

THE FINANCES AND PERFORMANCE OF AUSTRALIA'S RAIL SYSTEMS

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ABSTRACT: *In the current climate of tight expenditure restraint, Federal and State Governments are carefully looking at their railways to ensure that they are getting value for money and to reduce rail's call on taxpayers' funds.*

Various measures have been taken over recent years to improve the operational and financial performance of the railways, including the investment of considerable funds. This paper reviews the current situation and recent trends in the finances and performance of the railways to ascertain the extent of improvements to date and areas where further improvements can be made.

The paper concludes that the available evidence suggests there is considerable room for rail to improve its performance in the financial and other areas.

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INTRODUCTION

Since the early 1970's, the overall financial performance of Australian government railways has deteriorated from a profitable position to one of rapidly increasing deficits.

In the current climate of tight expenditure restraint Federal and State governments are carefully looking at their railways to ensure that they are getting value for money and to reduce rail's call on taxpayers' funds.

This paper assesses the finances and performance of Australia's government owned railways in recent years and seeks to establish the extent of improvements and the real cost of railways to the Australian community.

A number of measures of rail performance are examined in this paper. They generally fall into two categories - indicators of financial performance such as deficits, cost recovery levels and capital expenditure and physical performance indicators such as details of traffic task, and employment statistics. Market shares between the various modes are also discussed.

The performance measures discussed are those which can be ascertained from publicly available material. There are clearly many other indicators which could also be used to assess performance. Nevertheless, when taken together, the performance measures in this paper provide a relatively comprehensive assessment of the overall trend in performance.

Based on this available evidence, there would appear to be considerable room for rail to improve its overall performance.

BACKGROUND

In the mid to late 1970's, Federal and State Governments expressed concern at the escalation of rail deficits. Rail's future role and the means for fulfilling that role were addressed by the Australian Rail Research and Development Organisation (ARRDO) in its 1981 Report on Rail. The ARRDO Report and the observations made through the subsequent regional workshops and the National Rail Policy Seminar, together with the comments provided by the Transport Industries Advisory Council (TIAC), were considered in the "Action Plan for National Railway Development" endorsed by the Australian Transport Advisory Council (ATAC) in July 1983.

The overall consensus was that rail had an important role to play but that major changes were required if the government rail systems were to take their proper place as a viable part of the nation's transport system during the 1980's and beyond.

In its conclusions and recommendations, the Rail Action Plan noted that

- while there was a stock of commercially worthwhile investment projects, investment measures will not, by themselves, solve the operational and financial problems of the railways
- other measures, such as improved productivity and marketing as well as structural change within the industry, are necessary to achieve major improvements in rail's operational and financial performance
- the commitment of all parties - governments, rail authorities and unions - would be required to facilitate these changes and that full and open consultations with unions is essential to create an appropriate climate for change
- if Governments require rail systems to perform social roles this should be explicitly reflected in railway accounts
- and that a national approach is required if railways are to take their proper place as an integral and efficient part of Australia's transport system.

The Action Plan approach endorsed by ATAC recognised that concerted and wide ranging action is required if the problems of the rail systems are to be addressed in a meaningful way. A package containing productive rail investments and complementary measures to address other deficiencies offers the best prospects for achieving a marked improvement in the operational efficiency and financial performance of the rail systems.

PERFORMANCE INDICATORS

(1) Level of Railway Deficits

The level of railway deficits is an important indicator in assessing the overall performance of rail systems.

To ensure some measure of consistency the rail operating deficits used in this paper are calculated by following the methodology used by ARRDO for its 1981 Report on Rail where deficits equal revenue less operating costs plus capital costs.

These figures may vary from some rail systems published accounts but are considered to more accurately reflect the financial results.

In 1985/86, rail deficits totalled over \$1660 million, a real increase of 28 per cent since 1980/81 (Table 1).

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The major deficit contributors are New South Wales and Victoria whose deficits total \$1400 million, or nearly 85 per cent of total government rail deficits. During the five years to 1985/86, NSW's rail deficit has increased in real terms by 28 per cent. Revenue and operating expenditure have grown at the same pace, but financing charges for the major capital expenditure undertaken by the State Rail Authority of New South Wales has grown five fold, from approximately \$60 million in 1980/81 to over \$300 million in 1985/86.

Victoria's 1985/86 rail deficit now outstrips that of NSW at \$750 million with \$300 million attributable to metropolitan services. Over the five years to 1985/86, in real terms revenue has fallen 13 per cent but expenditure grew by 47 per cent.

Queensland Rail has achieved a major reduction in its deficit in dollar terms to stand at \$34.5 million in 1985/86. The major factor contributing to this performance has been a threefold increase in revenue from the carriage of coke and coal to over \$640 million representing 69 per cent of Queensland Rail's freight revenue. It is important to note here that it is widely accepted that the coal freight rates contain a significant tax element which goes beyond what is considered to be a reasonable commercial return.

Despite operational improvements, Westrail's deficit has remained unchanged in real terms in the last five years primarily due to loss of traffic previously regulated to rail. In 1985/86, Westrail's deficit was \$56.1 million.

The deficit of the Federal Government's railway, Australian National, has been reduced by 25 per cent in real terms since 1980/81 to \$69.5 million. Major improvements have been achieved through cost reductions although revenue generation has also been a factor.

In 1985/86, rail deficits represented 4.8 per cent of net government outlays, compared with 5.2 per cent in 1980/81 (Table 2). Victoria and New South Wales recorded increases with Victoria's share increasing from 4.6 per cent to 7.5 per cent since 1980/81. For the other systems the proportions fell with Queensland recording the greatest decline since 1980/81.

The actual cost to Government finances is, of course, greater than the level of rail deficits. Rail systems receive funds, normally presented in their accounts as revenue, for concessions provided for freight and passengers. In 1985/86, such concessions for Government rail users totalled around \$200 million, bringing the call on taxpayers funds to around \$1860 million.

Capital expenditure, depending on how it is financed, may also be a further call on State budgets. The extent of capital investment is discussed below.

To illustrate the significance of the total call on Government finances of rail deficits, they now total around 50 per cent of the Federal Government's projected budget deficit for 1986/87 and are increasing.

In terms of the financing of rail deficits, it is worth recording at this point that State rail deficits are taken into account by the Commonwealth Grants Commission in determining shares of general tax revenue. In addition to funding its own railway, it is estimated that the Federal Government's contribution to the States for rail under these arrangements amounts to about \$310 million for 1985/86 or around 20 per cent of the operating deficit of the rail systems in NSW, Victoria and WA and almost 27 per cent of Queensland's rail deficit.

(2) Cost Recovery Levels

While deficits and their impact on State Government Budgets indicate in absolute terms the significance of rail expenditure, it is cost recovery levels which probably offer a more meaningful yardstick for measuring rail system performance.

In 1985/86 for Australia's government rail systems as a whole, 65 cents was recovered for every dollar spent; five years earlier 66 cents was recovered. In short, there has been virtually no improvement in the last five years (Table 3).

However, these system-wide figures hide the individual performance of the rail systems over the period 1980/81 to 1985/86:

- cost recovery levels improved in Queensland from 74.6 per cent to 96.6 per cent and in AN from 74.3 per cent to 80.3 per cent;
- for the SRA cost recovery levels rose fractionally from 62.0 per cent to 62.3 per cent, and for Westrail they fell fractionally from 83.1 per cent to 82.0 per cent;
- Victoria's level of cost recovery fell from 52 per cent in 1980/81 to 30.4 per cent in 1985/86.

Cost recovery levels for individual traffics, particularly freight traffics, are not publicly available, primarily for commercial reasons.

However, the Inter-State Commission's 1986 Report on Cost Recovery Arrangements for Interstate Land Transport found that overall interstate rail freight recovered around 66 per cent of its fully distributed costs while interstate passenger services recovered only 37 per cent. Freight cost recovery varied between systems from an upper limit of 119 per cent for Westrail to 43 per cent for Queensland Rail.

(3) Rail Capital Investment

While it is difficult to precisely ascertain rail investment expenditure, Table 4 sets out information gathered from various reports and communications. Since 1979/80, the five rail systems (excluding State Transport Authority of South Australia) have expended more than \$7 billion on rail capital projects, the majority in New South Wales and Queensland.

In addition, the Federal Government over the years has invested considerable funds in rail infrastructure. Other than AN related expenditure, Federal expenditure has mainly been aimed at linking all mainland capital cities to a national standard gauge. Much of the expenditure was undertaken in the 50's and 60's, although as Table 5 shows, significant expenditure was undertaken in the late 1970's and early 1980's on the completion of the Tarcoola-Alice Springs railway, the Adelaide-Crystal Brook standardisation, Tasrail rehabilitation and upgrading national rail lines. A significant amount of money has also been spent on urban public transport projects.

Total capital expenditure on all rail systems in 1985/86 is estimated to amount to around \$1100 million, around 50 per cent greater in real terms than the level of investment in 1980/81.

Table 6 sets out the level of finance charges incurred by the rail systems since 1979/80. These charges have increased from \$175 million to over \$700 million in 1985/86 of which 43 per cent is related to the State Rail Authority of New South Wales.

It is worth noting that despite increasing levels of capital investment in recent years, overall rail deficits have continued to increase and cost recovery levels have fallen marginally. In addition, apart from Queensland, the two rail systems with the lowest level of capital investment - AN and Westrail - have the highest levels of cost recovery, which indicates they have been more selective in funding their capital projects.

(4) Traffic Task

Freight

In 1985/86, total freight earnings amounted to over \$2,250 million, a real increase of 29 per cent since 1980/81. (Table 7)

New South Wales and Queensland together account for over 70 per cent of freight revenue with Queensland Rail the largest, earning \$906 million in 1985/86.

Overall the freight task on Australian railways is increasingly being dominated by the carriage of bulk freight traffic, most notably coal and minerals, and grain. AN and V/Line are the exceptions to this

trend with V/Line's traffic spread across grain, freight forwarders and container traffic and AN's task dominated by general freight, including intersystem traffic.

The significance of interstate freight varies considerably between rail systems. On a tonne-kilometre basis, intersystem freight represents 78 per cent of AN's traffic and 49 per cent of V/Line's. It is considerably less for the other systems. (Table 8.)

Passenger

Rail patronage has improved in recent years. Total rail passenger journeys fell from 426 million in 1971/72 to 354 million in 1980/81 but have since recovered to 377 million in 1985/86. The recovery is mainly due to increased suburban rail patronage, following improvements to service standards and the extension and electrification of the Brisbane suburban rail network. Intersystem patronage and patronage on country rail services has also fallen. (Table 9.)

All of Australia's rail passenger services incur losses, with Victoria and New South Wales, the States with the largest suburban rail task incurring the largest losses.

Losses incurred on interstate passenger services in 1984/85 have been estimated at \$97.5 million, comprising NSW \$56.9 million, AN \$20.8 million, Victoria \$11.9 million, WA \$5.9 million and Qld \$2.5 million. Based on Inter-State Commission's estimates of interstate rail patronage, this means a loss of \$70 per passenger journey. However, this may be understated as AN, which had the highest cost recovery level, incurred losses per interstate passenger on a fully distributed basis in 1984/85 of \$95.

Cost recovery levels for passenger services overall are well below 50 per cent with interstate passenger services performing better than suburban and country services.

(5) Employment

Labour costs represent a significant proportion of rail system operating expenses. This varies between 50 per cent of operating costs for Victoria's Metrail up to 64 per cent for V/Line. Trends in employment levels and their proportion of total operating costs are therefore useful indicators of performance. (Table 10).

Australia's rail systems employed 102,000 workers in 1985/86, a decline of 7,000 in the last 5 years. Workforces for the three major rail systems have remained more or less static - about 40,000 in NSW, 25,000 in Queensland and 20,000 in Victoria, although the traffic task has grown significantly in Queensland and NSW. Workforces for the two smaller systems - Westrail and AN - have been

reduced by about 30 per cent despite increases in traffic tasks. Westrail's workforce has dropped from 9,300 to 6,600 and AN's from 11,200 to 8,100 in the last five years.

As a proportion of total operating costs, employment costs have declined for AN and Westrail but increased in New South Wales and Victoria.

(6) Industrial Disputation

Table 11 provides details of industrial disruption on the three systems for which information is available since 1980/81. This provides a measure of rail's reliability.

In 1985/86 approximately 50,000 working days were lost, less than half the level of the year before but almost double the level in 1980/81. AN had its lowest level of industrial disruption in 1985/86 since its inception in 1975/76.

(7) Rail's Freight Share

Another important measure is rail's performance compared with its competitors, in particular the road transport industry.

In the period 1970/71 to 1984/85 the total domestic freight task grew from 138.4 billion tonne-kilometres to 243.7 billion tonne-kilometres, an increase of 76 per cent. Rail's share of the traffic task in net tonne kilometres has remained constant at 18 per cent, although in tonnes consigned its share grew from 9 per cent to 12 per cent. (Table 12).

This result is despite the large increase in coal and minerals traffic carried by some rail systems in recent years, which overall has increased by 70 per cent since 1980/81.

Rail's major competitor, the road transport industry, increased its share of the domestic freight task over the same period from 20 per cent to 30 per cent.

With respect to interstate surface freight, rail's share has remained fairly static at about 25 per cent. However, an examination of the individual systems and corridors shows some interesting trends.

First, there is a large divergence in rail's share of the market between routes. Rail carries some 70 per cent of the land transport tonnage on all the intercapital routes to Perth, except Perth-Brisbane, but carries less than 25 per cent of the freight in the Melbourne-Sydney corridor, less than 17 per cent of Adelaide-Melbourne traffic and less than 10 per cent on the Sydney-Adelaide and Brisbane-Adelaide corridors.

Second, when compared to 1975/76, rail's share of the market has increased on the longer-distance corridors to Perth but has declined markedly on the shorter-distance routes, particularly Melbourne-Adelaide and Sydney-Adelaide.

These figures pre-date the introduction of superfreighters which may be increasing rail's share of traffic in these corridors.

SUMMARY

In the last 5 years Australia's rail operating deficits have increased by 28 per cent in real terms to over \$1660 million in 1985/86 and rail cost recovery levels have fallen from 66 per cent to 65 per cent. This is despite the injection of \$7 billion for rail capital expenditure over the period 1979/80-1986/87.

Despite the declining overall rail performance, some individual rail systems have made a concerted effort to improve their performance.

Queensland Rail's operating deficit has fallen in money terms to \$34.5 million in 1985/86 and may even be profitable in 1986/87. Its cost recovery has improved from 74.6 per cent in 1980/81 to 96.6 per cent in 1985/86, which is the highest cost recovery level of any government rail system in Australia. This improvement is primarily due to increase revenue for coal traffic. It has also achieved considerable growth in suburban passenger traffic from 30 million in 1971/72 to over 40 million in 1985/86, the only State to achieve a growth in its suburban passenger traffic over this period.

Over the last 5 years AN has reduced its rail operating deficit by 25 per cent in real terms to \$69.5 million in 1985/86, lifted its cost recovery from 74.3 per cent to 80.3 per cent, reduced its workforce by 27 per cent to 8127 and improved its industrial relations record to the point of losing only 218 working days through industrial disputes in 1985/86. AN has also increased its level of freight traffic, including piggyback freight services, regained a larger share of the wheat transport task from road transport and taken a number of initiatives with respect to its passenger services.

Since the late 1970's, Westrail has embarked on a series of operational changes and general reorganisation. In 1985/86 its operating deficit remained unchanged in real terms at \$56.1 million and its level of cost recovery at 82 per cent is only fractionally lower than in 1980/81. Westrail has reduced its workforce by almost 30 per cent to 6599 in 1985/86 and has required only \$227 million in capital funds since 1979/80 (less than any other rail system). Westrail's revenue base has been affected by deregulation.

The New South Wales SRA operating deficit has grown by 28 per cent in real terms to \$654.1 million in 1985/86 of which \$145 million (excluding any finance charges) relates to its urban passenger

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network. Its cost recovery level has improved fractionally to 62.3 per cent in 1985/86. More capital has been invested - some \$2100 million between 1980/81 and 1985/86 - in the SRA than in any other government rail system. Its traffic task has increased considerably in recent years and employment levels have remained at around 41,000 during the last five years. Some streamlining and rationalising of operations has taken place but improvements in this area have been more than offset by large increases in capital charges.

Victoria's rail operating deficit of \$749.6 million and cost recovery level of 30.4 per cent indicates that major improvements are needed. In real terms, since 1980/81 revenue has fallen 13 per cent but expenditure has grown by 47 per cent.

However, Victoria also faces some major hurdles in improving its performance because it has no major mineral traffic and short hauls for intrastate traffic which severely limits rail's inherent economic advantages. In addition, it has a good road system which benefits road transport operators. It also has a heavy loss-making suburban rail system. Victoria has spent \$1,300 million on rail capital projects between 1980/81 and 1985/86, but its workforce has remained close to 21,000 for the last 5 years.

CONCLUSIONS

The overall financial performance of Australia's government owned railways must clearly be a matter of concern to Governments.

Railways have moved from a profitable situation in the early 1970's to deficits in 1985/86 which have reached record levels and are absorbing an increasing share of budget outlays in some States. Cost recovery levels have declined for all systems except AN and Queensland Rail. This performance has occurred despite considerable investment in recent years and brings into question whether a proper commercial return is being made on such investments.

In the freight area, there would appear to be considerable room for rail to improve its performance. It is recognised that rail has a major role in the nation's transport system, particularly in the carriage of bulk and long-distance freight where it has a natural economic advantage over other modes.

However, rail has not been able to take advantage of a greatly increased domestic freight task compared to the road transport industry. Rail's market share overall has remained static while road transport's has increased by 50 per cent.

In addition, in the intersystem freight area, while rail has a large share of Sydney/Perth traffic, it has a very small share of the heavily trafficked Sydney/Melbourne corridor and the Adelaide/Sydney

and Adelaide/Melbourne corridors. The railways' success in recent years with piggyback traffic and the introduction of superfreighters indicate rail's fightback in this important market.

On the passenger side, it is generally recognised that passenger services have no long-term prospects of achieving profitability. Their cost recovery levels are very low. In NSW and Victoria, suburban networks incur a large portion of those systems' deficits.

The paper also clearly recognises the differences between the performances of the individual rail systems and the differences in the structure and importance of differing traffics to those systems. Nevertheless, generally the problems facing the rail systems are similar. There is a need to continue to improve marketing of services to attract and develop new business and to maintain existing business on the basis of satisfying customer needs. A greater contribution to reducing rail deficits is, however, likely to be achieved on the cost side of rail budgets. In this regard, railways should concentrate on those tasks they perform profitably and shed unprofitable services. Consideration also needs to be given to the more efficient use of resources, particularly employment resources, given their significance in terms of operating costs.

One of the difficulties that has arisen in the writing of this paper has been the problem in assessing the true financial performance of railways.

With some exceptions, a number of State railway accounts provide a misleading picture of the true losses incurred. They are not prepared in accordance with normal commercial accounting practices. For instance, in some cases interest and other charges are not included as costs to the system. In addition, it is extremely difficult to ascertain the total cost of railway operations to Governments.

Further, from publicly available information it is extremely difficult to compare Australian rail systems' performances as there is little uniformity in performance measures or in provision of information on tasks undertaken.

It is also very difficult in many instances to ascertain the performance of various segments of rail's traffic - even non commercial services are mostly not clearly specified. The separate identification of community service obligations was one of the recommendations of the 1981 ARRDO Report. The Federal Government has commenced to follow this course with its own railway, AN. Both Tasmanian operations and AN's passenger services are funded specifically but with financial targets set to ensure that such services are provided as efficiently as possible.

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A move by Governments to directly identify and specifically fund community service obligations would enable communities to recognise the cost involved with such services. It would also enable a more accurate picture of the performance of rail's commercial traffics to be ascertained.

Finally, it is now some six years since the last comprehensive report on rail was undertaken by ARRDO. The recent establishment of the Railway Industry Council, comprising representatives of Governments, rail authorities and unions, would appear to provide a good opportunity for a detailed assessment of the current position and future prospects of the rail industry generally to enable development of medium to long term strategies to address the problems facing the industry.

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TABLE 1 RAILWAY DEFICITS (a)

(A) Current Prices

Rail System	1980/81	1981/82	1982/83 (\$ Million)	1983/84	1984/85	1985/86	% Change Over 1980/81
NSW	342.7	476.1	600.3	584.0	611.9	654.1	+ 91
VIC	236.3	286.1	432.3	455.6	566.3	749.6	+ 217
QLD	142.2	156.5	211.9	115.7	78.2	34.5	- 76
Westrail	37.2	35.2	46.9	66.2	54.6	56.1	+ 51
AN	62.7	72.7	106.6	98.1	83.7	69.5	+ 11
STA of SA ^(b)	51.3	62.2	75.0	75.9	83.5	99.4	+ 94
TOTAL	872.4	1088.8	1473.0	1395.5	1478.2	1663.2	+ 91

(B) Constant Prices \$1985/86 (CPI adjusted)

Rail System	1980/81	1981/82	1982/83 (\$ Million)	1983/84	1984/85	1985/86	% Change Over 1980/81
NSW	509.3	640.8	724.7	659.4	662.7	654.1	+ 28
VIC	351.1	385.1	521.9	514.5	613.4	749.6	+ 114
QLD	211.3	210.7	255.8	130.6	84.7	34.5	- 84
Westrail	55.3	47.4	56.6	74.8	59.1	56.1	+ 1
AN	93.2	97.9	128.7	110.8	90.7	69.5	- 25
STA of SA ^(b)	76.2	83.7	90.5	85.7	90.4	99.4	+ 30
TOTAL	1296.4	1465.6	1778.2	1575.8	1601.0	1663.2	+ 28

Notes:

(a) Deficits calculated using the same methodology adopted by ARDDO for its 1981 Report on Rail.

(b) State Transport Authority of SA figures cover rail and other transport services for Metropolitan Adelaide.

Source:

Annual Reports

TABLE 2 RAIL DEFICITS AS A PROPORTION OF STATE BUDGET OUTLAYS

<u>Rail System</u>	Deficit(1) \$M	1980/81 Net Outlays \$M	Deficit as % of Outlays	Deficit \$M	1985/86 Net Outlays \$M	Deficit as % of Outlays
NSW	342.7	6363.0	5.4	654.1	11040.6 ⁽²⁾	5.9
VIC	236.3	5083.2	4.6	749.6	9945.7 ⁽³⁾	7.5
QLD	142.2	2604.0	5.5	34.5	5190.7 ⁽⁴⁾	0.7
Westrail	37.2	1862.0	2.0	56.1	3099.0 ⁽⁴⁾	1.8
AN	62.7]		69.5 ⁽⁵⁾]	
STA of SA	51.3	1554.9]	7.3	99.4	2955.4] ⁽⁶⁾	5.7
TOTAL	872.4	17467.1	4.8	1663.2	32231.4	5.2

- Notes: (1) Deficits calculated using the same methodology adopted by ARRDO for its 1981 Report on Rail
- (2) NSW - Current Outlays
- (3) Victoria - Net Outlays
- (4) WA and QLD - Consolidated Revenue Fund Expenditure
- (5) State Transport Authority of SA figures cover rail and other transport services for Metropolitan Adelaide
- (6) AN and STA of SA's rail deficit as a percentage of SA Budget recurrent expenditure

TABLE 3

RAIL COST RECOVERY RATES - PASSENGER AND FREIGHT SERVICES (a)

Rail System	1979/80	1980/81	1981/82	1982/83	1983/84	1984/85	1985/86
	PER CENT						
SRA	60.7	62.0	58.2	53.6	58.5	60.5	62.3
VIC	54.9	52.0	47.6	36.5	39.8	38.2	30.4
QR	73.0	74.6	76.9	72.2	86.1	91.9	96.6
Westrail	86.3	83.1	85.8	82.8	77.5	82.6	82.0
AN	70.9	74.3	72.9	64.5	69.8	76.5	80.3
TOTAL	65.8	66.0	64.3	57.8	63.5	65.8	65.1

Notes:

(a) Operating revenue expressed as a percentage of operating expenditure, including interest charges, for all rail services

Source:

Derived from Annual Reports of each system.

TABLE 4 RAIL CAPITAL EXPENDITURE - ALL STATES 1979/80 - 1986/87 (\$ MILLION)

RAIL AUTHORITY (a)	1979/80	1980/81	1981/82	1982/83	1983/84	1984/85	1985/86	1986/87 (Est)	1979/80- 1986/87
NSW SRA (b)	191.1	244.8	285.9	323.9	402.3	420.7	422.2	391.0	2,681.9
QR (c)	122.6	106.8	209.7	336.5	311.9	233.8	333.2	450.9	2,105.4
WESTRAIL (d)	29.4	37.4	38.7	23.2	18.9	22.4	21.8	35.5	227.3
AN	50.0	38.4	57.0	57.7	26.1	35.4	37.9	36.4	338.9
VIC - METRAIL	n. appl	n. appl	n. appl	n. appl	131.4	148.8	165.0	226.2	n. appl
- V/LINE	n. appl	n. appl	n. appl	n. appl	225.5	152.7	118.1	103.0	n. appl
- SUB-TOTAL (e)	53.8	69.8	109.3	182.5	356.9	301.5	283.1	329.2	1,686.1
TOTAL:	446.9	497.2	700.6	923.8	1116.1	1013.8	1098.2	1243.0	7,039.6

(a) NSW Auditor-General's report 1984/85-1986/87, SRA Annual Reports.

(b) Queensland Auditor-General's Reports.

(c) M.A. Auditor-General's Reports, Westrail Annual Reports; 1984/87 WA State Budget.

(d) AN Annual Reports; 'Asset Expenditure'.

(e) Vic Railway Board Annual Reports 1979/80-1981/82; 1982/83, M of T Authority Annual Reports; 1983/84-1986/87 V/Line and Metrail Totals.

(f) Amount of actual rail Capital Expenditure in 1983/84 not known by Met; Estimate is based on proportion of Met Capital Expenditure attributable to rail in 1984/85 (108.8/263.6=56.45%) and total Met Capital Expenditure in 1983/84 (\$232.8 million) sourced from State Budget documents.

(g) Personal communication from the Met.

(h) 1983/84 STA of Vic Annual Report p.15 and p.28 of the 1984/85 Annual Report; note at p.28 of the 1983/84 Report, Capital Expenditure is reported to be \$108.7M.

(i) P.3 and p.28 of the 1984/85 STA of Vic Annual Report; on p.40 of the same report Capital Expenditure is put at \$189.1 million.

(j) 1985/86 STA of Vic Annual Report p.15 and 14; at p.61, Capital Expenditure is reported to be \$196.6M.

(k) 1986/87 State Budget Paper No.3, p.118.

(l) 1986/87 Victorian State Budget Paper No.3 at p.121-22; excludes \$50M transfer, redeployment and redundancy Program.

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TABLE 3 COMMONWEALTH EXPENDITURE ON RAILWAYS 180001 1971/74 - 1986/87 (a)

	1962/67 1961	1963/68	1964/69	1965/70	1966/71	1967/72	1968/69	1969/70	1970/71	1971/72	1972/73	1973/74	1974/75	1975/76	1976/77	1977/78	1978/79	1979/80	1980/81	1981/82	1982/83	1983/84	1984/85	1985/86	1986/87				
AUSTRALIAN NATIONAL RAILWAY COMMISSION																													
Subsidy for capital expenditure																													
Subsidy for anticipated losses	64200	72500	87500	91300	106000	70400		56000	58100	63767	63640	47600	44600	14611	8557														
Subsidy for interest charges																													
Alice Springs-Darwin Railway				3800	3000	1919		280	98																				
Zerocolo-Alice Springs Railway								18000(a)	38200(a)																				
Tasmanian Railway Rehabilitation	3000	2400	3000	3000	3000	2000(4)	2000(4)	2000(4)	2000(4)	2000(4)	2000(4)	2000(4)	2000(4)	2000(4)	2000(4)	2000(4)	2000(4)	2000(4)	2000(4)	2000(4)	2000(4)	2000(4)	2000(4)	2000(4)	2000(4)	2000(4)	2000(4)	2000(4)	
Free or concessional fares/freight	4110	3820	2674	2475	2467	2300	1500	1461	1361	1450(4)	900	511	505	378															
Improvements to Alice Springs rail service			2300																										
Early Retirement Scheme			16000																										
Adelaide-Crystal Brook Rail Agreement 1980																													
AMRC SUB TOTAL	(71610)	(78730)	(118794)	(100575)	(114467)	(79615)	(78643)	(97855)	(110078)	(93270)	(78210)	(98371)	(62500)	(89335)															
URBAN PUBLIC TRANSPORT PROJECTS																													
ABRD Trust Fund Act	1551(c)	6590	7023	6632	1440																								
1978 UPT Act																													
1974 UPT Act																													
NATIONAL RAILWAY NETWORK (FINANCIAL ASSISTANCE) ACT																													
AIRP PROJECTS																													
Improvements to Alice Springs rail services	860																												
Contribution to ARBDO							35700	33500	31900																				
Railway Standardisation (WA) Agreement Act		600	500	438	512	770	765	330	205	66																			
Expenditure on railway works in NSW	206																												
Railway Agreement Act 1961 (WA)																													
Development of Australian Urban Passenger Train																													
Commonwealth Railways - Freight subsidy for																													
Carriage of Iron ore																													
Assistance to WA - Perth underground railway study																													
Railway Standardisation (S. Aust) Act																													
Commonwealth Railway Commissioners salary/																													
Railway - inter-system Advances																													
Contribution to Railway Accident and Insurance Fund Act (1917-1975)																													
Transport improvement grant (d)		9700																											
General Revenue Grants - rail operating losses	74267	95610	119439	107645	138219	105519	125901	136846	142183	136070	135275	122062	87272	22202															
		102700	138300																										
		40810	357739																										

(a) Subsidy for cap exp = Tarcoo-Alice Springs Railway and Tasmanian Railway Rehabilitation

(b) Comprise fare/freight subsidy + loss on Tasrail passenger subsidy

(c) Expenditure to end October 1986

(d) In 1985/86 59.7M was provided for rail upgrading in W.A. as a post-budget decision. Other Transport Improvement Grants were provided in earlier years, but it has not been possible to attribute these to specific projects. The amount of 19.0M in 1984/85 was provided for the Alice Springs rail service. The amount of 11.0M in 1983/84 was provided for the Adelaide-Crystal Brook rail agreement. The amount of 1.0M in 1982/83 was provided for the Adelaide-Crystal Brook rail agreement. The amount of 1.0M in 1981/82 was provided for the Adelaide-Crystal Brook rail agreement.

(e) Sources: DOT annual reports 73/4 - 85/6; Commonwealth Budget Papers 1980/81 - 1986/87.

TABLE 6 RAIL FINANCE CHARGES

	<u>1979/80</u>	<u>1980/81</u>	<u>1981/82</u>	<u>1982/83</u>	<u>1983/84</u>	<u>1984/85</u>	<u>1985/86</u>	<u>1986/87</u> <u>(Est)</u>
NSW SRA ^(c)	64.0	31.8	75.7	137.6	172.9	230.5	306.6	384.5
VIC - MTA Rail	Not applic	Not applic	Not applic	Not applic	44.9 ^(f)	75.9 ^(g)	136.6 ^(g)	
- STA ^(e)	" "	" "	" "	" "	21.8	44.4	65.4	
- TOTAL ^(c)	27.2	31.3	36.5	41.6	66.7	120.3	202.0	
QR ^(d)	60.4	72.9	88.8	97.3	108.6	186.0	150.2	
AN ^(b)	4.2	4.2	4.4	11.0	15.6	20.5	19.7	
WA ^(a)	19.5	22.8	27.5	33.6	36.0	38.7	40.0	
TOTAL - Except S.A.	175.3	163.0	232.9	321.1	399.8	596.0	718.5	

(a) Source: Westrail annual reports
 (b) Source: AN " "
 (c) Source: NSW Auditor-General Annual Reports
 (d) Source: QR Annual Reports

(e) Source: STA and Vic Railways Board Annual Reports
 (f) The finance charge attributable to Met in 1983/84 for all transport modes - rail, bus and ferry (Source: Met Annual Report)
 (g) Personal communication from the Met.

TABLE 7 FREIGHT TASK (SELECTED TRAFFICS)

	COAL				GRAIN				CONTAINERS/FREIGHT FORWARDERS/ INTERSYSTEM				TOTAL TRAFFICS			
	Tonnage(M)		Revenue (\$M)		Tonnage (M)		Revenue (\$M)		Tonnage (M)		Revenue (\$M)		Tonnage (M)		Revenue (\$M)	
	80/81	85/86	80/81	85/86	80/81	85/86	80/81	85/86	80/81	85/86	80/81	85/86	80/81	85/86	80/81	85/86
NSW	22.3	33.3	108.8	286.2	5.0 ⁽³⁾	7.5 ⁽³⁾	73.9 ⁽³⁾	183.0 ⁽³⁾	n.a.	3.0 ⁽⁵⁾	n.a.	n.a.	40.5	54.0	381.6	736.8
VIC	0.9 ⁽²⁾	0.8 ⁽²⁾	n.a.	n.a.	4.1	3.3	n.a.	67.1	2.1 ⁽⁶⁾	2.1 ⁽⁶⁾	n.a.	n.a.	12.7	10.5	112.1	177.2
QLD	29.7 ⁽¹⁾	59.0 ⁽¹⁾	216.3 ⁽¹⁾	644.2 ⁽¹⁾	3.1 ⁽⁴⁾	6.3 ⁽⁴⁾	28.7 ⁽⁴⁾	69.5 ⁽⁴⁾	n.a.	0.9 ⁽¹⁾	n.a.	n.a.	41.5	73.6	383.7	905.5
AN	1.9	2.5	n.a.	n.a.	1.5	1.7	11.7	19.1	1.8 ⁽⁸⁾	2.4 ⁽⁸⁾	35.9 ^(8,10)	77.5 ^(8,10)	12.3	13.0	150.2	237.3
Westrail	1.6	0.8 ⁽¹⁰⁾	12.0	n.a.	2.5	5.7	27.7	93.0 ^(4,10)	1.2 ^(9,10)	1.5 ^(9,10)	19.0 ⁽⁹⁾	31.0 ^(9,10)	20.3	20.9	148.4	201.0
Total	56.4	96.4	337.1	930.4	16.2	24.5	142.0	431.7	5.1	9.9	54.9	108.5	127.3	172.0	1176.0	2257.8

Notes

- | | | |
|-------------------------------|---|---|
| 1. Coal and Coke | 4. Agricultural produce | 7. Freight forwarding figure available only |
| 2. Mining and Quarry products | 5. Includes Freight Forwarders, Shipping, Manufacturing industry. | 8. Includes Freight Forwarders, shipping containers, piggyback. |
| 3. Wheat | 6. Forwarding agents and containers figures available only | 9. Intersystem figure only |
| | | 10. Estimate |

Source

Railway Systems Annual Reports
Railways of Australia Year Book 1987

TABLE 8 **INTRASTATE AND INTERSTATE RAIL FREIGHT MOVEMENTS**
1984 - 85

Rail system	Intrastate freight				Interstate freight			
	Tonnes (million)	Proportion of total tonnes (per cent)	Tonne-km (million)	Proportion of total tonne-km (per cent)	Tonnes (million)	Proportion of total tonnes (per cent)	Tonne-km (million)	Proportion of total tonne-km (per cent)
AN	8.0	62.5	1 406.2	22.4	4.8	37.5	4 863.7	77.6
QR	63.6	97.2	18 249.8	99.0	1.9	2.8	187.8	1.0
SRA	43.9	91.5	na	na	4.1	8.5	3 780.7	na
V/Line	7.5	63.0	1 825.7	51.5	4.4	37.0	1 717.3	48.5
Westrail	20.8	94.1	3 474.7	80.3	1.3	5.9	853.0	19.7
All systems	143.8	89.7	24 956.4	..	16.5	10.3	11 402.5	..

na Not available.
 .. Not applicable.

Sources: Annual reports of individual rail systems; responses to Inter-State Commission questionnaire.

SOURCE: Inter-State Commission, Investigation of Cost Recovery Arrangements for Interstate Land Transport, April 1986. AGPS, Canberra, 1986. (p. 99)

TABLE 9

PASSENGER NUMBERS
('000s)

	1971/72	80/81	81/82	82/83	83/84	84/85	85/86
NSW - Total	230668	212910	220837	207778	202315	200200	218500
- Suburban	216507	207862	215528	203028	198065	196282	214500
- Non-Suburban	14161	5048	5309	4750	4250	3918	4000
V - Total	137794	88473	76313	84323	84599	91051	94163
- Suburban	133840	84500	72726	80197	80184	86300	89200
- Non-Suburban	3954	3973	3587	4126	4415	4751	4963
Q - Total	31946	31874	34237	34749	37602	38898	41504
- Suburban	30184	30330	32592	33135	35833	37432	40246
- Non-Suburban	1762	1544	1645	1614	1769	1466	1258
WA - Total	11150	6734	6826	6871	8965	9503	9951
- Suburban	10800	6505	6607	6651	8754	9307	9742
- Non-Suburban	350	229	219	220	211	196	209
SA - Total	14428	14309	14391	13233	12943	11676	13221
- Suburban	13515	13815	13781	12876	12610	11366	12899
- Non-Suburban	913	494	610	357	333	310	322
Aust- Total	425986	354300	352604	346954	346424	351328	377339
- Suburban	404846	343012	341234	335887	335446	340687	366587
- Non-Suburban	21140	11288	11370	11067	10978	10641	10752

Source: ARDDO, Rail Transport Performance Indicators
(Updated from number of sources.)

THE FINANCES AND PERFORMANCE OF AUSTRALIA'S RAIL SYSTEMS

TABLE 10 EMPLOYMENT IN STATE RAIL AUTHORITIES

<u>State/Year at</u> <u>30 June</u>	<u>1980</u>	<u>1981</u>	<u>1982</u>	<u>1983</u>	<u>1984</u>	<u>1985</u>	<u>1986</u>
NSW - SRA	42421	42087	41302	40367	40751	41488	41182
VIC - MTA RAIL	n.a.	n.a.	n.a.	n.a.	n.a.	7294	7255
- STA	n.a.	n.a.	n.a.	n.a.	n.a.	14279	13416
- TOTAL	22600	21253	20893	20989	20847	21573	20671
QLD - TOTAL	24948	24963	25243	25943	25915	25654	25700
WA - TOTAL	9727	9304	8937	8391	7777	7101	6599
AN - TOTAL	11756	11173	10957	10458	10051	9537	8127
ALL STATES	111452	108780	107332	106148	105341	105353	102279

SOURCE: Annual Reports of Rail Systems and other official sources

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TABLE 11 NUMBER OF WORKING DAYS LOST

	<u>V/LINE</u>	<u>SRA</u>	<u>AN</u>	<u>TOTAL</u>
1980-81	11,300	13,200	3,900	28,400
1981-82	2,300	19,700	2,700	24,700
1982-83	800	26,600	2,100	29,500
1983-84	39,100	56,000	600	95,700
1984-85	4,400	102,000	9,400	115,800
1985-86	44,800	4,800	200	49,800

* Prior to 1983-84, all data refers to the Victorian Railways Board.

Source: Annual Reports.

TABLE 12

DOMESTIC FREIGHT TASK BY MODE(a)

MODE	1970/71		1975/76		1978/89		1981/82		1984/85	
	million	%	million	%	million	%	million	%	million	%
Tonnes consigned										
Road	720.5	79.0	756.4	74.4	912.6	77.5	950.1	76.4	1031.8	75.7
Government rail	79.0	8.7	96.0	9.4	102.5	8.7	127.3	10.2	159.8	11.7
Non-Government	72.6	7.9	116.7	11.5	114.1	9.7	123.2	9.9	129.2	9.5
Sea (b)	39.9	4.4	48.1	4.7	48.1	4.1	43.5	3.5	42.0	3.1
Air	0.1	-	0.1	-	0.1	-	0.1	-	0.1	-
All modes	912.1	100	1017.3	100	1177.4	100	1244.2	100	1362.9	100
Tonne-Km	'000M	%	'000M	%	'000M	%	'000M	%	'000M	%
Road	27.3	19.7	36.7	18.5	48.1	22.8	60.1	26.9	74.3	30.5
Government rail	25.2	18.2	30.8	15.5	32.1	15.2	37.4	16.8	44.6	18.3
Non-government rail	13.8	10.0	26.3	13.2	25.5	12.1	27.4	12.3	28.4	11.7
Sea (b)	72.0	52.0	104.9	52.7	105.0	49.8	98.2	44.0	96.3	39.5
Air	0.1	0.1	0.1	0.1	0.1	0.1	0.1	-	0.1	-
All modes	138.4	100	198.8	100	210.8	100	223.3	100	243.7	100

Notes:

(a) Excludes pipelines and conveyors

(b) 1970/71 figures not directly comparable with later years and 1981/82 figures not directly comparable to earlier years due to changes in annual collection of sea statistics.

Source:

BTE (1984) Overview of Australian Road Freight Industry. Occasional Paper 59.
 ABS Catalogue 92080; Rail Annual Reports.
 BTE, Australian Non-Government Railways, Operating Statistics 1985/86.
 DoT Sea Transport Statistics, Coastal Freight Australia 1984-85.