

THE POTENTIAL FOR COMPETITION IN AUSTRALIAN SUBURBAN RAIL SYSTEMS

Derek Scrafton

Associate Commissioner
Urban Transport Inquiry
Industry Commission
Australia

INTRODUCTION

1. Rail passenger services operate in the state capital cities of the five mainland states: Sydney, New South Wales (NSW); Melbourne, Victoria; Brisbane, Queensland; Perth, Western Australia (WA); and Adelaide, South Australia (SA). All are electrified networks, except Adelaide which uses diesel multiple-unit sets; two systems operate on broad gauge tracks (1600mm. - Melbourne and Adelaide), two on narrow gauge (1067mm. - Perth and Brisbane) and Sydney is a standard gauge (1435mm.) system. In the case of Sydney, the "suburban" rail operations extend well beyond the contiguous built-up area to secondary urban centres, Newcastle 170km to the north and Wollongong 82km to the south, and to the Blue Mountains towns to the west of Sydney. Melbourne also has similar services to Geelong (73km) and Sunbury (50km).
2. The Industry Commission, in its Report on Urban Transport (IC 1994)¹, found "Australia's urban rail systems are characterised by large financial deficits and poor operating efficiency" and that while "some rail authorities have taken steps to improve their performance in recent years, including reducing costs and increasing service quality", suburban rail is the most expensive element of Australia's urban public transport networks with farebox cost recoveries very low by world standards (Table 1).
3. State governments in Australia are seeking efficiencies in urban transport through operator accreditation systems, route and area franchising, and increased use of the private sector to provide services. To date the main efforts towards such reform have been through bus services which are already the more efficient service providers in

¹This paper is a shortened version of the Chapter on Urban Rail (B1), of the Industry Commission report. The authors include Keith Horton-Stephens, Jeff Rae, Derek Scrafton, Robert Jones, Michael Woolston and Laurence Huang.

Australia, so any gains made will tend to increase the contrast with the higher costs incurred in providing rail services.

4. This paper summarises the performance of urban rail in Australia and considers the potential for increasing competition in suburban rail systems through more competition in the market by deregulation and innovation, and through competition for the market, giving access to third parties and franchising all or parts of metropolitan rail networks, using processes that are already established for bus services in Australia, are being considered for long distance rail services in Australia, and for metropolitan rail services in other countries. The paper examines the possibilities of greater financial, institutional and physical separation of urban routes and services from rail facilities, as is already occurring to some degree in all Australian government-owned systems, and also the potential advantages and disadvantages of separate infrastructure agencies.

TABLE 1 Recovery of costs from fares*

City	System	1991/2 %	1992/93 %
Sydney	CityRail	47	46
Melbourne	The Met	32	28
Brisbane	CityTrain	32	25
Adelaide	STA (TransAdelaide)	12	12
Perth	TransPerth	9	10

* Inclusion of non-fare commercial revenues would increase 1992/93 cost recovery by up to 8%.

Sources: Railway Industry Council 1990
IC 1991
ACTA 1993

THE EXISTING SYSTEMS

5. State governments in Australia closely direct many aspects of urban rail operations, giving management little control over investment decisions, fares, frequencies, destinations and times of services as governments either directly make these decisions, regulate their operations, or contract for service. Rail authorities do not borrow directly from the market, and in many cases, debts which relate to the operation of railways are transferred to the state treasuries.
6. In recent years, governments have recognised the need to improve the performance of rail services, and have introduced changes to make rail authorities operate more along commercial lines. However, although four of the five urban railways have boards, these have little autonomy in decision-making e.g. the board of the NSW State Rail Authority (which has the greatest autonomy) can make investments up to \$A1 million (\$A1 = c.\$US0.73) without prior government approval.

7. There are separate business units for rail passenger and freight services in most states of Australia, and separate business units for infrastructure management are beginning to appear. Although there is nominally a separation of rail activities into these groups, separate accounts have hitherto not been available for urban rail operations. Apportionment of track costs is a major problem (see White, 1994). In Queensland, the business units were announced with flair in 1993, but separation of costs and revenues for the CityTrain urban rail system are still not made public. In Perth, Westrail provides urban services under contract to the Department of Transport, which is more transparent, whereas in Adelaide, TransAdelaide's rail services are integrated with bus services, though the legislative basis is in place for urban rail services to be provided by another operator.
8. Whilst some Australian railways have compiled detailed information on the costs of operating individual segments of the network, such data are not generally public. Some of the information that is available is not comparable between systems. For example, rail systems use different definitions of costs and revenues, and most can not yet isolate the value of assets pertaining to urban rail operations. Some rail authorities include in their revenues community service obligation (CSO) payments for concessional fares, while others do not distinguish between concessions and general subsidy payments for recovery of operating costs.
9. Recorded operating deficits, as published in the annual reports of the rail authorities, can significantly underestimate the full operating deficit, due to the exclusion of depreciation, interest payments on transferred debt, payroll tax, and unfunded liabilities for superannuation of rail employees.
10. It is therefore difficult for the community to assess with any precision how well their rail services are performing. Developments in recent years are encouraging, but published information is still inadequate, and it is obvious that much more improvement is required to provide a quality service affordable to the users and taxpayers.

ASSESSMENTS OF PERFORMANCE

11. Based on data provided by the Commonwealth Grants Commission (CGC, 1993) and the Australian City Transit Association (ACTA, 1993), the Industry Commission estimated the operating deficits of urban rail operations in Australia at about \$A2 billion in 1991-2. This deficit compares with that for all urban public transport of the order of \$A3 billion. The urban rail deficit represents an average subsidy of the order of \$A5 per passenger boarding.
12. In 1992-93, of Australia's five urban networks, Sydney achieved the highest farebox recovery (46% - see Table 1), followed by Melbourne and Brisbane; cost recovery on these three networks increased between 1986-87 and 1992-93. In Adelaide and Perth cost recovery is considerably lower than in the larger eastern cities, and declined to 1992-93. Overall cost recovery ratios, can, however, mask significant

variations in cost recovery across the network, depending on how costs are allocated to individual services, and on the fare structure. (See IC, 1994, Chapter A7).

13. In general, productivity has been increasing slowly in Australian urban railways. Passenger boardings per employee has increased considerably in Sydney since 1985, and more recently in Melbourne. There has been little change in Brisbane, and variable performance in Adelaide and Perth - although there were significant increases in Perth in the 1990s, interpretation is difficult to the inclusion of the northern rail line with forced feeding of bus routes. Vehicle kilometres per employee have also increased in the 1990s in the eastern states due to a fall in the number of employees, but there was little overall change in labour productivity in Perth or Adelaide.
14. The Industry Commission's study of total factor productivity (IC, 1994, Appendix D) provides a more complete picture of productivity than partial measures. The study found that the productivity of the Adelaide urban rail operations declined alarmingly between 1986-87 and 1992-93: about 9% based on pass.km and around 34% on seat km, reflecting the poor underlying performance of rail combined with steadily improving performance of competing bus services. In contrast, productivity increased over the same period in Perth (3% pass.km; 6% seat km), and in the 1990s Melbourne (9% pass.km; 4% seat km).
15. Travers Morgan, in earlier research for the Industry Commission (IC, 1991) found that the costs of urban passenger rail systems in Australia were on average 36% higher than international best practice. Since that study, some of the rail authorities have reduced their costs, particularly labour costs. CityRail (NSW SRA) has demonstrated that on the basis of cost per passenger journey, and passenger journeys per employee, CityRail compares favourably with British Rail's Network South East, Japan Railways East, SNCF Paris operations, and three suburban operators in USA (CityRail 1993). However, cost recovery and asset productivity are low compared to these operators.
16. Poor management practices contribute to low productivity. In particular, government policies on public sector employment act as a constraint to good management of rail authorities. The Railway Industry Council emphasised the need for organisation structures to reflect the requirement to hold management responsible for system performance (RIC, 1990). In addition, there is union resistance to workplace reforms, particularly to the introduction of driver only operation, and various work practices restrict the ability of operators to make efficient use of staff.
17. Many of the current problems in operating Australia's urban railways can be attributed to poorly directed investments. Apart from the waste of initial outlays, inappropriate investments (for example, expanding the rail network where rail is not economically viable) can lead to higher than necessary costs in future years. As noted above, management do not make major decisions on expanding or contracting government-owned rail networks, and the community's willingness and capacity to pay is not necessarily considered a factor in such decisions e.g. high profile system

extensions are politically more attractive than investing in track renewal or signalling improvements.

18. Performance indicators of service quality are of limited value in making comparisons across systems, mainly due to problems of measurement e.g. "on time" punctuality, frequency of services, comfort, safety and convenience. A growing concern in 1990s is personal safety and security on trains, one reason the trend to driver-only operation has slowed in Perth and Adelaide.

OPTIONS FOR STRUCTURAL REFORM

19. Without major reforms, governments will have to continue making large contributions through direct subsidies if urban rail operations are to be maintained. Administrative proposals relating to the corporatisation of government rail authorities need to be implemented, including clear statements of commercial objectives, accountability and autonomy in day-to-day operations. Cost cutting and restructuring of fares need to be accompanied by a stronger customer focus and improved service quality. Even then, it will not be enough - structural reform through the introduction of competition is required to bring about major change, as it has done (or is doing) in bus services and in long distance rail.

20. The introduction of competition is complicated by the issue of natural monopoly, usually considered to characterise the operation of rail infrastructure (Nash & Preston, 1993). The evidence for natural monopoly in other aspects of running railways - e.g. train operation, administration, maintenance - is less clear. Even if part of the rail system is a natural monopoly, certain aspects may be delivered more efficiently if opened up to competition. Structural reform of rail needs to be tailored to retain the benefits of vertical integration in those areas where there is natural monopoly, while at the same time providing scope for increased competition in other areas, including allowing other modes of transport to compete with rail.

21. For this reform to occur, it is essential to separate different types of rail traffic into autonomous business units or different organisations. The first step is to clearly separate the accounts of existing rail authorities to allow a sharper business focus to the activities of freight, long distance passenger and urban passenger services. Accurate costing is also necessary to enable appropriate determination of CSO payments. Separate financial accounts should be provided for each unit, preferably audited by an independent body.

22. The benefits of separating out different types of rail traffic have been accepted by most rail authorities, but separate accounts are not often available. In Adelaide, different organisations run freight and country passenger, and urban rail services. In NSW, Victoria and Queensland separate business units exist, though in Queensland urban and non-urban passenger services have not yet been separated.

23. Such separation leads to the option of dividing existing urban rail passenger operations into smaller, geographically-based autonomous units or GBEs (see Savage, 1994). Possible reasons for creating such smaller units include providing a stronger local customer focus, and facilitating the introduction of new owners or operators who might find it more attractive to deal with smaller, locally-based operators. Such arrangements might also make it easier for local governments to participate in the funding and operation of local rail services. The model has parallels with developments in Great Britain, Japan and Germany, and is particularly relevant to the larger Australian cities. Sydney has already made a start with a line management approach to its Sydney metropolitan and outer regional services.
24. Functional and geographical separation may be accompanied by separating services from infrastructure, to make the cost of operating track, signalling and stations more transparent (including the cost of running trains on congested lines) and hence give both infrastructure provider and train operator a commercial relationship. Such separation should increase the pressure on rail authorities to maximise returns on existing infrastructure, and create the institutional framework for the possible introduction of new operators. It is thus important there be an actual (not just nominal) separation of units, with separate financial accounts. There are several overseas models of structural separation; Victoria and NSW have already moved to set up rail infrastructure units in Australia, and the Commonwealth Government has proposed a Track Australia organisation.
25. Possible ways of introducing new operators into urban passenger rail include franchising the whole network, franchises for part of the network, and open access. New entrants may wish to operate some aspects of the infrastructure e.g. stations, or to lease lines where the new operator is the sole user of that section of track. A rail service does not have to be profitable for it to be franchised - services can be tendered on a minimum subsidy basis, as for buses: the government defines the services it wants provided and the franchise is awarded to the operator willing to provide an acceptable quality service at the least cost to taxpayers (Love & Cox, 1993).
26. Agreements to allow one operator access to another's infrastructure already exist in Australia. The National Rail Corporation's freight trains require access over urban tracks, and for twenty years Australian National Railways and successive SA metropolitan transit operators (STA and TransAdelaide) have had agreements for the services over the other's lines in Adelaide. Similarly, private operators of passenger trains negotiate a fee to use government (PTC) infrastructure in Victoria. In situations where it is possible to have more than one operator providing similar services over common track, a coordinating body or regulator may be required, to allocate or arbitrate access subject to availability of capacity and suitable commercial agreements.
27. Given the poor financial performance of Australia's urban rail networks, the sale of entire networks to private companies is unlikely to be feasible at present. Whether it is possible to sell individual lines depends in part on whether it is economical to

operate one line only. The sale of stations separately from other rail infrastructure may also be possible either to an operator of rail services or to other firms (Sheys, 1994). There are many examples of private companies providing urban rail services, particularly in Japan, and others where private companies operate specific services e.g. Victorian country passenger trains, and NSW tourist trains.

A STRATEGY FOR CHANGE

28. The five authorities which currently operate urban rail services in Australia vary considerably in terms of size, market share, level of cost recovery, and method of organisation. This, together with the fact that different state governments have different views on the need, scope and timeframe for microeconomic reform, suggests that it would be inappropriate to apply the same model to structural reform of the urban rail systems. The best approach in each case will depend on the costs and benefits of particular options, and the interest of potential new operators.
29. All states agree that autonomous business units for different types of rail traffic is a necessary and desirable first step. Some authorities have already moved along this path, including NSW and Victoria where infrastructure units are in place or under consideration. CityRail in Sydney also has plans to divide its urban network into geographic units.
30. Private operators currently provide passenger rail services in country areas, where it was easier to separate individual services for franchising. However, this principle can be applied to outer metropolitan services e.g. the Hunter Valley, the Wollongong line; and to clearly separable urban services e.g. the Sandringham line. Franchising the total network is a more likely strategy for Perth and Adelaide; both the WA and SA governments accept this as an option.
31. There are some practical issues to be overcome e.g. introducing new operators to congested track, and some complications may arise with multiple operators which do not arise where there is only one operator. If new operators are to run over government-owned track an access fee needs to be negotiated, which will depend on the valuation of the infrastructure, the terms on which new operators are willing to provide services, and whether access is through an exclusive franchise arrangement or by open access.
32. A political problem at present is that some governments do not feel they have sufficient information to determine how potential new operators might participate in the provision of urban rail services, and remain unconvinced that franchising would result in net benefits. One way of obtaining this information would be to seek expressions of interest from potential operators to determine the terms and conditions under which they may be interested in operating such services. Requests for expressions of interest should be framed broadly, without limiting the options for participation in the business e.g. with or without owning or leasing infrastructure, including stations. However, such requests should involve generic commitment by the governments to seriously consider the responses.

33. Another issue is the extent and form of government regulation, if any, when new operators are allowed to provide rail services (see Office of the Rail Regulator, 1994a). To what extent should governments continue to regulate fares and other aspects of service, such as frequency? Irrespective of such economic issues, there is a need to separate the function of regulating safety from the government operator. This is occurring in Australia, with independent action in NSW, and joint Commonwealth-State proposals for regulating rail safety.
34. Where more than one organisation provides passenger rail services there is a role for government regulation to ensure fair access to the track and other infrastructure (King, 1995). However, any regulation does not need to be as complex as that in place in Great Britain (Office of the Rail Regulator, 1994b). It may be a contractual arrangement, such as those already existing in SA, Victoria and NSW; or it could be an industry specific body, though there is evidence (see, for example, IC 1992) that regulation through general legislation is preferable e.g. under the Trade Practices Act and the new National Competition Policy (Independent Committee of Inquiry, 1993).

CONCLUSION

35. Governments in Australia are committed to microeconomic reform. This is already reflected in Transport to varying degrees in aviation, ports, railways and urban buses. It is reasonable to expect urban railways to be caught up in this process for various reasons:
- high costs of operating deficits, infrastructure, rolling stock maintenance and replacement;
 - a feeling that users and taxpayers are receiving poor value for money;
 - difficulties in balancing state budgets;
 - ideology, and the demonstrated benefits of bus reforms;
 - pressure from the Council of Australian Government reform process.
36. There are models for reform of urban railways: corporatisation; privatisation of the total system, or parts of it; franchising to provide services on the total system or parts of it; and open access. Reform of urban railways using one or more of these models would be complementary to reform elsewhere in transport: in buses in Australia and UK; in long distance rail in Australia and New Zealand; in railways in the US and Japan and so on. Whilst all the models will not result in similar outcomes, they will provide better service to the user at less cost to the taxpayer. In any case, adoption of one model does not necessarily preclude the use of another at a later date.
37. There are some problems, such as management attitudes, union responses, network complexities, and expectations of governments, their treasuries, and of users. And there are potential changes elsewhere in transport and urban development that will impact on demand e.g. intelligent transport systems, telecommunications, urban expansion and/or consolidation. I believe these developments accentuate the need to reform the urban rail networks, and expect to see, within 15 years, privately operated

rail networks in Perth and Adelaide; geographically separated "lines" or "regions" in Sydney, Melbourne and Brisbane; some lines closures in most of these cities; and above all customer orientated services operated by a range of private and corporatised public agencies, leading to a reduction of the urban rail deficit from \$A2 billion to \$A1 billion. In summary, better services more closely matching demand, at a lower cost to the taxpayer and higher real costs to users and other direct beneficiaries.

REFERENCES

ACTA (Australian City Transit Association): City Transit Year Book. Canberra 1993.

CGC (Commonwealth Grants Commission): Report on General Revenue Grant Relativities 1993. AGPS Canberra 1993.

CityRail: Submission to NSW Government Pricing Tribunal 1993.

IC (Industry Commission): Rail Transport. Report No.13 AGPS Canberra 1991.

IC (Industry Commission): Mail, Courier and Parcel Services. Report No.28 AGPS Canberra 1993.

IC (Industry Commission): Urban Transport. Report No.37, AGPS Melbourne 1994.

Independent Committee of Inquiry: National Competition Policy (Hilmer Report). AGPS Canberra 1993.

Love J.; Cox W.: Competitive Contracting of Transit Services. Privatisation Centre How To Guide #5. Reason Foundation Los Angeles 1993.

Nash C.; Preston J.: Privatisation of Railways. Round Table 90. ECMT Paris 1993.

Office of the Rail Regulator: Competition for Railway Passenger Services. A Discussion Paper (July); A Policy Statement (December) 1994a.

Office of the Rail Regulator: Criteria and Procedures for the Approval of Freight Track Access Agreements 1994b.

RIC (Railway Industry Council): Rail into the 21st Century. AGPS Canberra 1990.

Savage I.: Scale Economies in Rail Transit Systems. Great Lakes Centre for Truck & Transit Research. Ann Arbor 1994.

Sheys K.: Strategies to Facilitate Acquisition and Use of Railroad Right of Way by Transit Providers. TCRP Legal Research Digest No.1. Transportation Research Board Washington 1994.

White P.: Public Transport - privatisation and investment. Transport Policy, Vol.1 (3) 1994 pp.184-194.