RIO TINTO

SUBMISSION TO THE PRODUCTIVITY COMMISSION INQUIRY

PROGRESS IN RAIL REFORM

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Contents

1. Introduction

1.1 Rio Tinto and rail

Rio Tinto has experience of Australian and overseas rail systems

1. The operations of The Rio Tinto Group in Australia bring it into contact with a number of aspects of Australia's rail systems. In the Pilbara region of Western Australia, Hamersley Iron Pty Ltd owns and operates a rail system which is an integral element of its iron ore mining operations. In Queensland and New South Wales, Rio Tinto coal companies, Pacific Coal Pty Ltd and Rio Tinto Coal (NSW) Pty Ltd respectively, make extensive use of the "common carrier" services of the State rail systems to transport the coal they mine. Also in Queensland, Comalco is involved in alumina refining and power generation, through its participation in QAL and the Gladstone Power Station respectively. Both consume considerable quantities of coal, which are delivered to them by Queensland Rail (QR). A number of the overseas operations of Rio Tinto also involve reliance on rail transport. For example, the Kennecott Energy Company., a major US coal miner, relies on rail freight to deliver nearly all its output. These exposures to rail systems in Australia and overseas have given Rio Tinto experience relevant to a number of aspects of the present inquiry.

Rio Tinto businesses must remain competitive

2. Rio Tinto operates in highly competitive, international markets. To maintain profitability over the long haul and provide a return on capital employed, a mine must develop and sustain a position low on the world supply curve for the mineral in question. For most minerals and mineral products, world supply curves are shifting downwards at rates of up to 3% a year in real terms. For example, the world supply curve for iron ore has been shifting down at 2.5 – 3.5% a year for some time. In fact over the last decade and a half, the price of iron ore in real, US dollar terms has almost halved. To maintain a position low on such a downward shifting curve requires a continuing improvement in performance so that mine costs match that downward march. Mines that fail to keep pace cease to be viable.

Rail a significant component in mine costs

3. Coal and iron ore are bulk commodities with a relatively low value per unit volume. Transport costs constitute a significant proportion of the cost confronting the customer. Alumina refining and aluminium smelting are very energy intensive, with energy costs a major determinant of competitiveness. The cost of transporting the coal from the mine to the refinery or power station is again a significant proportion of total costs.

Australian rail systems are diverse

4. One of the facts that Rio Tinto's breadth of experience throws up is that Australian rail systems are diverse. In particular, differences between the history and geography of the western and eastern States, as well as the

economic imperatives of the industries that have been established there, have produced very different kinds of rail systems within the two regions. These differences extend beyond differences in ownership, major rail systems in the west being privately owned whereas all the significant rail systems in the east are publicly owned. Privately owned rail systems in the west were designed from the start to be fully integrated into the production systems of which they are part. This is a pattern of development quite different to that experienced earlier in the eastern States, where State governments played the major role in providing "common carrier" infrastructure services across the region and it was not open to the coal companies to develop their own rail systems. In designing policy to enhance community welfare, it is vital that these differences be recognised. Failure to do so risks very substantial damage. The reform process, as it has been experienced to date, has impacted very differently on the privately owned systems in the west and the State-owned monopolies in the east. Both sets of impacts need to be carefully considered in assessing the progress of reform and recommending measures to enhance the flow of benefits. Delineating those two sets of impacts and designing responses that take account of both is a major theme of this submission.

1.2 The Submission

Reforms have not delivered benefits sought

5. While changes in approach have started and some reductions in cost are occurring, the broad conclusion of the submission is that rail reform is proceeding far more slowly than it should and that this is significantly impeding the delivery of the benefits to the Australian community that the reforms were designed to achieve. In some areas, poor implementation of reform threatens to detract from rather than enhance economic performance, with the reforms threatening to lead to unexpected and undesirable losses of property rights in world competitive private assetstion is urgently needed to recapture the focus on delivering benefits to the Australian community from rail reform. This submission makes some suggestions about the next steps towards that objective.

Structure of submission

6. The next section describes the main reform initiatives that have been taken, their objectives and the mechanisms used. Section 3 looks at the impact the reforms have had on rail, in both public and private sectors. In section 4, the outstanding issues are identified, while section 5 contains some suggestions for next steps in dealing with them. Section 6 presents a brief concluding comment. The "next steps" suggested in the Submission are collected at the end for convenient reference. [1]

[1] Recent speeches by the Managing Director of Rio Tinto Australia, Barry Cusack, and the Chief Executive Iron Ore of Rio Tinto, Chris Renwick, containing material relevant to the inquiry are attached.

2. The reforms

The objectives of reform

7. In 1993, the Hilmer report identified a number of opportunities to improve the functioning of the Australian economy and thereby "improve living standards and opportunities for its people". [2] In adopting its recommendations, the Commonwealth government made a number of agreements with the governments of the States and Territories and new legislation was introduced. The purpose of all this activity was to take up some of the opportunities that Hilmer had identified to deliver benefits to the Australian community. The report saw those benefits being delivered by responding to the imperative that

> "Australian organisations, irrespective of their size location or ownership, must become more efficient, more innovative and more flexible."[3]

The principal legislative vehicle for the reforms, the amendments to the *Trade Practices Act*, captured the same themes in a new object

> "The object of this Act is to enhance the welfare of Australians through the promotion of competition and fair trading and provision for consumer protection."[4]

Therefore, the critical test in assessing the progress in those reforms, including rail reform, should be the extent to which those benefits have been delivered.

For rail this means

8. For rail, achieving this objective involves aiming for rail systems that are efficient and effective and aspire to world class performance standards. The "common carrier" rail transport industry should have pricing policies that reflect the costs of service delivery. Wherever possible, competition should be driving down prices to the minimum, economically sustainable level. Any "natural monopoly" elements need to be transparently and effectively regulated to minimise distortions and ensure that resources are allocated efficiently. Most of the attention in the reform process to date has been paid to the publicly owned "common carrier" rail systems. But it also needs to be recognised that there are other kinds of rail systems in Australia with particular characteristics that must be acknowledged in designing the policy environment if the objective of enhancing the welfare of Australians is to be attained. An important instance of this, the privately owned rail systems of the Pilbara, is discussed in more detail below.

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[2] Commonwealth of Australia (1993), page 1.

[3] ibid.

[4] *Trade Practices Act* 1974, section 2.

Mechanisms for reform

9. Three principal mechanisms to effect reform were established in the wake of the Hilmer report: changes to the *Trade Practices Act* (coupled with changes to corresponding legislation in the States and Territories), agreements between the governments, principally the *Competition Principles Agreement*, and continuing pursuit of the reform agenda of the Council of Australian Governments (COAG). Although rail reform was on the agenda of the Special Premiers' Conferences at the beginning of the 1990s, significantly, there is no specific umbrella agreement under COAG covering reform of rail as there is for electricity, gas, road transport and water. The *Agreement to Implement National Competition Policy and Related Reforms*, which provides for the Commonwealth to make competition payments to the States and Territories in return for progress in implementing a reform agenda, makes reference to these umbrella agreements but does not mention rail at all.

3. The impact of the reforms

Overall few benefits and some negatives

10. As far as the mining industry is concerned, the reforms have had little impact. The lack of progress in coal mining, where there was the greatest scope for improvement, was well covered in the Commission's recent draft report on black coal mining.[5] Furthermore the access regime introduced by the amendments to the *Trade Practices Act* is causing uncertainty and concern among private owners of rail assets. As far as interstate transport is concerned, the recent report of a House of Representatives Committee, *Tracking Australia*, seems to have come to similar conclusions about the ineffectiveness of reforms to date.[6]

3.1 National Competition Policy Agreements

Little commitment to an effective approach

11. The *Competition Principles Agreement* reached between the Prime Minister, Premiers and Chief Ministers in April 1995 included a section on the reform of public monopolies, raising hopes that there was at last a real opportunity to create a competitive environment within the "common carrier" rail industry. Unfortunately the Agreement gave a very wide discretion as to how such reform should be executed.[7] Important principles that had been identified in the Hilmer Report, such as the importance of separating "natural monopoly" activities from

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[5] Productivity Commission (1998), chapter 7.

[6] House of Representatives (1998).

[7] The key paragraph of the *Agreement* reads "Each party is free to determine its own agenda for the reform of public monopolies.".

potentially contestable ones, were left vague and ambiguous.[8] Approaches to dealing with their public monopolies have varied widely across the States. In rail there has been a marked contrast between the approach taken in Queensland, where the changes to Queensland Rail have been largely cosmetic, but in New South Wales more benefits are emerging, where there has been a major restructuring and separation of functions. Even where change has occurred practical benefits to the users of rail services have been slow to arrive.

Two issues: monopoly rents and efficiency

12. There have been two, related but distinct, principal complaints about the services provided to and charges levied on the coal mining industry by the State-owned rail authorities. The first was that the authorities or their owning governments exploited their monopoly power, a power often buttressed directly or indirectly by legislation, to levy charges incorporating a sizeable monopoly rent component. It was widely acknowledged that rail charges incorporated a "royalty" component. The involvement of State treasuries in rail contract negotiations is a tacit acknowledgment of this. Less clear cut has been the attitude to the discharge of community service obligations by rail freight service providers. This mechanism provides a means of avoiding the expenditure of State revenues to discharge the obligation and, therefore constitutes an implicit tax on the service providers' other customers, again collected through the monopoly rent.[9] The second was that the lack of competition led to substandard performance by service providers, reflected in charges that were higher than they should have been (after allowing for the monopoly rent component) and inefficiencies in service provision that reduced the competitiveness of the coal companies using those services.

Monopoly rents being removed, but quantum contentious

13. The governments of both Queensland and NSW have readily acknowledged the existence of a monopoly rent component and made arrangements to remove it from rail charges. These arrangements are, however, somewhat slow, involving a four-year phase-down in NSW and a delay until contract renegotiation in Queensland. In addition the methods used to calculate the monopoly rent component have attracted some criticism. While reductions or potential reductions in rail charges are significant, although offset to a degree by royalty rate increases at least in Queensland, there is concern that the new charges still contain a monopoly rent component. This concern has been aggravated by the manner in which the methodology for calculating the charges has been introduced.

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[8] Both the presumption in favour of separation when the monopoly element is vertically integrated and the emphasis on "rigorous, open and independent" reviews are missing from the Agreement. Compare Commonwealth of Australia (1993), p 30, with provision 4 of the *Competition Principles Agreement.*

[9] The NSW government now provides some explicit subsidies to enable otherwise uneconomic passenger services to access the track, but suspicions about a "cross subsidy" element remain.

State regimes for rail access have not been certified by the NCC

14. In both States, access regimes for rail services have been introduced through State legislation.[10] In neither case was there appropriate consultation with key stakeholders, nor has the National Competition Council (NCC) certified either regime as effective in terms of the *Trade Practices Act* and the *Competition Principles Agreement*. In the course of considering applications for declaration of parts of the NSW and Queensland rail systems, the NCC found those regimes, as they stood at that time, not to be effective. Following submission of the NSW regime for certification in June 1997, the NCC issued draft recommendations requesting changes and the NSW government has undertaken to make modifications. At the time of writing the NCC was awaiting final advice from the NSW government. The Queensland regime was only submitted for certification in June 1998. An important aspect of the access regime in Queensland, in the form of an access undertaking for QR, has only recently been circulated, in draft and in confidence, for comment.

Structural separation apparently achieved in NSW but issues remain

15. Although, as has been noted, somewhat watered down in the *Competition Principles Agreement*, separation of natural monopoly from potentially competitive elements of public monopolies is a key step in reform. In NSW formal separation between ownership of the track, which has been vested in the Rail Access Corporation (RAC), and provision of various services (rail maintenance, freight services and passenger services) has been achieved. However, RAC has not obtained all the discretions necessary to operate effectively. Of particular concern are continuing ties to the rail maintenance component of the old monopoly, now Rail Services of Australia (RSA), for track maintenance and to the passenger services entity, State Rail Authority (SRA), for train control. Both significantly inhibit the capacity of the RAC to achieve efficient operations. Securing efficient maintenance of the track will play a role in reducing costs over time, but of more immediate concern is ineffective use of the track and lack of capacity to accommodate new freight service providers. A document detailing the protocols to be observed by rail track users has been prepared but has only been exposed in a limited way. Although some of these new entities have been corporatised, all remain solely owned by the State, provoking concerns that they may not operate at arms length from each other nor offer the opportunity for a new freight service provider to enter the industry on an equitable basis..

In Queensland the deckchairs have been rearranged

16. The review and consequent corporatisation of QR carried out by the Queensland government in July 1995 seems to have had little practical effect. No serious attempt has been made to separate the natural monopoly deriving from ownership of the rail track from the potentially contestable rail transport

[10] In both States the legislative arrangements have been relatively complex. Chapter 7 of Productivity Commission (1998) discusses them in more detail.

services using that track. Sub-units responsible for the various functions have been created within QR. The changes have not produced cost-conscious, competitively oriented business units, but rather have retained much of the pre-existing bureaucracy. Many customers, who have no alternative but to deal with QR, are still finding it difficult to obtain information, eg, about the split between access and haulage charges, even for services to be provided well into the future.

Pricing mechanisms opaque

17. Within these structures, the approach to pricing in both States has caused concern. Both allow flexibility in rail access charges, with different users able to be charged different prices. Although in principle, efficient use of rail infrastructure and general allocative efficiency in the economy could justify such an approach, the methods of implementation have raised the concern that it is being used to perpetuate the monopoly rent component of rail freight charges. The NSW regime is explicit. It involves a floor and ceiling approach, setting a minimum and maximum that the RAC can charge for access and leaving specific charges to be negotiated between the RAC and the service provider wishing to use the track. A similar, but less explicit, approach seems to be in place in Queensland. With only State-owned rail freight entities involved as service providers to date, this arrangement is restricting freight service customers' access to information about rail access charges and denying them any role in negotiating those charges. For example, only freight carriers (not their customers) can avail themselves of the recourse provided to the NSW prices surveillance authority in the advent of a dispute with the RAC over access charges. Freightcorp, the NSW service provider, has not used this mechanism to date in spite of concerns, strongly expressed by their customers, about the level of access charges.

Price guidelines contentious

18. The approach to calculating price guidelines or limits, again explicit in NSW and apparently followed in Queensland, is contentious. There has been some concern about the size of the gap between the floor and the ceiling. This is another manifestation of the concern noted above about whether the flexibilities of pricing are being employed in the public interest. The ceiling rate, about which there is most concern, involves valuing the asset base and setting a rate of return to be earned on that base. Asset valuation is intrinsically difficult and experts disagree.[11] But, even if these concerns are put to one side, the rate of return mandated seems high. In NSW this rate has been set by regulation at 14% nominal, after tax. This rate raises two issues. First, it is a nominal rate being earned on an asset base valued at current prices. Replacement cost is

[11] See Productivity Commission (1998) pages 179-181 for a discussion of the principal issues. Historically coal companies have paid for track to be laid and for locomotives and rolling stock to enable services to new mines to be put in place. The question of ownership of these facilities and of payment of an appropriate return on them is a factor that is further muddying the waters here.

the asset valuation methodology used in NSW which, when combined with a nominal interest rate, compensates the asset owner for inflation twice. Second the rate seems high for a relatively low risk business, being the equivalent of 22% before tax. It is significant that, in its final decision on the Victorian gas pipelines, the Australian Competition and Consumer Commission (ACCC) determined a pre-tax weighted average cost of capital of 7.75% for that, relatively low risk, industry.[12] The difficulty of subjecting the rail access pricing guidelines to independent review, noted above, has intensified concerns about them.

3.2 Access regimes

19. Applications under the new access regimes are being pursued in respect of parts of the NSW and Queensland State-owned rail systems, but final outcomes are still awaited.[13] The threatened application of the regimes to some privately owned rail systems is generating uncertainty and causing concern.

Access yet to be obtained to State rail systems

20. Applications for access to parts of the NSW and Queensland State-owned rail systems have been dealt with by the NCC. The NCC recommended that the Queensland services not be declared because some of the elements could be economically duplicated. The designated minister, the Queensland Premier, accepted the recommendation and did not declare the service. That decision is in process of review by the Australian Competition Tribunal (ACT). The NCC recommended that an application by the NSW Minerals Council for declaration of a service known as the Hunter Railway Line Service be accepted. The designated Minister, the NSW Premier, allowed the 60 day period for decision to lapse resulting in the service being deemed not to have been declared. The ACT is also reviewing this case, but this has been delayed by an application to the Federal Court to halt the process because government coal carrying services were excluded from the access regime for five years.[14] Other cases have ended when applications were withdrawn, in one case of a freight forwarder, because alternative arrangements for access in the future were made.[15]

Access regimes too widely applied may reduce community benefit

21. The most important impact of the access regimes on private rail systems has been felt amongst the iron ore producers of the Pilbara. Here, although the

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[12] Australian Competition and Consumer Commission (1998)

[13] Many of the issues covered briefly here, and in other parts of the paper, are dealt with in more detail in the NSW Minerals Council submission to this inquiry, NSW Minerals Council (1998).

[14] *Competition Policy Reform Act* 1995, section 78.

[15] The company involved was Specialized Container Transport.

situation remains uncertain pending the establishment of clear guidelines or precedent, owners of rail systems are threatened with competitors potentially gaining access to their systems in ways and on terms that are likely to reduce the flow of benefits to the community from that industry. To see how this may occur it is necessary to sketch briefly the role that such rail systems play in the process of producing iron ore.

Iron ore railways are plant not generic regional infrastructure

22. The points made here are drawn from the experience of Hamersley Iron, but substantially similar points could be made in respect of the other iron ore producers in the Pilbara. The iron ore rail systems were not designed to provide general haulage services (even Hamersley's own general haulage is largely by truck), but as an integrated component of an iron ore production operation. This operation involves mining, hauling, blending and shipping the ore. The carriage of the ore by rail from the mine site to the port contributes a significant component to production costs. Haul distances are significant, typically around 300km. One indicator of the significance of this cost component is to note that, if it had to operate with the rail freight charges confronting coal companies in the eastern States, Hamersley's operations would not be economic. Minimising this cost is, therefore of utmost importance to the iron ore producers and this has been achieved by closely integrating each stage of the iron ore production process.. Over time, the application of just-in-time principles to iron ore mining has increased further the interdependency of elements of the process chain. The success in meeting production volume, production cost, production reliability and in Hamersley's case, quality of product is totally reliant on the whole process chain continuing to function as a unit. No longer can one part of the network fail to perform as planned without putting the whole network at risk. Hamersley operates five mines in the Pilbara, the output of which is a blended product which has specifications that are extremely demanding to meet. In recent years Hamersley has moved from operating each mine as a stand-alone operation to an integrated production system with substantial benefits to capital and manpower activity. Integral to this is the ability to schedule rail movements freely to achieve the correct quality of blend. Optimisation of the total system rather than the mine or rail system alone requires meticulous planning and rigid adherence to mining sequence and delivery schedules. Carriage of third party traffic on a single track system would put this in jeopardy. Because of this close integration, the rail system plays the same role in the production process as a shovel, a drill or a reclaimer. It is plant integral to the production process and not accurately characterised as some separate support infrastructure which could readily provide some kind of infrastructure services to others. All the Pilbara iron ore producers operate in this way because it is essential for survival. Hence there are three rail systems, each completely independent of the others. As noted above, this is partly a product of history and geography, but now reflects the fundamental economic imperatives of the industry.

Integrated facility owners likely to suffer similar damage.

23. An analogy for Hamersley's mining is the shift in manufacturing from a series of process steps (each of which had inventory) to an interlinked production line. For example, the manufacture and assembly of a motor vehicle involves numerous steps which are linked in real time. The potential loss to a motor vehicle manufacturer from the disruption that would be associated with allowing a competitor access to elements of this production line is clear. The potential damage to an iron ore producer, which may be caused by extra traffic on its rail system that is not integrated into nor, perhaps, even compatible with the pattern of its overall operations, is likely to be of a comparable magnitude. The House of Representatives Committee recognised the importance of this in *Tracking Australia*, noting

> "The potential disruption of third party access to highly integrated operations, such as mine to port hauling operations, may also have implications for future investment in private infrastructure. … One obvious concern is that the private sector may simply stop investing in the development of infrastructure facilities where uncertainty over potential third party access exists."[16]

Community benefit from export industries not properly understood

24. The *Trade Practices Act* does not, in the provisions governing declaration of a service, distinguish between domestic and overseas downstream markets that may be served by a facility owner.[17] A general presumption that promoting competition in domestic markets will bring community benefits is justified and, indeed, underpinned the recommendations in the Hilmer report. However, when the downstream market is overseas, although it would generally be expected that an increase in competition would bring global benefits, not only may the Australian community not necessarily share in them, it may actually suffer detriment. This is particularly likely to be the case where Australia is a significant supplier to the international trade. The iron ore industry, one of Australia's leading export industries, presents such a case. The downstream market served by iron ore producers is, as was explained at the beginning of the Submission, highly competitive. Conditions in that market mean that any gain through an increase in Australia's market share is very likely to be more than offset by the fall in price. Indeed, there may be no gain in market share but a lower price. Therefore, any benefits that might accrue there are likely to flow to overseas customers

No efficiency gains either and hence no community gain

25. The other principal source of community gain is improvement in the efficiency of provision of the service to which access may be granted or the immediately downstream service, freight services in the case of rail. Although

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[16] House of Representatives (1998)

[17] *Trade Practices Act* 1974, 44G(2)(a) and 44H(4)(a).

there is no market in these services, rail operations being highly integrated, the iron ore producers have every incentive to run the most efficient rail systems possible and benchmarking studies suggest that they operate at the level of world's best practice.[18] Since there is so little scope for improvement from these principal sources of Australian community gain, it is most unlikely that applying the access regime to the Pilbara iron ore railways will enhance community welfare.

Direct negotiation likely to deliver any available community benefit

26. In an analysis of just the case discussed here the Industry Commission concluded that the commercial interests of the parties were likely to produce the outcome that would maximise community benefit. They said

> "Consider, for example, the likely development of an iron ore mine close to an existing mine, the infrastructure of which includes a dedicated port and rail link. For the second mine to be economically feasible, access to the port and rail line are required. But if spare capacity exists, it is unclear why the incumbent would deny access on commercial grounds unless the addition to the supply of iron ore is likely to depress world prices and impair the viability of their operation. Even then they would not necessarily deny access if they were able to negotiate an access fee which compensated them for revenue forgone. If the anticipated profits of the second mine were insufficient to compensate the incumbent, the incumbent would be expected to refuse access on commercial grounds. But since this action would coincide with the national interest, mandatory access would not improve national welfare, and may prove to be harmful."[19]

Access pricing principles add to concerns

27. As this quote makes clear, the failure to draw an appropriate distinction between domestic and overseas downstream markets that may be served by a facility owner is compounded if only direct costs of providing access are taken into account when setting the terms for access. When applied in overseas downstream markets, the exclusion of losses resulting from reductions in the revenues of the facility owner from those markets may amount to excluding from consideration any detriment to the Australian community that may result from granting access.[20] Again the House of Representatives Committee recognised the difficulty and importance of the issues here, noting that

> "On a broader level, the main problem of third party access to private infrastructure is one of accommodating the commercial interests and

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[18] See Bureau of Industry Economics (1995)

[19] Industry Commission (1995), p 19

[20] Although the Act directs the Commission to take account of "the direct costs of providing access to the service", it does not prevent it taking other costs into account, *Trade Practices Act* 1974 44X(1)(d) and (2).

> rights of the infrastructure facility owner. In almost all cases the owner of infrastructure is likely to have made substantial investment, and through that assumed most of the financial risk associated with the facility. Where third party access is deemed appropriate, infrastructure owners would have legitimate grounds to set access prices, terms and conditions that covers that risk, plus compensation for revenue lost by competition from new operators (where applicable)."[21]

The consequence of neglecting these considerations was also recognised

> **"**An imposed access arrangement (for example, one resulting from arbitration by the ACCC) that did not take into account these factors might infringe on the ability of facility owners to exercise basic property rights."[22]

4. Outstanding issues

4.1 Public monopolies

Some progress, but rail freight charges remain too high

28. Charges for coal freight are falling and this is to be welcomed. The acknowledgment that a royalty component in freight charges is inappropriate and moves towards its removal will improve the competitiveness of Australian coal miners provided that structural change, eg through increased competition, locks in this new lower level of charges. However, rail freight charges are still too high. The recent Productivity Commission draft report on black coal mining concluded that "operating costs of Australian coal rail freight appear to be 20 to 30 per cent higher than major North American railways."[23] Experience in Rio Tinto, both as an Australian rail operator and as a user of overseas rail systems, suggests this is a conservative estimate of the scope for improvement. Given the increases in the intensity of competition seen in traded coal markets in recent years, coal freight charges that are higher than they could be will do substantial damage to the Australian industry and, thereby, to the welfare of the Australian community.

Inadequate incentives to efficient operations

29. The Productivity Commission report cited above also concluded that "the productivity of coal rail freight services in Australia is somewhat lower (by around 20 per cent) than that of better overseas operations." [24]Again this is an estimate that Rio Tinto believes underestimates the scope for improvement. Securing immediately available productivity improvements will allow charges to

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[21] House of Representatives (1998), paragraph 4.46.

[22] ibid, paragraph 4.47.

[23] Productivity Commission (1998), page 156.

[24] ibid., page 151.

be lower now, but of equal importance is providing the incentive to continue to improve rail operations. This component of mine costs must contribute to maintaining the competitiveness of the coal industry, just as continuing improvements in the Pilbara railways have helped maintain the competitiveness of the iron ore industry. Lack of transparency in pricing methods and a continued sheltering of the operations of State-owned corporations from the rigours of the market place and the discipline of public scrutiny threaten to prevent this happening.

Separation must be sharp and clear

30. One example of the prerequisites for achieving improved performance on "common carrier" railways is that separation between the rail track owner and the freight service provider must be sharp and clear. Even in ideal circumstances, regulating a natural monopoly is a difficult policy problem. To have any chance of success the operations of the entity must be completely transparent. Its pricing policies must be open to public scrutiny, as must its investment and asset management policies. In addition its pricing policies should be subject to independent review. In the rail context, any blurring between the responsibilities of the track manager and the freight service provider will undermine accountability and destroy incentive to improve. This will be doubly so if freight service provision is also a monopoly.

Cycle time and port interface illustrate the issues

31. A key parameter for measuring the efficiency of rail haulage operations is cycle time, the time taken to complete the haul of a load of coal from mine to port and have the train ready to receive the next load. The longer this is, the more resources, eg power and staff time, the delivery of each load to port consumes and the more trains will be required to haul a given annual mine output, with haulage costs rising on both counts. Cycle time is affected by mine and port efficiencies in loading and unloading, by the quality of train control and track management, and by how efficiently the train itself is run. Those responsible for each of these elements must have a strong incentive to improve their performance. At present it is, at best, difficult to separate out some of these contributions. One indication of present problems is that the key role of train control in NSW has been assigned arbitrarily and apparently in perpetuity to the SRA, so that a passenger service provider controls track used almost exclusively for bulk freight transport. Some preliminary analysis suggests that cycle times on major Hunter Valley routes may be as much as 50% above what could reasonably be expected to be achieved on a well run system. This amounts to hours of wasted train time on every haul. This approach stands in stark contrast to that of operators of privately owned, integrated rail systems. For example, substantial efforts have been made on the Hamersley iron ore railway recently to achieve cycle time reductions of 15 minutes. The timing of a journey is as important as its duration. Efficient port operation is dependent on having the coal available when it is needed. Maintaining large stockpiles is neither practicable nor economic. Demurrage (the charge for keeping ships idle, waiting to load) has been a significant cost for coal miners using Port Waratah Coal Services' facilities. The causes of the delays are complex, but it

is clear that improving the interface between ship loading and coal railing operations could make a substantial contribution to reducing them. Again, as has been explained, this is an area to which Hamersley devotes particular attention.

Access regimes have been ineffective for State-owned facilities

32. Although there have only been four applications for declaration of services provided by State-owned rail systems in NSW and Queensland and none of these has run to completion, two being withdrawn, a problem with the operation of the *Trade Practices Act* does seem to be emerging. The decision-maker under Part IIIA of the Act is the "designated Minister", who is the responsible Commonwealth Minister, currently the Treasurer, unless the provider of the service that is the subject of the application is a State or Territory body, when it is the relevant Premier or Chief Minister. This creates a clear conflict of interest. Its impact can be gauged by the fact that, of the four applications to date, three have resulted in recommendations by the NCC for declaration of services provided by State-owned rail systems but none have been declared. In two of the cases the Premier of NSW allowed the 60 day period for decision to elapse resulting in the service being deemed not to be declared. In the other the Premier of Queensland decided not to declare the service in spite of the NCC recommendation. The practical measures required to allow access to the track by new freight service providers are simply not in place. In neither State are the access protocols agreed and established. Train control is a key issue in NSW. Operation of the system is presently dependent on the pre-existing relationships among the various components of the old State rail monopoly conglomerates.

4.2 Private rail systems

Status of private rail systems now uncertain

33. The major impact of the reforms on the privately owned rail systems in the Pilbara has been to increase uncertainty about their future. At this stage it is not clear whether an application for declaration of some aspect of the services provided by them would succeed. Such an application has now been lodged so the access regime is certainly impacting on these rail systems. Were that application to succeed, it is not clear under what terms and conditions access might be granted. If terms and conditions were set that did not properly compensate the owner of a rail system to which access had been granted for all the consequent costs, including those reflecting the high level of integration of the rail system into the iron ore production process, the costs and risks borne in developing the system and any reductions in revenues from downstream markets overseas, they would risk detriment to the Australian community. The Chair of the recent House of Representatives Committee

summed the situation up neatly in the phrase "this threatens to be competition on artificial terms".[25]

The threat is serious and the investment is large

34. The threat posed to the businesses operating the Pilbara mines is serious. Restriction of their freedom to operate their rail systems in an optimal manner, fully integrated with other operations, could severely undermine the competitiveness crucial to their continued survival. The prospect that a new competitor may enjoy an implicit subsidy, because the costs to the rail system owner of providing access are not properly reflected in the pricing of that access, threatens returns on investment. These investments are large. For Hamersley, over $2 billion is tied up in the rail system alone. Although much of the investment in the Pilbara took place some time ago, substantial new investments have recently been committed or are under consideration. Major commitments have been made by BHP and Hamersley to open the large iron ore resource at Yandicoogina and the opening of other new resources is being actively pursued. Any increase in sovereign risk uncertainties would have grave implications for national investment. For example, private enterprise invests in plant such as integrated railway systems anticipating the potential for increases in future demand and allowing for an appropriate response. However if through a misapplied access regime, private enterprise loses its capacity to expand in its own and the national interest, it loses its incentive to invest in the assets to which such a regime is applied.

Dangers recognised in the Hilmer report

35. The dangers of an injudicious application of access regimes to privately owned facilities were clearly recognised in the Hilmer report. The report recorded that

> "The Committee is conscious of the need to carefully limit the circumstances in which one business is required by law to make its facilities available to another. Failure to provide appropriate protection to owners of such facilities has the potential to undermine incentives for investment."[26]

The report went on to conclude

> "Nevertheless, there are some industries where there is a strong public interest in ensuring that effective competition can take place, …. The telecommunication sector provides a clear example, as do electricity, rail and other key infrastructure industries. Where such a clear public interest exists, but not otherwise, the committee supports the establishment of a legislated right of access, …"[27]

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[25] Proof Hansard Report (1998)

[26] Commonwealth of Australia (1993), p248

[27] ibid.

Iron ore production is not an infrastructure industry. The rail systems that form part of that industry are plant integral to it and do not and would not readily be capable of providing infrastructure services. There must, therefore, be substantial doubt whether the "strong public interest", identified as an essential precondition for access by the Hilmer report, exists in this case.

And by the House of Representatives Committee

36. After weighing the issues raised by access to privately owned infrastructure carefully, the House of Representatives Committee in *Tracking Australia* reached the following conclusion.

> "The committee recognises the potential national benefits of granting third party access to privately owned infrastructure of economic significance, such as the Pilbara iron ore railways. However, it also recognises the enormous difficulties in providing for that access without interfering with the property rights and/or material interests of the infrastructure owner. The committee considers that, in general, the benefits to costs ratio of providing for third party access to rail infrastructure, private or public, is unlikely to be positive where that rail infrastructure forms part of a highly utilised, integrated production process (such as mining or milling)."[28]

5. The way forward

5.1 The processes of the Council of Australian Governments

37. The state of play in the reform of the State-owned monopoly rail systems in the eastern states was well summarised in the recent Productivity Commission draft report on black coal which said

> "As with asset valuation and rates of return, the complex issues surrounding price discrimination make transparency and genuinely independent regulation in price setting particularly desirable for a monopoly service. After many years of arbitrarily imposed excessive rail prices the coal industry is understandably suspicious of the motives of governments in setting access prices. These concerns are given more credence when governments do not appear to be wholeheartedly facilitating the introduction of access to rail infrastructure." [29]

In short, governments must show more commitment to the principles of the competition reform processes and less preoccupation with using the letter of the agreements and the law to avoid their responsibilities for delivering

[28] House of Representatives (1998), paragraph 4.54.

[29] Productivity Commission (1998), page 184.

improvements in community wellbeing. [30] Specific next steps that would demonstrate such a commitment include the following.

Next step A.**State governments should announce that they do not intend to make use of the five-year exclusion of State-owned coal carrying services from the access regime and cease legal action presently being directed to its enforcement.**

Next step B.**Structural separation of natural monopoly from contestable elements of State-owned rail corporations operations must be accepted as an essential element of reform and a prerequisite for a satisfactory access regime.**

Common ownership of the resulting separated elements can create the potential for conflicts of interest and interfere with the effective regulation of the natural monopoly.

Next step C.**Consideration should be given to early sale by State governments of those corporations, created by structural separation, that are not natural monopolies.**

Next step D.**High priority should be given to having State rail access arrangements certified as effective by the NCC. This could be set as a benchmark for competition payments, see *Next step J,* below.**

Next step E.**Agreeing and establishing the protocols required to make access by new freight service providers a practical reality should be regarded as an essential aspect of establishing a satisfactory access regime and expedited.**

Access codes should provide that key parameters of pricing arrangements be set by an independent body. This could be the prices surveillance authority of the State, but, given the national importance of efficient rail systems, the precedents of telecommunications, gas and airports could be followed.

Next step F.**Consideration should be given to having the key parameters of pricing arrangements, eg asset valuations and rates of return, set by the ACCC. At a minimum the State prices surveillance bodies should set these parameters.**

Next step G.**Rail access charges under State access regimes should be a matter of public record, announced as soon as they are set, with it being accepted that the public interest in transparency overrides any other considerations.**

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[30] Under the exclusion is granted in section 78 of the *Competition Policy Reform Act* 1995, the NSW government presently has action in process in the Federal Court directed to preventing an ACT review of a deemed decision not to declare some rail services in NSW.

***Next step H.*Access codes should enable downstream users of freight services as well as service providers, to request arbitration of an access charge.**

It is widely accepted that hastening progress in rail reform should be a national priority. There is a strong case for re-examining its status within the processes designed to deal with such priorities.

***Next step I.*Consideration should be given to according rail reform the same status and priority in the deliberations of the Council of Australian Governments as electricity, gas, road transport, and water.**

***Next step J.*Consideration should be given to amending the *Agreement to Implement the National Competition Policy and Related Reforms* to make progress with rail reform a precondition for the States receiving competition payments.**

5.2 The legislative framework

Declaration decision-making needs reconsideration

1. The Hilmer report considered the case of access to facilities owned by governments, first pointing out that

> "Indeed, as these assets are held on behalf of the public, the benefits to the public of improving the efficient use of those assets, and improving the competitiveness of the economy generally, will usually be additional factors supporting the creation of an access regime."" [31]

The report went on to discuss the reasons why a government might resist an application for access, concluding that none of these had any but transitory significance. While generally accepting the principle of comity between governments in the Australian federal system and recommending cooperative arrangements wherever possible, the report concluded that

> "Where agreement is not forthcoming, however, the Committee considers the important national interests at stake in some circumstances may be sufficient to justify possible unilateral action by the Commonwealth, subject to the safeguards outlined above."[32]

Accordingly, the report recommended that

> "Access rights be created by a process of declarations made by the designated Commonwealth Minister."[33]

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[31] Commonwealth of Australia (1993), page 260.

[32] ibid., page 265. The chief safeguard was that the Commonwealth Minister would only act on a recommendation of the NCC, a jointly administered body.

[33] ibid., page 266.

Next step A.**While it is acknowledged that the States are able to implement the reforms of the Hilmer report, should they so desire, the lack of genuine enthusiasm for reform, and the uneven nature of reform suggests that consideration should be given to amending the legislation to implement the model proposed in the Hilmer report, giving the Commonwealth Minister sole responsibility for declaration decisions.**

Access to private facilities should be based on "clear public interest"

1. The legislative framework seems to have lost some of the focus provided by the careful analysis in the Hilmer report. In particular the principle that instruments like access regimes should be judged by the ability to deliver public benefit and designed to maximise that benefit seems to have been forgotten. Considering the amendments to the *Trade Practices Act* made in 1995 in isolation from the Hilmer report could give the impression that access to facilities was being pursued for its own sake. The grave dangers of casting the net of the access regime too widely, recognised in the Hilmer report, and the potential impact of access terms on community wellbeing when the downstream market that may be served by a facility owner is overseas need to be given more weight in the legislative framework

Next step A.**Consideration should be given to amending the *Trade Practices Act* to restrict the range of facilities subject to the access regime to those for which a clear public interest case can be demonstrated. For example, improvements could be sought that might**

- **clarify the distinction between assets functioning as integrated plant employed exclusively in a single production process and similar assets functioning as generally available infrastructure providing services as inputs to a range of production processes**
- **require that the facility in question should be a natural or legislated monopoly**
- **ensure the appropriate determination of access terms in cases where downstream markets served by a facility owner are overseas.**

5.3 Institutions

Adequate resources for key institutions a high priority

The major institutions established by the amendments to the *Trade Practices Act* are playing, and will continue to play, a vital role in reform, including reform in rail. At a time when fiscal consolidation is fashionable and budgets are being tightened everywhere it is vital that adequate resources continue to be provided to these institutions.

Next step A. **Proper support for the NCC, ACCC and the ACT should be accorded a high priority and every effort made to ensure that appointments to these bodies reflect the national importance of the role they play.**

5.4 Improve the performance of State rail systems

Lessons from the Pilbara iron ore rail systems

The Pilbara rail systems are dedicated to carrying iron ore and are each integrated into an iron ore production process. The rail systems of the eastern States carry a variety of goods and provide services to a range of production processes. The eastern States systems cannot, therefore, exactly emulate those in the west. However major sections of the eastern States systems are almost exclusively dedicated to carrying coal, albeit from a number of different producers. In these parts of these systems, performance ought to be approaching that of the iron ore rail systems and many of the methods that have been used to obtain that performance ought to be applicable. Technologies, such as use of concrete sleepers, rail profiling, rail break detection, wheel and wheel bearing temperature monitoring and digital signalling and control systems, ought to be readily applied in the east. Organisation of maintenance workshops is another area from which lessons may be readily transferable. Hamersley, and the other Pilbara iron ore producers, have invested heavily in their rail systems. Without this investment the standards of performance now recorded could not have been attained. This investment has had to be very carefully targeted and rigorously justified. Much of the rail system in the east is having difficulty securing a modest return on well written-down asset values. Nevertheless, there are parts of the system where investment could be justified, namely those where good returns are currently being earned and there is scope for increased traffic. It is important that those investments be undertaken. A proper commercial approach must be taken to those investment decisions.

***Next step B.*Consideration should be given to establishing means by which the eastern States rail systems can draw on the lessons learned in the Pilbara to improve the performance of similar parts of their systems, particularly in the areas of the application of best available current technology, workshop organisation and investment decision–making.**

6. Conclusion

1. Although it is easy to become carried away with “the romance of the railways” and overestimate their potential contribution to national wellbeing, it is clear that reform of some of Australia’s various rail systems could contribute much to national prosperity. It is also clear that efforts to date have fallen well short of delivering those benefits. From the perspective of Rio Tinto this disappointment has a double edge. Those mechanisms that were supposed to deliver improvements in the performance of the State-owned rail monopolies have not done so, but they have placed question marks over the future of investments in rail systems made by the company and others. It would indeed be ironic if those reforms fail to impact significantly on the distortions and inefficiencies of the State-owned rail systems, their principal target, but instead damage the most efficient rail systems in the country, those of the Pilbara iron ore producers. The task of redirecting and re-invigorating reform efforts to avoid this doubly damaging outcome is vital and urgent. Rio Tinto is hopeful

that the problems identified and the suggestions for next steps made in this submission will assist the Commission in this important endeavour.

Next steps

Next step A.**State governments should announce that they do not intend to make use of the five-year exclusion of State-owned coal carrying services from the access regime and cease legal action presently being directed to its enforcement.**

Next step B.**Structural separation of natural monopoly from contestable elements of State-owned rail corporations operations must be accepted as an essential element of reform and a prerequisite for a satisfactory access regime.**

Next step C.**Consideration should be given to early sale by State governments of those corporations, created by structural separation, that are not natural monopolies.**

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Next step H.**Access codes should enable downstream users of freight services as well as service providers, to request arbitration of an access charge.**

Next step I.**Consideration should be given to according rail reform the same status and priority in the deliberations of the Council of Australian Governments as electricity, gas, road transport, and water.**

Next step J.**Consideration should be given to amending the *Agreement to Implement the National Competition Policy and Related Reforms* to make progress with rail reform a precondition for the States receiving competition payments.**

Next step K.**While it is acknowledged that the States are able to implement the reforms of the Hilmer report, should they so desire, the**

lack of genuine enthusiasm for reform, and the uneven nature of reform suggests that consideration should be given to amending the legislation to implement the model proposed in the Hilmer report, giving the Commonwealth Minister sole responsibility for declaration decisions.

***Next step L.*Consideration should be given to amending the Trade Practices Act to restrict the range of facilities subject to the access regime to those for which a clear public interest case can be demonstrated. For example, improvements could be sought that might**

- **clarify the distinction between assets functioning as integrated plant employed exclusively in a single production process and similar assets functioning as generally available infrastructure providing services as inputs to a range of production processes**
- **require that the facility in question should be a natural or legislated monopoly**
- **ensure the appropriate determination of access terms in cases where downstream markets served by a facility owner are overseas.**

***Next step M.* Proper support for the NCC, ACCC and the ACT should be accorded a high priority and every effort made to ensure that appointments to these bodies reflect the national importance of the role they play.**

***Next step N.*Consideration should be given to establishing means by which the eastern States rail systems can draw on the lessons learned in the Pilbara to improve the performance of similar parts of their systems, particularly in the areas of the application of best available current technology, workshop organisation and investment decision–making.**

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Attachment

The Customer Focus in Mining, Speech by Barry Cusack, Managing Director, Rio Tinto Australia

A Global Structure for the New Century, Speech by Chris Renwick, Chief Executive Iron Ore, Rio Tinto

American Chamber of Commerce in Australia, Sydney, April 1998

Please note: If reproduced in total, an acknowledgment of the forum at which the speech was delivered would be appreciated

The Customer Focus in Mining

RIO TINTO

Barry Cusack, Managing Director, Rio Tinto Australia

Introduction

Thank you for inviting me to address you today.

My company, Rio Tinto, has recently undergone radical change. Today I want to talk about aspects of that change that are not immediately obvious.

The 1995 merger of RTZ and CRA under a dual listed companies (DLC) structure took the business world by surprise. The subsequent restructuring of the Group last year into six global commodity businesses also made headlines. The formation of the world's largest mining group was a dramatic development and the market took a keen interest, both in the creation of the DLC and in the organisational changes that followed.

Many of you will be familiar with the rationale that lay behind the merger. The business press recognised that the long association between CRA and its major shareholder RTZ and the converging strategies of the two companies were powerful reasons for the merger. Most commentators saw the DLC as a creative and logical move in an industry where size, diversity and global reach are a competitive advantage.

What the DLC did was to take a number of Australian businesses that had long thought of themselves as being international and challenge them to become global. Whereas previously these companies had concentrated on selling to predominantly Asian customers, they were now given a remit to seek out opportunities to produce and sell anywhere in the world.

Coal businesses that viewed the world from Australia's eastern seaboard and Indonesia have become part of a global energy business with assets in North and South America and southern Africa.

Hamersley Iron's Pilbara operations are the core of Rio Tinto Iron Ore. Today Hamersley people are helping Rio Tinto Iron Ore to explore opportunities in South Asia, Africa and South America.

One of my roles, as the Managing Director, Rio Tinto Australia, is to use opportunities like this to articulate the global remit of Rio Tinto's three Australian commodity businesses. Together we seek to use the technical experience and marketing experience gained, mostly in Asia, to develop operations and supply new markets in other parts of the world. Mind you, Rio Tinto still believes that there are considerable untapped opportunities in Asia; the global remit does not signal any intention to relax efforts in that region.

Today I want to tell you about the revolution in attitude and thinking that lies behind the more obvious changes to the structure and organisation of Rio Tinto. These are changes in underlying philosophy that, I believe, will mean that Rio Tinto is not only the world's biggest mining company, but also the best in terms of its ability to add value for its shareholders and satisfy its customers. In doing so, I will draw upon my own experience, especially the years I spent at Hamersley Iron.

I will describe how businesses that share a commitment to operational excellence have concluded that technical ability is no longer sufficient to make them globally competitive. This is about how a Group with strong production values is learning to align those values with those of its customers. Essentially, it's about developing a customer focus and the implications that has for our people and our business.

If I had to sum up what customer focus means for Rio Tinto, I would make four points.

Firstly, it has changed and broadened the concept of professionalism. Geologist, mining engineer, metallurgist, environmental manager - whatever the speciality - today all need to think of themselves as business people. Especially they must think as business men and women with a global view that recognises social and political changes that influence the market.

Secondly, within Australia, customer focus is recasting the shape and nature of employee relationships in Rio Tinto. What our companies aspire to can only be achieved with a collaborative enterprise culture. It puts the onus on management to foster such a culture.

Thirdly, it has opened new doors. As we get closer to our customers we start to see an increasing number of opportunities to differentiate our products and our services.

And, finally, for Rio Tinto it has increased the benefits that come from having a global presence. The Group has a breadth and depth of expertise to assist its customers that cannot be matched. It's a competitive edge we intend to keep.

My secondary aim is to refute those who claim mining is a low tech route to riches. Large scale resource development in Australia has never been a case of 'dig it up and ship it out'. In today's ultra-competitive environment, that stereotype is even more inappropriate. I believe it is vital that people grasp just how central advanced technology, modern management and an acute understanding of global changes are to an industry where companies are price takers in an international market.

Let me start by talking about why Australian miners have traditionally looked at their industry from a suppliers' point of view. Then I will explain why this approach is no longer good enough.

Traditionally the aim has been to build robust operations and run them efficiently. With a relatively undifferentiated product miners have measured success primarily in terms of tonnes produced. They have had what you might call a 'production mindset'.

Within mining we know that those production figures are a crude measure of technical competence. Each tonne of product represents an investment of experience, skill, capital and, especially on the part of those who pioneered our major mines, considerable enterprise and courage. We have traditionally been proud of these production figures and the attitudes that made them possible.

The production mentality flourished in the '60s and '70s, a period which saw the commencement of many major resource projects. Companies like Comalco, Hamersley Iron and Bougainville Copper broke new ground in solving problems of scale, treatment and absence of established infrastructure.

Today we do not remember just how big a challenge it was to finance those resource developments. In the fifties and sixties, money was not freely available for such high risk investments. Before banks would participate, bankers needed the assurance of really first class engineering to remove as much as possible of the technical risk. Therefore, each of these projects set new standards of engineering and technological excellence for its time.

It should be acknowledged however, that the supplier focus and production mentality were adequate at a time when Japanese economic growth triggered an unprecedented regional demand for minerals and energy. Australia enjoyed an advantageous geographical position, a comprehensive inventory of minerals, and a relative absence of competing suppliers. All these factors masked inefficiencies imposed within Australia by tariffs, inefficient public infrastructure and services, and rigid work practices.

In the sixties when I joined CRA, the forerunner of Rio Tinto, most Australians shared a pride in the development of our nation's resources. The major mines that were built around that time were great feats of engineering that won international acclaim for those responsible.

The 1990s are very different. One obvious change is that resource developers can no longer count upon the rest of the community to admire their efforts. A resource project cannot be justified purely in terms of its economic value to the community. Society requires miners to develop competencies in new areas.

A mining company must be environmentally aware or it will not get permission for a major development project, no matter how proficient it is at the mechanics of extracting, processing and marketing. Similarly, a mining company that has not thought carefully and planned extensively for the long term social and economic impacts of its operations will inevitably meet strong opposition.

Rio Tinto, with world wide operations and very much in the public eye, has embraced the need to develop what my boss, Leon Davis, calls "the new competencies". These should not be seen as peripheral activities. In Rio Tinto we believe that the new competencies give our company a competitive edge, so we aim to manage our environmental impacts and community relationships with the same rigour we bring to other aspects of business.

That shift in how we view our industry has been accompanied by another, less obvious, but equally profound change.

In the 1990s, the production mentality is clearly inadequate to meet the challenges of aggressive competition and more demanding customers. Indeed it can become positively self-defeating when it deflects attention from your ultimate reason for existing. For enterprises that compete as price takers in global markets, it is essential to have a clear understanding of what customers need and prize.

People must still have the technical competencies that keep our business competitive. But that competitiveness will never be fully realised unless each employee understands how their efforts contribute to satisfying the customer. In other words, our operations now seek to instil a customer mentality in place of a production mentality.

However, one cannot simply graft a customer focus onto an organisation. We are demanding what amounts to organic change in the culture of our operations. We are asking our people to see what they do in a much broader business context.

Driving this change is the realisation that miners have more in common with manufacturers and service organisations than they once thought. For years the industry has stressed the differences between primary producers and other sectors of the Australian economy. Only recently have companies seen that they can apply valuable lessons from car manufacturers, food processors or airlines - all businesses that have strong customer focus.

In Rio Tinto we are working to instil the same customer focus. What does that mean in practical terms? Well, it means that a mining engineer - or an operator at the controls of a shovel or haul truck- thinks seriously about how their work integrates with others. More importantly, they are concerned about the long term affect on the customer.

At Hamersley Iron, the miners at Mt Tom Price and at Paraburdoo used to take the maintenance of stockpiles at their respective railheads as their immediate priority. Subsequent transport of the ore by rail to the port of Dampier, nearly 400 kilometres away, and its treatment, blending and transhipment, was someone else's concern.

The great drawback with the production mentality was that people set out to fulfil their targets with relatively little thought for what happened next. Your job was to mine the ore; it was someone else's to transport, treat it and ship it. Efficiency across boundaries was not a strong point of these operations.

In such a system you build in a safety factor by having back-ups, reserves and stockpiles. It is not very different from what happened in the automobile industry in the days when long production runs were the norm. Thousands of finished vehicles were stored at considerable expense to compensate for interruptions to the production line process or to the supply chains.

The situation changed dramatically when Toyota introduced just-in-time management processes and improved technology that recast the relationship between the suppliers, the producer and the customers. The outcome was that the car industry became more responsive to the needs of the customer.

In Australia, the 1993 Business Council Report, "Managing the Innovative Enterprise" said that historically many Australian enterprises have emphasised production values, but pointed to examples of companies which had switched to a customer focus.

An example was an aluminium extrusion plant, which at the time the report was compiled, was owned by Comalco. This business had installed systems that allowed customers to access the company's computers and to discover progress on their orders in terms of manufacturing, dispatch and transportation.

Again, the concept was not unique; the same transparency was exhibited at P&O Cold Storage, a food processing company that encouraged customers to enquire directly about a product's inventory, its use-by date and other matters. Both these examples show a relationship with the customer that, firstly, gives the company in question a focus for all its activities and, secondly, pays dividends in giving the enterprise a competitive advantage.

Rio Tinto companies now accept that they have more in common with the tightly meshed production line practices of Toyota, with its just-in-time approach to inventories and concern for customer satisfaction. The people in the pit know they must talk to the people in supply, as well as their colleagues who run the trains and are responsible for the stockyards on the coast. The scheduling aspects they face are not that different from those experienced by Qantas or Ansett.

We see our businesses as a series of sequential value adding processes that all contribute to the company's final product. The product of one process or transformation becomes the input of the next and the full value chain concept embraces all inputs, the internal sequential processes and linkages, and the customers.

In Rio Tinto we increasingly use the value chain concept. The concept impresses on our people the

links with the customer and demands a degree of co-operation across process boundaries that has transformed the relationship between employees and management.

In the case of Hamersley Iron, for example, the initial priority has been on running the internal part of the value chain as well, and at as low a cost, as possible. Equally, the aim has been to run at optimum predictability. For example, the production at each mine is now controlled by the mine planning department which is responsible for the quality loaded on the ship as well as what is mined, how it is mined and when it is mined. Later I will mention how that company is looking at extending the value chain as far into the customer as possible.

By optimising the total process rather than optimising individual processes we have reduced costs substantially. Being in the bottom part of the cost curve is essential for a global mining company which must respond to fluctuating markets.

As my colleague, Chris Renwick, pointed out in his address to the Sydney Securities Institute last week, over the last 15 years the price received for iron ore has fallen by an average 2.7 per cent per annum. Despite this trend, Hamersley Iron remains a very profitable company, largely because of its drive to reduce costs in the context of the value adding chain.

That drive has encouraged manpower productivity gains of around 20 per cent over the last few years at Hamersley Iron. These have been accompanied by capital productivity gains of at least the same extent; so that in some cases Hamersley's facilities are handling 25 per cent more material than their designed capacity.

In a high wage, capital intensive business like mining, that is an extremely important achievement.

Hamersley has grown so that today there are now five mines, each a considerable distance apart but now managed as a single operation. Here we have revolutionised the logistics of moving our product from pit to port. The customer was never interested in the fact that there used to be individual stockpiles at the railhead and others at the wharf.

To achieve this integration Hamersley has changed and simplified the management structure of its operations to rely less on vertical, and more on horizontal hierarchies that deliver a lot more pertinent information to a single decision point. As a result, decisions are made more quickly and are better informed.

The other outcome is that very consistent quality product is available in the quantities necessary to meet the customers' specifications without the costs of maintaining a series of large stockpiles.

Once people start thinking from the customer's point of view, it was possible to identify numerous efficiencies that utilised evolving technology (especially information technology) to streamline the production process. The cost savings were, and are, considerable.

Efficient real time information systems allow our mines to better control quality, cut inventories and reduce cycle times. Just as importantly, people can see how their efforts fit into the total delivery system. Without that common understanding of how the elements interact, systems would not be as flexible. This insight has now freed up our systems to release added capacity and still meet our shipping cycles.

Of course, it would not have been possible to make the changes that have resulted in a greater return from assets if there had not been a corresponding flexibility in the way people went about their work. For Hamersley and for Comalco a staff workforce has made this flexibility possible. It is not simply a matter of allowing greater freedom in rostering people. It is also an essential factor in the real time linkage of processes where each element depends on the performance of the whole chain. Manufacturers removed inventory from their production line some years ago, we are also removing inventory through good planning and predictability.

The exciting aspect of what is happening at the moment is that the journey has just begun. The more improvements that are made, the more we can identify scope for further advances.

As the operational focus shifts from production to customer satisfaction, new opportunities to differentiate products and service reveal themselves. Already, it is possible to make an educated guess about where our businesses will be in a few years time.

In general terms, I expect to see an increasing capacity to tailor the product to suit the specifications of individual customers - even for what are commonly perceived to be relatively uniform products such as iron ore and bauxite. Rio Tinto's coal mines are already able to do this. Obviously, the geology of an ore body sets limits, but technology allows one to explore these limits more thoroughly.

The other change I expect to see is that Rio Tinto businesses will move further down the delivery chain. Traditionally, our bulk operations have been FOB suppliers but, such is the volume of our trade, that it is obvious that we can organise the shipping of our products more effectively than can many of our customers. About two years ago, we deliberately set

out to develop our expertise in shipping. As a result, I can foresee a time when a company such as Hamersley will be managing the delivery of its products into customer plants.

This is a logical way to increase the predictability of the shipping part of the business and to differentiate our products. It enables Rio Tinto companies to add value to the work of their customers and become the supplier of choice. Ultimately it optimises the economic value of an ore body and improves profitability.

In conclusion, I want to stress that it is not easy to develop a customer focus. It is especially difficult in organisations with long, proud and successful histories.

Changing the way people view their work is a precursor to successfully changing behaviour. It requires a high level of sophistication and solid commitment on the part of management to bring about change. This is not achieved overnight and there are costs.

The advantage lies with the large, global companies with the experience, resources and markets to sustain the effort. Yet all companies must make the shift from the production to the customer focus or become increasingly irrelevant.

What is happening today is a revolution, no less real than that which occurred in the post war period. Then the primary drivers of successful mineral development were breakthroughs in scale of mining, shipping and transport. These allowed mining companies to develop very large - sometimes low grade deposits - in Australia and overseas.

That revolution has run its course. The new revolution is not driven primarily by the ability of companies to organise and allocate vast resources of capital and technology. In the new paradigm these are still essential, but now they are viewed through a market based lens that highlights opportunities and helps producers to order their priorities.

Once, there was a production focus

Now, there must be a customer focus.

What this means is attention to the fundamentals of mining as a business, rather than mining as an engineering exercise. The focus will be on sophisticated logistics and differentiation through responsiveness to all dimensions of customers' needs. Accepting this new paradigm has transformed Hamersley and promises to do the same for other businesses. Yet the process of change has only started. For a company like Rio Tinto, there is a lot to look forward to.

Securities Institute of Australia, Sydney, April 1998

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A Global Structure for the New Century

RIO TINTO

Chris Renwick, Chief Executive Iron Ore, Rio Tinto

Introduction

Thank you for inviting me to address you today.

Many of you are familiar with Hamersley Iron. You will not be so familiar with Rio Tinto Iron Ore, a business which was formed only last year. My chief purpose today is to tell you why Rio Tinto created Rio Tinto Iron Ore, what the vision is for that business - and the part Hamersley Iron will play in realising that vision.

Rio Tinto Iron Ore

In December 1995, RTZ and CRA combined their respective Group operations to become a dual listed company or a DLC. There were a number of reasons for the merger to do with the long association between RTZ and CRA and their converging strategies. The clear intention, however, was to create a new entity with synergies that would make it more effective, more competitive, and better able to exploit a wider range of global opportunities. The world was globalising and RTZ and CRA saw the need to do so themselves.

The DLC immediately became the world's largest minerals company with the enhanced ability to access capital and a wide variety of skills and experience. RTZ and CRA did not seek size or growth for its own sake, but only where they contributed to making Rio Tinto the world's best mining company and added value for shareholders.

The new unified management structure produced immediate benefits. Exploration, finance, tax, treasury and insurance were rapidly combined and rationalised. Savings exceeded expectation - yet before long it became obvious that there was room for further improvement and that our competitors were not standing still.

In March last year, we changed the management structure. There are now six principal commodity groups; copper, energy, gold and other minerals, aluminium, industrial minerals and iron ore, with two sharply focussed support groups, technology and exploration. The new structure is simpler, it clarifies responsibilities and achieves more transparent results. Also, we saw the need to ensure that size did not blur the focus or the need to develop and maintain technical and management expertise in the commodities we are in.

Three of the commodity businesses; Comalco (aluminium), energy and iron ore are based in

Australia, in Brisbane, Melbourne and Perth respectively. As Chief Executive of Rio Tinto Iron Ore I, like other product chief executives, have global responsibilities and report directly to Rio Tinto's Chief Executive, Leon Davis.

The Mandate

That was the genesis of Rio Tinto Iron Ore; I would now like to examine its composition and to talk about our expectations for this new business.

Like the other commodity businesses, Rio Tinto Iron Ore is large enough to be in the top rank of its kind, and sufficiently focused to thoroughly understand its customers, its competitors and the global steel industry. It also has a clear mandate to bring together Rio Tinto's global portfolio of iron ore assets to get optimal business leverage from both the resources and the expertise.

That global portfolio is built around the core of Hamersley's Pilbara operations and its extensive marketing network in Asia. Hamersley has also developed a strong position in the European market, although the Australian operations are obviously not so well positioned because of geography.

Nevertheless, Hamersley supplies European steel mills with 15-20 per cent of its production.

Hence, Hamersley is a strong platform from which Rio Tinto Iron Ore can develop a more effective international presence. However, it is not ideal to have to transport relatively low cost bulk commodities half way around the world when doing so must affect margins. So Rio Tinto Iron Ore has a mandate to go global.

Therefore, in addition to brownfields growth, such as the Yandicoogina project, in the Pilbara region of Western Australia, Hamersley is currently seeking new opportunities offshore. For example, in Asia, the company is currently carrying out pre-feasibility studies on two iron ore deposits in the Indian State of Orissa.

Rio Tinto is assessing exciting prospects in Africa and elsewhere. In South America, Rio Tinto has a significant interest in an iron ore deposit in Brazil. At the moment production is only modest.

From this base we will develop our own exploration assets, both in Australia and abroad. Also, we feel free to acquire iron ore assets where we know we can add value to them and where it can be done without paying excessive premiums.

Hamersley and Asian Growth

Hamersley is where it is today because it believed in Asian economic growth and got in on the ground floor, as it were.

As an example of what I mean let me point out that last year Canberra commemorated Prime Minister Whitlam's historic visit to China twenty five years previously. It was rightly seen as an important event in the diplomatic history of Australia and China.

In Hamersley Iron we too noted the anniversary, because Hamersley's representatives had preceded Mr Whitlam's visit to Asia by some years. In 1973, when the Prime Minister made his historical visit, the company was making its first shipment of iron ore to China. Indeed, Hamersley was to be the sole foreign supplier of iron ore to the China steel mills for many years and remains the dominant supplier with 35 per cent of that market. Last year China matched Japan as Hamersley's largest market.

One of the things that particularly pleases me about Hamersley's marketing efforts in China is that its customers are representative of both large and small steel producers. Getting that spread of customers has been hard work but well worth the effort of establishing marketing offices in Beijing, Hong Kong and Shanghai.

Five years after that historic initial shipment, Hamersley opened negotiations with Chinese officials over a joint venture in the Pilbara. Twelve patient years later the Channar mine was commissioned, the first official overseas investment of its kind for China. Last year Channar increased its production by 24 per cent, and all of it went to Chinese steel mills. Thanks to the leverage obtained from Channar, Hamersley sales to China have risen to record levels.

Returning to the year 1973, we see that it was also a milestone for Hamersley and the Korean steel industry. That was the year that the Pohang steel works commenced production. Hamersley iron ore went into that first pour. Posco, which owns the Pohang steel works, is now the world's second largest steel producer, not a development many could have imagined 26 years ago.

This is not history for its own sake, but for the lessons it contains. Here the lesson is that in Asia you don't win major rewards overnight. It takes years of carefully building relationships, building up a network of marketing offices and developing an understanding of your customer's needs. You plan for the future and hope to grow with your customers. That's what Hamersley has done, and that is what Rio Tinto Iron Ore will do on a larger stage.

This is one reason why, although I recognise the seriousness of the economic downturn being experienced by many of our regional neighbours, I believe strongly that the current problems in Asia represent a pause in growth rather than a derailment. I think that they will come to be seen as symptoms of a readjustment that had to happen sooner or later. The eventual outcome will be to re-establish growth on a more stable foundation. In the meantime it is an opportunity for companies such as ours to strengthen their customer relationships by assisting our customers in whatever way we can.

That is why Hamersley is not thinking short term. There is a great potential yet in Asia and we want to identify the new growth centres in advance. I am pleased that last year we gained some small contracts in parts of Asia where we believe there is untapped demand for steel. I would like to think that a decade from now Hamersley will have retained its reputation for boldness and for getting in on the ground floor.

Hamersley - Exporting Best Practice

The only companies that can realistically expect to compete globally are those that demonstrate excellence in their domestic operations. Hamersley aims to do just that.

Its search for ongoing improvement is driven by the fact that iron ore prices have fallen by 2.7 per cent per

annum in real terms over the past 15 years. Any iron ore producer wanting to remain competitive, indeed to survive, must strive to drive down production costs and maximise the return from capital investment. This applies particularly in the isolation and extreme conditions of the Pilbara where both capital and operational costs can mount remorselessly.

I would therefore like to spend a few minutes discussing the Hamersley strategy for perfecting its margins by keeping its operations constantly low cost.

We start with two natural advantages - the quality of our assets and our closeness to Asia - and we have magnified those through applying technology and through the shift to an All Staff workforce and to the use of contractor s where they bring something special. Together these factors give Hamersley an essential foundation for the innovations that have kept is operations competitive, profitable and able to fund expansion.

The strategy is relatively simple, the execution somewhat harder.

The first element of our strategy is that we are determined to extract the utmost from our existing assets, be they pits, machines or infrastructure. We can do it because we are able to develop and acquire technologies which complement the talent and ability of our people. Being part of Rio Tinto and sharing ideas gives Hamersley an unparalleled flexibility in how it deploys and utilises its other assets.

When you visit an iron ore operation in the Pilbara it is easy to focus almost exclusively on the impressive trucks and shovels that are an essential component of a modern mine. Less obvious, but every bit as important, is the motivation of those behind the wheel or in front of the instrument panel.

Today, an all staff workforce is able to appreciate the contribution they make to the international competitiveness of their company in a way that was once not possible. That contribution has been central to the debottlenecking and other initiatives that enabled Hamersley to attain a 20 per cent rise in sales last year.

As a result of their co-operation, last year, Hamersley shipped 62 million tonnes through the port of Dampier which has a nameplate capacity of 45 million tonnes. And our five operating mines produced the extra ore, yet used fewer trucks and shovels with the associated downstream savings in maintenance and other areas.

Hamersley's 400 kilometre railway, designed originally to haul 5 million tonnes of ore a year, now carries twelve times that amount. Compared to 3 years ago, it does this with fewer locomotives, fewer drivers and longer intervals between maintenance stops, yet the safety record has improved and the cost per tonne fallen.

The second element of our strategy is that we have sought to remove unnecessary complexity from our systems and processes.

For example, we talk of having five operating mines but, in one sense, this is traditional thinking. After some analysis, we concluded that, essentially, what we had was one mine with five pits, and that it made sense to run the whole five as a single integrated operation under a single General Manager. I admit that the pits are a long way apart but, believe me, it works. Moreover, the simplified management structure has made for better communication and greater ownership of responsibility. It has also made it easier to redesign core processes and gain significant savings from doing so.

The third element of our strategy is that we have set demanding goals in keeping costs down. You may know that in 1996 Hamersley Iron targeted a reduction in its cost base of $100 million dollars. We are already making major savings and, by the end of this year, Hamersley will be more than 60 per cent of its way to the target. The high natural rate of turnover in the Pilbara means that management has been able to secure the necessary reductions in numbers while keeping the confidence of staff in the company.

Hamersley reciprocates by displaying confidence in its staff. Earlier I mentioned Yandicoogina, a new operation which will come into production next year. It is a US$515 million project that has a projected life in excess of 30 years. The new mine will initially produce 5 million tonnes of iron ore a year and build up to 15 million tonnes in line with market demand. Yandicoogina will be staffed by Hamersley's own people.

In this we differ from some our competitors who are increasingly relying on contractors. Hamersley employs contractors on one of its small operations and they run a very efficient operation. We have learned a lot from them and this knowledge and the input we have had from Rio Tinto lead us to believe that our new strengths will enable us to match or surpass that performance. We shall see!

Fourthly, we have become more customer focused. By thinking about value in use to our customers we have been able to reassess where our technical priorities should lie. For example, Hamersley Iron commissioned the Paraburdoo Fines Processing Plant at a cost of A$110 million at the end of 1995. This is part of Hamersley's strategy of continually improving

its product quality to address the customer need for cost-effective iron ore feed supply.

The processing plant was targeted at reducing impurities in the Paraburdoo fines which have the highest gangue level among all Hamersley's feeds. By doing so, Hamersley has obtained the best possible quality improvement for its investment.

The plant processes about 13 million tonnes per annum of iron ore fines to reduce mainly the unwanted alumina content by over 25 per cent by removing alumina-rich shale and ultra fines. In doing so, the plant also reduces other gangue materials and improves iron content.

The resultant higher quality product improves the customers' blast furnace productivity by reducing slag volume and coke requirement.

Hamersley sees its quality improvement efforts as fundamental to successfully competing against the products from Brazilian competitors and improving the market share in Asia.

Our knowledge of our customers also helps us to set goals. For example in our industry, if you want an inspirational example of what can be achieved in containing cost in general, you need only look at Japan. The Japanese steel mills have shown tremendous resilience in driving down costs in the face of a strong currency.

Fifthly, we are determined not to throw financial capital at new projects in lieu of intellectual capital.

Any cost saving strategy starts ideally with planning a new project - such as Yandicoogina. In today's economic climate capital expenditure must be subject to the same rigour as is applied to current operations' costs. Essentially, it means applying more time and discipline to planning and having higher expectations of the planners.

Cost control will always be vital to a business like ours, and will distinguish the leaders from the 'also rans', but there are other ways to differentiate a company such as Hamersley in the eyes of its customers. One important factor is the quality of the product.

Hamersley has identified the consistency of its product as a powerful selling point. As it was put to me, you can measure the difference between shipments of iron ore to the same customer in terms of teaspoons! In other words, Hamersley sets the industry standards in terms of consistency and that is a technical edge that our customers appreciate and that we strive to maintain and extend.

There is one other area in which Hamersley is determined to excel. It is in those activities that Rio Tinto's Chief Executive, Leon Davis, once called the "new competencies": matters such as health and safety, the care of the environment and the impact that our operations have on our neighbours.

We realise that competency in these areas is vital, which is why the Hamersley Board meets regularly to focus exclusively on these areas. We are getting better in these matters. Last year, for example, Hamersley won the Australian Reconciliation Award from the Council for Aboriginal Reconciliation for its Aboriginal relations programmes in the Pilbara.

Hamersley has also signed a landmark land use agreement with local Aboriginal communities with interests around Yandicoogina. That agreement provides long-term community benefits in education, vocational training, business and community development. In addition, the company is assisting Aboriginal people to form business joint ventures and share directly in the development opportunities generated by the Yandicoogina Project.

HIsmelt

I have already forecast that Rio Tinto Iron Ore will one day have overseas operations that will benefit from and build on Hamersley's achievements. I would like to venture one more prediction. It is that, one day, Rio Tinto Iron Ore may become known as Rio Tinto Iron.

At present the iron ore industry is well positioned to supply blast furnaces, but less well set up to supply clean feed to the electric arc furnace sector of the steel industry. In the HIsmelt direct smelting project there is the possibility that this could change. HIsmelt is a means of turning relatively low grade raw materials, of which Rio Tinto and Australia has an abundance, into a premium grade iron feed stock for steel makers. It is a continuous direct smelting process that promises to be cheaper, cleaner, simpler and has a lower capital cost than other iron making technology. It has obvious potential in our region where smaller 'mini-mills' are being built.

HIsmelt is outstanding technology, which could, over time, revolutionise world steel production. However, even when we have successfully proven the process in a full scale plant, I must admit that the commercial realisation of HIsmelt will be very challenging. Quite simply we are not experts in the iron making business and that is why we are looking for someone to share our vision. We would welcome a partner who can complement our skills and share our view of where the project should go. If we succeed then we will add a new dimension to our business and bring significant

benefits to Australia - and Western Australia in particular.

The Future

There is a truism in business that you will not get radically different outcomes by simply doing the same things more efficiently. In determining what it will take to make our company a truly global player we in Rio Tinto Iron Ore bear this in mind.

I recognise the debt we owe to our predecessors in Hamersley who pioneered the current operations and brought them to a high level of operational excellence. However, it is inevitable that if we are to advance that reputation and realise the vision of becoming a world wide supplier to the steel industry we will have to, not only work differently, but to think and feel differently.

There is no doubt in my mind that the events that began in December '95 will lead to radical change. The formation of the DLC has given us a unique opportunity to access the international experience of a remarkable group of companies.

The changed commodity structure of the group has given Rio Tinto Iron Ore a new focus and a portfolio of exciting assets at all stages of development.

These events have transformed and launched a predominantly Australian company into a new and higher trajectory. It's a challenging prospect, but I am confident, on the experience of the last couple of years, that we can sustain these new expectations and meet the expectations of shareholders.