

**The Chartered Institute Of Transport
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Improving Transport Sector Performance

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IMPROVING TRANSPORT SECTOR PERFORMANCE

1 Introduction: Principles and Framework for Reform

The organisers of this conference have asked me to join with the other speakers in this session to discuss "the elements necessary for a coherent analysis of the best course New Zealand should take in the pursuit of the goal of a safe and efficient transport system".

The general principles behind the reforms in transport and related industries such as energy and communications in the last decade have been firmly established. Briefly, their aim has been to maximise consumer welfare by:

- increasing competitive disciplines through the removal of unjustified entry barriers;
- removing price distortions; and
- improving performance incentives in the public sector by separating regulatory, funding and operational activities and adopting the most efficient institutional arrangements for each activity.

Given these principles, careful analysis has been applied to specific features of the system. Relevant issues have included monopoly, returns to scale, public goods, safety, environmental and other externalities, principal/agent problems, bureaucratic capture and other forms of government failure, income distribution and equity.

Prior to the reforms of the last two decades, regulation, licensing, and competition from major public sector providers with multiple and conflicting objectives heavily constrained private sector transport providers. In the public sector, incentives to reduce costs and better identify consumer needs were weak. Mispricing of publicly-provided services could, and often did, distort private sector activity in significant ways. For example, the freeze on rail charges in the 1970s seriously affected coastal shipping.

The benefits of the reforms have been manifested in improvements in service, consumer choice and price. Businesses and their customers have benefited from large reductions in transport costs. Issues such as the availability and quality of airline and taxi services, for example, are not now prominent issues of public concern.

Reflecting the reduced role of state-owned monopoly providers - apart from air traffic control - the vulnerability of the travelling public and commerce to opportunistic nationwide disruptions to services by industrial action is much reduced.

2 The Scope for Benefits from Future Reforms

Nevertheless, further consumer welfare gains are clearly possible given that levels of government funding, ownership and regulation in the sector are still high. In addition, technological change, economic growth and changing

transport requirements (such as the growth of tourism and forestry) will continue to put pressure on parts of the system, with public policy implications. Future reforms should involve further deregulation and less government provision. This would allow officials to better focus on funding and regulatory policies. Some funding may, on examination, be more appropriately dealt with as a social welfare activity.

Privatisation

Further privatisations should include local authority-owned parking buildings, buses, ports, airports and the Airways Corporation.

Privatisation of state-owned enterprises (SOEs) and Local Authority Trading Enterprises (LATEs) should not, in principle, raise any monopoly issues since these were considered when these activities were first put on a commercial basis. Indeed, it can be argued that competitive entry is more likely when a so-called monopoly provider is not publicly owned. A private firm which is considering competing with a dominant publicly owned provider must always worry that commercial disciplines will not be allowed to apply to the publicly owned operation when the heat goes on.

Some may argue that a public monopoly might be less aggressive in its pricing policies than a private operator. In my view the greater fear is the exact opposite - it is far more likely that a public monopoly will have higher prices than a private operator because the former will have higher costs. This was clearly the case, for example, when the former harbour boards ran ports and the Ministry of Transport ran the air traffic control system. A private operator, facing public scrutiny and the threat of Commerce Act litigation, is more likely to seek profits from price and cost reductions. How real, therefore, are the fears that privatisation might see higher prices than under a SOE, LATE or business unit structure? It should also be remembered that the community's interests are best served when prices are set at the 'right' level - prices that are set below competitive levels lead to a misallocation of resources just as do prices set above competitive levels. There is evidence that political influence by some local authorities has led to artificially low prices, for example where below-market rates of return on investment have been applied.

It is hard to see that monopoly pricing is a significant issue in respect of local buses. Rather, the question is what range of services would be provided without a subsidy.

In Wellington, the council-owned bus operations were sold in 1992 to Stagecoach, a private, for-profit bus operator. This decision separated the provision of bus operator services from the Council's regulatory and funding activities. The Council can focus on these roles without regard to the effect they might have on a Council-owned bus operator. Meanwhile, the specialist, for-profit owner can concentrate on delivering services at lowest cost.

Wellington's experience to date with privatising its bus operations is encouraging, as illustrated by the following figures:

- the number of passenger rides is now increasing by over 300,000 per annum – reversing a constant trend decline in patronage which goes back at least as far as 1947;
- fares have not changed in dollar terms since 1990. This is a 10 percent real decline;

- the amount of public money required to fund Stagecoach's Wellington network has fallen from \$14 million p.a. to \$5 million, p.a.;
- service quality has improved in terms of timetables and routes;
- Stagecoach is spending \$20 million on 80 new diesel buses; and
- even the Kelburn Cable Car, for many years a loss-maker, now turns a profit.

Other cities should follow this lead. Most notably, the interests of Auckland commuters and ratepayers would be better served if the Auckland Regional Services Trust sold the Yellow Bus Company (Transportation Auckland Corporation Limited). The ARST has neither the expertise nor the incentives necessary to ensure that the company is best identifying commuter preferences and meeting them at least cost. Nor can potential competitors be sure that the ARST would allow normal commercial disciplines to apply to the Yellow Bus Company if it lost patronage.

Monopoly is a potential issue in respect of the provision of port and airport facilities, but not to a marked degree. Significant competition exists between many ports such as the Port of Auckland and the Port of Tauranga. The Port of Wellington recently lost a contract to Auckland. There have been few claims of monopoly behaviour since ports were put on a commercial basis. The provision of airport facilities has raised particular monopoly issues in relation to pricing. The Commerce Act 1986 has been found to have force in respect of ports and airports.

Privatisation of ports should produce significant gains. New Zealand is lagging behind Australia in this area. The Victorian state government has already sold two of its smaller ports and is expected to sell the Port of Melbourne in due course. Currently our port companies have relatively weak incentives to identify their core businesses and rationalise their activities, although many have made significant gains. Investments in marinas would appear to be peripheral to their main cargo-related business. Arguably, customer-specific terminals such as those solely serving oil tankers and the rail ferries would be best sold to users for the same reason. Based on experience with other government-owned operations, it would also be surprising if a private sector operator did not find that some port-owned land is surplus to core requirements. Under private ownership we could be more confident that decisions taken on such matters were value-maximising. Progress with port privatisation has been disappointing and needs to be accelerated.

Privatisation of airports should also proceed forthwith. The sale could involve Commerce Act scrutiny should a major airline or a competing airport company be a successful bidder. Many airports have been privatised around the world, and the Federal government in Australia is currently putting its airport shareholdings up for sale.

In the case of both ports and airports, even partial privatisations are likely to produce significant benefits as the new shareholders will bring normal commercial perspectives to company boards and operations.

The perennial objection to privatisation by politicians and bureaucrats running public sector businesses is that they can manage as well as the private sector. This is today's version of the fatal conceit of central planning. It persists despite the evidence that every privatisation in New Zealand has led to improvements in performance, some of staggering proportions. Despite the best of intentions and efforts, political oversight is no match, on average and over time, for the disciplines and incentives of markets and private ownership. Privatisation also removes the business risk faced by governments. Politicians should let individuals make their own investment decisions, and not force taxpayers and ratepayers to bear the risks that are always associated with running business enterprises.

Reform of Government Funding

No cogent case exists for central government funding of the providers of bus and train services to urban commuters. Funding in the absence of clear objectives is a recipe for economic loss and policy confusion. The problem is compounded by the further funding provided by local government.

Possible justifications put forward for such funding include the following:

- (i) central government should be passing on more of the revenue from petrol excise duties to local government;
- (ii) subsidising bus and train commuters eases congestion on the roads;
- (iii) buses and trains are less polluting than cars on a per-person basis;
- (iv) low income people tend to commute by buses and trains; and
- (v) people with disabilities who cannot drive may commute by buses and trains.

It seems doubtful that subsidies for bus and train commuters could be justified under any of these objectives. The first issue is a central/local government revenue-sharing issue which has nothing directly to do with buses and trains.

In respect of the second argument, subsidies for bus and train commuters can only serve to delay the onset of congestion in a growing market, and they are obviously less efficient, in principle, than direct billing arrangements such as the use of coupons. I have yet to see a detailed examination of the issues, either by central or local government, which establishes the superiority of bus and train subsidies. The case for such subsidies is even weaker where, as in Wellington, they are spent on non-rush hour services.

Air pollution by private motor vehicles, if it is a problem, would be more efficiently addressed by fuel taxes or direct charges for congestion than by subsidies for buses and trains.

Assistance for low-income people should be seen as part of central government's social welfare policies rather than an aspect of transport policy. Transport subsidies benefit indiscriminately both low and high income patrons who choose to live in more remote suburbs.

Finally, assistance for those who cannot drive would be better channelled to agencies which specialise in assisting people with disabilities or provided directly to people with disabilities so that they can choose whether to travel by bus, train or a specially-modified car, or to live closer to their most common destination. Cash gives the recipient more options - and illustrates the point that what is fundamentally at stake is a social welfare issue. Moreover, the cost of any justifiable assistance should be borne by the whole community in a transparent way, not imposed as a hidden 'tax' on transport operators and their passengers.

From a public policy viewpoint, diverse, ill-argued and potentially conflicting objectives create a recipe for lack of accountability, poor decisions and poor outcomes. A recent example is the Human Rights Commission's intervention in bus purchase decisions in Wellington. In line with the misguided premises of the Human Rights Act 1993 - that individuals should have duties to others regardless of the costs - the Commission recently determined that bus companies should be obliged to provide buses according to specifications which it wished to impose on the operator.

An ironical effect of such a policy could be an increase in local government subsidies for buses (because public transport is made more costly) at the expense of funding for specialist transport services for people with disabilities. Many might reasonably get angry or confused about such an outcome. Also we should be very cautious about delegating to statutory bodies such as the Human Rights Commission what amounts to the power to impose taxation.

From a public policy viewpoint, the episode illustrates the effects of ill-considered legislation, the dangers of a 'government-knows-best' approach to meeting special needs, and the lack of adequate incentives for regulators to weigh up the costs of regulations against their benefits, and to be accountable for the funding implications of their decisions.

Another example of a ridiculous transport policy is the Wellington Regional Council's approach to roading. The Council has interpreted the Ministry of Transport's guidelines for land transport strategies as a licence to depart from a level playing field approach to commuter transport choices. The following statements illustrate the strength of the anti-motorist sentiment underlying its regional strategy:

Public transport fares should be set at a lower rate than the perceived cost of car travel.¹

That the capacity of the roading system should only be extended to meet the needs of commercial road users and off-peak, rural and recreational travellers, rather than the needs of peak period car commuters.²

¹ As quoted from page 10, 1993-98 Wellington Regional Land Transport Strategy. See also Policy 9, page 15, in the 1996-2001 Wellington Regional Land Transport Strategy.

² Page 29 of "Facing the Future", A Ten Year Plan for the Wellington Regional Council. See also page 25 of the Council's 1996/97 Annual Plan and Policy 1 on page 20 of the 1996-2001 Wellington Regional Land Transport Strategy.

The first of these policies clearly violates both cost recovery and efficient pricing principles. The second is simply bizarre. It would be extraordinary to encounter the argument that new capacity should never be built to accommodate peak demand in the electricity, telecommunications, water or any other network system. The implication would be that, in a growing economy, users should have to increasingly put up with brown-outs, chronic 'busy-signals' and loss of water pressure.

In reality, many users would be angry if these things happened by chance and livid if they happened by intent. Imagine the outcry if individuals went home from work on a cold winter day only to find that their electricity had been turned off because the supplier had a policy of never expanding capacity to meet peak demand. Yet this is just what the Wellington Regional Council proposes should occur in its region for roads. Such monumental indifference towards meeting customer requirements is staggering - even for a government provider.

To be fair, in response to similar comments which I made at a recent transport conference, the deputy chairman of the Wellington Regional Council agreed that the current policy statement was absurd and would be changed. While this is welcome, the fact that such statements can emerge in the first place speaks volumes for the quality of policy thinking in much of local government.

Reform of Road Infrastructure Provision

Undoubtedly the greatest scope for efficiency gains and national benefits in the transport sector now lies in improvements to the provision of road network services. Considerable progress has been made towards separating responsibilities for policy advice, funding, regulatory tasks and network provision. However, many complex issues remain.

Future reforms have to address:

- the problems arising from inadequate (marginal) cost information;
- concerns about the pricing of externalities;
- weak commercial incentives;
- the desirability of moving to an SOE structure, perhaps based on shadow tolls;
- the right time to move to direct billing technologies; and
- concerns about monopoly pricing.

Charging is a critical issue for inter-modal competitive neutrality and hence resource allocation and economic efficiency. Under-charging road users for the costs which their decisions impose on society will lead to undue road congestion and/or over-provision of road infrastructure facilities. The first wastes time, fuel and other resources. The second wastes capital. Over-charging will result in comparable inefficiencies.

Current charges are based on recovery of administratively allocated costs and are levied on proxies for road infrastructure use. As economists have long noted, cost allocations are inherently arbitrary in common cost situations. To

date, there has arguably been no more efficient approach available for road pricing. This is increasingly in doubt. Technological change is enabling us to anticipate the day when we will get monthly bills for our use of the road network based on the time and location of our travel, the type of vehicle, and our choice of billing option.

However, progress towards commercial billing systems is hampered by the costs of these technologies, the absence of commercial incentives to implement such systems in a timely manner, concerns about monopoly problems and ownership issues should commercial incentives be put in place, and possible legislative and regulatory barriers.

We therefore face two issues in respect of prices:

- determining the optimal charges given current arrangements; and
- adopting more efficient direct billing arrangements in a timely manner.

The importance the government places on improving roading policies is reflected in the resources which the Ministry of Transport and the industry are putting into the Land Transport Pricing Study.

As the New Zealand Business Roundtable (NZBR) and others noted in submissions, there was an unsatisfactory tension between the first two reports in the Pricing Study. The first promoted cost recovery considerations while the second discussed efficient pricing principles.

Charges based on cost recovery are most likely to be compatible with economic efficiency if the road network is subject to constant returns to scale. However, all observers appear to agree that new road construction is subject to increasing returns to scale in relation to trip-strength capacity. An NZIER study of pricing issues is based on a related premise that increasing returns to scale occur when existing roads are reformed.

Cost recovery might also be efficient when there are increasing returns to scale if it is more efficient to recover the funding gap between marginal cost and average cost from road users rather than from rates or taxes. This is an optimal tax issue.

Conceivably, duties and charges based on average cost pricing may be more efficient than charges based on erroneous assessments of marginal cost. Even so, the efficiency case for average cost pricing is less credible under certain conditions. These include where constant returns to scale do not apply; rates and taxes are the most efficient way of covering funding deficits; and (depending on the constraints) if the road system is so over-built that marginal cost is well below average cost, or so congested that marginal cost is well above average cost.

The charging mechanisms currently in use do not allow charges to road users to be adjusted according to the time of travel or location. These are serious limitations given the variations in costs associated with time and location

across the network. It means that duties and charges must be averaged. As a result, considerable efficiency gains should be achievable when more sophisticated charging systems become economic.

Charges are also currently based on proxies for infrastructure use. There is scope for efficiency gains from innovations which allow use of the network to be charged for directly on a time and location basis. To illustrate this point, road improvements which reduce fuel usage will, other things being equal, reduce revenue from road users. This is a perverse incentive for any infrastructure provider. Direct billing does not suffer from this defect.

For all these reasons, major benefits to society may accrue from more efficient pricing structures. Such structures may variously be based on time-of-day or location-specific permits, or direct tolling, either manual or electronic.

The Pricing Study did acknowledge the feasibility of more direct billing mechanisms. In particular, it canvassed direct charging options in congested urban areas. While noting the success of supplementary vehicle licensing in Singapore and the existence of such a scheme in Wellington (directed at residential parking), it was curiously diffident about the scope for such approaches in New Zealand in urban areas. Nevertheless, it did acknowledge that electronic road pricing on "key corridors such as the Auckland Harbour Bridge and the Hutt motorway could offer sufficient efficiency gains to offset the additional costs".

The NZBR was disappointed by the very limited progress in the Pricing Study reports towards determining better charging arrangements. Nor, given the narrow interpretation of the terms of reference for the Study, can there be grounds for optimism that much real progress will be made towards this goal when the reports are finalised.

A noteworthy feature of the current process is the lack of alignment between incentives and access to the information necessary to determine optimal (commercial) pricing arrangements. The infrastructure providers should surely be best able to assess the costs which diverse road users are imposing on them - if they had the incentive to collect the relevant information and process it carefully. While the details would be open to discussions it seems to me that a logical approach would be to:

- proceed as rapidly as possible to put Transit New Zealand, and perhaps local roading authorities, on a more commercial basis; and
- charge Transit New Zealand (in conjunction perhaps with representative local authorities) with the task of preparing recommendations concerning:
 - optimal forward-looking cost-based charges using current charging instruments;
 - proposals, and a timetable, for introducing more efficient direct billing instruments; and

- legislative changes removing undue impediments to the introduction of more efficient billing mechanisms.³

The removal of the funding role from Transit New Zealand facilitates putting it on a more commercial basis. The NZBR's 1993 report on options for roading reform recommended that this should happen as soon as practicable in order to improve transparency and incentives. We suggested that shadow tolling should be investigated as an interim measure pending the introduction of a direct billing system. The report also canvassed the options of separate ownership of state highways and local roads versus single ownership and saw possible advantages in the latter option.

The case for a more commercial approach seems even stronger now. This would improve Transit New Zealand's incentives to obtain better information about consumer needs, the costs of meeting those needs, and the optimal time to bring in direct billing.

There is scope for greater contracting out of work in some areas. Opportunities for gains through franchising and the construction and operation of private roads should also be considered on a case-by-case basis.

As is implicit in the above remarks, I do not see the need to focus on the development of a National Land Transport Strategy. The concept of achieving, through consultation, a shared vision for such a strategy seems utopian - and a recipe for division and disappointment. What people say they want in consultations is likely to be considerably influenced by their perceptions of who will be obliged to pay. In the marketplace, efficient prices and levels of service result from assignment of property rights and realised demand for services, without prior consultation, consensus or a shared vision.

Work on the pricing of environmental and other externalities should proceed independently of the commercial, cost-based calculations of a road infrastructure provider. The Pricing Study provided dollar estimates of the costs imposed by road transport in terms of noise, air pollution, greenhouse gas emissions and adverse effects on water quality. While the numbers are so heroic that it would be flattery to call them indicative, the issues themselves should be taken seriously. Balancing considerations, from a pricing perspective, include:

- the need to give consideration to the possibility of positive externalities - for example, enhancements to the road network may raise the values of properties owned by unrelated parties. This is an access externality;
- the fact that petrol is already heavily taxed as a proxy for road use;
- the possibility that direct regulation of some of the harmful constituents of fuels would be a better environmental strategy; and

³ For example, the Auckland Regional Council commented in its latest annual report that "As there is no provision under the existing legislation to implement these [direct congestion charge] measures only limited work is being done in this area".

- the possibility that consumer welfare in colder regions will be enhanced rather than reduced by global warming of the scale currently envisaged.

In our submission to the Ministry for the Environment on the discussion document on global climate change produced by the Working Group on CO₂ Policy, we argued strongly that the government had yet to establish a case that:

- projected climate change to 2100 would reduce rather than raise consumer welfare in New Zealand; and
- the benefits to New Zealand from introducing a carbon tax in 1997, regardless of the actions of other countries, exceed the costs.

We do not see this as an industry-versus-environment issue. Industry will relocate in the light of prevailing tax and regulatory arrangements, albeit at some cost, to wherever in the world it is efficient to process resources. Rather, New Zealanders may be asked to bear costs in order to satisfy a perceived need to be seen to be 'doing something', despite the ineffectiveness of such action. If the purpose of any measures is really to satisfy a diplomatic need, then proposals need to be evaluated explicitly against this objective. We have yet to see such an analysis.

3 Conclusions

The main points made in this paper are as follows:

- Reforms to the transport sector over the last two decades have yielded major benefits. However, there is scope for further improvements through deregulation, privatisation and changes to funding arrangements.
- Local authority-owned bus services should be sold. Ports, airports and the provision of air traffic control services should also be privatised.
- Central and local government policies in relation to subsidies for bus and train passenger transport services need a fundamental review. Rationales based on congestion and the case for assisting people with disabilities or people who are poor through interventions in transport markets (as opposed to direct assistance) seem to be very weak.
- Road reform is by far the most challenging outstanding issue.
- The Land Transport Pricing Study seems unlikely to produce any clear consensus about optimal charges under current arrangements. Inadequate information and the lack of commercial incentives limit what can be achieved.
- The greatest hope for major efficiency gains may lie in moving more rapidly to put road network providers on to a commercial basis and removing the barriers which are impeding the more vigorous search for direct billing options.
- Transit New Zealand could be charged (in conjunction perhaps with representative local authorities) with the task of preparing recommendations concerning:

- optimal forward-looking cost-based charges using current charging instruments;
 - proposals, and a timetable, for introducing more efficient direct billing systems; and
 - the removal of legislative impediments to the introduction of more efficient billing mechanisms.
- The NZBR's 1993 report favoured SOE structures for road network providers which would be fully responsible for all aspects of road safety, including enforcement. We remain of this view. A separate government agency would continue to be responsible for transport-sector-wide safety policy and regulation enforcement.
 - Work on the pricing of environmental and other externalities should proceed independently of the commercial pricing decisions of a road infrastructure provider.