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## **Annexures**

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**1. Supplementary Report of Port Jackson Partners**

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**Economic evaluation of the impact of  
lost iron ore production and share —  
Review of key assumptions**

Report by  
Port Jackson Partners Limited

July 2008

## 1. INTRODUCTION

- 1.1. In April 2008 Port Jackson Partners, on instruction from Allens Arthur Robinson, solicitors for Rio Tinto Limited, provided advice on the economic impact of third party access to the Hamersley Iron and Robe Railway Networks. Specifically, Port Jackson Partners Limited (PJPL) estimated the economic impact of delays to the expansion program of Rio Tinto Iron Ore ("RTIO") in the Pilbara that would arise if RTIO's rail network were a multi-user facility through declaration under Part IIIA of the Trade Practices Act 1974. This document formed a submission to the National Competition Council in relation to the Hamersley Access Application and the Robe Access Application.
- 1.2. In its draft recommendation in relation to the Hamersley access application (and repeated in the Robe access application) the National Competition Council expressed the following view:

*9.98 Rio Tinto Iron Ore did not instruct either Port Jackson Partners or Access Economics to critically analyse the key premises on which their modelling was based; instead the firms were instructed to assume that access would result in substantial expansion delays and lost production. This is unfortunate as it does not address a key issue to be considered by the Council, which is whether such delays are likely.*

*9.99 In the Council's view the results of the modelling undertaken by Port Jackson Partners and Access Economics, and the various internal analyses, are an inevitable consequence of the assumptions they were instructed to apply and are unlikely to in fact result. These assumptions are examined in detail below.*

- 1.3. By letter dated 30 June 2008 (attached), Port Jackson Partners Limited (PJPL) was once again retained by Allens Arthur Robinson to review the key assumptions on which the modelling of the economic impact of delays was based. Specifically PJPL has been asked to give an expert opinion on whether the assumptions regarding expansion delays are valid in the circumstances of third party access being granted.

## 2. OVERVIEW OF KEY ASSUMPTIONS

- 2.1. In its initial submission to the NCC in relation to the Hamersley and Robe access applications, PJPL was asked to prepare an economic evaluation of the impact of access based on the assumption that delays would occur as a consequence of third party access being granted to the Hamersley and Robe rail networks.
- 2.2. To assess the economic impact on RTIO of its expansion program being delayed, PJPL modelled an unimpeded base case and four alternative impeded production expansion scenarios. The two assumptions varied amongst the four scenarios were:
  - 2.2.1 **the length of delay for every 2 year expansion** (ranging from 6 months to 18 months) and
  - 2.2.2 **the proportion of volume lost by RTIO that is captured by offshore producers** (50% or 80%).
- 2.3. The rationale for the assumption that either 50% or 80% of RTIO's lost production volume would be lost to Australia (that is, not picked up by another Australian iron ore producer) was outlined in some depth in our previous submission and was not discussed in the NCC's draft report. We do not comment any further on it here.
- 2.4. Section 3 of this submission addresses the basis on which we formed the judgment that a 12 month delay to each two year expansion program represents a reasonable, but conservative estimate of the length of possible delays.
- 2.5. Section 4 of this submission provides brief comments on other assumptions that are the subject of discussion in the NCC's draft report, and could impact the economic cost of third party access, but were not directly related to the modelling in our previous submission.

### 3. LENGTH OF EXPANSION DELAYS

- 3.1 If RTIO's rail network were to be declared under Part IIIA of the Trade Practices Act 1974, and hence become a multi user facility, it is our judgment that it is reasonable to expect delays of 12 months or more to each two-year expansion program
- 3.2 In the first instance, we developed this view by considering the likely process that will take place when an access provider, e.g. Rio Tinto Iron Ore, seeks to expand or otherwise modify its rail system operations.
- 3.3 Although there may not be a formal "consent requirement" in the Part IIIA access terms, in practice it will be essential to obtain a third party's agreement to any system change that will impact the third party's access to the system on either a temporary or permanent basis. Failure to reach agreement with a third party on the impact of a system expansion or enhancement will reduce the possible benefit of the expansion to the service provider. It is highly unlikely that RTIO, or any other infrastructure owner, would be prepared to commit to a major capital expansion of its rail network without the assent of any third party that has rights to use the facility.
- 3.4 The two key factors that influence the length of the delay are:
  - a) time spent negotiating with other users, before seeking regulatory resolution; and
  - b) time taken for a regulator to make a decision on a matter that goes through a prescribed regulatory arbitration process.
- 3.5 We agree with the NCC's perspective in paragraph 9.114 of the Hamersley draft recommendations, which states that "Access seekers must negotiate in good faith before bringing an access dispute to the ACCC for determination." In fact, it is our opinion that this period of "negotiation in good faith" that will extend over six months or more, as the parties haggle over the impact of any proposed change to system operations.
- 3.6 In our judgment, allowing just six months to negotiate over matters that may involve many tens or even hundred of millions of dollars amongst the parties is potentially quite optimistic. For example, if an expansion of RTIO's rail capacity was going to involve a temporary loss of system capacity that resulted in reduced output of just 10 trainloads of iron ore this would involve the potential loss of \$20-25 million of revenue at today's prices. Ten trainloads could be lost in less than a single day's disruption to service.
- 3.7 Although commercial negotiation in good faith is the first, and preferred, course of achieving agreement on issues related to system expansions or modifications, it is our view that most of these negotiations will fail to reach an agreement satisfactory to both parties. The "win-lose" nature of the issues typically under discussion, and the ability

of the third party to force the process to arbitration will result in most disputes being referred to the ACCC under the processes for access dispute resolution.

3.8 As is noted by the NCC, the TPA provides for arbitrations to be conducted within a six month period (Hamersley draft recommendation para 9.112). In making our estimate of a 12 month period for a typical delay, we have assumed a six month arbitration process, although we know that this period can often be extended.

3.9 The NCC notes (Hamersley draft recommendation para 9.112) that “any access related issues can be dealt with in parallel with other activities and within overall planning timeframes so as to minimise delay.” Our estimates of likely expansion delays take this factor into account; they represent additional delays to the overall timeframe for achieving completed infrastructure expansions.

3.9.1 First, the NCC’s views that expansions to railways are planned “many years in advance of work commencing” (Hamersley draft recommendation para 9.114) and that “the Council considers it feasible for parties negotiating in good faith to resolve issues relating to the impact of any third party access on expansion and optimisation plans before the commencement of those plans is delayed” fail to recognise the realities of system expansions. Although RTIO does have plans for rail system expansion out to 2013, it would not be in a position to begin negotiations with a third party using the rail system until much closer to the date. Most importantly, the details of rail expansions are dependent on the choice of mines to be expanded and the port options, as well. In many cases, it simply would not be feasible to begin negotiating the commercial terms until much later in the development process (the access provider would not have a clear picture of the terms and issues to be negotiated)

3.9.2 Even if the parties begin negotiating as soon as the issues for negotiation emerge, there may not be a great deal of urgency on the part of the third party to negotiate terms that may have a cost to them in terms of tonnes, capital or system flexibility, even if on a temporary basis. Even if there is limited direct cost to the third party, they may seek to delay the access provider’s expansion plans for their own commercial objectives. It may be “feasible” to resolve issues before the commencement of expansion plans is delayed, but it is our judgment that it would be highly unlikely in practice, given the nature of the commercial agreements required.

3.10 Again, the NCC perspectives (Hamersley draft recommendation) para 9.116) suggest that the negotiation processes can proceed in parallel with other planning activities, and that these activities involve multiple parties. This perspective fails to reflect the fact that the timing and nature of the negotiation process with a third party is likely to be very different from the processes with providers such as planning, safety and other regulatory authorities. In our opinion, negotiations with a third party will create additional delays beyond those in the existing process. By way of example, the commercial negotiations between the access provider and the third party may identify solutions that involve re-submitting plans to one or more regulatory authorities (e.g. if the parties agree to seek a slightly different path for the rail network in order to minimise the impact on the third party). In our experience, the more parties involved

in a process, the more complexities, and the more time it inevitably takes to complete. To imply that the additional complexity of negotiating (or arbitrating) a commercial arrangement with a third party would be handled within the timeframe of existing project processes is, in our judgment, unrealistic, and, as discussed below, not consistent with experience in other multi-user infrastructure environments.

3.11 Thus, the combination of “negotiating time” plus “arbitration time” supports our opinion an assumption of delays of 12 months to expansion plans is reasonable.

3.12 PJPL also analysed sensitivity cases. In these cases the delay length was:

- **Reduced to a delay of 6 months for every 2 year expansion** – this reflects cases where commercial agreements can be reached relatively quickly without arbitration, or alternatively, the parties concede that negotiating is unlikely to lead anywhere and agree to go to launch the arbitration process quickly (and it is a relatively quick process)
- **Increased to a delay of 18 months for every 2 year expansion** – reflecting scenarios where commercial negotiations become protracted and/or the arbitration period drags out beyond the nominal six month period.

3.13 Our “bottom-up” assessment of the likely length of delays caused by third party access is consistent with and supported by the experience of the multi-user rail systems on the east coast of Australia.

3.14 Actual experience at DBCT has shown that despite the indicative resolution timeframes imbedded in a regulatory framework, it is still likely that the delays due to disputes will be longer. In a well-publicised example at DBCT, the regulator (the QCA in this case) took 22 months to resolve a dispute on pricing and access terms. At the 2005 Energy Summit in Sydney, Ed Willet, a commissioner of the ACCC, stated that:

*“in the case of DBCT... capacity expansion is not proceeding because of a substantial difference between what users are willing to pay and the price the coal terminal owners are seeking before they undertake that expansion”*

3.15 This dispute significantly delayed the expansion of DBCT (the dispute did not happen in parallel with the resolution of other matters, such as environmental permitting). Interestingly, by the time the DBCT dispute had been resolved and the expansion built, the adjacent, single user and unregulated Hay Point Coal Terminal, managed to complete two terminal expansions.

3.16 Given the delay experienced at DBCT lasted 22 months, and our experience in other commercial negotiations and regulatory processes of this nature, we judge 12 months to be a reasonable, albeit conservative estimate of the likely delay to expansions caused by third party access.

3.17 The fact that east coast ports have lagged behind the Pilbara in capturing growth opportunities demonstrates the impact of expansion delays. In his submission to the NCC, Dr Brian Fisher contrasted the response of the iron ore industry to the response of the coal industry to the recent surge in demand for both commodities.

- 3.18 The NCC's draft report suggests that the factors driving the performance of the east coast rail networks are different (for a range of reasons) to the dynamics in the Pilbara, and that the problems in one system would not be transferred to the other. Obviously, the systems on the east coast and the west coast have different characteristics, but it is our judgment that the lack of alignment of interests amongst multiple users is an inherent source of conflict, and resultant delays, in multi-user systems. Regulators' role is to try and balance the interests of access providers and access seekers in a fair way, but the process of doing so is inherently confrontational, not collaborative and, again, inevitably leads to delays.
- 3.19 Some aspects of the Pilbara rail systems may make the likelihood and magnitude of delays even larger in the Pilbara than they are in the east coast systems. Specifically, as has been well documented elsewhere, RTIO's Pilbara rail systems are operated in a way that brings together ore from various mines to create finished product at the port. By contrast, the east coast rail systems typically carry finished product from mine stockpiles to the port (there is some blending onto ship). The need to ensure flexibility to manage the rail system to cope with variability will create a further, critical point of contention amongst an access provider and third party access seekers, which could lengthen the time required to negotiate an acceptable commercial arrangement.

## 4. COMMENTS ON OTHER ASSUMPTIONS

- 4.1 Neither “displacement costs” nor the “loss of system capacity” were factored in to the modelling in our report , Economic Impact of Lost Iron Ore Production and Share, which was annexed by RTIO in its recent submission to the Council.
- 4.2 Nonetheless, we feel it is important that we briefly comment on those two factors as they are the subject of some discussion in the NCC’s draft report, and they will add to the economic impact of delays caused by third party access.

### Displacement Costs

- 4.3 Displacement costs are the costs associated with volume lost due to the need to accommodate a third party’s volume on the access provider’s network in lieu of its own capacity. It is relevant in the Pilbara, in particular, because RTIO is expanding the network as quickly as possible to meet its own needs, now and into the foreseeable future.
- 4.4 In essence, the NCC did not argue with this concept, rather choosing to point out that if this situation can be established in a particular case, then the regulator is unlikely to resolve any dispute in favour of the access seeker.
- 4.5 Given the current situation, and the growth plans for the next few years, it is our judgment that any capacity obtained by an access seeker would, in fact, displace existing (or planned) RTIO volume. Of course, given that there is no specific request for volume (nor specific location) from the access seeker at present, it is difficult to say how many tonnes would be displaced, but if an access seeker seeks 20 mtpa on “at (or soon to be at) capacity” segment of the RTIO network, then at least 20 mtpa of existing capacity might be displaced. If an access seeker seeks 25 mtpa, then at least 25 mtpa of existing capacity might be displaced.

### Loss of System Capacity

- 4.6 Mr Stephen O’Donnell provided evidence to the NCC indicating that the ‘rigid timetables’ in a multi-user system typically result in a 10-20% reduction over what would be achievable on the same network on a single-user basis.
- 4.7 Although PJPL does not have the same in-depth experience in running rail systems as Mr O’Donnell, our practical experience indicates that it certainly far more difficult to achieve the full potential of a rail network when its capacity is shared amongst multiple users. In our experience with the Hunter Valley rail system, for example, we can point to specific inefficiencies caused by the lack of incentive for individual producers to invest in equipment upgrades that will result in improved system performance, but not result in direct benefits for them.

- 4.8 The Hunter Valley rail system (and the Queensland rail system) consistently fail to achieve their expected capacity levels. In large part, our view is that this is because individual producers have an incentive to act in their own interests (maximising their own throughput) even if this is at the expense of total system throughput.
- 4.9 Our practical experience supports Mr O'Donnell's view that imposing a multi-user system in the Pilbara, with the inherent conflicts amongst multiple users, could lead to throughput reductions of 10-20% compared to the same system operated by a single user.

30 June 2008

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Dear Phil

**Applications by Pilbara Infrastructure Pty (TPI) for  
declaration of the services provided by the Hamersley and  
Robe Rail Networks in the Pilbara**

I refer to our telephone discussions on Friday 27 June concerning the draft recommendations issued by the National Competition Council (the **Council**) in relation to the Hamersley and Robe rail access applications lodged by The Pilbara Infrastructure Pty Ltd (**TPI**).

As you will recall, in the Report prepared by Port Jackson Partners Limited (**PJP**) in April 2008 entitled 'Economic Evaluation of the Impact of Lost Iron Ore Production and Share' (which was annexed to the RTIO submission to the Council), PJP modelled a number of sensitivities to demonstrate the negative impact of any impediments to RTIO's expansion program. At paragraphs 9.98 and 9.99 of its draft recommendation in relation to the Hamersley access application (replicated at paragraphs 9.99 and 9.100 of the Council's draft recommendation in respect of the Robe access application) the Council expressed the following view:

- 9.98 Rio Tinto Iron Ore did not instruct either Port Jackson Partners or Access Economics to critically analyse the key premises on which their modelling was based; instead, the firms were instructed to assume that access would result in substantial expansion delays and lost production. This is unfortunate as it does not address a key issue to be considered by the Council, which is whether such delays are likely.
- 9.99 In the Council's view the results of the modelling undertaken by Port Jackson Partners and Access Economics, and the various internal analyses, are an inevitable consequence of the assumptions they were instructed to apply, and are unlikely to in fact result. These assumptions are examined in detail below.

Having regard to the observations made by the Council in the paragraphs set out above, you are asked to review the key assumptions on which your modelling was based for the purpose of expressing your opinion as to whether those assumptions (ie. expansion delays and lost production) are valid in the circumstances of third party access being granted.

The Council has requested responses to its draft recommendations by 21 July next. In the circumstances, it would greatly assist us if you would provide us with your observations regarding the matters set out in this letter, as soon as possible prior to 14 July 2008.

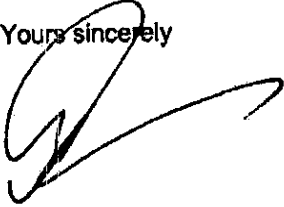
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If you have any queries or require any further information please do not hesitate to contact me.

Yours sincerely



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## **2. Supplementary Report of Dr Brian Fisher**

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**Response to the NCC's draft  
recommendations in relation to the  
Hamersley Railway Network and the Robe  
Railway**

**Brian S. Fisher**

**21 July 2008**

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## 1. INSTRUCTIONS

This report is in response to instructions I received on 30 June from Allens Arthur Robinson acting on behalf of Rio Tinto Iron Ore (RTIO) in relation to applications by The Pilbara Infrastructure Pty Ltd (*TPI*) under Part IIIA of the Trade Practices Act 1974 for declaration of services provided by railway lines described by TPI as the Hamersley Rail Network and the Robe Railway. Copies of my letters of instructions are attached to this report as Appendix A. I have been requested to prepare a report addressing the following matters:

‘At paragraphs 9.98 and 9.99 of its draft recommendation in relation to the Hamersley access application (replicated at paragraphs 9.99 and 9.100 of the Council’s draft recommendation in respect of the Robe access application) the Council expressed the following view:

- 9.98 Rio Tinto Iron Ore did not instruct either Port Jackson Partners or Access Economics to critically analyse the key premises on which their modelling was based; instead, the firms were instructed to assume that access would result in substantial expansion delays and lost production. This is unfortunate as it does not address a key issue to be considered by the Council, which is whether such delays are likely.
- 9.99 In the Council’s view the results of the modelling undertaken by Port Jackson Partners and Access Economics, and the various internal analyses, are an inevitable consequence on the assumptions they were instructed to apply, and are unlikely to in fact result. These assumptions are examined in detail below.

Having regard to the observations made by the Council in the paragraphs set out above, you are asked to review the key assumptions on which the PJP and Access Economics modelling was based for the purpose of expressing your opinion as to whether those assumptions (ie. expansion delays and lost production) are valid in the circumstances of third party access being granted.’

In the next section I set out my background and the basis for my expertise pertaining to the matters covered in my instructions and then I deal with the instruction.

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## 2. MY EXPERIENCE

I am currently Executive Director, Economic Analysis at Concept Economics Pty Ltd. Immediately prior to my current appointment I was Vice President and Director, Economic and Public Policy at CRA International. Until late 2006 I was Executive Director of the Australian Bureau of Agricultural and Resource Economics (ABARE). During my time at ABARE I also served as an Associate Commissioner of the Productivity Commission.

Prior to heading up ABARE, I was Professor of Agricultural Economics at the University of Sydney and became Dean of the Faculty of Agriculture at the University in 1987. I was appointed Adjunct Professor of Sustainable Resources Development in 2003.

Early in my career I specialised in the econometric analysis of market demand and supply for a range of commodities and have published over 250 papers and monographs including articles in refereed international journals. Much of the analysis in many of the quantitative papers that I have published in refereed journals relies on regression analysis, the statistical technique used in my earlier report.

In my role as ABARE's Executive Director I was responsible for the production, quality and dissemination of the bureau's commodity forecasts including short and medium term forecasts of world prices and Australian exports of the major minerals and energy commodities including coal and iron ore. These forecasts were (and still are) updated each quarter. The development of these forecasts required the detailed analysis of world supply and demand conditions as well as any production or transport constraints that impinged on Australia's ability to move commodities into the export market. I regularly released the forecasts and regularly explained the forecasts and the reasons underlying them to stakeholders both in Australia and overseas.

As ABARE's Executive Director I regularly updated my industry knowledge by site visits to key mining and infrastructure facilities around Australia and overseas. I visited the iron ore production, rail and port facilities in the Pilbara in 1989, 1992, 2004 and 2006.

During 2005 I was the Chairman of the Prime Minister's Exports and Infrastructure Taskforce. This taskforce reported to the Prime Minister on the set of issues underlying the serious delays in infrastructure development in Australia that have hindered the ability of the country's mining industry to meet rapid increases in demand for minerals and energy commodities arising from very strong economic growth in China.

As Chairman of the Taskforce I personally conducted face to face meetings with all of the major stakeholders involved in the transport and shipment of Australia's bulk commodities including coal and iron ore and visited the major coal export ports of Dalrymple Bay and Hay Point, Gladstone and Newcastle in order to gain a full understanding of the infrastructure constraints impinging on Australia's commodity exports.

I hold a PhD in agricultural economics from the University of Sydney. My curriculum vitae is attached at Appendix B.

### 3. INSTRUCTION:

**HAVING REGARD TO THE OBSERVATIONS MADE BY THE COUNCIL [IN PARAGRAPHS 9.98 AND 9.99 OF ITS DRAFT RECOMMENDATIONS], YOU ARE ASKED TO REVIEW THE KEY ASSUMPTIONS ON WHICH THE PJP AND ACCESS ECONOMICS MODELLING WAS BASED FOR THE PURPOSE OF EXPRESSING YOUR OPINION AS TO WHETHER THOSE ASSUMPTIONS (IE. EXPANSION DELAYS AND LOST PRODUCTION) ARE VALID IN THE CIRCUMSTANCES OF THIRD PARTY ACCESS BEING GRANTED.**

I have been asked to review the key assumptions used by PJP and Access Economics in their assessment of the costs to Australia of allowing third party access to the private railways of Rio Tinto Iron Ore (RTIO) in the Pilbara. The assumptions are that each two year expansion project will take six months, twelve months or eighteen months longer than it otherwise would have, and that these delays cause foreign iron ore customers to meet their demand by contracting with other suppliers, mostly outside Australia.

I understand that it is the NCC's view that these assumptions represent outcomes that are 'unlikely to in fact result'"(9.99). I disagree, and consider that these scenarios are conservative and that the delays may be longer than assumed.

My original response to instructions from RTIO's legal representatives appears as an annexure to RTIO's submission to NCC entitled *Economic Evaluation of the Relative Efficiencies of Multi-user and Single User Rail and Port Facilities*. In it I make numerous references to the likelihood of delays, drawing principally on my experience as Chairman of the Prime Minister's Infrastructure Taskforce. I state that:

...in circumstances where multi-user infrastructure facilities are used and where economic regulation plays a dominant part in investment decisions, lengthy delays in expansion of port and rail infrastructure occur.

And furthermore that:

while delays in infrastructure investment in response to demand signals may occur due to the large and lumpy nature of such investments, the Taskforce highlighted certain situations in which investment in infrastructure can be further delayed as a result of difficulties associated with coordination. Where the owner of an infrastructure asset is different from the users, coordination of decisions on investment in expansion may not readily occur if the transactions costs it entails are high. Divergent interests of different users of multiple access facilities may stem from different hurdle rates or priorities for investment, poor information flows between parties, or even strategic competitive reasons for one user delaying investment that would assist another user of the shared infrastructure. In addition, there may be disagreement as to the distribution of gains from additional investment between parties that can hinder more timely or efficient development of infrastructural assets.

To substantiate my view that multi-user access can delay expansion, I compared the ability of Pilbara iron ore operators to respond to world price increases relative to coal operators on the east coast and concluded that:

the fundamental difference [between the two operations' capacity to adapt] is that coal exporters rely on multi-user, regulated infrastructure whereas the major iron ore exporters utilise single-user, owner operated integrated infrastructure.

In its draft recommendations the NCC finds this argument to be 'based upon simplistic assumptions' and 'unconvincing'. The NCC took a similar position in relation to the Mount Newman rail access issue. In my submission I dealt specifically with the NCC's view in relation to this matter:

...NCC seeks to demonstrate why access to coal infrastructure differs from access to the Pilbara facilities and concludes by stating that 'there is little value in extrapolating' to a declared BHPB facility. The NCC employs the lack of vertical integration in the Hunter and Dalrymple facilities as a key differentiator and suggests that as a result there will be significant differences in the types of diseconomies of scope arising at those facilities *vis a vis* the Mt Newman facility.

Whilst there may be some differences in the ways in which the Pilbara and east coast coal transport and handling systems would work in a multi-user environment if access were to be granted to the Pilbara single user systems the most important element leading to delay would be introduced – namely, multiple players with different aims and constraints would be required to negotiate an agreed outcome before any significant changes to the facility (whether of a capital or operating nature) could be implemented. This will inevitably lead to delays in taking such decisions similar to those that have been observed in the east coast coal facilities. This view is consistent with the findings of the Prime Minister's Export Infrastructure Taskforce. In addition, the granting of access *ex post* will not only reduce the efficiency of the system for individual users but will also lead to the loss of real option values and the crowding out of low cost exports thus resulting in a further reduction in economic welfare for Australia as a whole.

NCC's view is that the differences in ownership structures, the level of public sector involvement and planning arrangements are too stark as to admit comparison. I maintain that it is hard to imagine what better comparison could exist than between two systems using the same type of transportation operating in the same country, both transporting minerals commodities, both subject to substantial increases in world price, both 'relatively complex logistic[ally]' (9.104) but one subject to multi-user regulation and the other not. I am also of the view that the differences NCC emphasises are precisely those it is seeking to impose on efficient rail operators in the Pilbara: namely planning arrangements and public sector involvement.

The comparison of rail operations in different parts of the country is not without precedent. I note that the ACCC made such a comparison in its response to questions raised by the NCC in relation to the declaration of BHP Billiton Iron Ore's Pilbara assets where it refers to the 'run-when-ready' scheduling of coal trains in the Hunter Valley as an example of what is possible under mandated rail access, presumably with the Pilbara in mind (ACCC no date).

I draw attention to a sample of submissions I received as Chairman of the Prime Minister's Infrastructure Taskforce. They each present the view that regulation relating to third party access can delay projects. For example, the Australian Council for Infrastructure Development stated that:

The response to [regulatory risk] is usually to delay capital commitment until such time as [issues regarding the form the regulation will take] are clear, if that it is at all possible. The delay that has been experienced in increasing capacity in the Dampier-Bunbury Gas Pipeline is directly a result of the uncertainty created by the decision making of the Western Australia Gas Regulator that also ultimately led to the break-up of Epic Energy. In a similar vein, the administration of the airport price control regime by the ACCC became so unpredictable that the Board of Melbourne Airport refused to undertake any aviation related investment until it had a final pricing decision from the regulator. (Submission by Australian Council for Infrastructure Development to Prime Minister's Infrastructure Taskforce, page 11).

And also that:

Major regulatory decisions are rarely completed within six months and if an appeal process is involved, the minimum time frame appears to be one year. They are necessarily inferior to commercial negotiations because of the need to demonstrate due process and transparency through the publication of issues papers, draft decisions and final decisions. (Submission by Australian Council for Infrastructure Development to Prime Minister's Infrastructure Taskforce, page 13).

Furthermore:

If negotiations occur in an environment that the user can turn to a regulator to set some or all of the access terms and conditions (as there is under Part IIIA of the TPA and the Gas Code), then there is very little incentive for that user to reach a conclusive agreement. Put simply, given the general conduct of regulators, users will believe that the point at which negotiations break down, the supplier's final offer, is the worst outcome that they will achieve. Given that the costs of proceeding down the regulatory path are then small relative to the potential gains large (and potential losses virtually non-existent), why would users possibly agree? (Submission by Australian Council for Infrastructure Development to Prime Minister's Infrastructure Taskforce, page 14).

Finally, the Minerals Council of Australia maintained that:

...there has also been a delay in the response of the private (non-minerals sector) port owner to invest due to the unwieldy nature of the regulatory process regarding access pricing. (Submission by Minerals Councils of Australia to Prime Minister's Infrastructure Taskforce of, page 4).

I also refer to the affidavit of Mr Stephen O'Donnell submitted to the NCC which states that common user rail and port systems have 'a number of fundamental problems' including:

- Lack of flexibility in daily operations, making it difficult to implement changes at short notice to maximise system throughput;
- Difficulties in aligning contractual frameworks to deal with commercial relationships between system participants;
- Delays associated with implementing changes;
- Constraints on operational and technological improvements; and
- Lack of appropriate governance and accountability mechanisms.

I note Mr O'Donnell's extensive experience (referred to in his affidavit) in the rail industry and his thorough knowledge of rail access regimes in Australia.

In a response in 2004 to the Victorian Government's consultation paper entitled *Options for Reform of the Victorian Rail Regime*, Queensland Rail (QR) also referred to the problem of delay in relation to access regimes albeit from the perspective of an access seeker:

In QR's experience, a critical issue to the efficacious implementation of an access regime involves providing a reasonably high degree of certainty as to the likely outcomes of arbitration processes which recognise the legitimate business interests of the parties.

Failure to provide this certainty will only result in a relatively high level of disputation between access seekers and the access provider. This disputation creates expense and delay. While the costs associated with disputes are relatively well-known, in QR's view it is the consequential delay that in practice can be most harmful to the competitiveness of the emerging above rail market.

In its draft recommendations the NCC refers to the advantages of the time limits for formal arbitration contained in Part IIIA and states that the ACCC must use its best endeavours to resolve the dispute within six months. Aside from noting that six months' revenue from a typical Pilbara iron ore project is substantial, I would point out that it is not only the time taken for ACCC arbitration that is of concern. It is well-known that commercial disputes around access arrangements take time exist well before they go to arbitration. For example, in January 2007, Virgin Blue notified the ACCC of a long running access dispute with Sydney Airport Corporation Limited. The issue was finally resolved in May 2007 by Virgin Blue withdrawing its notification following a commercial settlement (ACCC 2008, p.120). The resolution of the Virgin Blue case ended four and a half years of dispute (Virgin Blue 2007).

In November 2006, Services Sydney notified the ACCC of a dispute in relation to the methodology of pricing access to Sydney Water's declared sewage transportation services under Part IIIA that dated back to at least June 2004 (see Davies 2004). The ACCC made its final determination in June 2007 (ACCC 2008, p.122) meaning the dispute lasted at least three years. In this case the dispute was simply over pricing and involved none of the additional complications that might be expected to exist in the case of third party access to an operating railroad, particularly if the ACCC is being asked by the access seeker to order the access provider to extend its facility to accommodate the access seeker.

These examples can be compared with the modelling assumptions used by PJP and Access Economics of delays of six months, twelve months and eighteen months. Note that accounting for a six-month arbitration by the ACCC alone accounts for one of the delay assumptions used by PJP and Access Economics let alone the length of time required for good faith negotiations. Therefore, I believe that the assumed delay times assumed by PJP and Access Economics are conservative.

The NCC maintains that negotiations regarding expansion projects can be 'dealt with in parallel with other activities' as part of 'the planning and commercial evaluation that is associated with expansion and development of infrastructure projects' (9.112).

It is my view that this is not an accurate representation of how businesses make decisions about large infrastructure investments. It either assumes that an increase in uncertainty cannot affect RTIO's investment decisions or that RTIO can take as given that all parties (some of whom could be unidentified during the planning phase) will ultimately be convinced of terms acceptable to the access provider. NCC 'accepts that service providers would likely need to give notice of expansion plans to other users, and consult other users in relation to them' (9.115). This is an acknowledgement that there are likely to be third parties involved at least indirectly in the decision making about the expansion. As discussed further below this is tantamount to accepting that delays will occur.

Deciding on the timing and size of an expansion project is not easy. In my earlier report I drew attention to the theory of real options which I believe is a useful framework for representing the decision problem faced by a business. I stated:

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...a vertically integrated firm has good information flows and is better able to resolve trade-offs in the timing of and access to infrastructure; holds a clear right to exercise the infrastructure option in full and has the capacity to exercise the option as new information becomes available and uncertainties are resolved.

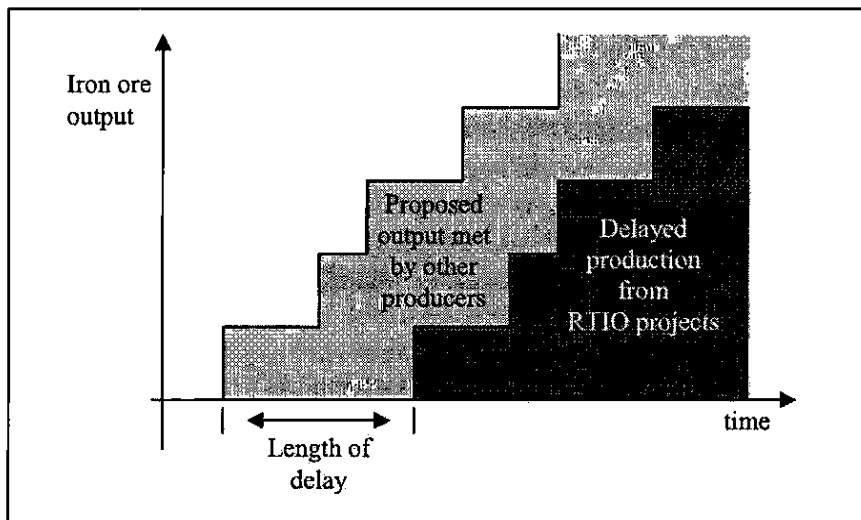
I also referred to Grenadier and Wang (2005) who concluded that conflicting objectives and the capacity to withhold information or to take unobserved actions can substantially alter the option value of an investment. Further, a lack of alignment between the investment decision and the collective interests of shareholders can lead to what Grenadier and Wang refer to as investment inertia.

I note that the NCC believes there is ‘ongoing debate as to the validity of [the real options] approach’ (9.133). I maintain that this is not the case. A search of a database of economic literature returns references to 319 peer-reviewed journal articles, 32 books and over 100 chapters or essays on the topic. The ACCC may be unaccustomed to valuing real options when it arbitrates in disputes as NCC notes — ‘in practice, this may involve difficulties in determining the amount involved’ (9.133) — but this does not detract from its usefulness in the analysis of capital investment and pricing decisions made by businesses.

I agree with the NCC’s statement that Part IIIA has provisions allowing the ACCC to ‘balance the interests of services providers and access seekers’ (9.106). However, what is lacking is recognition that there is no mechanism for asset owners to recoup the costs of the additional uncertainty imposed on capital investment decisions by the likelihood of stymieing and gaming behaviour by third parties. Given that commercial access disputes generally take many years to resolve (ACCC arbitration alone can be expected to take at least six months), the cost of this added uncertainty in the decision-making of infrastructure owners is likely to be large and, unfortunately for the owners of declared assets, disruptive of investment.

One of the outcomes of delay is that it would prevent RTIO from meeting the share of world demand increases that it had anticipated that it would meet. This would create an opportunity for other iron ore suppliers to meet it instead (Figure 1).

Figure 1. Example of the capture of production share by other producers because of delays



Drawing on my experience in commodity analysis, I consider it unlikely that small Australian mining companies would be able to capture more than 50 per cent of the value of delayed production, and are in fact likely to capture only 20 per cent. I maintain therefore that the lost production assumptions are wholly reasonable and in fact flow in a straightforward manner from assumptions regarding delays, which I regard as reasonable, if not conservative.

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Virgin Blue 2007, 'New deal and new lounge as Virgin Blue and SACL sign "sensible" new commercial agreement', media release, 23rd May.

## APPENDIX A: INSTRUCTIONS

Allens Arthur Robinson 

30 June 2008

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 By Email

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Dear Dr Fisher

### Applications by Pilbara Infrastructure Pty (TPi) for declaration of the services provided by the Hamersley and Robe Rail Networks in the Pilbara

As you are aware, on 20 June 2008 the National Competition Council (the Council) issued draft recommendations in relation to the Hamersley and Robe rail access applications lodged by The Pilbara Infrastructure Pty Ltd (TPi).

In a Report prepared by Port Jackson Partners Limited (PJP) in April 2008 entitled 'Economic Evaluation of the Impact of Lost Iron Ore Production and Share' (which was annexed to the RTIO submission to the Council), PJP modelled a number of sensitivities to demonstrate the negative impact of any impediments to RTIO's expansion program. Similarly, Access Economics prepared a report for Rio Tinto dated 23 April 2008 (also annexed to RTIO's submission to the Council) which set out a quantitative analysis of the respective GSP and GDP effects upon Western Australia and Australia, arising from four alternative scenarios of expansion delays and efficiency losses expected to arise as a consequence of the RTIO Pilbara railways becoming multi-user facilities.

At paragraphs 9.88 and 9.99 of its draft recommendation in relation to the Hamersley access application (replicated at paragraphs 9.99 and 9.100 of the Council's draft recommendation in respect of the Robe access application) the Council expressed the following view:

- 9.88 Rio Tinto Iron Ore did not instruct either Port Jackson Partners or Access Economics to critically analyse the key premises on which their modelling was based; instead, the firms were instructed to assume that access would result in substantial expansion delays and lost production. This is unfortunate as it does not address a key issue to be considered by the Council, which is whether such delays are likely.
- 9.99 In the Council's view the results of the modelling undertaken by Port Jackson Partners and Access Economics, and the various internal analyses, are an inevitable consequence of the assumptions they were instructed to apply, and are unlikely to in fact result. These assumptions are examined in detail below.

Having regard to the observations made by the Council in the paragraphs set out above, you are asked to review the key assumptions on which the PJP and Access Economics modelling was based for the purpose of expressing your opinion as to whether those assumptions (ie. expansion delays and lost production) are valid in the circumstances of third party access being granted.

Our Ref: CYPN:005369950

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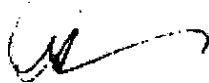
Dr Brian Fisher

Allens Arthur Robinson 

The Council has requested responses to its draft recommendations by 21 July next. In the circumstances, it would greatly assist us if you would provide us with your observations regarding the matters set out in this letter, as soon as possible prior to 10 July 2008.

If you have any queries or require any further information please do not hesitate to contact me.

Yours sincerely



**Craig Phillips**  
Partner  
Craig.Phillips@aar.com.au  
Tel +61 3 9613 8936

## APPENDIX B: CURRICULUM VITAE - BRIAN S. FISHER

### PROFESSIONAL QUALIFICATIONS

BScAgr (Hons I)	University of Sydney, 1973
PhD	University of Sydney, 1978

### STAFF POSITIONS HELD

1973 to 31-12-75	Commonwealth Postgraduate Scholar in the Department of Agricultural Economics, University of Sydney
1-1-76 to 31-12-81	Lecturer in Agricultural Economics, University of Sydney
1-1-82 to 19-2-84	Senior Lecturer in Agricultural Economics, University of Sydney
6-7-82 to 19-2-84	Head, Department of Agricultural Economics, University of Sydney
20-2-84 to 16-5-85	Chief Research Economist, Bureau of Agricultural Economics (BAE), Canberra
17-5-85 to 27-10-85	Deputy Director, BAE, Canberra
28-10-85 to 21-8-88	Head, Department of Agricultural Economics, University of Sydney
28-10-85 to 21-11-88	Professor of Agricultural Economics, University of Sydney
1-8-87 to 21-11-88	Dean, Faculty of Agriculture, University of Sydney
21-11-88 to 19-2-95	Executive Director, Australian Bureau of Agricultural and Resource Economics (ABARE), Canberra
20-2-95 to 3-12-95	Executive Director, Agriculture and Forests Group, Department of Primary Industries and Energy, Canberra
4-12-95 to 15-9-06	Executive Director, ABARE, Canberra
25-9-06 to 24-3-08	Vice President, CRA International
25-3-08 to present	Executive Director, Economic Analysis, Concept Economics

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## CONCURRENT STAFF APPOINTMENTS

5-3-01 to 31-3-02	Chief Operating Officer, Department of Agriculture, Fisheries and Forestry, Australia
14-4-03 to 30-4-04	Associate Commissioner, Productivity Commission, Australia
18-3-05 to 20-5-05	Chairman, Prime Minister's Taskforce on Exports and Infrastructure

## PROFESSIONAL ACTIVITIES, COMMITTEES AND BOARD MEMBERSHIPS

1976-83, 1986-87	Committee Member, NSW Branch, Australian Agricultural Economic Society
1980	President, NSW Branch, Australian Agricultural Economics Society
1981-1990	Member, Federal Council, Australian Agricultural Economics Society
1984-1985	Committee Member, ACT Branch, Australian Agricultural Economics Society
1986-1989	Member, Wool Research and Development Council and Chairman Economic Research Advisory Committee of the Council
1987	Economic Consultant to the Royal Commission into Grain Storage, Handling and Transport
1988	President Elect, Australian Agricultural Economics Society
1989	President, Australian Agricultural Economics Society
1989-2002	Member, Executive Board, Department of Primary Industries and Energy, Australia (and from 1998 Department of Agriculture, Fisheries and Forestry); member, Audit Committee (1995-1999); and Chairman, Year 2000 Management Committee (1998-1999)
1989-1995	Member, CSIRO Agricultural Sector Advisory Committee
1992-1994	Member, Board of the Australian Centre for Mineral and Energy Economics, University of Newcastle
1992-1993	Member, Board of the Australian Wool Realisation Commission
1995-1997	Chairman, Board of the Australian Animal Health Laboratory

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1995-1997	Member, Board of Wool International and member, Pricing Committee
1996-1997	Member, Board of the Australian Animal Health Council Limited and Chairman, Audit Committee
1996-2002	Member, Australian Academy of Science's National Committee for Climate and Global Change
1996-1998	Member, CSIRO Wool Textile Advisory Committee
1996-2001	Member, Australian Climate Change Negotiating Team
1998-1999	Member, Australian Experts Group on Emissions Trading
1999- 2004	Member, Asia Pacific Energy Research Centre (Institute of Energy Economics, Japan) Advisory Board
2003- 2006	Security Executive and member, Executive Management Team, Department of Agriculture, Fisheries and Forestry, Australia
2003- 2004	Member, Australian Government Oceans Policy Science Advisory Group

#### EDITORIAL POSITIONS HELD

1981-83	Member, Editorial Committee, Australian Journal of Agricultural Economics
1984-87	Joint Editor (with Carolyn Tanner), Australian Journal of Agricultural Economics
1985-86	Associate Editor, The Scientific Basis of Modern Agriculture (1988), Sydney University Press, Sydney
1988	Member of the Sydney University Press/Oxford University Press Joint Editorial Board
1993-2002	Member, Editorial Board, Resources Policy
1995-2000	Member, Editorial Advisory Board, Agricultural Economics, The Journal of the International Association of Agricultural Economists
1997- 2002	Member, Editorial Board, Australian Journal of Agricultural and Resource Economics
2003- 2006	Member, Editorial Board, Journal of Mitigation and Adaptation Strategies for Global Change

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## ACADEMIC OR PROFESSIONAL AWARDS AND DISTINCTIONS

1974	Editor's prize for the best article published in Australian Journal of Agricultural Economics
1976	Australian Agricultural Economics Society's travel grant for attendance at the 16th International Conference of Agricultural Economists, Nairobi, Kenya
1983	Editor's prize for the best paper published in the Australian Journal of Agricultural Economics (shared with Dr Robyn Munro)
1991-1992	Visiting Professor, Department of Agricultural Economics, University of Sydney
1993-1995	Appointed as Convening Lead Author in the area of assessment of policy instruments for the mitigation of climate change for Working Group III of the UN Intergovernmental Panel on Climate Change
1994	Awarded the Farrer Memorial Medal for 'outstanding contribution to agricultural economics in the field of research and education'
1995-	Fellow, Academy of the Social Sciences in Australia
1998-2000	Appointed as Lead Author in the area of assessment of the impacts of climate change and climate change policy for Working Group III of the UN Intergovernmental Panel on Climate Change
2002	Awarded the Public Service Medal for 'outstanding public service in the field of agricultural and resources policy development'
2003-	Distinguished Fellow, Australian Agricultural and Resource Economics Society
2003-2006	Adjunct Professor of Sustainable Resources Development, Faculty of Food, Agriculture & Natural Resources, University of Sydney
2003-2007	Appointed as Coordinating Lead Author in the area of assessment of emission scenarios for Working Group III of the UN Intergovernmental Panel on Climate Change
2007	Appointed an Officer of the Order of Australia for service to agricultural economics, international trade and climate change through research and public policy analysis

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## MEMBERSHIP OF PROFESSIONAL SOCIETIES

American Agricultural Economics Association

American Economics Association

Australian Agricultural and Resource Economics Society

Economic Society of Australia

International Association of Agricultural Economists

International Association of Energy Economics

## PUBLICATIONS

### Book

1. Campbell, K.O. and Fisher, B.S. (1991), *Agricultural Marketing and Prices*, 3rd edn, Longman Cheshire, Melbourne, 160 pp.

### Chapters in Books

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