NEW ZEALAND BUSINESS ROUNDTABLE

SUBMISSION TO THE MINISTRY OF TRANSPORT

ROAD REFORM: THE WAY FORWARD

FEBRUARY 1998

1 INTRODUCTION

This submission is made by the New Zealand Business Roundtable (NZBR), an organisation of chief executives of major New Zealand business firms. The purpose of the NZBR is to contribute to the development of sound public policies that reflect overall national interests.

The NZBR believes that substantial efficiency gains can be achieved by reforming the management of the roading system. It has therefore supported the work on these issues undertaken by the government.

The Roading Advisory Group's December 1997 report *Road Reform: The Way Forward* (the Report) recommends roading businesses be corporatised following a process similar to that established for airports, ports, state-owned enterprises and local authority trading enterprises (the corporatisation model). The companies would have the primary objective of operating as successful businesses. They would set prices and make investment decisions. The companies' shares would be held by central and/or local government. The companies would be subject to light-handed regulation involving a disclosure regime and a requirement to consult with users over prices and decisions on road closure.

The NZBR broadly supports the proposed reforms.

2 COMMERCIAL MODEL PROPOSED BY WORKING PARTY

2.1 Commercial model

The NZBR supports a commercial approach to the provision of roads. This involves greater reliance on market mechanisms to guide use and investment decisions and less dependence on political control.

As with other network industries which have been commercialised and in some cases privatised, a move to a commercial approach for roads requires consideration of monopoly issues. These appear to be more severe in the case of local roads than in the case of the state highway system. In addition, the transition to a commercial structure for the provision of the road network must take account of the need to allow new billing technologies to be adopted at the optimal time. This is unlikely to occur under current arrangements.

The transition to a commercial approach requires consideration of options that range from requiring existing entities to operate in a more business-like manner through to full privatisation. The Roading Advisory Group favours a for-profit Crown and/or local government owned road company structure for owning and managing road assets.

This model has been applied successfully in a variety of local and central government situations. It is intended to provide managers and employees with a set of mutually reinforcing incentives to maximise the value of the firm. Managers would then have a single clear objective and could be held accountable for its achievement. In a competitive market these incentives would result in managers promoting economic efficiency. In practice, continuing government ownership is likely to weaken these effects and privatisation tends to impose more focus and discipline on managers.

In a monopoly market, managers of profit maximising firms have strong incentives to minimise costs, to introduce differentiated user pricing in a timely manner, and to invest only in projects that earn at least a normal rate of return. However, they may have incentives to establish monopoly prices. Monopoly pricing can result in the misallocation of resources. Regulatory constraints, if imposed, may reduce the ability of managers to monopoly price but may at the same time compromise their incentives to minimise costs. Thus, the corporatisation model when applied to a monopoly situation involves some difficult trade-offs.

While the corporatisation model might be flawed relative to some theoretical ideal, alternative options are not perfect either. Options such as council business units or variants of the Crown-owned company model have a weaker focus on profit maximisation. In these options the roading operator is required to operate in a 'business-like' manner.

Typically, managers of such operations do not have a clear single objective. Instead they must make trade-offs between commercial objectives and social objectives. For example, a roading manager might be required to take into account the income distribution impacts of increased prices, or might be prevented from closing uneconomic roads. Because managers pursue a mix of commercial and non-commercial objectives, and information about the trade-offs involved may be limited, it is difficult to objectively measure the performance of managers and hold them accountable.

The lack of accountability weakens the incentives for managers to minimise costs. These higher costs can quickly outweigh any allocative efficiency costs associated with monopoly behaviour.[1] Managers may lack the incentive to price efficiently and may be reluctant to impose price increases which are efficient (eg congestion pricing) but which are politically unpopular. The distortions to resource use caused by not introducing efficient pricing in a timely way are similar to the costs that are imposed by a monopolist exploiting monopoly power.

The main advantage of a firm with a weak commercial focus is that its managers may have less incentive to set monopoly prices. The model is also proposed by those who believe the firm should be subject to greater political control or community (ie interest group) input.

On balance, the NZBR supports the corporatisation model. It has been used successfully to establish port, airport, electricity and telecommunications companies ñ all organisations with market power. Corporatisation has resulted in substantial cost

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[1] See Williamson, O E (1977), "Economies as an Antitrust Defense Revisited", *University of Pennsylvania Law Review*, 125, pp 699-736.

reductions and improvements in performance. It has also resulted in pricing arrangements that involve less averaging of costs between customers, thereby improving allocative efficiency. Although there are some concerns about how these organisations have exploited their market power, some of them appear overstated. While the prospect of monopoly behaviour by roading companies is a real issue, we believe that with suitable regulatory constraints corporatisation of roading companies is likely to achieve significant efficiency benefits.

2.2 Timing of corporatisation

If direct charging for road use were possible, users could express their preferences for such diverse roading attributes as congestion, safety and surface quality through their willingness to pay. A fully commercial operator would have strong incentives to gather information from customers on their willingness to pay for roading attributes and to use that information to deliver the services desired at the lowest cost.

The magnitude of the possible efficiency gains will depend on how long it takes for direct charging for road use to become economic. Without access to direct charges, the roading operator would be forced to rely on existing funding sources which at best are based on the average costs of road provision. These funding sources do not readily allow customers to signal their preferences to the road operator. The funding is also largely unaffected by the road operator's performance, reducing the incentive of the operator to meet consumer preferences. Funding based on direct user charges offers greater efficiency provided the introduction of more efficient charging structures is economic.

Concerns about the lesser gains from a commercial model until direct charging is possible are reduced to the extent that such a system can be implemented relatively quickly for a significant group of users, such as operators of heavy vehicles. Essentially such concerns relate to the timing of moves to a commercial model, not the model itself. They must also be set against the risk that reforms may not be implemented at all if the opportunity to implement them is not taken at the present time.

2.3 Configuration of companies

The Roading Advisory Group reaches a tentative conclusion that there should be a minimum of four and a maximum of six road companies. Each of the companies would manage a network which combines state highways and local roads. The Roading Advisory Group suggests that an establishment commission should determine the number of companies.

The NZBR supports the rationalisation of the large number of existing roading operators but does not have a firm view on the optimal number of companies. Monopoly concerns aside, market processes would normally provide a more reliable test of the efficient number than armchair theorising. However, in current circumstances the market test cannot apply and transitional arrangements must be set in place. We appreciate that the problems of harmonisation and coordination are likely to be smaller with a single company. On the other hand, multiple ownership may facilitate competition and innovative experimentation. In addition, monopoly concerns are likely to be greatest with a single company, in which case the risks of unduly costly regulation may be highest with this option.

A further option, which the Roading Advisory Group did not favour, is the retention of a separate state highway company. The Roading Advisory Group expressed concern that separation would generate too many interconnection problems and might create non-viable local businesses. It also suggested that problems in the Auckland region could be solved only by a single roading company covering the whole urban area.

The grounds for Roading Advisory Group's concern about the viability of roading companies without access to state highway revenues are not clear. It is difficult to see why they would not be viable as long as the companies were not required to earn a return on sunk cost assets. We discuss why there should not be a requirement to earn a return on sunk cost assets in the section below.

Continued separation of the state highways from local roads may involve some efficiency costs in terms of reduced coordination of roading developments in areas of overlap. Contracting for interconnection may involve some costs, although if each roading operator separately charges for the use of its road (including separate access charges) no particular difficulties should arise. Concerns about the inter-relationships between local and state highways are valid, and do need future investigation.

However, we believe that the option of a separate state highway company should not be rejected without future study.

The state highway operator faces considerable competitive constraints from rail, sea and air transport for at least some customers, some of the time. Separate ownership of local roads could strengthen the competitive constraints on the state highway owners given that local roads often offer an alternative to a state highway route. Of course for efficiency to be promoted by such competition, both local and state roads would have to be priced efficiently.

Although not all users would have access to competitive alternatives, a disclosure regime could allow those without an alternative to see what access arrangements are offered to others and to seek similar treatment for themselves. In our view, the market constraints on an operator of the state highway network are sufficiently great (although of course not perfect) that the operator could be given a profit maximisation objective if regulated with a light handed regulatory regime.

The competitive constraints applying to the local roading network are weaker than those applying to the state highways. Thus, the case for adopting the corporatisation model and a light-handed regulatory regime for local roads is weaker (but not of course precluded). Rather than having an onerous regulatory regime apply to all of the roading network, it might be better to separate the state highways from the local roading network and apply different regimes to the different roads. Given that Transit is already a partially commercial operator, the government could fast-track the establishment of Transit as a company subject to a light-handed regulatory regime.

However, this option might reduce the pressure on local authorities to improve their operations. In general local authorities have a dismal record for reforming their trading enterprises. Few LATEs have been established without the stimulus of central government. Substantial changes are unlikely unless the government drives the reform of local government roading operations. Given the weakness of the performance of local authority businesses in many areas, some of the major potential benefits of roading reform would be generated by reforming local roading operations.

2.4 Ownership

If the corporatisation model is chosen, the lack of commitment by councils to the model is of concern if local authorities are to be the sole shareholders in any of the companies. Councils have not applied the requirements of the LATE model as strictly as is desirable. A review by the Office of the Controller and Auditor-General noted a number of concerns with LATE arrangements:[2]

- the appointment of councillors or chief executives as board members created a strong potential for conflicts of interest;

- the local authorities were unable to demonstrate in all cases that they had selected directors in an impartial manner, and that elected council representatives had been selected on the basis of their commercial expertise;

- in many instances local authorities were not scrutinising the statement of corporate intent in a rigorous fashion or specifying their ownership expectations of companies sufficiently clearly;

- not all shareholding local authorities appeared to have recognised the importance of obtaining complete and regular information about the performance of their

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[2] Chapman, J T (1994), *Governance of Local Authority Trading Activities*, Office of the Controller and Auditor-General, pp 14-28.

companies or the need to be kept informed of company matters which might have a significant political impact; and

- few councils were receiving sufficient advice on the performance of their companies for them to exercise their obligations as owners.

These concerns, which do not appear to have been addressed to any great extent, raise questions about options in which territorial authorities are the sole owners of roading companies. Mixed central and local government or pure central government ownership might achieve better outcomes. In the case of the jointly owned airport companies, for example, local authorities have become more aware of the importance of commercial disciplines to ensure their efficient operation.

The Roading Advisory Group proposes (in response to constraints imposed on them by the government) that only local authorities and central government be permitted to own shares in the roading companies. Trading of shares between these entities would be permitted. This proposal does provide some flexibility for restructuring of the industry in the future. For example, it could allow reintegration of the state highway company (or its separation) at a later date.

However, the NZBR does not support restricting ownership to local and central government. If local authorities become shareholders in roading companies, they should be allowed to make their own choices on whether or not to retain their shareholdings. Sales of central or local government shareholdings to parties in the private sector should not be ruled out.

The grounds for this view are that the private sector can bring skills and know-how to the roading industry that might not otherwise be available to local authorities and central government. It can access and mobilise finance for new investments and shoulder some or all of the risks resulting from the construction and operation of infrastructure. Even partial private ownership can help overcome the weaknesses of

the corporatisation model and lock in gains achieved through corporatisation. Majority private ownership exposes managers to the threat of takeover if performance is poor.

Three recent reviews of privatisation experience provide empirical support for the benefits of private ownership.

The first study conducted by the World Bank[3] compared the post-privatisation performance of twelve companies (mostly airlines and regulated utilities) in Britain, Chile, Malaysia and Mexico to determine whether privatisation has achieved gains. The study carefully separated the impact of privatisation from other impacts in comparing the performance of the companies before and after privatisation. It concluded that net welfare gains had been achieved by privatisation in eleven out of the twelve companies.

A second report by the World Bank[4] reviewed a much larger sample of companies ñ 61 companies in 18 countries (six developing and 12 industrial) and 32 industries ñ that had been privatised through outright sale. The study compared the performance of the firms before and after privatisation. It found that following privatisation efficiency improved on average by 11 percent; investment increased by 44 percent; output increased by 27 percent; employment was up by six percent; and profitability and dividends significantly increased.

The third study, conducted by the Reason Foundation, compared heavily regulated investor-owned and government-owned water systems in California. In the case of heavy regulation there is no guarantee that private firms will consistently outperform government-owned firms, given the negative effect that regulation has on the incentives of private firms to increase efficiency. However, even with the difficulties created by heavy-handed regulation, the study found that ownership of water utilities in California did matter. It concluded that, despite the special treatment received by government-owned companies in terms of tax subsidies, excess cash balances and

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3 Galal, A, Jones, L, Tandon, P and Vogelsang, I (1994) *Welfare Consequences of Selling Public Enterprises*, New York: Oxford University Press.

investment income, the private companies provided comparable water services to consumers at the same price as government-owned water companies. The study concluded that private companies are substantially more efficient than the government-owned companies.

Road users, taxpayers and ratepayers are the ultimate owners of the roads. One option would be for the shares in the companies to be distributed to the ultimate owners upon corporatisation. Individuals could make their own decisions on whether to sell or retain their shareholdings or put them into a special trust which could be created to cater for people with a strong preference for community ownership.

2.5 Efficient pricing, two-part tariffs and the recovery of a return on sunk assets

The Report states:

> The Roading Advisory Group believes that road companies should derive their principal income from variable charges, which are linked to the level of road use and would make companies more responsive to road users than fixed charges.[5]

This stance leads the Roading Advisory Group to propose that neither motor vehicle registration nor annual vehicle licensing fees should be used to fund general user-driven but not use-related charges (eg repairing flood damaged roads). Instead it recommends that:

> Road companies should be able to introduce a fixed charge for road use, in **special** circumstances and subject to a statutory consultation process (emphasis added).[6]

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4 Megginson, W L, Nash, R C and van Randenborgh, M (1996) *The Privatisation Dividend: A Worldwide Analysis of the Financial and Operating Performance of Newly Privatised Firms*, World Bank.

5 Roading Advisory Group (December 1997) *Road Reform: The Way Forward*, p 73.

6 The Report, p 10.

Given that the economic literature has long recognised circumstances in which two-part (or multi-part) tariffs can be efficient, the Roading Advisory Group's rationale for opposing two-part tariffs is puzzling.

The Group's suggestion appears to be partially driven by concerns about the income distribution impact of two-part tariffs. The access part of a two-part tariff is by definition unrelated to use. A person who uses the network infrequently might face the same access charge as someone who makes heavy use of the network. Although this might not seem 'fair', it may be efficient.

Marginal cost pricing is the starting point for most discussions of efficient pricing. Prices which track marginal costs encourage users to balance the costs and the benefits of using an extra unit of output. Where benefits and costs are out of line, users will modify their purchasing decisions to bring the two into balance. When producers observe users making such judgments they gain information about consumer preferences. This information helps them to better meet user preferences in the future. The efficiency benefits of marginal cost prices result from the incentive they give producers and users to modify their behaviour to better balance marginal costs and marginal benefits. It is this balancing which allows society to get maximum value from scarce resources.

In practice, market prices can depart from marginal costs for many reasons. These reasons include economies of scale, the presence of common costs or joint costs, and the costs of billing systems. As a result efficient pricing structures may be simple or complex depending on the situation. In the case of a road network, efficient prices could well have a multi-tier structure which combines an annual access charge with a trip-related charge. A significant portion of annual operating costs do not vary with the number of trips.[7] In a commercial environment, the decision to restore a road to its original condition when it has been damaged by floods, landslides or other non-trip-

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[7] For example the Ministry of Transport's May 1997 Land Transport Pricing Study Discussion Document *Options for the Future* reported on p 68 that "With respect to maintenance expenditure there is some evidence that 40 percent to 60 percent of expenditure is required due to the passage of time rather than to user damage".

related factors must reflect a balance between the costs of doing so and user willingness to meet such non-trip-related costs. The opportunity cost of, say, land underneath roads (which could be used for other purposes), is another non-trip-related expense. A periodic, non-trip-related fee is one possible measure of this willingness to pay for non-trip-related costs. Multi-tier pricing structures could allow a road operator to impose an access charge which covered marginal non-use-related costs and the joint costs of providing a network which serves different users.

There is nothing novel about such a proposition. The current charging regime consisting of an annual vehicle registration fee, an annual rating levy and a trip-related petrol tax involves fixed and variable charges. The fixed monthly line rentals charged by some telecommunications and electricity companies are familiar to users of those services. The annual membership fee levied by many clubs ñ such as golf and tennis clubs ñ may also serve to cover non-use related costs. Some golf clubs have a three-tier pricing structure comprising a joining fee, an annual subscription and use-related green and bar fees. However, single-tier pricing structures are also common as is illustrated by the one-tier use-related charges imposed on rail passengers, cinema-goers and non-member visitors to a golf club.

A use-related charge could cover marginal use-related costs during the period. Under constant returns to scale, two-part charges would also cover average operating costs. Given that the marginal non-use-related cost includes the opportunity cost of the capital tied up in assets which could be used outside the road network, this approach to pricing also allows for a return sufficient to recover the opportunity cost of existing assets.

The question of efficient pricing during periods of excess capacity and when there are sunk cost assets can also confuse discussions about efficient road pricing.

Roading system capacity must be provided in large increments. The assets are then 'sunk' costs because the value of an installed road, road tunnel or road bridge in an alternative use is likely to be minimal in relation to its construction cost.

Such sunk cost assets are common. For example a rail network, a wharf facility at a port, a canal network and a hydro-electric dam also exhibit this sunk cost characteristic. However, sunk costs appear to be particularly significant in the case of the road network.

The Report suggests that road operators should seek a return on existing sunk cost assets. One reason given by the Roading Advisory Group for requiring roading companies to earn a return on sunk assets is that competing transport operators with a similar cost structure will have to set their prices above marginal costs to recover a return on assets. We argue below that this reason is unsound. The issue is important because the Group's related suggestion that there should be a capital charge for sunk cost assets invites confusion between efficient pricing and asset valuation. The value of assets should be determined by the cash flows generated by efficient pricing rather than pricing being driven by the value attributed to sunk cost assets. The important point here is that efficient prices are forward looking, as is the concept of marginal cost. Using past (possibly sunk costs) to set prices could conflict seriously with the goal of efficient pricing.

Kahn makes the point that marginal cost is forward looking as follows:

> Marginal costs look to the future, not to the past: it is only future costs for which additional production can be causally responsible; it is only future costs that can be saved if that production is not undertaken. If capital costs are to be included in price, the capital costs in question are those that will have to be covered over time in the future if service is to continue to be rendered. These would be the depreciation and return (including taxes) of the future investments that will have to be made. These incremental capital costs per unit of output will be the same as average capital costs of *existing* plant only in a completely static world and under conditions of long-run constant costÖ In a dynamic economy, with changing technology as well as changing factor prices, there is every reason to believe that future capital costs per unit of output will not be the same as the capital costs historically incurred in installing present capacity.[8]

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8 Kahn, A E (1990), *The Economics of Regulation: Principles and Institutions*, MIT, p 88.

There is no conflict between this point and the view that competitive neutrality is likely to be very important for efficiency given the degree to which transport modes can substitute for each other. We would expect prices in rail, air and sea transport to recover the cost of capital on the same basis ñ in relation to current and future rather than past costs. The marginal cost of keeping a ferry on the Cook Strait route for another year, for example, includes the net rental which could be obtained from using that ship on another route for that year. Only if the surplus of revenue over all other costs from the use of the ferry on the Cook Strait route for another year is sufficient to cover that net rental does price cover the marginal cost of that decision.

They key point here is that, by definition, sunk cost assets have a minimal value in an alternative use so the opportunity cost of a decision to continue to use them in their current use for a further year could be small in relation to their depreciated replacement cost. On the other hand, from a competitive neutrality perspective, it is important that any calculation of the marginal cost of roads takes the opportunity cost of non-sunk assets into account. However, it seems arguable that, in the case of the road network, the opportunity cost of non-sunk assets could be minor relative to the opportunity cost of the amounts spend over the years on sunk cost assets.

Of course, this is not to argue that all non-road transport operators are pricing at marginal cost or that road operators should be forced to charge at marginal cost if non-road transport operators are charging at marginal cost. Given the complexities of optimal pricing when transaction costs are significant, some competing operators may be able to price at marginal cost and recover average costs while others may not. Road operators should not be obliged to set prices according to a rule which may be efficient for a competing transport mode but which may be inefficient for roads.

Normally, sunk cost assets create no difficulties for determining efficient prices. As long as a close substitute exists for the product being supplied, competition will drive prices towards efficient levels. Competition tends to force prices towards the level that leaves the marginal consumer indifferent between products. Thus we would expect the price of a unit of hydro-electric power to be similar to the price of a unit of thermally-

produced power regardless of any differences in respect of capital costs, sunk costs or operating costs. Similarly, we might expect market demand to equate the quality and convenience-adjusted price for long-distance road, rail, sea and air transport regardless of the level of sunk costs in roads. Efficient prices for sea transport across Cook Strait, for example, would be constrained by the prices the marginal traveller would pay for air travel regardless of the costs sunk into the ferry system. Only if all such air travel becomes uneconomic for the marginal traveller would the price for sea travel across the Cook Strait be expected to be uncoupled from the cost of air travel.

Such price relationships in efficient markets would not allow supernormal returns to be obtained from infrastructural assets even in the most advantageous locations because land (and/or permit) values would be commensurately higher in such locations. Thus a road through the only mountain pass, or a hydro-electric dam or a port which enjoyed a uniquely favourable geographic location, might permit the owner to obtain supernormal returns on construction costs but only a normal return on the scarcity-value-inclusive cost. For exactly the same reasons, farms with fertile soil will typically sell for more than farms with poor quality soil. Such rents occur in competitive markets independently of monopoly issues, sunk costs, common costs or economies of scale. Past construction costs are highly relevant to the original construction decision in an efficient market but, after they have been made, the amount spent on sunk costs assets is not relevant to the subsequent efficient pricing decision.

It is important to note that when economic rents are large, rate of return regulation based on the recovery of construction costs will tend to favour prices which are far too low because a regulator will wittingly or unwittingly treat all location-specific economic rents as monopoly profits. On the other hand, since land or permit values for a unique, infrequently traded asset are commonly unobservable, the regulator who assesses prices on the basis of rates of return has no objective basis for determining efficient prices. In such a situation, the economic rent depends on what prices the regulator will permit. The same problems confront a government that wishes to impose a capital charge on a government agency which is using Crown-owned assets. Prices and values must be simultaneously determined in such circumstances. Faced with such a

circularity, regulators or governments must either abandon this approach or make subjective, and inevitably political, judgments about prices and values.

As described to this point, a marginal cost-based pricing structure would not suffice to recover past costs which have been sunk into building an uncongested network. However, efficient marginal cost-based prices include congestion pricing (in which the marginal cost includes the costs that an individual's decision to travel at peak time imposes on others) and could therefore produce returns which amounted to economic rents on the network.

As roads become congested, the marginal cost of supply of additional trip-capacity rises. In the shorter term, prices set at the marginal opportunity cost of supply (ie the price necessary to deter the marginal user from travelling) could be appreciably higher than their average level during the economic life of the road. Roads running at full capacity when users are subject to congestion pricing could generate considerable economic rents. This is efficient, but it would be a challenge for a regulator to determine whether such prices were an unacceptable abuse of a dominant position. Allowing an investor in roads to retain such rents could help bring forward the construction of additional capacity since congestion charges help to make up for losses during periods in which the road is too under-utilised to allow full cost recovery.

This leads to the issue of efficient pricing when there is excess capacity and sunk cost assets. The earlier discussion on sunk cost assets presumes that the owner of any asset with sunk cost characteristics is a price taker and that the asset is being run at full capacity with the output all being sold at the highest average revenue the market will bear. An alternative assumption is that excess capacity exists from time to time and the owner has some ability to vary price and thereby the utilisation of capacity. For example, demand might be seasonal, or it might be expected to grow with time so that periods of excess capacity would occur if prices were insufficiently flexible and/or if demand was insufficiently responsive.

Where excess capacity exists and the marginal cost of supplying an extra unit is low relative to the average unit cost of supply, welfare economics provides a case for marginal cost pricing for an additional unit of supply as long as any deficiency between revenue and costs can be funded at minimal cost to economic efficiency. However, given the costs of tax-based funding for such a deficiency, economists accept the potential efficiency of multi-tier pricing and/or some departure from marginal cost pricing.

A private operator may be deterred from constructing capacity (or may unduly delay construction) if it were subject to a requirement to set prices at short-run marginal cost. A government which imposed such a requirement on a private investor after the current capacity had been installed would be acting opportunistically and would deter future investors.

Central and local government exercise major ownership rights in respect of the existing road network. The charge of opportunism if they impose marginal cost pricing is much less relevant. In this situation, the question of how to cover any revenue deficiency if marginal-cost based prices are less than average cost is essentially an optimal tax issue. If the existing road network is to be operated on a commercial basis, decisions about the timing of new investment in capacity, and therefore dynamic efficiency, would be affected by the operator's perceptions of the degree to which it would be permitted to recover average costs during periods of excess capacity.

Regulations aimed at constraining commercial roading companies to set their prices on the basis of efficiency principles may face practical difficulties. The marginal cost of a car using an uncongested road may be close to zero. Prices set close to short-run marginal cost would also be close to zero. But the willingness of road users to pay to use some roads may sometimes be substantially greater than zero. A profit maximising road operator would have incentives to extract some of the value users attribute to road use. It could do this by raising per use charges or through setting a high access charge. As already noted, such monopoly problems are likely to be more severe in the case of local roads than with state highways.

A related issue is that the sunk costs might have been originally funded by local road users rather than by the road operator. For example, it is common in suburban subdivisions for the subdivider to construct the associated road system and to recoup these costs from the sale of the subdivided properties. The new owners agree to pay rates which will cover the local authority's outgoings in maintaining those roads. Such a road operator essentially has a cost-recovery-based understanding for providing road maintenance services. A related argument about ownership rights could arise in respect of rural roads which have been funded out of rates levied on residents in the locality. The dominant concern amongst such residents may relate to the degree to which it is efficient for them for to pay the ongoing maintenance costs of those roads when non-residents also use them. Willingness to pay is likely to materially constrain a road operator's ability to charge locals for the maintenance of some rural roads. Congestion issues are not generally important for suburban streets or rural roads. Currently, road users and providers lack the protection which might normally be provided by a long-term contract. This gap means that transitional issues must be handled very carefully.

While this discussion is not definitive, we question the view that rate of return regulation and/or the imposition of a capital charge is desirable in respect of congested or uncongested roads. The analysis also draws attention to the need for high quality decisions by regulators as to what constitutes an abuse of a dominant position. More thought needs to be given to these issues than is apparent in the Report.

2.6 Regulation

The Report proposes a light-handed regulatory regime relying on the Commerce Act and disclosure requirements, supplemented by a requirement for consultation on pricing decisions and prior to road closures.

We support the suggestion that a light-handed regulatory regime be adopted for roading. As noted above, we think that this would be sufficient to constrain the market

power of the state highway operator. We are more concerned about market power at the local road level. However, we are aware that use of a less commercial roading model for local roads or more stringent regulation would also involve substantial efficiency costs. Overall we favour application of the light-handed regulatory approach to all levels of the roading market.

The Report suggests that the roading operators be required to consult with users on pricing and prior to the closure of a road. Airport companies are currently required to consult with their users over prices. We do not have major concerns about imposing on roading companies a requirement to consult over their prices. However, we note that, unlike the customers of airport companies, road users are a less concentrated group. The use of countervailing power by consumers to constrain the roading operator's market power might be less effective than in the case of the airports. Nevertheless, groups such as the Automobile Association and the Road Transport Forum New Zealand may be able to assume a representative role.

The requirement to consult prior to the closure of a road risks politicising the roading company's commercial decisions. Discussing road closure with users to determine whether they were prepared to pay to keep the road open makes commercial sense. If users were not prepared to fund the road then the roading company should be free to make a commercial decision to close the road or allow it to degrade. Councils or other parties (eg the Department of Conservation) could, of course, provide an explicit subsidy to keep non-economic roads open. One of the main potential benefits of the roading reform is the closure of roads that are not economic (and improving decisions on the timing and extent of maintenance).

2.7 Safety

The Roading Advisory Group recommends that road companies be responsible for the safe design and management of their roads and traffic flows subject to a safety audit regime similar to that which applies to other transport modes. The LTSA would remain responsible for driver behaviour and vehicle safety. Traffic safety services would be

purchased from the police but where road safety services could be provided by agencies other than the police these services should be made contestable. The Roading Advisory Group Report suggests that these same requirements should apply to private roads that are open to the public on a regular basis.

The NZBR supports these suggestions which reduce the number of different parties that have road safety responsibilities. In our view, the option of making the roading operator fully accountable for safety, including the safety of the vehicles that use roads, may further strengthen accountability and warrants further investigation.

The issue of safety regulation is of wider interest to the NZBR given its potential costs and the degree to which it may inhibit direct contracts between parties for more efficient safety arrangements. We believe that the government should give consideration to allowing providers and their customers to contract out of much safety regulation.

3 LOCAL AUTHORITY MODEL

Local authorities have proposed, through Local Government New Zealand, an alternative model to that recommended by the Roading Advisory Group. In this model:

- the ownership of roads would remain with local authorities and central government;

- new roading entities would be established to manage the roads on behalf of existing owners. The roading entities would manage the local and national roads together and (possibly) the assets of a number of different local authority owners. Transit New Zealand would be disestablished. The roading entities would be responsible for investment decisions and the day to day management of the carriageway. They would be accountable to the Crown and local authorities that own road assets. The corporate structure proposed for the roading entities is unclear but a conventional SOE/LATE structure is rejected. The ownership structure of the roading entities is also unclear ñ but it appears that local authorities envisage that they, and not the Crown, would be the

owners. The roading entities would have both social and commercial objectives; and

- a single national agency would set prices, collect funds and redistribute them according to a formula agreed to with roading entities. The agency would set minimum standards and audit roading entity performance. It would have the power to borrow.

It would be difficult to imagine a worse arrangement for managing our roads. No entity would have a single clear objective or responsibility for ensuring outcomes. Local authorities and the Crown would own the roads yet the roads would be managed by other entities which have different ownership structures and different incentives. The roading entities would be given a mix of commercial and non-commercial objectives, weakening their incentives for performance.

Depending on the details of what is proposed, devolving road management to roading entities could be viewed as a franchising structure. Contracting out the management of an asset normally requires a detailed specification of desired outcomes, pricing, performance and ongoing monitoring. This would be a complex task. The benefits of contracting out management normally arise from the formal competitive tendering of the rights to operate a facility for a given period. The franchise is awarded to the bidder who agrees to supply specified services at the lowest price. The party that is likely to be the most efficient operator of the facility would generally be expected to win the tender. The model proposed does not envisage competitive tendering yet it would incur the costs associated with separating ownership and management of assets.

Decisions on investment and pricing will be made by the roading entities and the funding authority yet they do not appear to bear the risks of such investments. The funding agency would have the power to borrow (presumably for investment) but it is not clear if it would take an equity interest in any investments it funds and, if not, who would assume ownership.

The funding agency has the central planning role of deciding where to undertake investment (although this responsibility is shared with the roading entities, and

possibly also the roading owners) but it is unclear that it would bear any consequences if its decisions are wrong. Pricing decisions will be made by bureaucrats who do not bear the wealth consequences of their decisions and who have few incentives to discover the most efficient pricing arrangements.

The proposed arrangements appear to be aimed at politicising road management decisions rather than at allowing decisions to be guided by users' willingness to pay. They appear to be highly inimical to the government's objectives of getting greater efficiency from funds spent on the road system.

Local authorities have noted a range of other concerns with the Roading Advisory Group proposals. They include the following:

- no guarantees that the network will be maintained to current standards;
- no return for community investment in roads;
- roads bind communities and communities own roading 'lifelines';
- community input would be lost;
- the proposals fail to integrate with other transport operations; and
- commercial companies raise significant monopoly pricing issues.[9]

Most of these concerns appear to reflect a misunderstanding of the implications of user charging and a commercial model. One of the main reasons for moving to user charging is to gain the benefits of more efficient pricing. Users' responsiveness to prices will provide a powerful signal to a commercial operator as to which services users value. If the 'binding' effect of roads is valued then this will be reflected in peoples' willingness to pay to use roads.

If users are not prepared to pay to maintain a road at the current standard, then it generally is not efficient for the road to be maintained. Of course if a local council

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[9] Local Government New Zealand press releases.

wants an uneconomic road to be maintained it can provide an explicit subsidy to the commercial operator. Such a subsidy is not precluded by the proposed arrangements.

Some roads, particularly in rural areas, may be uneconomic to maintain. Since the assets are sunk, rural communities need only pay for the maintenance of these roads (which should include the cost of the capital used in maintenance but not a return on sunk assets). While a commercial operator would probably not construct many of these roads if starting from scratch, given that they already exist users may be prepared to pay for their ongoing maintenance. If users are not prepared to even cover the costs of maintenance at existing levels, a commercial operator might close the road or allow it to degrade.

A roading company could possibly offer uneconomic roads to local communities without consideration. However, if communities are not prepared to pay a commercial operator to maintain them it is difficult to see why they would be prepared to maintain them if they owned them.

An inevitable (and desirable) consequence of the reforms is that the level of service will change. Service levels will improve where users are prepared to pay for improvements (for example where congestion is high) and will decline where users signal that the benefits of maintaining current roads are not outweighed by the costs.

The second suggestion by local authorities that there would be no return for community investment is wrong. A commercial company would be expected to pay dividends to its owners. Even if no return is sought on the sunk cost assets, efficient pricing would generate a return on the assets which reflect their current worth. That return could be high, for example where roads are currently congested.

Another local authority concern is the loss of community input. Currently, ratepayers have an input into roading decisions through the annual planning process. Ratepayers can make submissions to councils on proposals in the annual plan. However, participation in this process is generally very limited, with the vast majority of road

users not taking part. Compared to the process of discovery of community preferences using a price mechanism, the information may also be of low quality because it may reflect opportunism rather than genuine willingness to pay. The loss of this potential for input into decision making is unlikely to concern most ratepayers. Councils would still be responsible for contracting for non-commercial services on behalf of ratepayers and ratepayers could provide input into these decisions if they chose.

Councils have also criticised the lack of explicit treatment of public transport in the Report. They have suggested that there is a need for an overall plan for transport options. They recommend that public transport should be subsidised by congestion charges levied on road users. However, in normal markets, competition between different options is intermediated through prices. Commercial operators have incentives to respond to such prices. If buses or trains are more efficient than other forms of conveyance their operators should be able to supply attractive services to individuals without the need for a subsidy. Individuals can make their own choices as to the option that suits them best. The introduction of congestion pricing on roads may encourage individuals to shift to buses and trains. Of course, bus and train operators may themselves need to use congestion pricing.

Local authorities express concern that local communities will lose the ownership of their assets. However, local authorities are likely to retain shareholdings in the companies. Even if central government took over all of the roading assets, it is not clear that the result would be "to steal the streets and roads off New Zealanders". With central government ownership, the assets are still ultimately owned by the citizens. There might be some implicit winners and losers, but given that in either case the ratepayers or taxpayers do not have a direct ownership stake, it is not clear whether the change would matter. If central government or private parties were to purchase council shares on a willing seller / willing buyer basis, the concern would have little foundation.

We believe the expressed concerns of local authorities only thinly disguise their real concern which is the prospect that they will lose political control of roading. If local government politicians were really concerned about local communities losing control of

assets they would support the option of a share giveaway to ratepayers and taxpayers ñ†the best option for returning ownership to the community. The failure to support this option clarifies local government concerns ñ a major reason for many councils' existence is under threat.

4. SUMMARY

In summary, the NZBR broadly supports the proposals for reform outlined in the Roading Advisory Group's report *Road Reform: The Way Forward*, although we have concerns about some of the report's recommendations. In particular:

_ The NZBR supports a commercial approach to the provision of roads which involves greater reliance on market mechanisms to guide use and investment decisions and less dependence on political control.

_ The magnitude of the gains from a more commercial model depend on how quickly direct charges can be economically introduced for significant groups of users.

_ The NZBR supports the corporatisation model which has been used to successfully establish port, airport, electricity and telecommunications companies.

_ A move to a corporatisation approach for roads requires consideration of monopoly issues. These issues appear to be more severe in the case of local roads than in the case of the state highway system.

_ We support the Report's suggestion that a light-handed regulatory regime be adopted for roading. We believe this would be sufficient to constrain the market power of the state highway operator. We are more concerned about market power at the local road level, particularly given the absence of term contracts

which reduce uncertainty about future pricing policies. However, we also believe that the use of a less commercial roading model for local roads or more stringent regulation would involve substantial efficiency costs. Therefore we favour a light-handed regulatory regime for this level of the market as well, but see a need for further work to be done on transitional issues.

- We do not have strong views on the requirement that roading operators consult with users over charges. We are, however, concerned that a requirement to consult over road closures might result in the politicisation of roading decisions.

- The NZBR does not have a firm view on the optimal number of companies. Normally, this is an issue best determined by market processes. Although the coordination problems of fragmented ownership should not be exaggerated, we can see a transitional argument for a single owner to allow the coordinated introduction of new billing technologies and to make the investments needed to ease congestion in Auckland and Wellington. Against this there are advantages in diversity and the concerns about monopoly issues with a single operator might be so high as to raise severe risks of heavy regulation. We believe this issue needs to be resolved on the basis of deeper analysis by the establishment commission.

- We strongly question the Report's opposition to two-part tariffs given their use by other network industries and the weight of professional opinion about the degree to which road maintenance costs are not trip-related.

- The Report appears to favour both efficient pricing for the road infrastructure and the concept of a capital charge. The second of these concepts appears to be either redundant or in conflict with efficient pricing. As a device for controlling monopoly profits, rate of return regulation has significant drawbacks in terms of dynamic efficiency. In a situation in which sunk costs are large as a proportion of total amounts invested (as appears to be the case with a road network) the

arguments for a capital charge based on the amounts originally invested look particularly weak.

- We support the rationalisation of road safety responsibilities that is proposed. In our view the option of making the roading operator fully accountable for safety, including the safety of vehicles, warrants further investigation. This does not preclude the option of allowing road operators to contract directly with road users over safety arrangements following any generic review of the costs imposed by current safety regulation.

- The structure of road ownership and operation suggested by local authorities appears to remove all the incentives for the efficient pricing and management of roads which motivate the RAG's model. It can only appeal to those who put local government control ahead of all other considerations.