The $5 levy on iron ore in WA

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BRIEFING PAPER

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Summary

Western Australia's National Party leader, Brendon Grylls, has proposed increasing the existing 'mining lease rental' on iron ore production in the state from $0.25 to $5 per tonne. It would apply only to mines that are more than 15 years old.

Ideally mining production would be taxed with a well-designed tax on economic rent, rather than a "flat tax" such as the $5 per tonne proposal. A tax on rent is less likely to affect companies' behaviour as it is levied only on profits rather than production.

However, because of the low-cost of production in these mines the proposed levy will effectively work as a resource rent tax. WA Treasury is expecting iron ore prices of between $US47-54 out to 2020. This is substantially higher than the average per tonne costs of these mines, which range from $US15-20, according to the main miners; Rio Tinto and BHP Billiton.

The key point is that the mines affected by the levy will not have any incentive to change their behaviour as their costs are much lower than the prices they receive for their iron ore. Because the increased levy would give no incentive to reduce production, it is unlikely to lead to any reduction of employment in Pilbara mining. This levy would raise around $2.8 billion per year. If the higher levy had been imposed on relevant production over the last five years it would have raised $11.5 billion.

The increase in WA government revenue is likely to lead to an increase in employment across the state. If the increased revenue was all spent on construction of new infrastructure, we estimate an increase of 4,600 jobs.

Economic modelling commissioned by the Minerals Council of Australia suggests large reductions in employment of 2,900 in the Pilbara and 7,200 nationally. However, as the report admits, a cost increase would only affect mining decisions in the old mines in the 'long run' as they approach the end of their lives. Prior to that there is more than enough 'fat' to share with government and would act much like a tax on rent.

Deloitte's modelling results are presented as if they applied now whereas a full reading of the report indicates that the results only apply in the long run and not the near future when the levy would 'mimic' [Deloitte's word] a profit or rent tax. When and if the old mines become marginal there is more than enough time for a government to change the tax arrangements if it so wishes.

Deloitte's remaining argument is that the impact of the levy on GST distributions to WA is expected to reduce the net contribution of the iron ore levy change to less than $300 million per year.   That is certainly not clear from a reading of the rules for GST distributions and Deloitte notes there are two strong points WA could use to argue against any reduction in GST

receipts. While this is important for WA stakeholders, from a national perspective there is a clear revenue gain to Australian governments.

In conclusion, the proposal to increase the WA iron ore levy should be supported as a pragmatic alternative to a resource rent tax. It will not have any effect on iron ore production in the short or medium term. It will raise significant revenue for governments which can invest in badly needed infrastructure projects.

Introduction

Nationals WA leader, Brendon Grylls, has floated the idea of a $5-a-tonne levy on iron ore produced in WA. As we understand it from press reports Mr Grylls proposes to 'increase mining lease rental attached to the legacy production titles of the majors. The rent would rise from 25¢ a tonne to $5'.[1]

This briefing note assesses the proposal itself and reviews a report commissioned by the Minerals Council of Australia, written by Deloitte Access Economics on the proposal.

Ideal or pragmatic tax?

The Henry Report said that 'Through the Australian and State governments, the community owns rights to non-renewable resources in Australia and should seek an appropriate return from these resources'. That report recommended a 'resource rent tax' to cover most minerals in Australia. The Rudd Government agreed and decided to implement the resource rent tax which became the Minerals Resource Rent Tax.

> The resource rent tax on minerals was to address the decline in the share of mining profits being collected by governments in Australia. The combined share of the two types of mining-specific taxes, State royalties and collections under the Petroleum Resource Rent Tax, has fallen substantially. It went from around 40 per cent of profits on the eve of the mining boom to about 13 per cent at the moment.[2]

The essential idea of the resource rent tax was simple; if a mining project is only earning ordinary returns then it would only attract the ordinary company tax. However, where a mine is sitting on a superior resource, super profits are generated just because of the attributes of the mineral deposit and not the attributes of the miners. The super profits arise because a company has access to a resource that is really the property of the people of Australia. In any other industry a super profit would be the signal that would encourage competitors who would enter the industry,

[1] Stevens (2016) *Brendon Grylls' plan to bake Pilbara's golden geese* http://www.afr.com/business/mining/iron-ore/brendon-grylls-plan-to-bake-pilbaras-golden-geese-20160808-gqnr19#ixzz4OcxiqVdk

[2] Australian Government (2009) *Australia's Future Tax System: Report to the Treasurer*, https://taxreview.treasury.gov.au/Content/Content.aspx?doc=html/home.htm

expand the market and so eliminate the super profits. Competition is expected to work to eliminate super profits unless they are due to something that the competitors do not have access to. In this case that something is access to superior Australian resources.

Many economists would agree that a flat tax is not the ideal if the aim is to share in the 'rents' generated by mining activity. That is why the Henry Review argued that state royalties on minerals should be replaced by the theoretically pure resource rent tax. On the other hand, rents and any tax on rents can be quite volatile as the federal petroleum resource rent tax (PRRT) has shown. Over the last ten years PRRT collections have ranged between $2,099 million in 2008-09 and $800 million estimated for both 2015-16 and 2016-17.

Another argument against the resource rent tax is that it may take a long time to generate any revenue. For example, while the PRRT applies to LNG sales recent research has suggested that it may be a decade or more before it raises any revenue via the PRRT.[3]

By contrast the Grylls proposal involves an immediate and relatively certain payment stream. The only concern with a fixed payment is that it adds to the producer's costs and in principle could force a cut in production if the producer could not break even. However, as the WA budget papers suggest:

> most of the iron ore produced in Western Australia comes from large, capital-intensive operations that have relatively low operating costs when compared to producers in other countries. Production from large producers is not likely to be affected by movements in price over the short-term. For example, previous episodes of sharp price declines in 2012 and during the Global Financial Crisis had little impact on the volume of iron ore sales from Western Australia.[4]

In a similar way the $5/t extra levy is unlikely to affect volumes produced in WA. The WA budget forecast for future iron ore prices was US$47.7 in 2016-17, US$49.2 in 2017-18, US$51.6 in 2018-19 and US$54.0 in 2019-20. This well above for example the average price received by the producers. In FY2016 BHP Billiton's Annual Report shows it received an average price of US$40.21 per tonne.[5]

[3] Long S (2016) 'Oil and gas tax may raise no extra revenue for decades', *ABC AM*, 10 October http://www.abc.net.au/news/2016-10-10/oil-and-gas-tax-may-raise-no-extra-revenue-for-decades/7917682

[4] WA Treasury (2016) *Budget Paper No 3.* http://static.ourstatebudget.wa.gov.au/16-17/2016-17-wa-state-budget-bp3.pdf p. 69

[5] Calculated from BHP Billiton annual reports, available at www.bhpbilliton.com/investors/reports.

We can infer cash flow breakeven points from BHPB's annual report which shows revenue of US$10,333 million and underlying EBITDA of US$5,492 million in FY2016.

- On that basis the implied production costs were US$4,841 million or US$18.84/t.
- Rio Tinto claims it is 'the lowest cost major iron ore producer in the Pilbara, with a Pilbara cash unit cost of US$14.9 in 2015'.[6]
- Similar calculations for Fortescue Metals indicate production costs of US$22.01/t in FY2016.[7]

These calculations show that despite prices being well below their peak, they are still well above operating costs. This means that the $5/t extra levy should not affect production decisions. Of course the revenue transferred to the government would be significant and the major miners like BHP and Rio Tinto have form in fighting new mining taxes.

Proceeds of the new tax

Our understanding is that the mining lease rental increase would apply initially only to production from mines owned by BHPB and Rio Tinto. The latest BHPB and Rio annual reports show iron ore volumes of 261 and 310 million tonnes respectively.[8] Increasing the mining lease rental from 25 cents to $5/t should therefore raise $2,711 million per annum on those volumes. That would approximate any collections by the WA government but note the error involved using Rio's figures which are use a financial year ending in December.

The WA budget papers project only modest growth in volumes in 2016-17 and subsequent years starting at 2.2 per cent growth in 2016-17, 2.7 per cent in 2017-18 and minor increases following that. On that basis and assuming only modest growth in output by BHPB and Rio we could expect future revenues of approximately $2.8 billion per annum.[9]

[6] Rio Tinto (2015) *Annual Report 2015*. http://www.riotinto.com/documents/RT_Annual_Report_2015.pdf Note that the Rio Tinto financial year ends in December so that data comparisons do not exactly overlap when using the latest annual reports.

[7] Fortescue Metals Group (2016), *Annual Report 2016*, http://fmgl.com.au/investors-media/reports/annual-reports/

[8] Some of Rio's production is shared with joint venture partners but that should not affect our revenue calculations. BHPB's totals are its share of production grossed up to include the 15 per cent share of production owned by other entities.

[9] If the $5/t applied to all WA production revenues would be approximately $3.6 billion.

Had the $5/t been imposed over the last five years the total additional revenue from that measure would have been $11.5 billion, based on volumes reported in BHP and Rio Tinto annual reports.

The increase in WA government revenue is likely to lead to an increase in employment across the state depending on how it is spent. If the increased revenue was all spent on construction of new infrastructure, we estimate an increase of 4,600 jobs.[10] That figure is based on the assumption that the employment per million dollars spent on construction would be the same as the Australia-wide average. That estimate ignores any multiplier impacts and measures the direct employment only. It does not include any indirect employment or account for any possible 'crowding out' of other spending in the WA economy. In practice the employment generated will depend on the exact projects undertaken and conditions in the labour market when they are undertaken. The estimated change in employment would be much larger if the extra revenue was spent on labour intensive services such as teaching and nursing.

[10] This estimate is based on calculations using ABS (2016) *Australian Industry, 2014-15*, Cat no 8155.0, 27 May.

Deloitte report

The Minerals Council of Australia commissioned Deloitte Access Economics to write a report on the proposed increase in the rent on mining leases which is payable 15 years after mining. That report was released on 14 November 2016.[11] The report allowed the Minerals Council to put out a press release announcing 'WA NATIONALS IRON ORE TAX WILL COST 2900 JOBS IN THE PILBARA: NEW RESEARCH'.[12] The text of the press release elaborated:

> The West Australian Nationals' proposed new tax on iron ore will lead to the loss of 2900 jobs in the Pilbara region. The research also found that the new tax will cost 3400 jobs in the broader West Australian economy and 7200 jobs nationally. [and] Its impact would see the Australian economy eventually shrink by $2.9 billion a year as a result of a tax that raised $2.3 billion.

Notice the word 'eventually'. No attempt is made to clarify when this may be. As noted above, operating costs are well below prices and there is ample scope for this increase. Deloitte's modelling falsely assumes that the tax would hit marginal production and says 'with lower returns, fewer projects would become viable, and marginal deposits in existing mines may remain untapped – causing those mines to close sooner than they'd otherwise have done' (p iii).

As discussed above, this tax would only apply to mines that have been operating 15 years or more. Hence Deloitte is forced to admit any consequences could be many years away:

> To be fair, some of these costs would be slow to be felt. This tax would hit longer established mines first, and longer established mines typically have the best iron ore deposits – which means they also tend to be more profitable than average. That position on the cost curve means this tax would initially mimic some of the effects of a higher profit tax, transferring some profits from more profitable miners to taxpayers across Australia (p iii).

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[11] Deloitte Access Economics (2016) *WA Iron Ore Royalty Analysis* http://www.minerals.org.au/file_upload/files/reports/Deloitte_WA_Iron_Ore_Royalty_Analysis_7_Nov_2016.pdf

[12] Minerals Council of Australia (2016) *WA Nationals iron ore tax will cost 2900 jobs in the Pilbara: new research*, http://www.minerals.org.au/news/wa_nationals_iron_ore_tax_will_cost_2900_jobs_in_the_pilbara_new_research

Later on Deloitte say:

> To the extent that the mines affected are lower cost, some of the effects of this would initially mimic a rent tax, transferring some profits from miners to taxpayers without a major impact on behaviour (p 8).

Further on Deloitte say:

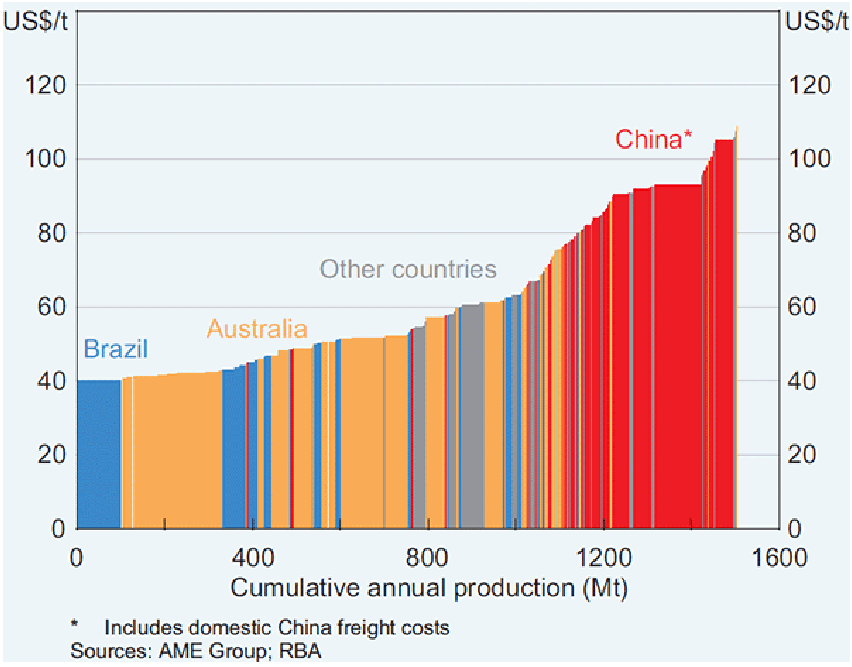
> The initial impacts of this tax are more like a resource rent tax, because the additional charge is mostly applied to lower cost iron ore deposits. This means that the increase in the rental rate would be less harmful in the short term than in the longer term results presented here (p 11).

The point of a profit tax or resource rent tax is that when governments tax profits they do not affect costs and so do not affect whether or not the firm makes a profit. So to mimic a 'higher profit tax' is effectively to say there will be no impact on producer behaviour.

In the future there may well be consequences when eventually the Pilbara mines become more costly to operate, or if iron ore prices were to experience a major decline. If and when the mines do face much higher costs it is always possible for the government to lower the tax to forestall the closing of the mines. Taxes the governments increase can easily be reduced by future governments. Ideally, it should be converted to a profits tax.

Deloitte also say that 'the type of tax under review here would lift the production costs of some Australian iron ore producers without affecting their domestic and foreign competitors' (p 8). This is just a statement of the obvious and ignores that Australian iron ore costs are well below the costs of most of the rest of the world and that will remain the case. This is made clear by the Reserve Bank of Australia's examination of the costs of delivering iron ore to China and published the graph reproduced here as Figure 1.

Figure 1: Global iron ore production costs (delivered to China)



Source: Reserve Bank of Australia (2014) Statement on Monetary Policy August 2014
http://www.rba.gov.au/publications/smp/2014/aug/

Figure 1 clearly shows the Australian iron ore mine costs are well below other countries with the exception of some Brazilian mines. An increase in costs of AUD$4.75/tonne (US$3.57/tonne exchange rate at 14 November) will only very marginally change the ranking of the affected Australian mines.

DELOITTE MODELLING

The Deloitte report contains a chapter 2 entitled 'Setting the scene' which criticizes the rent increase on the basis that this approach is less efficient than other types of taxation. However, this theoretical distillation of the literature is not applied to the specifics of the WA iron ore mining industry and the reality of the current proposal.

GST receipts

Deloitte estimate that the tax would raise $2.3 billion per year but claim that 'after allowing for the resultant loss in GST grants, the net impact would be something less than a net $300 million a year' (p ii). It argues that with an increase in iron ore royalties WA would suffer cuts in GST revenue at the hands of the Commonwealth Grants Commission (CGC) which is the body responsible for assessing how much of the GST money should go to each state under the fiscal equalisation formula.

While the $300 million figure is emphasised in the report summary and Minerals Council press release, further on in the Deloitte report this assessment is qualified as the ‘expected outcome’. Deloitte makes the point that WA could argue that:

- Within the ordinary processes of the CGC, it could try to argue that – as effectively the only State in Australia with iron ore mines – it was increasing its “revenue effort”, and so should be allowed to hold onto more of the revenue in question.
- Or it could appeal directly to the Federal Government, arguing that the revenue from the increase in this tax should be quarantined from the ordinary processes of the CGC.

Deloitte leaves hanging the important question of how effective these arguments might be. Instead they insist that the ‘expected outcome’ is that WA would receive just a fraction of the nominal value of the tax collections. Deloitte provide minimal working or justification for this assessment.

The CGC [13] says its formula includes ‘calculating, for each State revenue, how much more or less than the average each State would raise if it adopted the average revenue raising policy of the States (assessed revenue)’ (p 2) and assessed revenue is further defined:

> Assessed revenue — the revenue a State would collect from taxes and charges if it applied the average tax rates to its revenue bases, defined in accordance with the average tax policy. A State’s total assessed revenue is the sum of its assessed amount for each revenue category in the adjusted budget (p 6).

This could be read as suggesting the CGC would ignore any increases in revenue due an increase in tax rates compared with the ‘average tax policy’ among the states. We do not wish to sound as definitive as Deloitte in the opposite direction, but it is important to point out that there is a good deal of ambiguity about how the CGC would treat the proposed change. We would also note that if the CGC were to withdraw most of the revenue that WA may raise it would effectively send a message that States and Territories have little to gain by changing their tax rates.

[13] Commonwealth Grants Commission (2016) *The GST distributional model – a mathematical presentation*. https://cgc.gov.au/attachments/article/43/The_GST_Distribution_Model_-_A_Mathematical_Representation.pdf

Deloitte CGE model

The model is briefly explained in chapter 4. The treatment is brief and the further detail promised at appendix A is missing from the material published on the Minerals Council's website.

The discussion of regional modelling of the Pilbara is curious. It should be noted that modelling of small areas is particularly difficult. Queensland Treasury call their estimates of regional economic output "experimental" owing to:

> the paucity of economic statistics available at the regional level to assist with more rigorous estimation. As such, care should be taken when interpreting changes at the regional industry level.[14]

Undaunted by this issue, Deloitte's model has 'firms purchase inputs from other producers and hire factors of production (labour and capital)' and 'Producers pay wages and rent (factor income) which accrue to households' (p 11). Without more detail it appears that BHP B and Rio are hiring capital from locals in the Pilbara and paying rent (profit?) to local households. This is clearly not the case in reality.

Of course the most important thing to understand in the model is what makes it move. Here the change fed into the model is the tax itself which is assumed to 'drive up the cost of producing iron ore' (p 14). Deloitte goes on to say:

> but, in the short term, the increased cost of production for the affected operations may not be significant enough to shift the aggregate cost of production in the Pilbara or WA. It could simply reduce the rents of those mines' (p 14).

This must by typographical error. They cannot mean that an increased cost may not shift the aggregate cost. We think they mean to say that in the short term the effect is not sufficient to cause any change in *production* but would simply reduce the 'rents'. 'Rents' in this paper are to be taken as economic rents or super profits which are so high they can be confiscated without changing an entity's behaviour. So really this just takes us back to our earlier discussion. If the levy increase is to affect production, it will take place in the long run and at that time it is well within the power of future governments to reduce the tax.

[14] Queensland Treasury (2013) *Experimental Estimates of Gross Regional Product 2000-01, 2006-07 and 2010-11*, http://www.qgso.qld.gov.au/products/reports/experimental-estimates-grp/experimental-estimates-grp-2010-11.pdf

The actual magnitude of the effects come out of the model which converts the impact on iron ore mining into regional, state-wide and national impacts. Given the discussion in the text it is clear that Deloitte are using modelling from earlier aggregate studies. But in the case of iron ore in 15 year old mines in WA we are really only talking about two producers BHP Billiton and Rio Tinto. The Deloitte model cannot forecast how those two particular companies are going to react to the tax in the long run when they may become marginal mines.

Conclusions

Deloitte has told us little more than when the Pilbara mines become marginal they may close or reduce production more quickly with a $5/t levy in the long run than without. This is something WA decision makers may or may not be concerned about in the long run (whenever that might be). But Deloitte has effectively confirmed that until then the levy will act much like a resource rent tax is supposed to act: it is supposed to tax the surplus profit in a way that does not induce any change in the behaviour of the tax-payer. If the levy ever becomes a problem for the industry the state might well undo the increase or ideally convert to a profit-based tax.

The Deloitte argument is not strong because the proposal is actually a good device for capturing some of the economic rent that should by rights go to the people of WA. Deloitte seems to be hinting that WA would be better off thinking about its own resource rent tax. That would tax rents alone and automatically lighten up on mines that approach their end of life when their costs increase.

Ironically Deloitte referred to the ‘tumultuous mining tax debate’ Australia had in 2010 yet part of the motivation of the present proposal is the lack of a better resource rent tax that the miners were able to fight off at that time.

Deloitte raise the furphy that the change could affect perceptions of sovereign risk. This argument is very weak if it is supposed to be an attack on the proposal to increase the iron ore royalty.

While not emphasised in the report summary or Minerals Council press release, the Deloitte report effectively confirms that there will be little or no consequence of the levy until in the long run when it might affect decision-making. That is of course a matter for a future government to assess. Mr Grylls should be comforted by the fact that the attack on his proposal by one of the top consulting firms actually ends up confirming his stance. The levy increase is worthy of support as a pragmatic alternative to the theoretically pure resource rent tax.