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1 November 2006

Gary Banks
Chairman
Productivity Commission
Locked Bag 2
Collins Street East
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Dear Gary,

Submission To Road & Rail Freight Infrastructure Inquiry

Enclosed is a submission to the Productivity Commission's Draft Report for the Road & Rail Freight Infrastructure Inquiry.

The Freight Rail Operators' Group (FROG) comprises most of the freight train operators in Australia. The purpose of FROG is to present to governments, regulators and other key stakeholders issues of common concern among the members from an "above rail" perspective. The focus of the group is on rail regulation and track access. As such the Commission's Draft Report is of vital interest to FROG.

FROG represents the following train operators:

FreightLink	QRNational
Genesee & Wyoming	SCT
Lachlan Valley Freight	South Spur Rail
Pacific National	

FROG's submission is in response to the specific question raised by the Commission with regard to the removal of economic regulation in circumstances where road freight places a constraint on rail pricing. The submission consists of a paper prepared by Charles River Associates. In summary the paper argues that, notwithstanding that an effective price cap may exist through road competition, it is open to the infrastructure owner to seek quasi-rents from train operators. Further, the paper discusses the fact that economic regulation extends to cover a wide range of matters other than pricing and the removal of regulatory oversight of such matters would be inappropriate.

The members of FROG are also members of the Australasian Railways Association and are supportive of the separate submission to the Commission from the ARA.

FROG is keen to contribute to the Commission's inquiry and is happy to respond to any questions regarding our submission.

Yours sincerely,



Dr Tim Kuypers
Chairperson,
Freight Rail Operators' Group

FINAL

Note on deregulation of rail infrastructure

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Date: 10 October 2006

CRA Project No.

10 October 2006

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1. SUMMARY

- 1 The Productivity Commission suggests that continued price regulation of vertically separated below-rail operators supporting intermodal freight may be unnecessary and counterproductive. However, even in an environment where road freight prices constrain rail freight prices to levels that do not permit recovery of full capital costs above and below rail, there is a risk that unregulated infrastructure owners will use what may be short-term market power to capture the quasi-rents associated with above-rail operations. This behaviour would disincent new investment in above-rail operations and may make above rail operators unviable in the longer term. While these outcomes may not be in the long-term interests of the infrastructure owners, the fact is that these infrastructure owners are not viable long-term, either, and may therefore prefer to set access prices in a manner that is expedient in the near term. Moreover, the infrastructure owners are largely publicly owned, and hence their incentives may well be distorted (or at risk of being distorted).
- 2 Thus, inter-modal competition and self interest on the part of infrastructure owners cannot be relied upon to safeguard above rail operators against inefficient expropriation. Access price regulation is a more reliable safeguard, despite its noted shortcomings.

2. BACKGROUND

- 3 In its recent Discussion Draft,¹ the Productivity Commission (PC) observed, inter alia, that there may be scope to moderate or revoke access regulation of vertically separated below-rail operators where pricing is significantly constrained by competition from other transport modes. On the basis of this observation, the PC recommended that a process be established to review the need for access regulation of such rail networks.²
- 4 The PC specifically identified the entire interstate track except for Queensland as a network over which non-bulk freight access charges may not need to be regulated at all. Further, the PC suggested that only the coal networks of NSW and Queensland and those parts of the network where below-rail operators also run above-rail services would present a strong case for continuing access price regulation.³

¹ Productivity Commission 2006, *Road and Rail Freight Infrastructure Pricing*, Discussion Draft, Canberra, September. All citations are to this document unless otherwise specified.

² Draft recommendation 11.4.

³ See p. 10.23, and draft finding 10.7.

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- 5 Briefly, the PC's reasoning was that except for some specific bulk freight commodities such as coal, rail freight charges are constrained by inter-modal competition rather than by regulatory access price ceilings, making access price regulation superfluous unless vertical leverage effects are important. For vertically separated rail infrastructure providers, vertical leverage effects are likely to be unimportant. While access regulation may be superfluous, it is not costless as it imposes administrative and compliance costs as well as possible restrictions on efficient pricing strategies. The PC mentioned recent pricing decisions by the ESC and ACCC as indicative of the possible prevention of efficient price discrimination.⁴

3. INDUSTRY-SPECIFIC FACTORS

- 6 Road infrastructure pricing is set by government, and trucking prices are constrained by competitive conditions to levels approaching long run marginal costs. The nature of the trucking industry is such that long run marginal costs are sufficient to support efficient suppliers. Given the large number of small and medium-sized truck operators, credible accounts of the cutthroat character of competition between trucking organisations, the fungibility of the truck fleet and therefore the relative unimportance of fixed costs, and the ability to transparently compare road freight rates with cost inputs, the conclusion appears inescapable that trucking rates are cost reflective, and that fixed costs are relatively unimportant.
- 7 Turning to the rail industry, where it is vertically separated and non-bulk interstate intermodal freight is the primary service, rail infrastructure providers hold a monopoly on any given route (at least in the sense of being the sole suppliers of rail infrastructure), and Commonwealth Government-owned ARTC controls the interstate intermodal network with the exception of the end sections from Kalgoorlie to Perth and the NSW/Qld border to Brisbane, and the Sydney metropolitan electrified network. Non-traffic-dependent costs of rail infrastructure provision dominate the cost structure.
- 8 Above-rail operations are contestable, and on most interstate routes there are two or more operators. Significant fixed costs are incurred by above-rail operators in the form of intermodal terminal facilities, locomotives, wagons, and rollingstock maintenance facilities. While the economic lives of these assets tends to be shorter than that of rail infrastructure (with the exception, perhaps, of intermodal terminals) nevertheless asset lives are lengthy and can range from 15 years for a wagon to 25 years for locomotives.

⁴ See, for example, p. 5.15.

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- 9 To date, it appears likely that interstate non-bulk freight rates have been sufficient for rail operators to recover their own average costs, including a return on capital, and for rail infrastructure providers to recover more than their long-run marginal costs.⁵ Nonetheless, these freight rates do not appear high enough to permit both rail infrastructure owners and above rail operators to recover their full economic costs, including a return on sunk assets.
- 10 Arguably, the practical effect of rail access regulation to date has been to quarantine the under-recovery of capital costs to the Government-owned rail infrastructure providers, permitting market forces to determine investment, freight rates, and service planning in the contestable above-rail sector.

4. ECONOMIC ANALYSIS

- 11 The PC's proposition appears to be that, as rail's final price is constrained by intermodal competition and rail infrastructure regulation is costly, the removal of this regulation would be likely to do no harm to welfare. This conclusion relies, of course, on the assumption that self-interest would guide the unregulated rail infrastructure owner to price rail access in a manner that encourages efficient infrastructure usage in the long term. However, that assumption needs to be tested.
- 12 Given the fact that short run marginal costs are substantially lower than full economic costs for both rail infrastructure and above-rail operations, both above and below rail operators must price above their own marginal costs in order to remain viable in the long term. As noted above, it appears that road freight competition precludes the pricing that would permit long term viability of both above and below rail operations without subsidy.
- 13 The major concern with deregulating access prices for intermodal rail freight is that the infrastructure owner may take the opportunity to increase access prices to levels that would capture some or all of the above-rail operators' return on and of capital (and other fixed costs). More specifically, the infrastructure owner would seek to shift to itself some of the quasi-rents associated with above-rail operators' sunk investments. These include not only investments in physical assets, but also and very importantly, investments in expanding the use of the rail network, for example, by the development and marketing of innovative service options.

5 This conclusion is dependent to some degree on the corridor being considered. On Sydney – Melbourne, for example, the conclusion may not be valid.

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- 14 This kind of behaviour is generally referred to in the economic literature as “hold up”. While a fuller discussion of the relevant economic literature can be found in the Appendix, in brief, hold-up refers to opportunistic behaviour by one party in a repeated commercial interaction which takes advantage of relationship-specific investments by the other party.⁶ Three results emerge from the relevant literature in this respect:
- First, negotiating commercial contracts is more difficult, and likely to be more costly and protracted, with the resulting contracts being less satisfactory, when hold-up risks are significant;
 - Second, even when contracts can be used, events can still develop in ways that make hold-up likely, if outcomes move out of the range where each party is better off continuing to abide by the contract; and
 - Third, the party most exposed to the risk of hold-up is that which has the fewest outside options – which in this case is likely to be the above-rail operator. For example, it is clear that the above-rail operator has no option but to use the ARTC track if it is to secure a return on the investments it makes in increasing the attractiveness of rail freight; however, there are a number of above-rail operators ARTC can rely on to supply service. As a result, the cost to an above-rail operator of a deterioration in its relation with ARTC is likely to exceed the cost to ARTC of seeking to replace an above-rail operator.
- 15 It might be argued that self-interest would prevent the infrastructure owner from risking the long-term viability of its customers engaging in hold-up behaviour. However, this abstracts from the institutional realities.
- 16 More specifically, the ARTC is government-owned. It is a fact that government-owned entities in Australia have a poor record in terms of taking a long-term commercial view. Moreover, even those entities which seek to do so, are vulnerable to changes in circumstances which force them to act in a more short-term manner.
- 17 It is clear, for example, that a number of government-owned utilities have, in recent years, acted as taxing authorities on behalf of their State Government owners, providing substantial cash streams aimed at helping to finance increases in State Government outlays. Absent independent price regulation, there is every likelihood that these short

⁶ Investments are said to be relationship-specific if their value depends on the continuation of a relationship. For example, if an above-rail operator makes investments whose value depends on continued use of track owned by ARTC, those investments are specific because their value depends on the continuing relationship between the above-rail operator and ARTC. Such investments can increase efficiency by enhancing the total value of reaching agreement between the parties to the relationship. However, the value of such investments is far less outside the relationship, i.e. the party that invests in relationship-specific assets has limited ability to recoup its investment costs outside the relationship. This can weaken the bargaining power of that investor compared with its trading partner once the investment has occurred. This is because, once the investment has occurred, the investor is vulnerable to the other party taking for itself some of the benefit of the investment.

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- term pressures would have translated into even greater transfers of income from consumers to State governments.
- 18 The risk of hold-up issues arising in rail is particularly great. To begin with, below-rail operators currently depend heavily on subsidies. Any change in fiscal conditions that put downward pressure on subsidies would create pressures for hold-up to occur.
- 19 Additionally, rail will only develop as a viable transport option for North-South inter-modal freight if significant investment occurs in both below- and above-rail components. At the above-rail level, further increases in service quality, including through continuing innovation, are essential if rail is to be competitive. However, if the investments required to develop and implement these continuing improvements in service quality do occur, they will give rise to potentially substantial quasi-rents that will be vulnerable to expropriation.
- 20 As a result, the choice in policy terms is clear. Either a policy decision can be made that above-rail operations should also be undertaken essentially on a government funded basis, in which case, the impact of hold-up risk on their commercial attractiveness can be disregarded; alternatively, if the above-rail investments that are required for rail to ultimately become viable are to be made by the private sector, then credible protections must be available against expropriation.
- 21 One option would be to lock in infrastructure charges through a very long term contract. However, there are a number of obvious problems with this approach. To begin with, devising such a contract when the long term prospects for rail are so uncertain poses substantial difficulties. Additionally, the above-rail operator entering into such a contract would be exposed to the risk that better terms would be offered to its competitors in later periods, a risk that MFN clauses can help address, but not fully offset. Finally, the experience of above-rail operators is that it is difficult to secure such contracts on reasonable terms with Government-owned entities.
- 22 Another option would be to change the status of ARTC. Were ARTC a user-owned cooperative, for example, there would be far less likelihood of inefficient expropriation of quasi-rents. However, such a change in the status of ARTC is not currently being contemplated.
- 23 Regulation provides a third option. What regulation does in this context is provide the option of compulsory arbitration should commercial negotiation fail.
- 24 While it is apparent that regulation entails real costs, the Discussion Draft seems to overstate the extent of those costs as they occur in a rail context.
- 25 First, as a general matter, it has been shown that where the regulatory default is cost-based, profit-maximising entities will have commercial incentives to strike any deals that do better than would average-cost pricing. As a result, if there are agreements that are superior in welfare terms to simple pricing at average-cost, then the mere fact of

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introducing regulation (so long as it is set at the average-cost default) should make them more rather than less likely to be struck.⁷

- 26 Second, there is no need for rail regulatory regimes to be unreasonably complex, intrusive or constraining. Rail cost structures tend to be somewhat simpler than those of many other regulated industries. Moreover, properly implemented, the approach that has been adopted to rail regulation – with floor and ceiling prices – provides considerable scope for any efficient price discrimination.
- 27 Third, the costs of regulation need to be compared to the relatively high costs associated with relying solely on commercial negotiations in an institutional context that is as complex as that involved in inter-State rail. As well as Government ownership (which even then involves multiple jurisdictions), the reliance of below-rail operators on continuing subsidies further muddies the incentives at work. However desirable those subsidies may be in assuring the viability of rail, they may reduce the pressure on below-rail operators to focus on long-term profit maximisation.

5. NON-PRICE ISSUES

- 28 While the discussion above focuses on the risk of hold-up associated with changes in access prices, it is important to bear in mind that rail access regulation in Australia has been directed to a number of issues, of which pricing is but one. Access regimes and undertakings routinely set out the wider relationship between the track owner train operators; they deal with matters such as:
- Negotiation of access agreements,
 - The terms and conditions in an access contract (often including a standard access contract),
 - Dispute resolution processes, and
 - Obligations with regard to investment and connection to the network.
- 29 The current Part IIIA framework, whatever its limitations, provides a mechanism for addressing these issues in a manner that can avoid costly and protracted disputes. From an economic point of view, it thereby reduces (though it clearly cannot eliminate) the transactions costs that arise as an inevitable consequence of reliance on structural separation between below and above rail operations.

⁷ This is a well-known result in the regulatory economics literature that is due to Daniel A. Graham and John M. Vernon (1991) "A Note on Decentralized Natural Monopoly Regulation", *Southern Economic Journal*, Vol. 58, No. 1, 273-275.

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- 30 The negotiate and arbitrate model is only one element in that respect. That model is predicated on an effective negotiation process with arbitration as a fall back. But arbitration is a singularly ineffective process for dispute resolution in most instances. It is costly, time consuming and the outcomes are far from certain.
- 31 While arbitration has these drawbacks, the existing undertakings and regimes do set out certain processes and obligations that provide a known framework for any party seeking to negotiate access. This framework is subject to scrutiny by a third party (usually a regulator though it might be a government department eg in NSW) and therefore at least has the scope to give reasonable weight to the contrasting interests and views of the parties. The requirement to take account of statutory criteria, such as those set out in the Competition Principles Agreement, can be helpful in ensuring efficiency considerations are properly taken into account.
- 32 Removing this element of the institutional arrangements for rail, without a proven and viable alternative being in place, would be highly disruptive in the immediate and dangerous in the longer term. More specifically, given that Australian policy makers have decided on a competitive model for rail, it is quite unclear how that model would work absent a framework which managed the interface issues – including access pricing and service quality – that rail competition involves. Simply removing the current arrangements, without effective alternatives being in place, could seriously compromise the already weak rail sector.

6. CONCLUSIONS

- 33 Particularly on the North-South corridor, road freight pricing imposes tight and persistent constraints on rail charges. It does not seem plausible that there would be monopoly rents to be earned by a rail operator on those corridors.
- 34 However, the institutional structure of rail creates a continuing need for regulatory protections. More specifically, the intent of policy has been to encourage private sector entities to commit substantial shareholder funds to improving the efficiency and competitiveness of above-rail operations; however, once committed, those funds are largely sunk, and the earnings stream they could give rise to are vulnerable to expropriation. Regulation can and should act as a protection against that risk, thereby increasing investor confidence and encouraging the investment on which the future of rail depends.
- 35 Additionally, the rail access regime does not merely provide protections in respect of price; it also defines the framework for addressing, primarily through enforceable undertakings, a wide range of interface issues between above- and below-rail operators. Given policy decisions making for structural separation of important parts of the rail infrastructure, and for competitive access elsewhere, it is extremely unclear how the system could work – much less work tolerably efficiently – absent that framework.

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- 36 It is, in this context, important to note that dealing with these issues in rail is far more complex than it is in airports. This is because the rail system is inherently a transport network, while individual airports are merely nodes within a wider system. For the rail transport network to work in a structurally separated, third party access environment, there are a wide range of economic and commercial issues that must be dealt with as between above- and below-rail operators. Absent a “constitution” that can define how those issues are dealt with, and provide some certainty and stability in that respect, the structurally separated, third party access model is not likely to be viable, much less efficient.
- 37 As a result, the PC needs to reconsider its Draft recommendation 11.4.

APPENDIX: THE ECONOMICS OF HOLD-UP RISK

- 38 The classic example in the economic literature of opportunistic 'hold-ups' is the Fisher Body case documented by Klein⁸ (though see also the discussion of that case in Casadesus-Masanell and Spulber⁹). Even though the details of the Fisher Body case are contentious, it illustrates well the nature of the mechanisms at work.
- 39 In 1919, Fisher Body was contracted by General Motors (GM) to make metal bodies for GM automobiles and, according to Klein, had to make an investment in stamping machines that were highly specific to GM automobile designs.
- 40 At first glance, the resulting contract between the two parties seemed to address all potential hold-up problems between the two. The contract had an exclusive dealing clause that required GM to buy all closed metal bodies from Fisher Body for ten years. The contract also specified a pricing formula which set Fisher Body's compensation for its services at variable costs plus a 17.6 per cent 'uplift' to take account of capital and development costs that were hard to measure. There was also a most favoured nation (MFN) clause requiring Fisher Body to charge GM at prices comparable to those it charged other customers purchasing 'similar' metal bodies. The exclusive dealing clause was meant to protect Fisher Body from being held-up by GM (in case GM threatened to take its business elsewhere after Fisher Body had made its investment in customised stamping machines unless Fisher Body reduced its prices). This particular clause would, under the circumstances, have given sufficient guarantees to Fisher Body to invest in the stamping machines. The pricing formula and MFN clause on the other hand were meant to protect GM from being held-up by Fisher Body (in case Fisher Body raised its prices or reduced quality, effectively claiming 'more for less' in the course of the ten year contract).
- 41 Despite or rather, in part because of all this, opportunities for hold-up still arose. A significant post-contractual development which threw the carefully drafted contract between GM and Fisher Body out of joint was that by 1924, cars with closed metal bodies (such as those designed by Fisher Body), which used to be a novelty, became highly demanded whereas cars with open wooden bodies fell out of favour in the marketplace. Because demand for closed metal bodies rose so dramatically, Fisher Body was in a position to extract more from GM if it wanted to - and it did. However, it did so in a manner that ostensibly complied with its contractual obligations, by taking advantage of a loophole arising from a clause of the contract that was meant to protect Fisher Body against hold-up by GM. It took advantage of the variable costs plus 17.6 per cent price formula by adopting inefficiently labour intensive production methods and refusing to locate its operations adjacent to the GM plant. Thus it could in effect get a 17.6 per cent premium

8 Klein, B. 1988, 'Vertical integration as organisational ownership: The Fisher Body-General Motors relationship revisited', *Journal of Law, Economics and Organisation* 4(1): 199-213.

9 Casadesus-Masanell, R. and D. Spulber 2000, 'The fable of Fisher Body', *Journal of Law and Economics* 43: 67-104.

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simply by assigning more staff to a project. In this way, it was able to inflate its claims for compensation.

- 42 In the terminology of Klein, the increase in demand for closed metal bodies placed Fisher Body's short run hold-up potential outside the 'self-enforcing range'. What this means is that within some range, opportunism is not profitable because the short run returns from opportunism (i.e. extracting higher prices from one's buyer) does not exceed the long run costs in terms of damage to future business with the present buyer and other potential buyers due to getting a bad reputation as a reliable trading partner. However, the increase in demand for Fisher Body's services was so substantial that the short run hold-up profits that Fisher Body could extract from GM obviously exceeded any long run losses to future business – thus post-contractual market developments in effect put Fisher Body outside the 'self-enforcing range' with respect to its contract with GM.
- 43 Three points are worth noting at this stage.
- 44 First, it is clear from the above example that uncertainty about the circumstances that may prevail after the contract is entered into (but is still on foot) is the primary reason why complete contracting is impossible. The greater the prevailing uncertainty in the business environment, the more likely that any particular contract is either likely to lead to outcomes disagreeable to one or both parties or will end up having to be renegotiated.
- 45 Second, the balance of bargaining power in the face of hold-up risk is dependent on which party has the best outside options when renegotiation occurs. For example, it is clear that an above-rail operator has no option but to use the ARTC track if it is to secure a return on the investments it makes in increasing the attractiveness of rail freight; however, there are a number of above-rail operators ARTC can rely on to supply service.
- 46 Third, the existence of appropriable quasi-rents means that the costs of contracting are higher because each party has the incentive to bargain hard and strategically in order to take as much advantage of opportunities for holding up the other party as possible while minimising its own opportunities for hold-up. Thus the pre-contractual bargaining process is likely to be more protracted when each party is aware of the existence of appropriate quasi-rents arising from their investments. It follows that the higher the costs of negotiation, the more likely that the resulting contract will be incomplete. There is simply going to come a point when the parties will decide it is not worth refining the contract even further and this point will be reached sooner where large amounts of resources have already been expended on bargaining. This then makes it all the more likely that post-contractual developments will create incentives for one of the parties to demand a revision of the terms of the contract.