

# FINANCIAL REVIEW

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**BY** Matthew Stevens  
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**LP** Matthew Stevens

Every week a taxi fleet of Rio Tinto light vehicles dashes about 50,000 kilometres, taking locomotive drivers into the distant Pilbara to deliver them to stopped **iron ore** trains.

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These trains are routinely more than two kilometres long. Stopping and starting them is an artful exercise in timing and stress management. And generally the reason they stop in the middle of nowhere is that a 12-hour shift has ended and drivers who started a voyage need to be replaced.

Ending this wasteful and potentially hazardous dash around the boondocks is just one of a wealth of discrete financial logics that sit at the heart of Rio Tinto's embrace of technology as a path to productivity improvement. Everywhere we turned on Thursday there was a Rio eminence, present or past, talking up the need to tackle the challenges of the third phase of the resources boom that has so far shaped Australia's economy in the new century.

In Melbourne, we had former chief executive and incumbent Qantas chairman, Leigh Clifford, telling us that government had already squandered the financial bounty of the opening phases of the boom.

Reaping the winds of the coming production boom will require hard decisions. He urged deregulation of the labour market to recover flexibility with a focus on the enterprise level. Mine of the Future program

In Brisbane we had Rio's current boss, Sam Walsh, reminding everyone that Rio is what has always been a technology play in **mining** while promising that the **company's** trademarked Mine of the Future program would cut costs as it improved efficiency, safety and environmental footprint.

And in Sydney, Rio's new man of **iron ore**, Andrew Harding, was reassuring investors that Rio's internal modelling accounted for pretty much all of the forces driving the current market volatility and the supply-side shifts that currently cloud the longer term outlook.

Harding's pitch to senior owners was that they should share Rio's confidence in **China's** misunderstood demand outlook and that Rio's ability to entrench its place as the lowest-cost Pilbara producer left it well placed to sustain sector-leading margins whichever way the price actually goes.

One cornerstone of that pledge was the already proven focus on the most intimate details on operating costs that saw Rio remove \$US3.3 **billion**, or 9 per cent, from its **company**-wide cost base over 2012.

The other was the promise of the efficiency and productivity gains that will be wrought from the maturation of Rio's new, and still proprietary, embrace of **mining** automation.

Which brings me back to Rio's railway and the simple fact that the effective introduction of automated, driverless trains represents the final critical piece of the operational puzzle allowing Harding to dig up

and deliver 360 **million** tonnes a year of **iron ore** without adding two new super-mines to his existing 15-mine fleet. Perth **operations** centre

Rio already runs Pilbara **ore** crushers and dumpers from a **operations** centre in Perth along with a fleet of 67 robot trucks that could yet grow to maybe 150 over the next few years (there are 340 or so trucks in its entire fleet).

But the biggest wins automation will bring come from running a train fleet as free as possible from the constraints of human engagement. The scheduling advantages of having trains that don't require shift breaks means that Rio can hit its 360 target without the need for an additional eight train consists. That is maybe \$500 **million** saved before you start.

Rio had planned to have its robot trains running around the Pilbara by the end of Q1 2015. The word is it might happen just a bit earlier. The big uncertainty over timing is that this technology, at least in its application, is so new, international and local regulators are still trying to get their heads around it. To some degree, Rio and the regulators need to re-write the procedural rule books as they go. As it is, a host of critical safety and operational approvals are in the baking.

As it is, the computer algorithms have been written and the machines are already telling the drivers what to do. The next step will be to remove drivers from all trains that do the long-hauling from mine to rail yards that sit between land and port. Between yard and port, the robots can no longer cope with the logistical complexities. So Rio's yard drivers will steer the trains to the car dumpers and back again.

Which announces the point that this is not so much about Rio getting rid of people as it is chasing productivity. By the time automation is complete Rio will probably have halved the number of train drivers it needs. But it will have a whole lot more people manning the screens at its Perth facility and a new breed of boffins running around the Pilbara making sure the trains run on time.

The PNG government's way of doing business continues to amaze, amuse and frighten us in almost equal measure.

This week a government under **firm** control of its self-proclaimed nation building Prime Minister, Peter O'Neill, lost a Treasurer in attempting to secure internal consensus within its National Executive Council over the arrangements for the \$1.225 **billion** of debt needed to finish the **acquisition** of 10 per cent of **Oil** Search.

NEC decision 79 authorises the Treasurer to execute the documentation needed to borrow \$1.239 **billion** from UBS in two tranches: first a \$335 **million** bridge loan then a \$904 **million** collar facility, and then authorise UBS to place a sovereign bond issue to replace that bridge loan. That cash will then pay for 149,390,244 **Oil** Search shares.

Now it has been reported that Treasurer Don Polye was "de-commissioned" after he refused to sign off on these arrangements because of his concerns the funding under construction is being raised without formal Parliament approval.

Those with a better knowledge of these things than me say section 209 of the Constitution delivers Parliament clear responsibility over public spending and requires its specific authorisation for the raising of loans.

Interestingly the government documentation delivered to us names the National Petroleum **Company** of PNG as the entity that will pay the fees earned in manufacturing the **transaction** and the long-term cost of the debt that is raised.

The agreement signed by the PM and distributed to a cabal of his cabinet carries no information about the interest rate or about the level of fees that will be charged. A lot of sense

Getting NPCP to finance the deal makes a whole lot of sense. NPCP is, after all, the vehicle that owns the state's 16 per cent of the Exxon LNG project that sits at the heart of the decision to **buy** 10 per cent of **Oil** Search. Dividends will begin flowing from the Kutubu project next year. So **Oil** Search's project will end up paying for shares in **Oil** Search.

But, rather oddly, the documents name state-owned Petromin as the eventual subscriber and nominee for the **transaction**. So the shares will be paid for by one arm of PNG's state-owned **commercial estate** and owned by another. This structure seems to allow the **Oil** Search debt to be kept off the government's balance sheet and thus avoid the need for parliamentary approval.

The other structural uncertainty here is that O'Neill has plans to put PNG's **mining** and petroleum investments into a new ownership structure that has a thing called the Kumul Trust floating over the top of it.

Kumul **Mining** Holdings will own Ok Tedi and the state's interest in Bougainville **Copper** and the Ramu Nickel project. Kumul Petroleum will hold PNG's 16.575 per cent in PNG LNG and, presumably, Petromin's 10 per cent of **Oil** Search.

Presumably too, the Kumul Trust will own the income generated by those assets. But the governance of this trust is uncertain. It rather looks like the sitting PM would hold a super voting share while all of PNG's past PMs would hold individual voting shares. How that is going to work given the stand-off between O'Neill and Sir Mekere Morauta over the theft of 62 per cent of Ok Tedi and the attempted kidnapping of the \$US1.4 **billion** (\$1.56 **billion**) being held in a community trust fund chaired by the former PM, is anyone's guess.

Either way, if I'm UBS, I might want to be very sure how this will work before I show anyone the money.

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