Investors Mutual Market Musings

IML INVESTORS MUTUAL LTD

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Welcome to the January edition of IML's Market Musings. The author this time is our resources analyst, Rob Bishop. He has written a fascinating description of the resources boom and the conclusions one can draw on the outlook for the mining sector. We hope that you can gain an insight into why we are cautious the sector and the factors that need to be in play for the recovery to begin. There is no doubt the sector is in the doldrums but does this mean there is good value?

The last ten years have been an amazing time for resources. Fortunes have been made, as in the case of Kerry Harmanis, the founder of Jubilee Nickel. He was smart enough to take the money (circa $500m) and run. Fortunes have been lost; Nathan Tinkler being one of the most-well publicised falls from grace.

It is amazing to think that Australia's richest person, Gina Rinehart, owes most of her wealth to the value of a project that is not even in construction. Such is the power of the resources game: at a low iron ore price, a deposit is just a worthless piece of dirt, at high prices it is probably worth billions.

This boom was no ordinary boom. It was driven by the growth of the Chinese economy, which in the year 2000 had just overtaken Italy's, and is now the second largest in the world. In doing so it unleashed an unprecedented level of investment into the commodities complex. For a stark example of where the growth was during the boom, look at the two charts below: there was absolutely no growth in pig iron *(the intermediate product before refining into steel)* production outside of China, in fact it declined slightly.

Exhibit 119: China pig iron production (Mt/m)

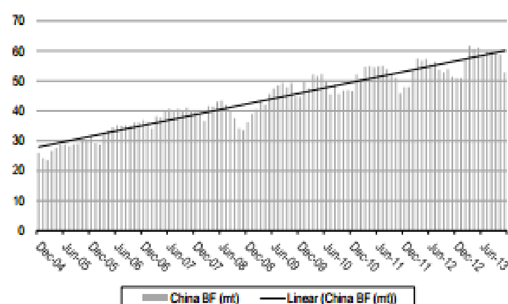
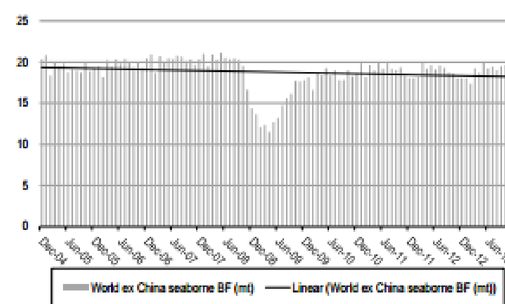


Exhibit 120: World ex China pig iron production (Mt/m)



Source : World Steel Association and CSFB

The boom peaked three years ago, the pressing question for investors and companies now - is when will the next one start? Are these once-proud hole-diggers that are now begging for your cash, great value investments? Reading through the broker research, you'd see consensus is that the first half 2014 will be the bottom. However, that was consensus last year, and the year before that.

In this quarter's Market Musings, we discuss whether resources are indeed at the nadir and whether picking the absolute bottom actually matters. We start by reviewing some of the amazing changes that have occurred over the boom, and how they may affect the timing and magnitude of the recovery.

Ten years ago, I was working for a Sydney-based mineral economics firm. The boom had only just started, but all the old guys in my firm were predicting the end would arrive within months. This is how it had happened every time before. The few miners that began expansions were dismissed as foolhardy.

Before working at that mineral economist firm, I had worked in the mining industry, and the mindset was the same. After 30 years of continual price deflation, miners were used to "booms" being over before they even got the authorisation to buy new carpet for the office.

If a commodity price rose, you might increase production to capacity, sell down your stockpiles and then see what happened to prices. If they stayed strong, you would start thinking about an expansion. You launch a study, you talk to the bank, you start the environmental study, you try to lock in off-take contracts for your new supply, and then several years later - more by agreement with consumers than any price signal - you might actually start building.

However, the Chinese were in a hurry. They couldn't wait the 8 years it takes us to decide to expand a coal port. They also got fed up with the oligopolies in Resource Land. They found their own supply, often creating new industries in doing so, and permanently changing the commodity complex. For instance, Indonesia, a place Australian businesses have feared to tread, became a destination of choice for the Chinese and it wasn't long before a low-grade coal industry sprung up, aided by lax and easily greased regulations. Australia, which since the 70s had been the world's biggest coal exporter, was soon overtaken by a country that barely exported before the boom.

Direct shipping of nickel laterite ore from Indonesia and the Philippines to Nickel Pig Iron furnaces in China, made a once scarce commodity plentiful. Consequently, BHP was forced to write-down $4b on its Ravensthorpe Nickel Laterite plant before they had even commissioned it.

More recently, the Chinese established a seaborne bauxite trade from Indonesia, and in doing so have undermined the processing business model of Alumina Ltd (AWC). Why should the Chinese pay a Return on Capital to AWC when they can build their own refineries at a third the cost of AWC? Many people believe that the Indonesian ore export bans that came in on 12th January this year are the end of this trade, but I suspect that now it's established, the trade will continue. For instance there's plenty of bauxite outside of Indonesia that the Chinese can access.

It is the Chinese that are developing Africa's resource wealth. The high-grade copper deposits of the DRC (Democratic Republic of Congo) are now largely under Chinese control. Many Western companies have rightly been scared off by the civil unrest in many of these countries, but the Chinese seem to be able to do business there. Because of the underdevelopment of Africa, its deposits are equivalent to the now depleted deposits of Australia 100 years ago. Consequently Australian miners will be pushed up the cost curve.

The boom has spawned these imaginatively named Very Large Ore Carriers (VLOCs). With the only growth in steel production in the world occurring in China, the Brazilians found their iron ore was at a freight disadvantage to the Australians'. The solution? Build a VLOC.

But it's not all about China. The high prices caused by the boom, spurred innovative thinking in that other great home of the entrepreneur: the United States. Just before the GFC, US gas prices were trading at $14/Btu, and soon after the oil price hit $150/bbl. Woodside (WPL) was actually considering exporting LNG to the US. Pierce Brosnan even campaigned against WPL and Co to prevent the construction of an LNG import terminal on the Californian beach he liked to ride his horse on!   WPL should thank Pierce, because he saved WPL from themselves on that one. Thanks to the shale gas revolution, the US is likely to become a competitor to WPL in the seaborne LNG market. WPL would have looked pretty stupid just putting the finishing touches to a Californian LNG import terminal only to see everyone rushing to send gas the other way.

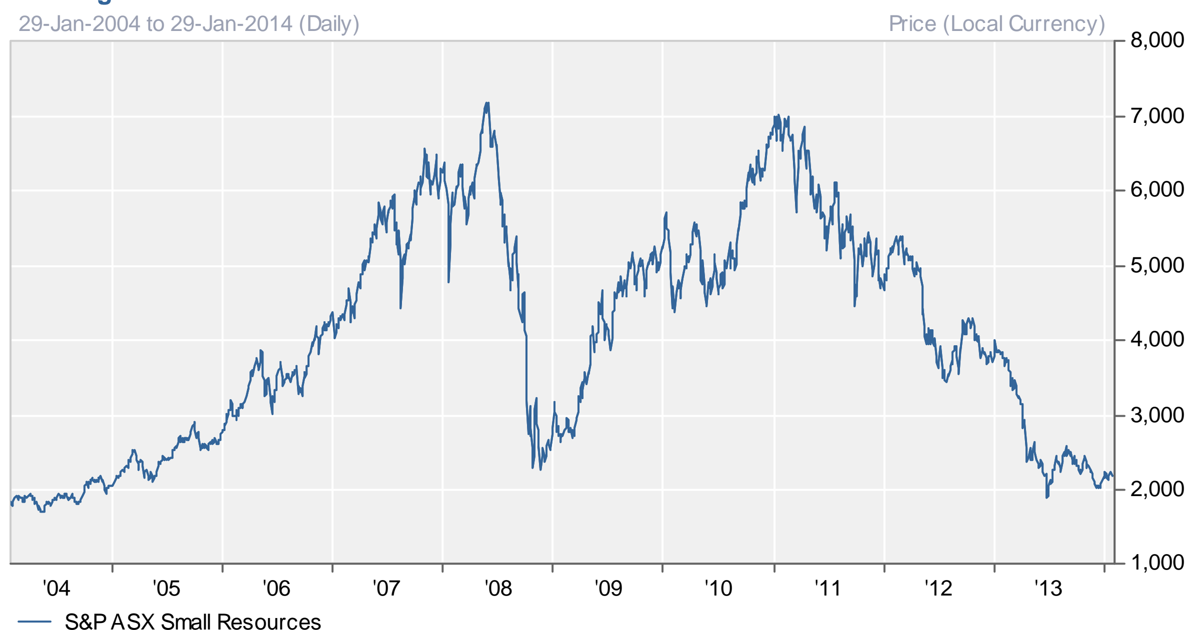
The ramifications of the US shale revolution are fascinating. If you include Canadian oil sands, going forward the US will hardly need any oil at all from the Middle East. What does this mean for the despots over there? Is this already being felt with the Arab Spring, which now seems to be careering into anarchy? Now China is the biggest importer of oil, should it become the new Global Policeman?.

Cheap gas brings many changes to the US economy: the revitalisation of the manufacturing industry; the switch from coal to gas; the fact that oil is $15/bbl cheaper in the US than anywhere else in the world. That's a shot of adrenaline to the competitiveness of its economy. The US shale gas revolution is pushing US coal into Europe. Ironically, coal consumption is going down in the US where there is no carbon tax, but increasing in Europe where there is one!

Those are some of the major changes, but think of all the money that has gone into mining. For the first time in their careers, the science boffins of the mining companies found their managers thrusting money at them. You've had RIO develop and implement driverless trains and trucks (yes, well before Google's driverless car!). This is now operating in its Pilbara iron ore operations, but RIO plans to expand this to its other operations. BHP is following close behind, as will the rest of the industry.

Mining equipment has improved as well in almost all aspects. For instance, mineral sands spirals can Now separate minerals from deposits that were previously thought too fine-grained to be economic. The changes have been monumental and most of the impact of these changes are yet to be fully felt.

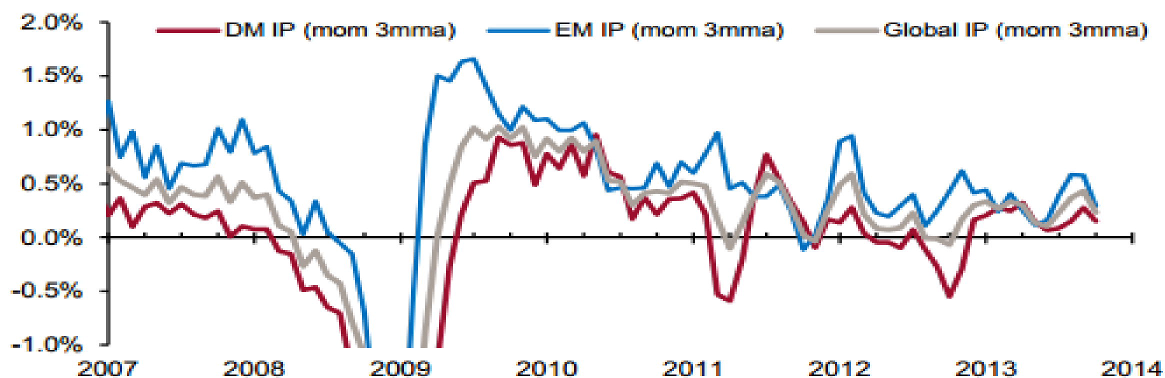
But despite all the money that has been pumped into the sector, the sector is in the doldrums. The chart below shows the performance of the junior miners: the index is below GFC lows!
Does this mean the sector is good value for a contrarian minded investor?



Source: FactSet Prices

We look to IP (Industrial Production) curves to summarise demand. These tend to cycle similarly to the business cycle at about 7 years. The last trough was in late 2008, so the next trough should be coming soon. Perhaps this will be driven by the tapering of QE in the US, or by Chinese government efforts to stem bad loans. Whatever the case, the time to invest in mining is during the trough not before it. In my view, when IP indices are still in positive territory, there is as much downside as potential upside to demand.

Global IP Curve



Source: Credit Suisse

The mining recovery from the GFC, that Wayne Swan labelled “Mining Boom Mark II” (aka the Magic Pudding that was going to cover all Labour’s spending commitments) peaked in early 2011 (which with the benefit of hindsight was actually before Swan described it as “Mining Boom Mark II”). However, it didn’t become apparent that the downturn was serious until mid 2012, when the Euro crisis occurred, after that things never really improved for the miners.

Thereafter, investors became concerned and started demanding dividends instead of growth. Towards the end of 2012, miners started listening and put a halt to new projects. Of course, they still needed to finish the ones they’d started – many of which are still underway today. Despite share prices and commodity prices peaking three years ago, because of the time it takes to complete projects, the supply side hasn’t stopped expanding yet. New supply will come on regardless of the current weak prices. This is true for iron ore, copper, coal, nickel, mineral sands, and rare earths. Probably the only commodities which are not expanding supply currently are platinum and uranium.

So how can we expect it to play out? There are a couple of commodities that peaked early and may serve as an example of how the post-boom dynamic plays out. You can see, from the chart below, that nickel peaked at a massive $53,500/t in May 2007 (exit Kerry Harmanis), and is now $13,400/t. You may remember that the mining sector actually performed strongly through the start of the GFC until May 2008 (when the “Relax Bro, China is decoupled from the rest of the world,” argument collapsed). However, nickel had already almost halved by mid 2008. Why was that? We now know that what had happened was that the Chinese had invented the nickel pig iron industry, and didn’t need our nickel anymore, thus causing a collapse in the price.

Nickel Price ($US/t)

As all the Resource Analysts got overly excited on the new and somewhat annoying Nickel Pig Iron industry, the experts were telling us, "... its only temporary supply, it's too high cost, they'll all be out of business if the price falls below $26k/t," and then as the price kept falling, "Did I say $26k/t, I meant $22k/t, no actually $18k/t" – and with the benefit of a few years passing since then, it seems it's something like $12-18k/t.

Not good news for all the companies that were encouraged by the $50k/t prices to launch construction of very high capital cost High Pressure Acid Leach plants. Even though they probably started 6 or so years ago, after numerous delays and blow-outs, these are only just coming into the world – a cold, harsh world which really doesn't need any more nickel.

And what did the incumbents do to combat lower prices? If they could, they produced more. The ones with high costs had to, in order to get their unit costs down. They would go to their shareholders asking for money to fund the expansion, the story would be, "look if we double production, our unit costs will go down 30%, and we'll also be a much more significant and strategically attractive player – we just need another $100m, please."

The low cost miners also expanded hoping to replace revenue lost to falling prices. This proved all self-defeating: nickel prices never recovered their 2007 high and stockpiles keep going up (see chart page 5).

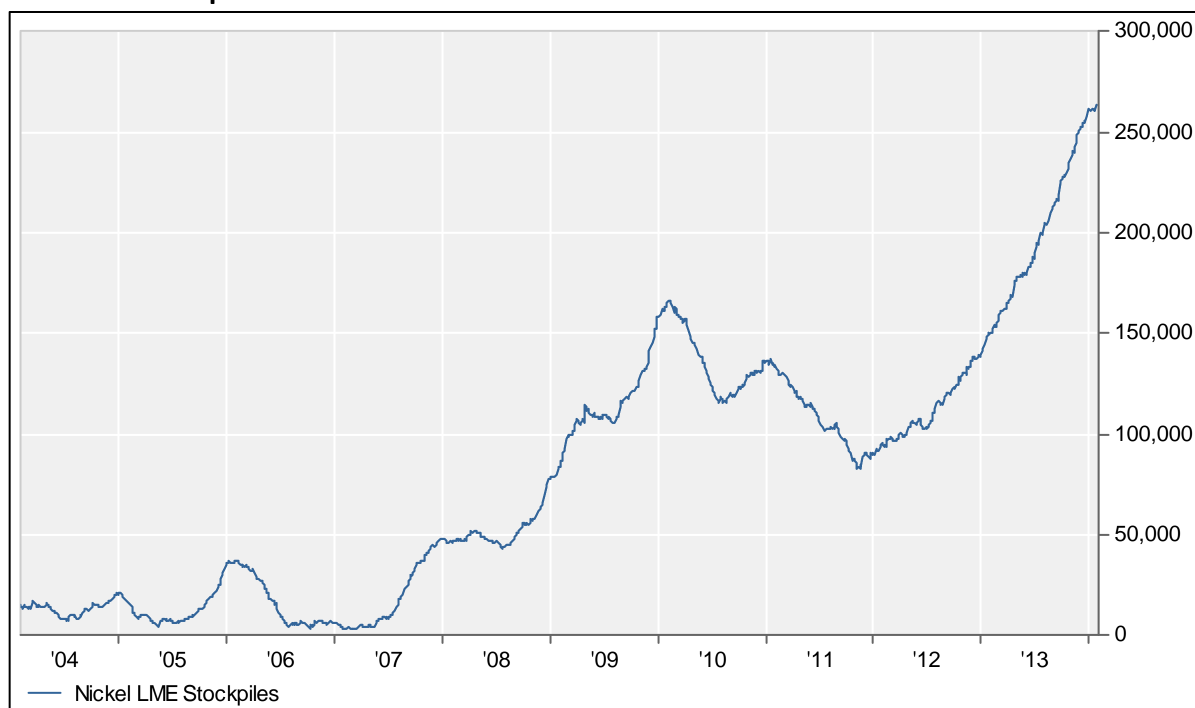
That is the First Phase of the downturn. The Second Phase is when capital for "life-saving" expansion dries up. Investors get tired of funding expansions of loss making operations, as occurred with Mirabella. Then the mine goes bust, or it must completely about-face its strategy and downsize production and, if possible, target the high-grade parts of the ore body.

This is where we are now with nickel, but you can argue that most commodities are still only in the First Phase of the slow down. Investors will still "pony-up" to most capital raisings, which means the sector will still expand.

Of course this doesn't mean that 1H14 is not the bottom. No-one can pretend to be able to pick the bottom – certainly we don't. What we can do is formulate an idea of how the recovery might play out. For instance, if the recovery is going to be similar to the post GFC one, you might take more risk trying to pick the bottom because it was so quick and violent, and if you missed it, it was painful to your portfolio's performance.

Nickel provides an instructive example. For the last few years, the surplus production has gone to stockpiles like the LME (see chart below). Stockpiles are now 3 to 4x higher than where they were during the recovery from the GFC. There is now enough stock pile to meet several years of mild deficit, whereas during the GFC the stockpile would only meet a year or so of mild deficit.

Chart Nickel Stockpiles



Source: Factset

During a recovery, as the stockpile reduces the price should pick up. Then producers that have been high-grading to survive will expand production. For this reason, improving demand will have a subdued impact on prices for a long time. High grading also often means stockpiling expensive-to-process ore. You have to mine it to get to the high grade stuff, but it's more economic to just stockpile it rather than process it. For example, Iluka (ILU) seems to have about one year's production in a semi-processed stockpile. If prices rise, this ore becomes available, i.e. the biggest producer in the world could send its miners on a gap year and not miss a shipment!

Many of the new sources of supply that the Chinese pioneered during the boom are high cost, but readily expandable when prices rise. In essence, the Chinese weren't interested in the profitability of their mines, they just wanted to secure supply for their manufacturing and infrastructure industries. For instance, the world's resources of nickel laterite, low energy coal and bauxite are huge. The Chinese can meet any increase in demand simply by sending another excavator to the Philippines, buying another barge and expanding their furnaces in China. For many commodities, the usual lag time to develop a mine, i.e. drilling, environmental, government approvals, financing etc, doesn't exist anymore.

Resource analysts do not get excited until new supply is required – when prices need to rise to the "incentivisation price". Then if you're already a producer you can look forward to "super profits". Currently, there is generally a lot of slack in the system that must be taken up, before "ïncentivisation prices" are required.

Another point to keep in mind is that those "super profits" won't all go to shareholders. During the boom most governments of resource-rich countries attempted to extract more rent from the miners. For instance, our previous Federal Government launched the Resource Super Profit Tax, which was watered-down to the Mining Resource Rent Tax after a successful campaign by the big miners. Western Australia and Queensland saw the MRRT as the Federal Government's attempt to take revenue that was theirs, so they put up royalties to counter it. In Queensland, coal royalties are tiered, such that if the coal price rises, so too does the proportional take of the Queensland government. If super profits ever do return to the sector, Governments are set to take more than they did previously, at the expense of shareholders.

Given the amazing changes that have occurred in the commodites complex, there is no pressing need to try to pick the absolute bottom. Sooner or later, the mining sector will reach its nadir, but the structure of the industry is now such that meaningful price rises will be limited for at least a few years.

Finally, another factor that makes us cautious on the resource sector, is the lack of quality in the sector. Amazingly, despite having just come through the mining boom of a generation, our miners are in worse shape than when they started:

- There are no diversified mid-cap miners anymore. Diversity reduces the volatility of a company's earnings – a key measure of Quality.
- The balance sheets of most miners are fairly stretched, such that falls in commodity prices have investors panicking about potential capital raisings (Fortescue - iron ore price fall in 2012, Newcrest -gold price fall 2013).
- Australia's cost competitiveness has eroded due to our strong currency but also due to out-of-control capital and labour inflation.
- Competitive advantage. Australia is no longer a frontier of mining. There are much better deposits in Africa and Central Asia.
- Sales prices have become more unpredictable with the move from contract pricing to spot pricing (alumina, iron ore, mineral sands, coal). Spot prices are great in a bull market but not so great in a bear market .

- Returns have eroded for Western minerals processing, which means margins can't get back to their boom time highs anytime soon – something many in the investment community are yet to realise.

There is not much in terms of quality, outside of BHP and Woodside.

It is true we may be getting closer to the bottom. It is true that many stocks in the resource sector have been smashed, and perhaps valuations are attractive. But we can't see any reason to hurry, as in our view the commodities complex is currently in such a state that any recovery in prices will be muted. It's worth waiting for the downside risks to dissipate, with the confidence that if we miss the start of the recovery we don't believe it's going to be anything spectacular anyway.

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