takeover of Farallon – an admirable attempt at vertical integration

Glencore's merger with Xstrata – if it ain't broke don't fix it…

Antofagasta taking over Duluth Metals – putting Duluth out of its misery

Divide and Replicate

One of the paradoxes of the current moment is that so many of the major potential predators are immobilized, many of their own choosing. We have BHP-Billiton, Anglogold and Vale musing aloud, or advanced, in the process of breaking up. RTZ is also in a divesting mood. The spin-out from BHP to be called, rather preposterously, South32, will have a mish-mash of base metal interests, but will be massive in its own right with a projected market cap that could be as high as $16bn, with listings in Australia, South Africa and London. The whole process should prove a distraction but eventually (2016?) this entity might in itself become an acquirer/consolidator.

The Vale spin-out, of what we are calling INCO Redux, is being talked about as maybe having a market cap as high as $35bn. This shall probably not be an acquirer for a while either, except if maybe to balance away from the preponderance of nickel. The Anglogold deal is on-again, off-again but made a lot of sense to get away from the death-like grip of the meddling South African authorities. Do not be surprised to see it resurface. RTZ had mooted selling its diamond business in a move which made a lot of sense and then backtracked. The company now has the added complication of a vaguely menacing (though ultimately unserious) Glencore. The bigger RTZ remains, the easier it will be for it to claim that a merged group will be overly dominant, particularly as BHP-Billiton gets smaller.

We also have Barrick suffering from post-traumatic stress disorder related to Pascua Lama which has paralysed any thoughts it may have had of opportunistic buying the current slump. If anything its copper business (the former Equinox Minerals) may be the next item to be spun out as a standalone vehicle as African Barrick (now Acacia Mining) was several years ago.

Conclusion

The fact that there are so many assets still at bargain basement prices should mean it’s a happy hunting ground for majors (or at least larger miners) in the darker corners of the TSX and ASX (and the bankruptcy courts).

With big dumb majors shedding assets in rather a “baby out with bathwater” style there should be much that a cashed-up predator can hoover up. However not finding willing takers for sales in single lots (standalone mines) or job lots (like Nickel West) the majors are now resorting to a sort of reverse osmosis where they divide and replicate by carving off big chunks of their asset bases into standalone vehicles. If this results in the creation of more majors it is a welcome development in our book as the concentration at the top resulted in a near extinction of the mid-sized miner over the last ten years which goes a long way to explaining why normal Darwinian forces of rationalization and regeneration have eluded the mining sector…

However what it also does is remove those with the biggest balance sheets, cash-flows and cashpiles from the mating dance of mining M&A. Sure they may be in condition and the mood to transact when they have digested their reorganizations and listings (in 2016) which does not help the situation currently.

Despite this paralysis at the top there are more than enough predators and no end of prey further down the mining food chain. For once we would not complain if a feeding frenzy broke out…. we are long overdue for some rational exuberance…