

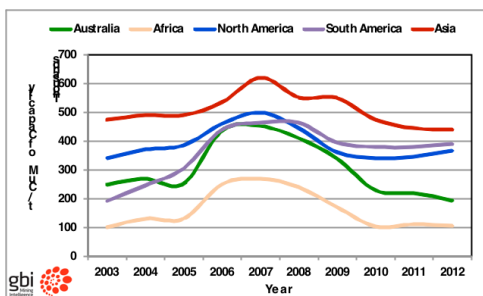
MINING INDUSTRY PRODUCTIVITY

Many well respected members of the Australian community have recently made pronouncements about the competitiveness of Australian Industry. They cite the Australian Dollar and the wages paid as primary culprits, particularly in the mining industry. Mining industry experts cite falling grades. This series of reasons (or alibis) leaves many in the mining industry feeling powerless to turn competitiveness around.

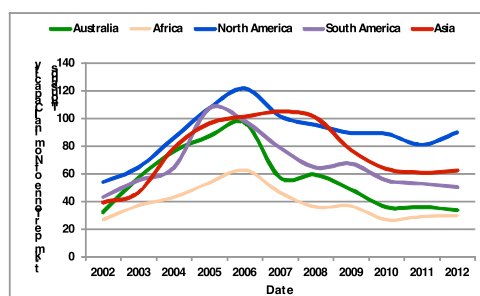
A mining engineer in Brisbane, Graham Lumley, has identified a more systemic and deep seated issue “How many tonnes does a shovel dig or a truck haul?” Graham has compiled a massive data base (over 5000 truck years, and 450 excavator / shovel years). The data base includes mines on Asia, North and South America, and Australia. The data is normalised by bringing

- shovel productivity back to tonnes dug per unit of rated bucket capacity, and
- truck capacity to tonnes hauled per unit of rated truck capacity multiplied by the distance hauled. This corrects for long hauls versus short hauls

Shovels



Trucks



These graphs remain the property of gbi Mining Intelligence

Remember that every one of the shovels and trucks producing 50% or less than the same piece of equipment elsewhere still has a driver, still consumes diesel and maintenance effort, and still depreciates.

The dramatic drop in Australian mining productivity versus competitors around the world has two disastrous consequences:

- **Immediate** A reduction in Australia's ability to be a low cost producer of minerals, and
- **Medium – Long Term** If a mining company has the opportunity to invest in either Australia or Asia / America, they might choose the location where a truck shifts 3 times the tonnage it will shift in Australia = A reduction in investment

These two graphs raise a myriad of questions. I do not have the absolute answers, but I know where some of them might be buried.

Back in 2006 the appetite of China for minerals increased significantly. Mines around the world increased production. As prices outstripped supply costs, the imperative for cost control may have been overwhelmed by the increase in revenue. There may not have been the same level of mine planning input into getting the additional tonnes, as would have happened previously.

As the new mines supplying the additional material were developed, there was a demand for staff at every level. The people employed to manage and engineer may not have gone through the same tough times as their colleagues.

This issue presents an opportunity for companies, contractors and consultants. They have to look at the mining operation and get clever. Redesign the pit layout, examine working habits and attitudes. Struggle

to use every hour to its utmost. If mines elsewhere can reach higher productivity, why cannot Australia do the same?

I hope this starts you thinking.

To view a recent talk I presented on the same subject, [click here](#)