Mining Journal

10 things I hate about feasibility studies

Ten things make me cranky about feasibility studies, as I discovered recently, when Mining Journal asked me what flaws really wound me up.

John Robertson* | 11 May 2017 | 7:16 | Opinion

Feasibility studies are often little more than marketing tools dressed up with technical detail

Mining Journal ran a May 5 feature on feasibility studies in which senior reporter Daniel Gleeson canvassed their shortcomings, pitfalls and usefulness.

In querying my views ahead of the article, Gleeson erroneously anticipated at least one part of my response by saying that that I should look beyond "the obvious commodity price predictions". Interestingly, the accuracy of commodity price forecasts is not in my top 10.

My top 10 feasibility study flaws are more to do with valuation and risk measurement.

Mining is a tough business. It is often unfair to criticise its participants simply because someone 'got it wrong'.

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Criticism is entirely justifiable, on the other hand, when someone has
failed after doing everything possible to disguise risk and convey perceptions of project certainty.

A surprisingly large number of projects fail to get the nod after a completed feasibility study asserting their technical and financial virtues.

Three examples come to mind quickly. Kasbah Resources (tin in Morocco), Northern Minerals (rare earth elements in Western Australia) and Kula Gold (gold in PNG) all seemed to have eminently sensible projects based on their published study details.

Years later, investors in all three companies are being asked to consider yet another development iteration.

"Naïve market assessments often drive decisions"

How can a project described as having robust economics fail to attract funds? Are stupid investors to blame or, more likely, unsound, defective or shaky analysis?

Here is my summation of frequently encountered feasibility study flaws that eventually come home to roost.

1. Staff and consultants go into enormous detail about the technical aspects of projects but obviously place a far lower priority on the quality of financial analysis.

An NPV may use a discount rate of 5% despite no investor in the world being willing to accept this as an acceptable return or cost of capital for a high-risk development project. Such behaviour is equivalent to assuming an impossibly low cost for a tyre or power unit. The latter would be wholly unacceptable despite the former being commonplace.

In some cases, capital demands (such as those for iron ore projects with big infrastructure components) may have been too high for financial markets to bear despite an analysis, based on untested funding assumptions, confirming competitive returns.

2. Companies may assemble a group of highly competent consultants to complete an impressively detailed study without addressing what is arguably the single most important question impinging on feasibility: do the people in charge have the ability to implement the study contents? Heroically and universally, skill is assumed.

3. Single point valuations are misleading; not just for investors but also for promoters fooled into believing their own propaganda.

If costs and prices can both vary by 15%, for example, the feasible valuation range should lie between combinations of 15% higher costs/lower prices and 15% lower costs/higher prices.

An analysis of investment risks is not possible without a distribution of the range of possible outcomes from which to infer the one most likely to occur.

4. ASX-listed companies do not publish their feasibility studies. They publish summaries. The quality of summary content varies considerably from company to company.

5. Sensitivity analyses are frequently not included in summaries so as to allow investors to assess the risk profile of the venture.

The absence of appropriate sensitivity guidelines leaves open whether the company has access to this information or whether boards are making multi million-dollar bets without the right tools.

6. Feasibility studies do not take account of the capital invested prior to a decision to begin construction, with the potential to inflate published returns.

A company may persist in the use of a study published many years earlier for marketing its investment attractiveness despite not having quantified the capital used in the interim.

Perversely, the longer the time between a study completion and project construction during which the company uses equity, the higher the potential return, according to the typical feasibility study methodology.

7. Even where financing has already been arranged and capital costs are known, studies may use standardised cost of capital assumptions (e.g. 5% or 10%) oblivious to already negotiated outcomes.

Standardised cost of capital assumptions having no regard to already contracted terms or current market conditions are akin to all gold miners valuing their projects based on an assumed 3g/t Au grade. It would be illegal.

8. Companies are under no obligation to alert investors to any assumptions in a study being no longer applicable.

Accepted practice allows companies to keep using the same results as long as they refer explicitly to the date of the study even if there has been a change in market conditions.

9. Forecasts from broking analysts or even from a single analyst or bank may underpin a feasibility study result.

Almost certainly, a study will omit any analysis of the track records of those selected for their forecasts or discussion of any inherent biases, including those arising from internal pressures to maximise the sale of equity products.

Nor are companies obliged to report when an analyst might have changed a conclusion that has fed into a study.

10. Naïve market assessments often drive decisions. Analyses of individual markets showing demand outstripping supply as a result of extrapolating recent growth trends are commonplace and used by companies to titillate investors.

Unless there has been an earlier history of stockpiling, the world cannot use more lithium in the future than is going to exist, for example, despite dozens of presentations alluding mystically to this possibility.

Properly framed market analysis would at least require companies to address what is actually going to happen in markets, if only by way of different scenarios, rather than posit an impossible outcome as the foundation for an investment decision.

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