



SUBMISSION

in response to

Issues Paper – Railways (Access) Code 2000: Weighted Average Cost of Capital
WACC Determination – Railway Networks

Economic Regulation Authority Western Australia (7 February 2013)

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1) PURPOSE AND CONTEXT

This submission is Brockman Mining Australia Pty Ltd's (**Brockman**) response to the Issues Paper dated 7 February 2013, prepared by the Economic Regulatory Authority Western Australia (**ERA**) on the Weighted Average Cost of Capital (**WACC**) Determination for the railway networks the subject of the Railways (Access) Code 2000 (**Code**).

Brockman is a wholly-owned subsidiary of Brockman Mining Limited (**BML**), which is an emerging multinational diversified mining and services group with interests in Australia, the mainland Peoples' Republic of China and Hong Kong. BML is listed on both the Australian and Hong Kong securities exchanges. In 2012 BML completed the takeover of an Australian-based iron ore explorer and is now advancing its acquired portfolio of high quality, high potential iron ore deposits in the Pilbara.

The most significant of these projects is the Marillana hematite iron ore project (**Marillana**) and the recently discovered Ophthalmia hematite iron ore project (**Ophthalmia**). A mining lease has been secured for Marillana, which has reported Ore Reserves in excess of 1 Bt of hematite iron ore. The project has established native title agreements, has advanced environmental approvals, and completed mine planning and engineering studies including definitive engineering and front end engineering. Marillana is targeting production in excess of 400 Mt of iron ore product over a 25-year mine life. Ophthalmia has reported maiden iron ore Mineral Resources in three deposits over the last five months, for a combined total Mineral Resource for the project of 269 Mt grading 59.16%. The projects are located in the East Pilbara in close proximity to the TPI railway, Fortescue Metals Group Limited's (**FMG**) Nyidinghu iron ore project and to other major and junior mining company iron ore resources.

Brockman's focus for this submission is the application of WACC to the TPI railway and how that may facilitate outcomes in accordance with the Competition Principles Agreement. Brockman recognises that the WA Rail Access Regime (**Regime**) was established as a framework to ensure effective fair and transparent competition on Western Australia's railway networks. We understand that the Regime aims to encourage the efficient use of railways and investment in railways by facilitating a contestable market for access to railway lines and on-the-ground facilities.



2) CONSISTENCY OF CURRENT DECISIONS

There is a striking disparity between the final determination of the TPI WACC and those of the Brookfield Rail determinations, as shown below:

Date	TPI - Real pre-tax ('Officer') WACC	Brookfield Rail – Real pre-tax ('Officer') WACC
30 June 2010	11.43%	6.32%
30 June 2011	11.08%	6.14%
30 June 2012	9.16%	6.87%

We note that, similar to TPI, the Brookfield railway hauls commodities, including iron ore. We accept that there are differences in the maturity of the base assets and the axle loads applicable to the systems, however we do not believe that this supports the significant variance in regulated WACC determinations.

The Brookfield Rail WACC determinations appear consistent with expectations for a regulated return for multi-user rail infrastructure and seem to be broadly consistent with rates of return experienced by other providers of rail services. By way of example, we note the extract below of analysis conducted by JP Morgan in its 17 September 2012 research paper, issued in relation to mature Australian rail company Aurizon (formerly QR National), which reported Return on Assets and Return on Equity for the financial years ended 30 June 2011 and 2012 below 6%.

Key Ratios	FY11	FY12	FY13E	FY14E	FY15E
Dividend Yield	1.1%	2.4%	2.9%	3.5%	4.1%
Franking	0.0%	0.0%	90.0%	90.0%	90.0%
Return on Assets (%)	2.9%	4.4%	5.0%	4.5%	5.1%
Return on Equity (%)	5.3%	5.9%	7.5%	7.6%	8.9%
ROIC (%)	7.9%	8.2%	12.0%	13.2%	15.5%

Source: JP Morgan Securities Australia Limited Australian Equity Research QR National 17 September 2012



3) **WHY IS THE CURRENT TPI WACC SO HIGH?**

The striking difference between the WACC determinations for Brookfield Rail and TPI seems to be due to the attribution of a higher equity beta, asset beta and debt margin to TPI than for Brookfield Rail.

This attribution seems to stem from the difficulty of separating the business risk and methods of funding FMG, and that company's current single product and single customer operation. The TPI WACC determination should not give undue regard to the investment choices made by FMG/TPI that are inconsistent with the objectives of the Regime.

a) **Chicken-and-egg problem**

In particular, there is a chicken-and-egg problem. The more that the structure of FMG influences the equity beta attributed to TPI, the more expensive it will be for any third party to use TPI. The fewer third parties that use TPI, the more risky TPI will appear, and the easier it will be for FMG to argue for a high equity beta to be attributed.

No formal Access application to the TPI railway has been advanced and, aside from an FMG joint venture arrangement with BC Iron Limited, the TPI railway system has not established any commercial haulage arrangements. These facts exist despite:

- TPI's positive obligations in its State Agreement;
- significant recent and ongoing expansion investment by Pilbara iron ore miners that control railway infrastructure; and
- the iron ore price experiencing sustained historical highs during a 'boom period' for the iron ore industry.

Further, the regulated TPI railway is in the vicinity of existing mining operations of Atlas Iron Limited and Mineral Resources Limited, which continue to persist with public road haulage. This is relevant to considerations around the ongoing development and improvement of the Regime, as road haulage is considered more expensive and is anticipated to impact on the public's enjoyment of public road infrastructure in the Pilbara.

TPI is effectively a sole customer railway. The only other customer is the Nullagine Joint Venture, which is a joint venture between BC Iron Limited and TPI's main customer, FMG. The Nullagine Iron JV is targeting production of less than 5% of the TPI 155 Mtpa of target freight. Benchmarking of the beta should not have regard to this position, as it is inconsistent with the Regime and may reflect the business choices of TPI.

Brockman speculates that the existing untested regulated framework does not yet provide adequate incentive for TPI to engage constructively in commercial negotiations for third party haulage or for junior miners to invest in the regulated access process with a view to run trains over the TPI below rail infrastructure.



b) Solution to the chicken-and-egg problem: promotion of access

The solution to the chicken-and-egg bind is for the ERA to assess the WACC for regulated assets in the light of the objective of improving the incentive to develop a competitive, efficient and fair commercial environment in Pilbara rail service natural monopolies, for the benefit of the Western Australian community.

This means determining the WACC for TPI *as though there were already a contestable market for access to the TPI railway line*. This would mean that financing costs should be assessed on the basis of an efficient use of infrastructure, by maximising volumes and diversifying the customer base beyond the single major user. That is, financing costs ought be determined on the basis that the objective would be achieved. In practice, this would mean that, for the purposes of determining WACC, all the access providers regulated by ERA, including TPI, should be treated symmetrically. Allowed returns should not be benchmarked to the actual WACC of the access providers. Rather, allowed returns should be benchmarked to the WACC of an efficient multi-user rail infrastructure owner.

This approach would provide appropriate incentives for the infrastructure owners to provide access on reasonable terms, which are consistent with a contestable market. The approach we suggest is akin to the benchmarking of efficient costs when determining regulated revenues, and serves the same purpose: to provide appropriate incentives for regulated businesses to operate efficiently.



4) RESPONSES TO ERA'S QUESTIONS

This section provides responses to the specific questions that ERA has sought views on.

a) Criteria

1. It is reasonable and appropriate for the ERA to establish and be guided by criteria for evaluating alternative WACC methodologies. We support the issues paper providing transparent guidance on the development of such criteria and we believe that such criteria should be driven by the objectives of government policy and the Code.
2. The proposed criteria are consistent with our appreciation of the Regime. We note that any change to a component of the WACC methodology brings with it the challenge to address any resultant inconsistency with other instruments in place under the Code. We believe that this challenge should be expressed in the criteria to retain it at the forefront of considerations. We propose the following addition to the proposed criteria:
 - 6) is consistent with the application of the existing instruments under the Code or, where this is not the case, identifies what changes are required to ensure a change to the WACC methodology does not have consequences that are incompatible with the objectives of the rail regime.

b) Efficient financing costs

3. Financing costs should be assessed on the basis of an efficient use of infrastructure, by maximising volumes and diversifying the customer base beyond the single major user. Allowed returns should not be benchmarked to the actual WACC of an individual access provider. Rather, allowed returns should be benchmarked to the WACC of an efficient multi-user rail infrastructure owner. This approach would provide appropriate incentives for the infrastructure owners to provide access on reasonable terms, which are consistent with a contestable market.
4. International benchmarks would assist in taking the 'Pilbara' effect out of the financing cost evaluation. The 'Pilbara' effect is characterised by sole use infrastructure with limitations in access, creating a barrier to entry for new market entrants.

c) Benchmarking efficiency

5. The level of gearing, credit ratings, the debt premium and the equity beta are all inputs into the evaluation of an appropriate WACC that should be informed by benchmarking. These are all parameters that are influenced by the actions of the firm in question and, therefore, should be determined subject to the objectives of the Regime. It is considered important that this benchmarking give regard to efficient multi-user infrastructure assets. The risk-free rate and MRP are not firm-specific parameters. These must be estimated using market data.
6. We believe that the nature of the product being freighted is not unduly relevant to the benchmarking process. It is the investment category being rail infrastructure that should be the focus. Given the challenge of securing a suitable benchmarking sample, we believe exploring benchmarks from non-rail infrastructure investments should also be considered. Suitable comparators should ideally share similar risk characteristics and demand/cost structures to rail infrastructure.



The benchmarking approach should seek to give due consideration and weighting to multi-user infrastructure consistent with the rail regime objective, regardless of the infrastructure owner's investment in or achievement of such diversity. Avoiding excess reliance on a small sample of comparators would result in more reliable WACC estimates, as well as estimates that are more consistent with an appropriate efficient benchmark.

7. Consistency in the WACC methodology is considered an idealistic objective. However this should be tempered by both the rail regime objectives and any structural principles. The comparator samples used to benchmark efficient costs often depend on the availability of robust data on potential comparators. This may mean that different comparator samples are used in the estimation of different parameters. When selecting appropriate comparator samples, the ERA should strive towards benchmarking an efficient multi-user infrastructure owner, and use the broadest sample possible that is consistent with this objective.
8. Assuming all comparators within a benchmark sample are selected carefully, an average should be acceptable. However, given the difficulty noted in the June 2009 determination to secure suitable benchmarks, ERA will need to apply some discretion to the determination of suitable benchmark samples and any resultant sample data that appears inconsistent with the general distribution. To the extent that any of the comparators within the available sample may be 'outliers' or unrepresentative of the desired benchmark, a median may be more suitable to avoid any sample bias impact on the average.

d) Degree of risk associated with infrastructure projects

9. The Capital Asset Pricing Model (**CAPM**) is an appropriate model with which to assess the cost of equity of access providers. As noted in 7. above, the application of risk should not consider in isolation the risk of the railway owner or the qualities of the railway owner, as this may reflect the choices of the railway owner, which may not be consistent with the objective of the Regime. Risk should be assessed on the basis of 'efficient', multi-user infrastructure. In addition, any assessment of risk should take into account the form of access arrangements in place. For example, a 'take or pay' security arrangement would likely lower the risk to the access provider considerably, and should be reflected in access prices. Finally, in the case of an access provider that is part of a wider group (as TPI is a subsidiary of FMG), finance theory is clear that the appropriate cost of capital for the regulated access provider should reflect the activities of that business, and not the activities of the parent.¹ This principle has also been accepted widely by regulators around the world.
10. In accordance with the Code, the WACC determination process is repeated every five years and is able to be re-visited more regularly if required. On this basis, stranding risk can be re-visited regularly. In 2013:
 - the outlook for iron ore remains robust, supported by developing countries like India and China;
 - the current iron ore price remains well above historic averages;
 - the forecast iron ore price anticipates a reduction from current levels, but is supported by demand remaining above historic averages;

¹ Brealey, R. A., Myers, S. C., Allen, F. (2008), *Principles of corporate finance*, McGraw-Hill; Kolbe, A. L., Read, J. A., Hall, G. R. (1984), *The Cost of Capital: Estimating the Rate of Return for Public Utilities*, MIT: Massachusetts.



- the Pilbara remains a prominent iron ore district; and
- there are substantial iron ore Resources reported in the Pilbara within close proximity of the TPI railway that are aligned to companies which do not currently have access to railway infrastructure.

Stranding risk could be reduced by diversifying customers and product. This is possible for the TPI railway if it were to become a multi-user asset. There would be minimal effect on the main line as TPI is duplicating many sections of track under its current expansion.

It would not be appropriate, or consistent with achieving an efficient benchmark, to make allowances for stranding risk, given the market outlook and the iron ore available for development, and the potential for diversification of risk via the access Regime.

11. The CAPM does not accommodate an assessment of stranding risk. However, as explained in 10. above, Brockman considers that no allowance for stranding risk is warranted.

e) Form of the WACC

12. Brockman considers that the Officer WACC model is appropriate.
13. We note that consideration was given to applying a post-tax WACC in the 4 September 2008 ERA Issues Paper on the determination of WACC for TPI and subsequent submissions. Brockman considers that it is appropriate to use either a pre-tax or a post-tax (so-called 'vanilla') WACC. However, under the post-tax approach, tax allowances made should reflect the actual tax position of the business and not apply an assumed corporate tax rate. Access providers should not be given allowances for tax if the business has been able to carry forward tax losses that offset its actual tax obligations. It is noted that many Regulators prefer a post-tax WACC.

In particular, any tax allowances made under the post-tax WACC approach should take account, through an effective tax rate assumption, the benefits to the asset owners of accelerated tax depreciation and carry forward tax losses associated with 'new' development.

14. A post-tax WACC provides a more accurate estimate of the tax liability and estimating the imputed tax credits is part of the gamma calculation.

f) Gearing

15. In selecting the benchmark sample, regard should be given to efficient multi-user infrastructure businesses. We do not believe the product being railed is specifically relevant, although we respect that rail systems in iron ore, coal or other bulk commodities may be considered more relevant than public transport systems, in arriving at a benchmark sample. The key consideration is that the comparators be long life asset businesses.
16. International railway companies could be permitted as comparators provided that they meet the efficient multi-user infrastructure owner test, and match approximately the key risk characteristics of the access providers in Western Australia.



17. A time period that is consistent with the period over which beta is estimated is appropriate (since gearing is an input into the de-levering and re-levering process). Beta is normally estimated over a 2 to 5 year horizon. It is appropriate to look at direct, empirical evidence on gearing on benchmark comparators, provided that a reliable and sufficiently large sample of benchmark companies can be identified. In practice, this can be challenging. It is therefore useful to also draw on evidence from other regulators. Brockman considers that a gearing range of 50% to 55%, which is supported by recent regulatory determinations identified in the ERA's Issues Paper, is appropriate.
18. Risks should be assessed on the basis of an 'efficient' railway and/or efficient multi-user infrastructure. Ideally benchmarks should be appropriate and not require any adjustment. However, we recognise that risk should reflect the contracts that exist between owners and users, noting that take or pay contracts should reduce the risks to the railway owner significantly.

g) Nominal risk free rate

19. We believe that the Commonwealth Government Securities (**CGS**) provide an appropriate proxy for the nominal risk free rate of return estimation. This benchmark is used widely by regulators in Australia.
20. Given that the ERA resets its WACC criteria every 5 years, a term to maturity assumption of 5 years seems to be appropriate.
21. We support the comments in the issue paper section 4.2., in particular paragraphs 108. and 113. The best proxy for the nominal risk free rate of return is achieved by the ERA resetting the WACC using the nominal risk free rate of return comprising a 20 trading day average of the 5 year CGS.

h) Cost of equity

22. The CAPM is accepted by practitioners and regulators as a reasonable approach to determining the return on equity. We would be concerned with any departure from the CAPM without evidence that a change would support the Regime objectives. However, we recognise the complexities of establishing the cost of equity for an unquoted business that is part of a wider group that may be engaged in a range of activities and may have a variety of divisions. For instance, the TPI cost of equity is confused by the cost of equity of the FMG group. Brockman understands arguments that TPI is an extension of FMG's objective to deliver iron ore to market. However, as a regulated asset, TPI has the unique opportunity in the Pilbara to act as a dedicated rail services provider. As noted earlier, finance theory clearly suggests that the cost of capital should reflect the risk of the project or business in question, and not the risk of the firm that holds the rights to those projects. We contend that the ERA should seek to establish a cost of equity in its WACC Determination that reflects the risks of a standalone efficient multi-user infrastructure owner. This approach should be applied across the three access providers, so there should not be significant deviations in the allowed rate of return between providers.
23. We contend that the railway owners are significant entities, sourcing both equity and debt from world markets. Australia is an economy with open capital markets that are integrated internationally. On this basis we consider a domestic form of CAPM may not be representative of the cost of equity for efficient multi-user infrastructure investments.



24. We contend that the railway owners are significant entities sourcing both equity and debt from world markets. On this basis we consider it appropriate to consider a fully integrated (international) version of the CAPM. We make no comment on whether such an exercise is feasible or practical. However, we recognise that most regulators around the world which apply the CAPM assume segmented (local) capital markets.
25. We believe that the cost of equity applied to any WACC determination should give consideration to the Regime objective and focus on comparable cost of equity for 'efficient' multi user infrastructure.

i) Market risk premium (MRP)

26. to 28. There are a variety of ways to estimate the MRP, including backward-looking and forward-looking approaches. The most common approach is to consider long-run historical averages of excess returns on the market. The most commonly-cited source for this evidence is the annual publication by London Business School researchers Dimson, Marsh and Staunton (DMS).² DMS have compiled MRP estimates for Australia using data stretching back to 1900. Survey data could also be useful in informing estimates. In addition consideration of information regarding existing and future expectations could provide forward-looking evidence.
29. Investors can decide as to where to invest in the market given the prevailing circumstances. The prevailing CGS rate would influence expected returns from the market, given the relative risks of the investment alternatives.
30. Although risk free rates have fallen in recent times, expected equity returns have risen, commensurate with increasing market risk and volatility. Provided the MRP is assessed over a reasonable period, fluctuations in the risk-free rate ought not to be relevant. The MRP should be relatively stable over time.

j) Equity beta

31. Assuming all benchmarks in a sample qualify as 'efficient', an average should be the most acceptable approach to estimating the equity beta. However, given the difficulty noted in the issues paper in arriving at suitable benchmarks, it seems inevitable that ERA will need to apply some discretion in the determination of suitable benchmark samples and any resultant sample data that appears inconsistent with the general distribution. To the extent that any of the comparators within the available sample may be 'outliers' or unrepresentative of the desired benchmark, a median may be more suitable to avoid any sample bias impact on the average. As stated earlier, Brockman supports the equity beta sample being drawn from a broad group of efficient multi-user infrastructure entities.
32. The equity beta should not be derived from a particular company, as the WACC is being derived for a hypothetical replacement railway by an 'efficient' railway owner. The nature of the contracts (casual, periodic or Take or Pay) will influence the systematic risk of the benchmark firm. Investors in 'captive' infrastructure, such as facilities with Take or Pay contracts, should face lower risk and thus have equity betas less than one.
33. Relevant sample constituents used to estimate equity betas should have a similar risk profile and, for example, employ similar contracting relationships (Take or Pay).

³ Dimson, E., Marsh, P., Staunton, M., *Credit Suisse Investment Returns Sourcebook*.



k) Credit rating

34. Estimates of the cost of debt for access providers should not be linked to their actual credit ratings. This encourages perverse incentives for the businesses to not maintain an efficient and appropriate level of creditworthiness. A degradation of the credit rating, combined with an approach that allowed the firm to recover a cost of debt that matches its credit rating, would result in a WACC figure that is inefficiently high. Brockman supports the use of a notional credit rating approach (irrespective of the actual credit rating of the access provider or its parent), where the rating selected is comfortably investment grade (i.e. at least BBB+ rated debt). The cost of debt allowed should be set at a level commensurate with this rating.

35. to 39. As above.

l) Debt risk premium

40. to 43. Brockman broadly supports the ERA's existing process. However, Brockman notes that the debt premium estimated by the ERA should be linked to the benchmark credit rating derived. We consider that a rating of at least BBB+ should be used.

m) Debt raising costs

44. to 45. Brockman supports the ERA's existing process and has no comment to add in relation to these questions.

n) Gamma

46. Given the broad range of dividend policies and effective tax rates for investors, and giving consideration to observations in the issues paper, the use of a 0.5 gamma seems appropriate.

47. to 48. Brockman supports the ERA's existing process and has no comment to add in relation to these questions.