BTE Publication Summary

AN-Westrail Integration: An Assessment of Options

Report

The Bureau was required to assess the economic and financial costs and benefits to the railways, governments and the nation of several options for partial or complete integration of the two systems. Operational, marketing, financial and industrial implications, and social costs and benefits have been considered. The study includes a description of the current plans for both railways in the event of no integration. These plans, which incorporate the improvements that both railways (operating independently) anticipate over the next five years, are adopted as the Base Case, which is used as a benchmark for the subsequent analysis of the integration options.



Subject	
Series	
Date	
A to Z	
Search	
Results	
Print	
Exit	



Report 63

AN - Westrail Integration

An Assessment of Options

© Commonwealth of Australia 1988 ISSN 0814-9097 ISBN 0 644 08032 9

This work is copyright. Apart from any use as permitted under the *Copyright Act 1968*, no part may be reproduced by any process without written permission from the Director Publishing and Marketing AGPS. Inquiries should be directed to the Manager, AGPS Press, Australian Government Publishing Service, G.P.O. Box 84, Canberra, A.C.T. 2601.

FOREWORD

In October 1987, the then Federal Minister for Land Transport and Infrastructure Support, the Hon Peter Duncan, MP and the former Premier of Western Australia, the Hon Brian Burke, MLA announced that the Bureau of Transport and Communications Economics had been directed to undertake a study of the ways in which Australian National Railways and Westrail might be integrated, and provide an assessment of the economic, financial and social implications of integration.

The study has been undertaken under the direction of a Steering Committee comprising the Federal and State transport departments and the two rail systems.

The report of the study was prepared by a study team under the leadership of Mr David Baussmann. Study team members were Dr Neil Ada, Ms Balbir Bhall, Mr Brad Jennings, Mr Stephen Pincus and Ms Stefanie Zapirain.

The nature of the study required a significant input of data and information from Westrail and Australian National. The Bureau would like to express its appreciation for the assistance provided by the staff and executives of the two rail systems.

M Haddad Director

Bureau of Transport and Communications Economics Canberra

May 1988

CONTENTS

FOREWORD		Page iii
SUMMARY		xiii
CHAPTER 1	INTRODUCTION	1
	Methodology	2
	Scope of study	3
CHAPTER 2	CHARACTERISTICS OF AN AND WESTRAIL	5
	Background	5
	Corporate objectives	6
	Current resources	7
	Recent performance	14
	Australian National and Westrail Interface	26
	Summary	28
CHAPTER 3	THE BASE CASE - INDEPENDENT OPERATION OF	
	AN AND WESTRAIL	31
	Australian National	31
	Westrail	37
	Summary	45
CHAPTER 4	INTEGRATION OF INTERSYSTEM OPERATIONS	47
	Description of Options	47
	Efficiency Gains and Losses	51
	Financial, Economic and Social Consequences	57
CHAPTER 5	FULL SYSTEM INTEGRATION	63
	Description of Options	63
	Efficiency Gains and Losses	66
	Financial, Economic and Social Consequences	76

		Page
CHAPTER 6	CONCLUDING REMARKS	83
	General Perspective	83
	Financial Economic and Social Consequences	
	of Integration Options	84
	Threats and Opportunities	88
	Summary of Findings	91
APPENDIX I	TERMS OF REFERENCE	93
APPENDIX II	FURTHER DETAILS OF RAIL SYSTEMS	95
APPENDIX III	ANALYSIS OF PREVIOUS RAIL INTEGRATIONS	109
APPENDIX IV	EMPLOYMENT ASPECTS	113
APPENDIX V	LEGAL ASPECTS	121
APPENDIX VI	SUMMARY OF DRAFT INTERSTATE PASSENGER	
	SERVICE AGREEMENT PRINCIPLES	125
APPENDIX VII	ROAD TRANSPORT ASPECTS	129
APPENDIX VIII	EMPLOYMENT PROSPECTS FOR AN AND WESTRAIL STAFF	135
APPENDIX IX	ACCOUNTING PROCEDURES	139
REFERENCES		143
ABBREVIATIONS		145

TABLES

		Page
1.1	Integration options and their possible ownership alternatives	3
2.1	Length of track: AN mainland and Westrail, 1986-87	7
2.2	Employment levels: AN mainland and Westrail, as at June 30 1987 $$	14
2.3	Financial performance: AN mainland, 1986-87 to 1987-88	17
2.4	Financial performance: Westrail, 1986-87 to 1987-88	19
2.5	Freight operations: AN mainland and Westrail 1986-87	20
2.6	Freight commodities: AN mainland 1986-87 to 1987-88	21
2.7	Freight commodities: Westrail, 1986-87 to 1987-88	22
2.8	Passenger operations: AN mainland and Westrail, 1986-87 to 1987-88	22
2.9	Financial performance: Transperth, 1986-87 to 1987-88	25
2.10	Performance measures: AN mainland and Westrail, 1983-84 and 1986-87	25
2.11	Staff employed at Kalgoorlie/Parkeston	28
3.1	Traffic task: AN mainland, 1988-89 to 1992-93	34

		Page
3.2	Business group tonnage targets: AN mainland, 1988-89 to 1992-93	35
3.3	Resource projections: AN mainland, 1988-89 to 1992-93	36
3.4	Financial projections: AN mainland, 1988-89 to 1992-93	38
3.5	Traffic task: Westrail, 1988-89 to 1992-93	41
3.6	Resource projections: Westrail, 1988-89 to 1992-93	42
3.7	Financial projections: Westrail, 1988-89 to 1992-93	43
3.8	Transperth financial forecasts (Rail), 1987-88 to 1991-92	45
4.1	AN/Westrail intersystem freight forecasts, 1988-89 to 1992-93	51
4.2	Resources saved at Kalgoorlie: Intersystem integration	55
4.3	Summary of efficiency impacts: Intersystem integration, 1988-89 to 1992-93	58
4.4	Economic impact: Intersystem integration, 1988-89 to 1992-93	60
5.1	Summary of benefits and costs: Full system integration	67
5.2	Value of operational implications: Full system integration, 1988-89 to 1992-93	71
5.3	Value of managerial implications: Full system integration, 1988-89 to 1992-93	74
5.4	Workforce reductions and redundancy payments: Full system integration, 1988-89 to 1992-93	75
5.5	Summary of efficiency impacts: Full system integration, 1988-89 to 1992-93	77
5.6	Financial impact on AN or Ausrail: Full system integration, 1988-89 to 1992-93	78

		Page
5.7	Economic impact: Full system integration, 1988-89 to 1992-93	80
6.1	Financial consequences of options, 1988-89 to 1992-93	86
6.2	Economic consequences of options	87
6.3	Employment consequences of options, 1992-93	88
6.4	Threats and opportunities	89
II.1	Rollingstock numbers: AN mainland and Westrail	100
II.2	Staff employed: AN mainland and Westrail, 1984 to 1988	102
11.3	Financial performance: AN mainland 1983-84 to 1987-88	103
II.4	Financial performance: Westrail, 1983-84 to 1987-88	104
11.5	Freight operations: AN mainland and Westrail, 1983-84 to 1987-88	105
11.6	Freight commodities: AN mainland and Westrail, 1985-86 to 1987-88	106
II.7	Passenger operations: AN mainland and Westrail, 1985-86 to 1987-88	107
8.11	Passenger journeys: AN mainland and Westrail, 1985-86 to 1987-88	108
IV.1	Comparison of industrial awards covering AN and Westrail staff	117
IV.2	Voluntary redundancy schemes: AN and Westrail	119
VII.1	Truck numbers and usage by State of registration: twelve months to September 1985	130
VII.2	Trucks involved in casualty accidents by State, 1986	131
VII.3	Traffic flows at selected sites, 1984	132
VII.4	Average resource cost for operating a six-axle articulated truck	133

	Page
Unemployment rate of the civilian population	
aged 15 and over, by city or State, average	
of February, March, August and November 1987	136
Unemployment rates by ASCO classification, by	
State, average of February, March, August	
and November 1987	137
Summary of accounting, tax and liability differences	142
	aged 15 and over, by city or State, average of February, March, August and November 1987 Unemployment rates by ASCO classification, by State, average of February, March, August and November 1987

FIGURES

		Page
2.1	Australian National mainland railway network	8
2.2	Westrail railway network	9
2.3	Australian National rollingstock as at 5 February 1988	10
2.4	Westrail rollingstock as at 30 June 1987	11
2.5	Australian National mainland and Westrail staff numbers, 1982-83 to 1987-88	13
2.6	Australian National financial performance, 1983-84 to 1987-88	16
2.7	Westrail financial performance, 1983-84 to 1987-88	18
2.8	Kalgoorlie-Parkeston environs	27
3.1	Australian National financial projections, 1988-89 to 1992-93	37
3.2	Westrail financial projections, 1988-89 to 1992-93	44
II.1	Australian National management structure	98
11.2	Westrail management structure	99

SUMMARY

In October 1987, the Federal and the Western Australian Governments agreed to an examination of the desirability of integration of the Australian National Railways Commission (AN) and the Western Australian Government Railways (Westrail). The Bureau of Transport and Communications Economics (BTCE) has undertaken the study under the direction of a Steering Committee.

BACKGROUND OF THE STUDY

The Bureau was required to assess the economic and financial costs and benefits to the railways, governments and the nation of several options for partial or complete integration of the two systems (see Table). Operational, marketing, financial and industrial implications, and social costs and benefits have been considered.

The options analysed covered several alternatives for operation and control of the services currently provided by both systems. Ownership alternatives were also noted, but as these would primarily affect the distribution of capital, liabilities, profits and losses, and hence be subject to future negotiations, it was not considered necessary to analyse these in detail.

The study includes a description of the current plans for both railways in the event of no integration. These plans, which incorporate the improvements that both railways (operating independently) anticipate over the next five years, are adopted as the Base Case, which is used as a benchmark for the subsequent analysis of the integration options.

THE RAILWAYS

AN operates all non-metropolitan rail passenger and freight services in South Australia extending interstate to Kalgoorlie (Western Australia), Alice Springs (Northern Territory), Serviceton (Victoria) and Broken Hill (New South Wales). It also operates the railway in Tasmania (Tasrail) which only provides freight services.

INTEGRATION OPTIONS AND THEIR POSSIBLE OWNERSHIP ALTERNATIVES

Ownership alternatives Integration of AN and Westrail intersystem freight and passenger operations Integration of all AN and Westrail control of Westrail intersystem freight and passenger operations Joint venture Integration of all AN and Westrail Federal Government ownership operations, excluding Perth Joint venture Integration of all AN and Westrail Joint venture

Note Federal Government ownership means that those operations listed would be performed by an expanded AN. A joint venture of intersystem operations means that a new railway owned by AN and Westrail is formed to perform that task. A joint venture for full integration means that a new railway would replace AN and Westrail, and would be jointly owned by the respective Governments.

Westrail is responsible for the operation of rail freight services and non-metropolitan road and rail passenger services within Western Australia and the operation of Perth metropolitan rail services under contract to Transperth. Westrail also has an interest in two joint ventures.

Although AN and Westrail are both engaged in commercial activities to which they attach the greatest priority, each also provides non-commercial passenger services. Both systems have the same goal of reducing deficits, and the current trend of declining deficits is expected to continue over the next five years.

AN is expecting further growth in freight services, particularly in the intersystem freight forwarders and intermodal area. The passenger task is also expected to increase. Westrail's freight task is also expected to increase in both intersystem and intrasystem freight.

OUTCOME OF INTEGRATION OPTIONS

The analysis of the savings arising under integration has been made on the basis that many of the savings, while possible without integration, would not arise or would be delayed without integration acting as a catalyst. In addition, the specific costs and savings outlined in the study should only be regarded as illustrative of the outcome of strategies and tactics available to an integrated railway. The analysis has taken a conservative approach in valuing the benefits to be achieved, and it is possible that the savings could be much greater.

Integration of intersystem operation

This option involves integration of the intersystem freight and passenger business now conducted by AN and Westrail, and therefore, the two railway organisations themselves would continue to exist separately. The anticipated gains in efficiency will arise through the rationalisation of intersystem operations at Kalgoorlie-Parkeston, resulting in reductions in staff and locomotives required and establishing faster transit times to increase the marketability of the service. Some additional cost pressures will arise, particularly 'setting-up' costs and possibly some overhead costs and labour cost increases.

The overall efficiency gains for this option will be spread over five years and are expected to reach approximately \$9 million per annum by 1992-93 in financial terms. The overall economic impact is expected to be a saving of about \$13 million per annum by 1992-93. The major social impact is expected to be the ultimate loss of about 165 positions in the railway and the road transport industry.

Total integration

This option involves integration of all AN and Westrail operations. The affect on costs of either including or excluding the Perth metropolitan rail services (currently operated by Westrail) was assessed as being negligible.

The anticipated gains in efficiency will arise in a number of areas:

- . rationalisation of operations at Kalgoorlie-Parkeston;
- reorganisation and rationalisation of resources such as workshops,
 rollingstock and track maintenance equipment;
- . reducing overheads; and
- improved service provision.

Additional cost pressures will again be in the areas of 'setting-up' costs, some overhead costs and labour cost increases.

Report 63

The overall efficiency gains for this option are expected to reach \$34 million per annum in financial terms and the economic savings to reach \$40 million per annum by 1992-93. The major social impact is the expected loss of about 860 positions in the railway and road transport industries.

CONCLUSION

The major findings of the study are:

- In the event of integration, there would be clear financial savings to the railways and governments, and economic savings to the country as a whole.
- An integration of full system operations would provide much larger savings than the intersystem integration.
- The main source of savings would be in the operational, managerial and marketing areas.

Other threats and opportunities to the integration have also been identified. The threats were perceived to be deregulation of road transport in Western Australia, problems with staff reductions and current contractual commitments. Opportunities were seen in further rationalisation of workshops, improvement in the intersystem freight task and diversification of activities.

The issues and options surrounding the integration of Westrail and AN can be considered in a wider context. This wider significance of the integration of AN and Westrail relates to the restructuring of the rail industry and the contribution that a more efficient rail system makes to improving the performance of the Australian economy in general.

CHAPTER 1 INTRODUCTION

In October 1987, the Federal and the Western Australian Governments agreed to an examination of the desirability of integration of the Australian National Railways Commission (AN) and the Western Australian Government Railways (Westrail). The Bureau of Transport and Communications Economics (BTCE) has undertaken the study under the direction of a Steering Committee. $^{\rm 1}$

The Terms of Reference for the study are in Appendix I. In brief, the Bureau was required to assess the economic and financial costs and benefits to the railways, governments and the nation of several alternative options for partial or complete integration of the two railway systems. Operational, marketing, financial and industrial implications, and the social costs and benefits of the integration options have been addressed.

Improved performance of the railway systems would be expected, both through cost reduction and revenue enhancement. The objective of this present study is to establish the extent of the likely benefits arising from improved system performance.

On the revenue side, these benefits may be achieved from an increase in the level of freight or in passenger numbers arising from improved marketing, or from improved service levels such as faster transit times, more frequent service or more reliable service. On the cost side, it is expected that savings will accrue from a number of areas of efficiency improvement even though some of the potential avenues for cost reduction which result from larger scale operations are not applicable to this particular rail merger. Other railway mergers, for example horizontal mergers in North America, have involved competitive services with more scope for elimination of duplicated facilities.

Integration of the Westrail and AN railway systems was previously examined in connection with the possible Federal Government takeover by AN of all non-metropolitan State railway systems in the 1970s. Negotiations on amalgamation did not come to fruition at that time.

Report 63

It is necessary to recognise also that the expected cost savings would be partially offset by any transition costs arising from an integration, including the administration costs of the merger itself.

Potential sources of efficiency improvement from an AN/Westrail integration include:

- . Benefits derived from increased size such as:
 - spreading of overheads including advertising, management, and corporate services over a larger output;
 - changed operational practices which allow better locomotive and wagon utilisation;
 - possible pecuniary effects from lower input prices;
 - reduction in required holdings of reserve equipment to meet peak demands, that is, the 'massed reserves' effect;
 - elimination of some duplicate facilities, for example, terminals, marshalling yards or workshops; and
 - synergetic effects if the merging railways possess any complementary resources.
- Improved operational procedures including improvements in goods handling, elimination of interchanges, elimination of bottlenecks, more efficient rostering of crews or revised scheduling of services. These latent improvements, though not dependent on amalgamation, appear difficult to realise with separate systems for political or industrial reasons, and the integration provides a catalyst for them to occur.

METHODOLOGY

The following steps have been taken in order to assess the economic and financial costs and benefits that would arise from the integration of AN and Westrail:

- examining the disaggregated functions of each railway at present and in the future;
- aligning the functions and activities of both railways to a common format;
- identifying areas of duplication, bottlenecks, service improvements, economies of scale and synergy;
- identifying the nature of potential reductions and additions to resources resulting from the integration;
- estimating and valuing in dollar terms, the potential benefits and costs associated with the changed resource requirements; and

 identifying other factors (threats and opportunities) that are not explicitly included in the analysis.

An important part of the study is the description of the current plans for both railways in the event of no integration. These plans are adopted as the Base Case, which is used as a benchmark for the subsequent analysis of the integration options.

The analysis covers the first five years of integration which is assumed to take place on 1 July 1988, although comments on possible developments thereafter up to 1997-98 are included. All consequences are expressed in terms of variations from the Base Case and all dollar values relating to the costs and benefits in this study are expressed in 1987-88 dollars.

SCOPE OF STUDY

The benefits and costs of a number of merger options which vary according to the extent of amalgamation, and the conditions of ownership and control have been assessed. The benefits and costs are based on a comparison with the Base Case option. The Base Case, which is presented in Chapter 3, represents the position of the two railway systems continuing to operate independently, as at present, in line with their stated future objectives.

TABLE 1.1 INTEGRATION OPTIONS AND THEIR POSSIBLE OWNERSHIP ALTERNATIVES

Operational integration		Ownership alternatives		
-	of AN and Westrail freight and passenger	 AN management and operational control of Westrail intersystem freight and passenger operations Joint venture 		
Integration operations	of all AN and Westrail	Federal Government ownershipJoint venture		
•	of all AN and Westrail excluding Perth services	 Federal Government ownership Joint venture 		

Source See Appendix I.

Report 63

The integration alternatives and their associated ownership options as listed in the Terms of Reference are presented in Table 1.1 and described in some detail in the relevant chapters. The potential efficiency gains and losses are identified and valued. The financial, economic and social consequences for each option are then summarised, analysed and set out in relation to the Base Case.

Intersystem integration

This option involves amalgamating the intersystem freight and passenger operations of AN and Westrail and placing them under a single control. Control of this integrated operation could either take the form of AN management controlling all decision making or a joint venture involving a partnership between AN and Westrail. The option is analysed in Chapter 4.

Full system integration

This option would entail merging the whole AN and Westrail systems into one railway system. The system would be owned either by the Federal Government through an expanded AN or by both Governments as a joint venture. In the joint venture case, conditions would also need to be established for funding of capital expenditure and sharing profits and losses. The metropolitan operations in Perth would continue to be provided on a contractual basis for Transperth (the statutory authority responsible for the provision of public transport services in the Perth metropolitan area) in the same manner that Westrail provides them at present.

Full system integration, excluding Perth metropolitan services

This option is similar in every respect to the full integration option, except for the exclusion of metropolitan operations. In this instance, resources utilised in the metropolitan operations need to be identified as these would be transferred to Transperth which would operate urban rail services in Perth in its own right.

Chapter 5 presents the analysis of both full system integration options. The final chapter summarises the results of the analysis and discusses some of the factors that might influence the results.

CHAPTER 2 CHARACTERISTICS OF AN AND WESTRAIL

There are a number of similarities in the objectives and operations of AN and Westrail and these are brought out in the following description of the two railways. Each system's current resources, recent performance and the intersystem interface are discussed. Further details of each system are provided in Appendix II.

BACKGROUND

Australian National

Australian National, often abbreviated to 'AN', is the business name of the Australian National Railways Commission, a Federal Government business organisation. AN incorporates three railway systems previously operated by the Commonwealth and the Governments of Tasmania and South Australia which were brought under its control on 1 March 1978.

AN currently operates all non-metropolitan rail passenger and freight services in South Australia extending interstate to Kalgoorlie (Western Australia), Alice Springs (Northern Territory), Serviceton (Victoria) and Broken Hill (New South Wales). It also operates the railway in Tasmania (Tasrail) which only provides freight services. Unless otherwise stated, Tasrail is excluded from all discussions presented in this report.

AN is not involved in the provision of urban passenger services in South Australia. These have been operated by the State Transport Authority (STA) since the the formation of AN.

Westrail

Western Australian Railways are run by a statutory authority, the Western Australian Government Railways Commission (Westrail), which was established under the *Government Railways Act 1904-1982*.

Westrail is responsible for the operation of rail freight services and non-metropolitan road and rail passenger services within Western

Australia and the operation of Perth metropolitan rail services under contract to Transperth.

As part of its strategy to move into complementary or supplementary ventures, Westrail also has a 50 per cent interest in two joint ventures namely Total Western Transport, a road transport and forwarding company; and Western Quarries, a dolerite and granite quarry from which Westrail obtains ballast. Westrail states that both companies are financially successful. There are further benefits with both companies using Westrail's freight services and leasing a significant portion of Westrail's property.

CORPORATE OBJECTIVES

AN's corporate objectives are:

- to become an increasingly competitive transport operator with a reputation for providing a reliable and competitively priced service to satisfy customer needs;
- to be efficient in the use of human and other physical resources in the provision of transport and other services;
- to eliminate deficits on commercial activities by the end of the decade;
- to progressively phase out non-commercial activities or, where this is not possible, to obtain support for their continuation by receipt of specific revenue supplements; and
- to improve the level of job satisfaction, personal development and welfare of all employees.

Westrail's corporate objectives state:

'Westrail, a Government instrumentality aims to operate as an expanding enterprise in the total land transport market.

Task 1 - To provide commercial transport and related services competitively and profitably.

Task 2 - To efficiently provide the social service required by Government and receive agreed compensation'.

AN and Westrail are both striving for similar goals: to reduce deficits and reach a profit making situation through improving efficiency, and competitiveness.

CURRENT RESOURCES

Network

Table 2.1 shows the track lengths by gauge types for both AN and Westrail while Figures 2.1 and 2.2 map the AN and Westrail networks by gauge.

The standard gauge track accounts for 57 per cent of AN's total network while approximately three quarters of Westrail's network is comprised of narrow gauge track.

TABLE 2.1 LENGTH OF TRACK: AN MAINLAND AND WESTRAIL, 1986-87 (route kilometres)

	Sys	stem
Gauge (mm)	AN	Westrail
Narrow (1067)	893	4 169
Standard (1435)	3 603	1 211
Broad (1600)	1 796	••
Dual	74	173
Total	6 366	5 553

^{..} Not applicable

Source AN (pers. comm. 1988). Westrail (1987a).

Rollingstock

AN currently has 188 active locomotives in its mainland fleet. Of these 157 are mainline locomotives and the balance are shunting locomotives. The average age of the fleet is 22 years but considerable variation exists. The first General Motors diesel locomotives are now over 30 years old while the newest locomotives are only three to five years old. Twelve new locomotives have been ordered and are due for delivery beginning in early 1988.

In addition, AN has 5722 revenue earning freight wagons, 231 passenger car vehicles and railcars and a service stock of 850 (see Figure 2.3).

AN at present has 204 locomotives, of which 188 are active. The balance, comprising of 11 shunt locomotives and five mainline locomotives are awaiting disposal.

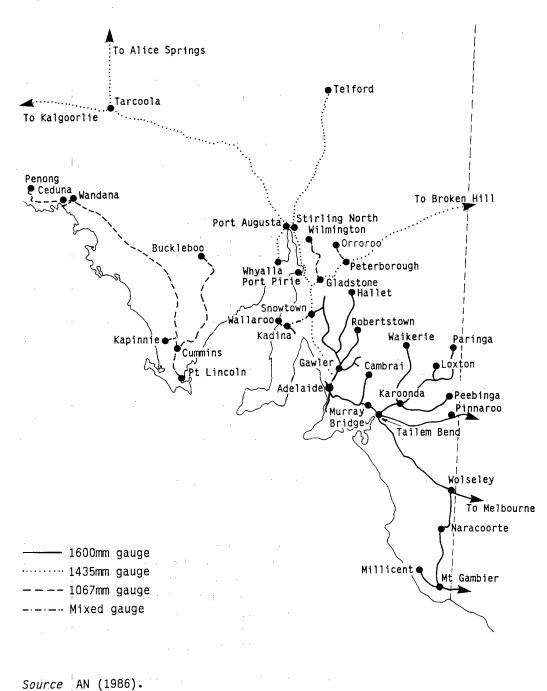
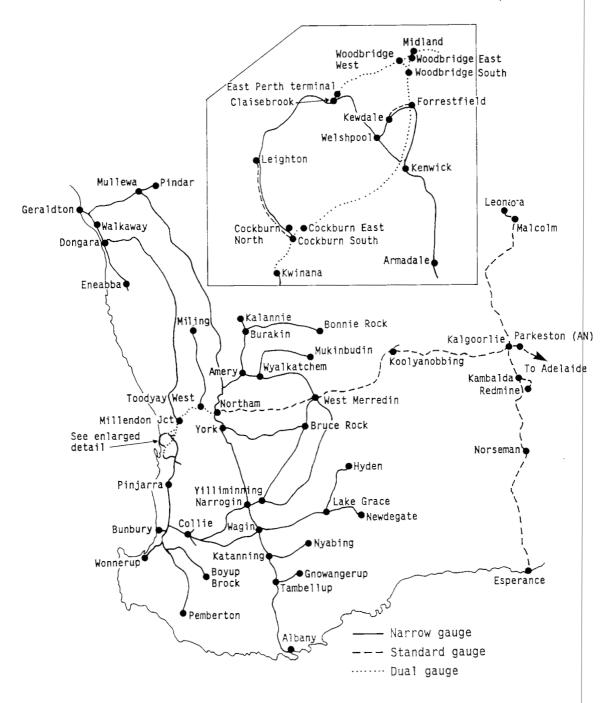


Figure 2.1 Australian National mainland railway network

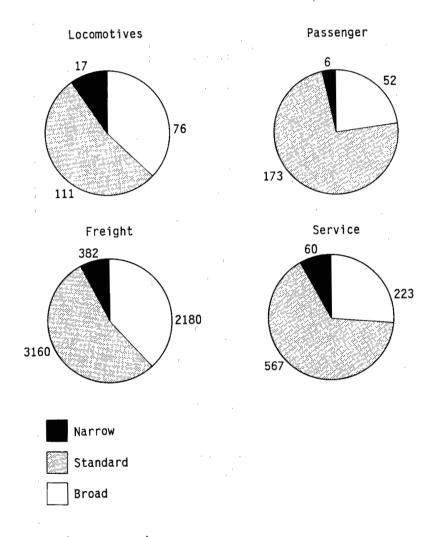


Source Westrail (1987c).

Figure 2.2 Westrail railway network

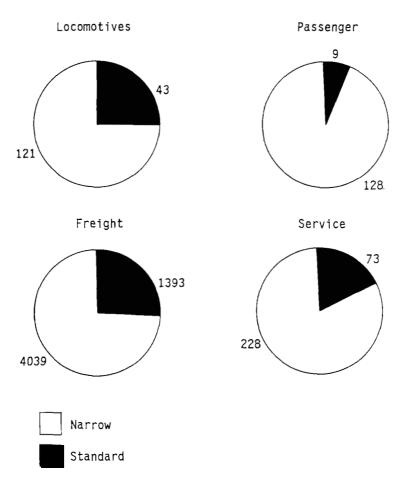
Report 63

Westrail commenced the 1987-88 financial year with 164 locomotives of which 121 were mainline units and 43 were shunting units. The purchase of 15 modern narrow gauge locomotives is being considered to replace 21 old units. Westrail also owns 5432 freight wagons, 137 passenger carriages, railcars and trailers and 301 service stock vehicles (see Figure 2.4). In addition, Westrail has a fleet of 28 road coaches.



Source AN (pers. comm.).

Figure 2.3 Australian National rollingstock as at 5 February 1988



Source Westrail (pers. comm.).

Figure 2.4 Westrail rollingstock as at 30 June 1987

Workshops

Australian National

AN has two major workshop facilities on the mainland, at Islington (Adelaide) and Port Augusta. Smaller facilities and running depots are operated at Mile End (Adelaide), Alice Springs, Mount Gambier, Port Lincoln, Port Pirie, Peterborough and Parkeston.

Recently the wagon repair facilities at Islington were supplemented by a 'one-spot' rollingstock repair facility which now operates at Dry Creek (Adelaide). This operation incorporates the first application of the multi-skilled workforce concept. A new system of maintenance ('service exchange') has been instituted in all AN workshops, under

which defective components are replaced with new or previously repaired units. AN has been advanced Federal Government funding of \$18.7 million to update and rationalise the Port Augusta and Islington facilities.

Westrail

Westrail's main workshop at Midland (near Perth) has the responsibility for major maintenance of locomotives, wagons, railcars and large mechanical equipment. Midland also carries out the construction of wagons and the manufacturing of some railway supplies. In addition, it carries out engineering work for non-railway clients.

Other depots for the running maintenance of locomotives, wagons and mechanical equipment are located at Forrestfield (Perth), Avon (Northam), Merredin, Kalgoorlie, Albany, Picton (near Bunbury) and Geraldton. The running maintenance of suburban passenger equipment is undertaken at Claisebrook and mechanical equipment at Kewdale, both situated in Perth. Road services depots are located at East Perth and Bunbury.

Employment

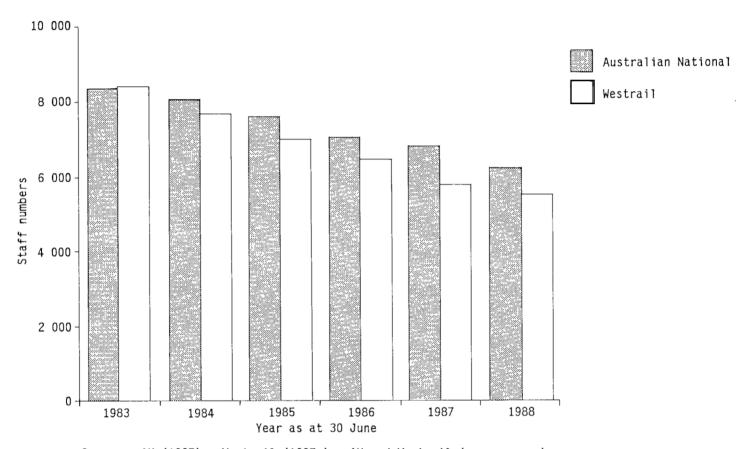
At 30 June 1987, AN's mainland staff in direct employment totalled 6920, excluding those made available to other railway systems², such as the State Transport Authority of South Australia and the State Rail Authority of New South Wales (see Table 2.2). The largest proportion (50 per cent) of AN's total staff are engaged in the technical services area.

In June 1984, AN directly employed approximately 8130 staff on the mainland. Figure 2.5 shows that between June 1984 and June 1987, AN was able to reduce this by about 1200 or 15 per cent. This decrease was accomplished by voluntary means with the introduction of attractive retirement packages and by natural attrition.

Westrail employed 5900 staff as at 30 June 1987. Of these 35 per cent were engaged in the technical services area. Like AN, Westrail's employment levels have been declining steadily. Personnel numbers have fallen by 1877 or 24 per cent between June 1984 and June 1987. This decrease in staff was made possible by natural attrition and voluntary redundancy.

^{2.} Made available staff are directly employed by AN, but their services are contracted out to other railway systems.





Sources AN (1987). Westrail (1987a). AN and Westrail (pers. comm.).

Figure 2.5 Australian National mainland and Westrail staff numbers, 1982-83 to 1987-88

Report 63

The awards which cover AN and Westrail staff are listed in Appendix ${\tt IV}$.

TABLE 2.2 EMPLOYMENT LEVELS: AN MAINLAND AND WESTRAIL, AS AT JUNE 30

Group	AN	Westrail ^a
Operations and marketing ^b	2 769	2 134
Technical ^C	3 462	3 258
Technica1 ^C Corporate ^d	699	508
Total	6 920	5 900

- a. Full time equivalents includes staff operating Transperth services.
- b. Incorporates all staff engaged in the marketing and operating of freight and passenger services.
- c. Technical services covers Civil and Mechanical Engineering, and Signals and Communications personnel.
- d. Includes Financial Services, Industrial Relations and Human Resources, the Executive staff and Corporate Relations.

Source AN (pers. comm. 1988). Westrail (pers. comm. 1988).

RECENT PERFORMANCE

Financial performance

Australian National

AN operated at a loss of \$28 million in 1986-87. Revenue, including supplements, totalled \$309 million, while expenditure amounted to \$337 million (see Table 2.3).

AN has retained some uneconomic services at the direction of the Government. Losses on these operations, called Community Services Obligations (CSOs), are funded by the Government and are included as a source of revenue. The CSO for AN's mainland passenger services amounted to \$29 million in 1986-87.

AN is projecting a reduced operating deficit in 1987-88 of about \$10 million, after the inclusion of an estimated CSO payment of \$27 million.

To provide a more comparable basis to the Westrail financial results presented later, an adjustment to AN's financial statement would have

to be made for excess superannuation and long service leave payments. 3 AN has indicated that these adjustments are around \$9 million in both years.

Figure 2.6 presents AN's financial performance for 1983-84 to 1987-88. It indicates that AN's revenue has declined by 5 per cent while expenditure has decreased by 25 per cent resulting in steadily declining deficits.

Westrail

Table 2.4 presents Westrail's financial performance for 1986-87 and 1987-88. Westrail recorded a loss of \$48.4 million in 1986-87. Its projected loss for 1987-88 is \$62.7 million. This loss is derived under traditional government accounting principles. However, Westrail currently has a proposal before its State Government to move to reporting on a commercial basis.

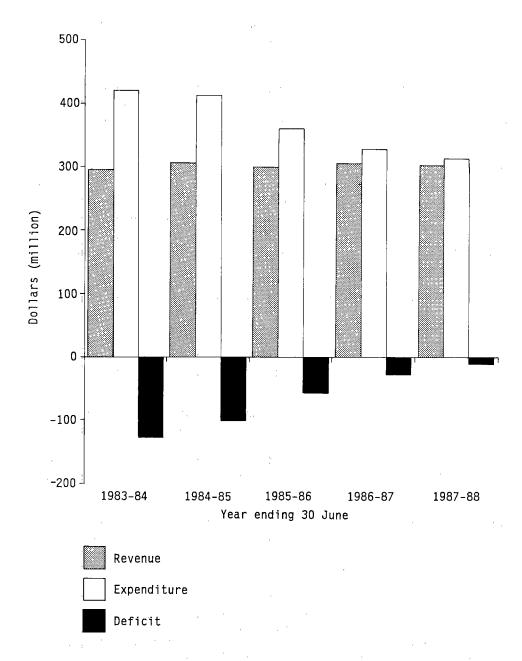
To arrive at a profit (loss) using commercial accounting principles, the total surplus (deficit) occurring under government accounting is adjusted as follows:

- add back an adjustment to interest and superannuation payments to reflect a commercial debt/equity ratio and superannuation scheme; and
- deduct an allowance for sales tax and bank interest for which Westrail would be liable if it were a private-sector enterprise.

This practice results in Westrail's losses being considerably reduced to \$20.3 million and \$14.1 million in 1986-87 and 1987-88 respectively (see Table 2.4).

Westrail, like AN, also operates uneconomic passenger services on behalf of the State Government, which in a commercial environment

^{3.} AN currently contributes to a superannuation fund at a rate of 20.4 per cent of its employees' salaries. If it were to operate as a commercial enterprise, this rate would be reduced to between 10 per cent and 12 per cent. In addition, AN has to make further provisions for long service leave for its former South Australian employees due to legislation passed by the South Australian Government prior to the formation of AN to grant all South Australian employees an additional 9 days long service leave. The cost of this long service leave is regarded by AN as a non-commercial cost.



Sources AN (1987). AN (pers. comm).

Figure 2.6 Australian National financial performance, 1983-84 to 1987-88

TABLE 2.3 FINANCIAL PERFORMANCE: AN MAINLAND, 1986-87 TO 1987-88 (\$ million. 1987-88 prices)

Item	1986-87	1987-88
Revenue		
Freight	232.0	235.6
Passenger – revenue ^b	29.8	28.2
- cso ^c	29.0	27.0
Other	17.7	13.3
Total	308.5	304.1
Expenditure	306.5	284.7
Operating Surplus/(Deficit)	2.0	19.4
Less interest	16.4	16.4
Less superannuation	13.6	13.1
Net surplus (Deficit)	(27.9)	(10.0)

a. Projected outcome as at 31 December 1987.

Notes 1. Figures may not add to totals due to rounding.

2. See Appendix IX for accounting procedures.

Sources AN (1987). AN (pers. comm. 1988).

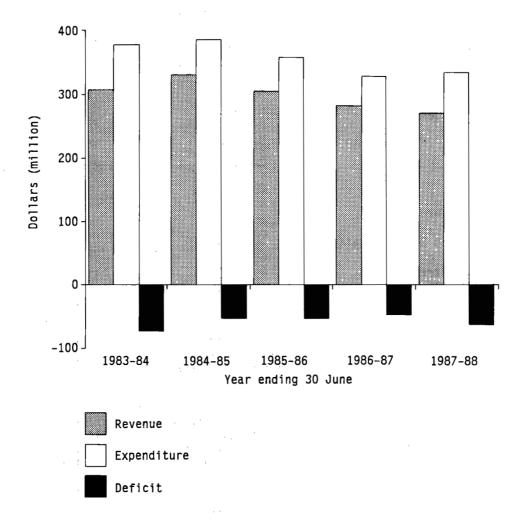
would be closed. Westrail has proposed to the Government that a CSO payment be made to cover the losses on these services, in a similar manner to the CSO payments agreed between AN and the Federal Government. The proposed CSO reimbursement is included in the passenger revenues for comparability with AN.

Figure 2.7 indicates Westrail's financial performance on its traditional accounting basis between 1983-84 and 1987-88. It shows that the deficit has been steadily declining but is expected to rise in 1987-88. Revenue declined by 9 per cent between 1983-84 and 1986-87 while the corresponding fall in expenditure was 14 per cent.

b. Includes reimbursement for concession fares.

c. Agreed Community Service Obligations.

^{3.} Interest payments are influenced downwards by \$141.7 million which was lent specifically for expenditure under the Tarcoola-Alice Springs Railway Act 1974 which remains free of interest until the Minister for Finance determines otherwise.



Sources Westrail (1987b). Westrail (pers. comm.).

Figure 2.7 Westrail financial performance, 1983-84 to 1987-88

TABLE 2.4 FINANCIAL PERFORMANCE: WESTRAIL, 1986-87 TO 1987-88 (\$ million, 1987-88 prices)

Item	1986-87	1987-88
Revenue		
Freight	209.7	201.9
Passenger – revenue ^b	10.9	10.6
- cso ^c	10.6	11.8
Other	49.3	45.7
Total	280.5	270.0
Expenditure		
Operating expenditure	227.6	212.7
Superannuation	22.4	43.5
State taxes	8.7	7.4
Depreciation	23.6	23.2
Interest	46.8	45.9
Total	329.1	332.7
Surplus (deficit)	(48.4)	(62.7)
Commercial adjustments Add		
Interest	22.6	22.0
Superannuation	11.2	31.7
Deduct		
Sales tax	5.6	5.6
Bank interest	0.1	(0.5)
Commercial result	(20.3)	(14.1)

a. Projected outcome.

Notes 1. Figures may not add to totals due to rounding.

3. Figures in parenthesis are negative values.

Sources Westrail (1987b). Westrail (pers. comm. 1988).

b. Includes reimbursement from the State Government for concession fares.

c. Proposed Community Service Obligations.

Adjustments to the State Superannuation Scheme have significantly increased Westrail expenditure and resultant conventional deficit - but the commercial adjustments made by Westrail counteract this effect.

Freight task

Australian National

The majority of AN's freight task, measured in net tonne-kilometres (NTKs) is general merchandise carried in containers, rail vans and 'piggy back' road trailers. Interstate freight originating, terminating or passing through South Australia makes up about 75 per cent of the freight task performed by AN. Full wagon loads comprise over 99 per cent of AN's total NTKs. Table 2.5 provides a summary of AN and Westrail's freight operations.

TABLE 2.5 FREIGHT OPERATIONS: AN MAINLAND AND WESTRAIL, 1986-87

Item	AN	Westrail	
Earnings (\$m, 1987-88 prices)	232.0	209.7	
Tonnes carried (m)	10.7	21.6	
Net tonne-kilometres	6 437	4 062	
Gross tonne-kilometres	15 309	8 260	
Train kilometres (m) Average kilometres each	7.6	6.4	
tonne hauled	595	192	

Sources AN (pers. comm. 1988). Westrail (1987a).

Table 2.6 shows the tonnage and NTKs for AN's major freight sectors. In 1986-87, the bulk freight group accounted for approximately 65 per cent of the freight tonnage conveyed but only 29 per cent of the NTKs emphasising the short average haul of the commodities in this group. Coal and grain comprised 54 per cent of the tonnage of this business group.

The forwarders and intermodal business group generates the highest NTKs as most of its tonnage travels intersystem over long distances. This sector includes general freight for freight forwarders, overseas shipping companies and direct customers, carried in containers and vans. In conjunction with other rail systems, AN has introduced the

^{4.} Intermodal freight is freight that can be easily transferred from one transport mode to another, for example, containers and road trailers.

7 075

Freight group	1986-87		1987-88 ^a	
	Tonnes ('000)	NTK ^b (million)	Tonnes ('000)	NTK ⁱ (million)
Forwarders and intermodal	2 588	3 487	2 891	3 823
Bulk	6 987	1 885	6 604	1 461
Manufactured goods	1 099	1 064	1 766	1 791

10 674

6 436 11 261

TABLE 2.6 FREIGHT COMMODITIES: AN MAINLAND 1986-87 TO 1987-88

Total

Note Figures may not add to totals due to rounding.

Source AN (pers. comm. 1988).

new 'superfreighter' concept. Superfreighters are non-stop containerised freight express services with fixed schedules for departure and delivery times. They operate point-to-point with no shunting and marshalling between capital cities.

Westrail

Westrail freight operations are characterised by large tonnages hauled, on average, over a short distance. This indicates the significance of intrasystem traffic to Westrail. Table 2.5 summarises Westrail's freight operations.

Details of Westrail's freight commodities are illustrated in Table 2.7. In 1986-87, the ores and minerals group accounted for approximately 53 per cent of Westrail's total freight tonnage. However, this group accounted for only about 24 per cent of the task in NTKs. Bauxite is the major commodity in this group. Agricultural products, which comprised 28 per cent of Westrail's tonnage, generated the highest NTKs for the system. Grain is the most important commodity conveyed by Westrail in terms of the NTKs generated. Intersystem traffic, due to its long haul nature, accounted for a quarter of total NTKs but only 7 per cent of total tonnage.

Passenger task

Australian National

AN's passenger business is a 'community service obligation' (CSO) for which it receives annual revenue supplements from the Federal

a. Projected.

b. Net tonne-kilometres.

Report 63

TABLE 2.7 FREIGHT COMMODITIES: WESTRAIL, 1986-87 TO 1987-88

Freight group		1986-87					1987-88 ^a			
			nes 000)	(milli	NTK ^b on)		nnes 000)	(m i 1 1	NTK ^t ion)	
Ores and minerals		11.	446:		991	11	966	1	010	
Energy	:	1	211	:	285	1	081		297	
Agriculture		6	065	1	578	5	339	1	448	
Manufactured goods			867		130		855		124	
Intersystem		1	569	1	018	1	715	1	113	
Other			106		60		21		85	
Departmental			334		50		383		54	
Total		21	598	4	112	21	360	4	131	

a. Projected.

Sources Westrail (1987a). Westrail (pers. comm. 1988).

TABLE 2.8 PASSENGER OPERATIONS: AN MAINLAND AND WESTRAIL, 1986-87 TO 1987-88

('000')

	1986-87			1987-88 ^a			
		AN	Westrail ^b	-	AN	Westrail ^b	
Earnings (\$) ^C	29	078	10 585	30	900	10 481	
Passenger journeys	4	329	376		333	425	
Train kilometres (km)	2	381	936	2	900	966	

a. Projected.

Sources AN (pers. comm. 1988). Westrail (pers. comm. 1988).

b. Net tonne-kilometres.

Includes road services.

c. 1987-88 prices, excludes CSO revenue supplement but includes fare concession reimbursement.

Government. AN provides both intersystem and intrasystem passenger services. A summary of operations is illustrated in Table 2.8.

Intersystem passenger train services operated by AN are as follows:

- Indian Pacific
- . Trans Australian
- . Overland.

The Indian Pacific service connects Sydney to Perth (via Adelaide); it operates 3 return trips per week. AN and Westrail operate the Trans Australian, a twice weekly return service between Perth and Adelaide. The Overland is a return service between Adelaide and Melbourne on the broad gauge line seven times per week, involving AN and V/Line.

AN's intrasystem passenger services link Adelaide with: Alice Springs (The Ghan); Whyalla (Iron Triangle Limited); Broken Hill (Silver City Limited); and Mount Gambier (Blue Lake). AN does not operate any metropolitan commuter services. A summary of the passenger journeys is shown in Appendix II.

Westrail

The passenger services provided by Westrail are metropolitan rail, interstate rail, and country rail and road.

Westrail transferred its responsibility for the management of suburban passenger rail to Transperth in 1974 and it now operates this service under contract to Transperth. The following subsection describes Transperth and its activities.

Interstate rail services are operated in co-operation with the Railways of Australia. The system operates with three Indian Pacific and two Trans Australian trains into and out of Perth each week.

Westrail operates two country rail passenger services, the Perth-Kalgoorlie 'Prospector' (on a daily, 6 to 8 hour trip) and the Perth-Bunbury 'Australind' (twice daily, 2 to 2.3 hour trip). In 1986-87 patronage on the Prospector and Australind was 79 200 and 75 600 respectively representing an improved occupancy rate for both trains compared to previous years.

The country road fleet is comprised of a range of 28 modern vehicles. The road passenger services complement Westrail's country rail services operating over the more populated south-west area of the State.

Transperth

The overall responsibility for metropolitan passenger services in Perth rests with the Metropolitan Passenger Transport Trust (Transperth) which was established by an Act of Parliament in January 1958. Transperth is required 'to provide, maintain, protect and manage' efficient passenger transport services throughout the metropolitan area of Perth. It is effectively the sole supplier of bus, train and ferry services on scheduled routes in the state capital. This section discusses the train services only.

Suburban rail services in Perth are limited to the Fremantle, Midland and Armadale corridors, comprising 64 route kilometres. Westrail provides the equipment, infrastructure and personnel to run the rail passenger services in return for an agreed payment from Transperth. The service currently uses 106 diesel railcars and carriages and is operated by a staff of 595 at 30 June 1987.

The State Government recently approved the electrification of the Perth urban rail system. This \$145 million project will enable faster and more frequent services to be introduced. Westrail will manage this project which is anticipated to take four years to complete. A total of 21 new electric train sets have already been commissioned to be built.

Table 2.9 summarises the financial performance of Transperth's rail passenger services. The net community expenditure required to cover the deficit is anticipated to total \$21.4 million in 1987-88, compared to \$21.8 million in 1986-87.

Performance measures

Australian National

AN's performance measures for 1983-84 and 1986-87 are shown in Table 2.10. The utilisation of wagons and locomotives measured in terms of NTK per wagon and NTK per locomotive has increased by 54 per cent and 47 per cent respectively over the period. Staff productivity measured in terms of NTK per freight employee has also shown substantial improvement (approximately 49 per cent since 1983-84).

AN passenger services patronage as measured by passenger journeys had declined until 1984-85 before achieving some growth. Patronage rose by 6 per cent between 1984-85 and 1986-87, partly reflecting the increasing significance of tourism in Australia.

TABLE 2.9 FINANCIAL PERFORMANCE^a: TRANSPERTH, 1986-87 TO 1987-88 (\$ million, 1987-88 prices)

Item	1986-87	1987-88 ^b
Revenue		
Fares	5.6	5.6
Other	1.2	1.1
Total	6.8	6.7
Operating expenditure	29.6	28.1
Surplus (deficit) equivalent to net community expenditure	(22.8)	(21.4)

a. Rail passenger services only.

Sources Transperth (1987a). Transperth (1987b).

TABLE 2.10 PERFORMANCE MEASURES: AN MAINLAND AND WESTRAIL, 1983-84 AND 1986-87

(\$ million, 1987-88 prices)

	19	83-84	1986-87		
Item	AN	Westrail	AN	Westrail	
NTK (million)	5 511	3 903	6 437	4 062	
NTK/wagon ('000)	645	556	993	748	
NTK/locomotives ('000)	20 528 ^a	19 322	30 219 ^a	24 768	
Freight revenue/NTK (¢) ^b	4.1	6.0	3.6	5.2	
Passenger revenue/train-					
kilometres (\$) ^b	12.3	11.1	12.2	11.3	
Revenue/employee (\$'000)b	31.1	36.7	38.9	43.0	
NTK/freight employee	737	na	1 100	na	
Passenger journeys ('000)	358	378	329	376	

a. Locomotive numbers used are average for the year.

Sources AN (pers. comm. 1988). Westrail (pers. comm. 1988).

b. Projected outcome.

b. 1987-88 prices.

na Not available.

Westrail

Table 2.10 presents Westrail's performance indicators for 1983-84 and 1986-87. Although the net tonne-kilometres relating to freight have remained fairly constant, the utilisation of wagons and locomotives, as indicated by NTK per wagon and NTK per locomotive, has improved with Westrail rationalising its fleet size and locomotives. Freight revenue per NTK has risen 10 per cent between 1983-84 and 1986-87.

With declining personnel numbers and increasing revenue levels, Westrail has been able to lift its overall revenue per employee from \$31 100 in 1983-84 to \$43 000 in 1986-87.

Passenger journeys for both road and rail have shown a gradual downward trend. This has been followed by a decline in rail and road kilometres of passenger services. Passenger revenue per train kilometre has increased marginally from \$11.10 in 1983-84 to \$11.30 in 1986-87.

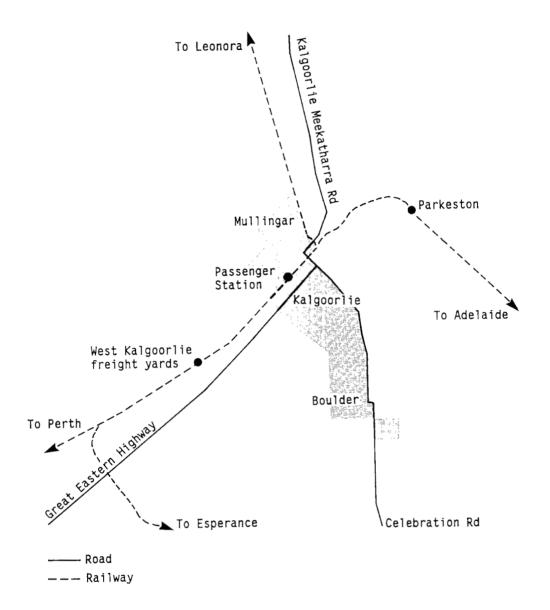
AUSTRALIAN NATIONAL AND WESTRAIL INTERFACE

The AN and Westrail systems meet at Kalgoorlie in Western Australia. This interface between the rail systems owned by the Commonwealth and Western Australian Governments has existed since the construction of the Trans Australia Railway in 1912. The section of the line from Kalgoorlie to Perth, formerly narrow gauge, was converted to standard gauge in the 1960s. Figure 2.8 shows a map of the facilities in the Kalgoorlie area.

Westrail has a passenger station in Kalgoorlie. At a separate facility in West Kalgoorlie, Westrail provides facilities for locomotive and rollingstock servicing, train preparation and refuelling and operates its freight yard and depots for train crews and permanent way maintenance. These facilities lie between the line north to Leonora and the line south to Esperance.

AN's facilities are located at Parkeston, some 7 kilometres east of Kalgoorlie. All AN locomotive and rollingstock servicing, storage, preparation and refuelling are done at Parkeston. It is also the base for the permanent way maintenance gang responsible for the western end of the Trans Australia Railway. AN's train crews (who work between Parkeston, Rawlinna and Cook) are home-stationed at Parkeston.

Intersystem freight trains from the east and bound for Perth presently stop at the Parkeston yard, where train crews are changed. Some freight is offloaded (including 20 per cent of the piggyback units) as some forwarders or customers prefer to transport the freight to Perth by road. The train is moved to the Kalgoorlie depot by a new



Source Australian Surveying and Land Information Group.

Figure 2.8 Kalgoorlie-Parkeston environs.

Report 63

locomotive crew. The AN locomotive is detached from the train and returned to Parkeston for servicing. Westrail locomotives are attached for operation westward from Kalgoorlie. Train lengths are adjusted at both Parkeston (east bound trains) and West Kalgoorlie (west bound trains).

At West Kalgoorlie the train is shunted into the freight terminal where more loading and unloading may take place. In some cases, wagons from the Leonora-Esperance line may be added to the train. The train is then remade, and examined by both AN and Westrail staff before it departs for Perth. This process can take anywhere from 2 hours to 10 hours on a week day and substantially longer on weekends. The 'superfreighter' express intersystem trains (representing nearly 15 per cent of intersystem freight) may only spend between 1 or 2 hours in the process, since they have a clearly defined priority.

For passenger trains, the only stop is at Kalgoorlie station where locomotives and crew are changed. This entails a stop of approximately 30 to 45 minutes.

Table 2.11 shows the breakdown of the staff numbers for both Westrail and AN in the Kalgoorlie/Parkeston area. The Westrail civil engineering staff maintain the track westwards, northwards and southwards. The AN civil engineering staff maintain the line eastwards from Kalgoorlie.

TABLE 2.11 STAFF EMPLOYED AT KALGOORLIE/PARKESTON

Branch	AN	Westrail
Operations	136	85
Mechanical engineering	13	18
Civil engineering	31	53
Signals and communication	1	16
Total	181	172

Sources AN (pers. comm. 1988). Westrail (pers. comm. 1988).

SUMMARY

AN and Westrail are both engaged in commercial activities and have similar goals, foremost of these being the reduction of deficits.

Both railways have adopted similar philosophies in relation to staff reductions, improved rollingstock performance and revenue enhancement. Both AN and Westrail provide passenger services for which they each receive a subsidy.

Each railway has attached its greatest priority to the conveyance of freight. Tonnage carried by AN and Westrail in 1986-87 totalled 11 million tonnes and 21 million tonnes respectively, while the NTKs associated with this tonnage totalled 6437 million and 4062 million respectively. This indicates the significance of long haul traffic as a generator of revenue in the AN system and the importance of shorthaul traffic for Westrail. AN's revenue is mainly generated by interstate freight (forwarders and intermodal) while Westrail's freight revenue is predominantly derived from intrastate traffic (rural products). This indicates that the two systems complement each other.

CHAPTER 3 THE BASE CASE - INDEPENDENT OPERATION OF AN AND WESTRAIL

A description of the Base Case, in which it is assumed that AN and Westrail continue to operate independently, is required to provide a benchmark for the assessment of costs and benefits of the various merger options under consideration. The expected financial performance of both AN and Westrail over a five year forecast period, 1988-89 to 1992-93 is examined. Forecasts of tasks, revenue, costs and capital plans for each system are presented.

A detailed examination of the systems beyond the five-year horizon would be of dubious value due to the uncertainty of task and financial projections. However, future trends are discussed for the five year period 1992-93 to 1997-98.

AUSTRALIAN NATIONAL

Issues

To achieve the objectives set out in Chapter 2, AN has identified the principal issues to be addressed in the five-year planning period to 1992-93. These are:

- reducing costs to be competitive with road transport;
- increasing productivity, especially labour productivity, without departing from AN's long-standing policy of 'no forced redundancies';
- . improving services to match real customer demands;
- achieving passenger service cost recovery targets required by Government;
- improving co-ordination with other rail systems;
- investing in permanent way and related infrastructure, locomotives, rollingstock and workshops; and
- . achieving commercial levels of performance in the public sector.

Strategies

AN has adopted a number of strategies in the areas of operations, marketing, workforce and capital investment to attain the projected task and address the principal issues listed above.

Operations and infrastructure

Strategies related to operations and infrastructure mainly seek to improve productivity by rationalising and modernising equipment, workshops, infrastructure and operational methods. This will include the following items:

- increasing train sizes and axle loads and improving payload ratios;
- minimising shunting and remarshalling by changes to train scheduling/rostering, and eliminating redundant yard facilities;
- reducing number of revenue-earning and service rollingstock by improved fleet management and faster turn-arounds; and
- eliminating services, lines and sidings for which there is no effective demand.

Marketing

Plans are aimed at responding to customer needs by improving the range and quality of services and at improving rail's image in the market. These include:

- encouraging the current trend to intermodal freight, particularly containerisation;
- improving train and wagon transit times, by more disciplined train and yard management and increased speed limits for selected trains;
- increasing computerisation to assist management of rollingstock, train operations, and waybilling/invoicing;
- improving service reliability by upgrading locomotive fleet and improving train management; and
- encouraging customer ownership of rollingstock.

Workforce

AN is implementing strategies to reduce employee numbers and to improve workforce productivity. These include:

- completing two-person crewing of freight trains and introducing one-person shunt locomotive crews;
- extending relay working of train crews on remote lines;

- computerising administrative functions in all parts of the organisation to reduce administrative staff;
- introducing multi-skilling in appropriate areas;
- introducing further incentive schemes to encourage selective voluntary resignation and relocation;
- exerting tight control on recruitment in all areas;
- . negotiating to eliminate restrictive work practices; and
- maintaining a stable climate of industrial relations by consistent pursuit of well-publicised objectives and by continuous communication with employees and employee organisations.

Capital investment

Investment in locomotives and rollingstock and in permanent way, communications and maintenance infrastructure will dominate AN's capital programs in the next decade. This will include:

- . upgrading mainline locomotive fleet;
- continuing investment in new/innovative intermodal and specialised rollingstock;
- reorganising and modernising major workshops;
- improving communications and signalling to facilitate improved transit times;
- . acquiring new specialised equipment for track maintenance;
- rerailing selected line sections to accommodate heavier axle loads and higher speeds and to reduce maintenance costs; and
- continuing to replace timber with concrete sleepers on most main lines.

Task

Freight

Table 3.1 shows AN's expected mainland traffic task for the period 1988-89 to 1992-93. AN's overall freight tonnage and NTK levels are expected to increase by 4 per cent and 9 per cent respectively between 1988-89 and 1992-93. This trend is expected to continue to 1997-98.

The intersystem freight tonnage and associated NTKs are projected to experience a growth of approximately 7 per cent and 13 per cent respectively between 1988-89 and 1992-93. The intrasystem tonnage and the corresponding NTKs are expected to remain fairly static.

TABLE 3.1 TRAFFIC TASK: AN MAINLAND, 1988-89 TO 1992-93

Item	1988-89	1989-90	1990-91	1991-92	1992-93
Freight (m)				4.	
Intersystem					
Tonnes	4.1	4.1	4.3	4.4	4.4
Net tonne-kilometres	4 760	4 919	5 131	5 290	5 385
Intrasystem					
Tonnes	7.3	7.3	7.1	7.2	7.3
Net tonne-kilometres	2 541	2 568	2 542	2 580	2 594
Total					
Tonnes	11.2	11.4	11.5	11.6	11.7
Net tonne-kilometres	7 301	7 487	7 673	7 870	7 979
Passengers					
Total Passenger					
kilometres (m)	299	318	331	343	349

Note Figures may not add to totals due to rounding.

Source AN (pers. comm. 1988).

Table 3.2 presents the tonnage targets by business groups between 1988-89 and 1992-93. Growth is predicted to occur in the business groups comprising forwarders and intermodal and manufactured products. The latter sector is forecast to expand by 11 per cent over the period. This significant growth can be attributable to the expected increase in motor vehicles and steel. The forwarders and intermodal sector is projected to expand by nearly 13 per cent as a result of the expected increase in containerised and piggyback traffic. Bulk products, which account for more than 50 per cent of the total freight tonnage, are predicted to decline by 2 per cent over the period due to expected falls in coal traffic. The extent of future grain traffic is uncertain following the release of the report of the Royal Commission into Grain Storage, Handling and Transport, although it is not expected to fall significantly.

Passenger

Table 3.1 also presents the predicted passenger task for the period 1988-89 to 1992-93. AN's overall passenger task is projected to increase by nearly 17 per cent.

TABLE 3.2 BUSINESS GROUP TONNAGE TARGETS: AN MAINLAND, 1988-89 TO 1992-93

Tonnes (million)

Business groups	1988-89	1989-90	1990-91	1991-92	1992-93
Manufactured Products	1.9	2.0	2.1	2.1	2.1
Forwarders and Intermodal	3.0	3.1	3.2	3.3	3.4
Bulk products	6.3	6.3	6.1	6.2	6.2
Total	11.2	11.4	11.5	11.6	11.7

Note Figures may not add to totals due to rounding.

Source AN (pers. comm. 1988).

Resource requirements

Table 3.3 presents AN's projections of rollingstock, labour and capital investment required to meet its forecast freight and passenger task for the period 1988-89 to 1992-93.

Rollingstock

The number of mainline and shunt locomotives are predicted to decrease significantly over the period. Locomotive numbers are expected to fall from 186 in 1988-89 to 147 in 1992-93.

The wagon fleet, both revenue and service, is forecast to decline in numbers until 1990-91 then remain constant for the remaining period. Revenue earning and service wagons are expected to decrease by 200 and 100 respectively between 1988-89 and 1992-93.

The passenger fleet on the other hand, is anticipated to remain constant over the period.

Employment

Total staff levels are expected to fall from 6204 at the end of 1988-89 to 5605 by the end of 1992-93. This is equivalent to a 10 per cent decline. Reductions will be spread throughout the organisation, with the largest relative fall in the Operations Branch. AN plans to reduce its staff numbers by means of incentive schemes to encourage voluntary resignation and relocation, retraining and multi-skilling.

TABLE 3.3 RESOURCE PROJECTIONS: AN MAINLAND, 1988-89 TO 1992-93

Item	1988-89	1989-90	1990-91	1991-92	1992-93
Rollingstock			<u></u>		
Locomotives	186 ^a	165	158	151	147
Wagons	5 800	5 700	5 600	5 600	5 600
Carriages	205	205	205	205	205
Service/other	900	850	800	800	800
Labour Forecast staff ^b	6 204	6 034	5 886	5 739	5 605
Capital investment (\$ million) ^C	68.7	65.0	55.2	43.8	49.3

a. Includes 11 surplus to requirements.

Source AN (pers. comm. 1988).

Capital investment

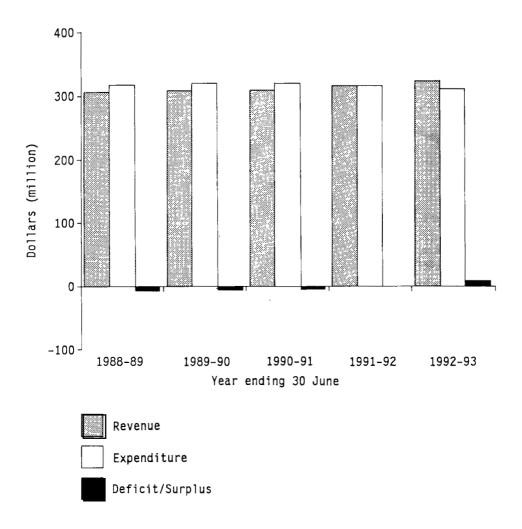
Capital investment projections for AN over the period 1988-89 to 1992-93 are shown in Table 3.3. AN's planned total capital expenditure program is forecast to average \$56.4 million over this period. Almost all of this amount will be put into infrastructure and locomotives used by all traffics and into specialised freight equipment.

Financial outcome

Table 3.4 presents the financial projections for AN between 1988-89 and 1992-93 resulting from AN's strategies, the achievement of task forecasts and the application of resources as outlined above. AN is expecting a marginal increase in revenue (including CSOs) over the period from \$305.1 million to \$315.9 million. This increase is expected to come largely from intersystem freight. Expenditure is expected to remain relatively constant over the same period. This will enable the surplus from commercial operations in 1992-93, to be used for replacement and renewal of capital equipment required for future business. Figure 3.1 presents AN's projected financial performance for 1988-89 to 1992-93.

b. Current forecast.

c. Based on currently known investment proposals, 1987-88 prices.



Source AN (pers. comm.)

Figure 3.1 Australian National financial projections, 1988-89 to 1992-93

WESTRAIL

Corporate objectives/issues

The following are issues that Westrail has identified for attention in the next five years to achieve its objectives as outlined in Chapter 2:

- . cost efficiency of the freight sectors and passenger services;
- rationalisation of the rollingstock fleet;

TABLE 3.4 FINANCIAL PROJECTIONS: AN MAINLAND, 1988-89 TO 1992-93 (\$ million, 1987-88 prices)

Item	1988-89	1989-90	1990-91	1991-92	1992-93
Revenue			T.		
Freight	241	246	250	254	257
Passenger ^a	. 53	49	47	47	47
Other	1,2	. 12	12	12	12
Total	305	307	309	312	316
Expenditure	279	279	279	277	275
Operating	•				
surplus/(deficit)	26	29	30	35	41
Less interest	19	21	22	22	22
Less superannuation	14	14	14	13	13
Net surplus/	***************************************				
(deficit)	(8)	(7)	(5)	0	6

Includes reimbursements for concession fares and agreed Community Service Obligations.

Notes 1. Figures may not add to totals due to rounding.

2. See Appendix IX for accounting procedures.

Source AN (pers. comm. 1988).

- reorganisation of staffing levels;
- . cost effectiveness of operations; and
- . expansion into further complementary or supplementary ventures.

In regard to the last item, Westrail will receive dividends and investment capital growth through its interest in the joint ventures mentioned in Chapter 2 (Total West and Western Quarries). Both of these firms are experiencing rapid growth and this is expected to continue.

^{3.} Interest payments are influenced downwards by \$141.7 million lent specifically for expenditure under the Tarcoola-Alice Springs Railway Act 1974 which remains free of interest until the Minister for Finance determines otherwise.

Strategies

In order to attain the projected task and meet its objectives listed above, Westrail has proposed a number of strategies.

Operations and infrastructure

Westrail is seeking to improve technical efficiency and lower costs through:

- Further rationalising of grain transport and handling in cooperation with the Grain Handling Authority. This plan will give savings in requirements for train crews and rollingstock.
- Concentrating on unit trains for grain, fertiliser and wool, consolidating wool and fertiliser service points and scheduling fertiliser, oil and wool in block trains.
- Completing the elimination of 4 wheeled wagons and old locomotives and providing higher quality but fewer locomotives and wagons.
- . Continuation of track upgrading, principally from 16 tonne to 19 tonne axle loads on the narrow gauge network.
- Computerising most operations and administrative control systems.
- . Reducing workforce but ensuring greater flexibility in staff.
- . Increasing cost effectiveness of passenger services.

Marketing

Strategies are geared to respond to customer needs and provide price/service packages to compete in all of Westrail's markets. These strategies include:

- promoting Westrail's services for new mineral projects;
- . attracting new grain to rail;
- . attracting more port to port oil to rail;
- encouraging wool, fertiliser and oil consolidation through pricing and service incentives;
- promoting intermodal, inter-city premium services;
- . maximising intersystem back-loading; and
- promoting complementary and supplementary business ventures.

Capital investment

Major investments planned for are:

- electrification of the suburban rail passenger service;
- replacement of locomotives; and

Report 63

 track upgrading of the standard gauge line between Koolyanobbing and Kalgoorlie and a section on the narrow gauge line from Perth to Dongara.

Task

Freight

Westrail's predicted traffic task for the period 1988-89 to 1992-93 is shown in Table 3.5. Westrail's overall tonnage and NTKs are forecast to increase by nearly 9 and 12 per cent respectively over the period 1988-89 to 1992-93. Intrasystem freight tonnage, which represents in excess of 90 per cent of Westrail's total freight tonnage, is expected to increase from 19.6 million tonnes in 1988-89 to 21.3 million tonnes in 1992-93. This represents an improvement of 9 per cent. The NTKs associated with the forecast intrasystem tonnage are estimated to rise by 13 per cent over the period. These projections are made on the assumption of no deregulation in Western Australia (except for minor commodities). Intersystem freight tonnage and NTKs are expected to rise by about 12 per cent and 8 per cent respectively between 1988-89 and 1992-93.

Passenger

Table 3.5 also shows passenger kilometres for Westrail's non urban passenger services. Total passenger kilometres are expected to increase from 103 million kilometres in 1988-89 to 120 million kilometres in 1992-93 (a 17 per cent rise). This predicted increase results solely from a forecast improvement in intrasystem passenger travel.

Resource requirements

Table 3.6 presents Westrail's resource requirements for rollingstock, labour and capital investment for the strategies mentioned above, and to meet the forecast freight task for the period 1988-89 to 1992-93.

Rollingstock

Overall, total rollingstock numbers are forecast to decline by 12 per cent over the five-year period. The number of locomotives and wagons are predicted to decline by about 6 and 12 per cent respectively. All falls are predicted to occur in narrow gauge rollingstock only. The expected decrease in the number of rollingstock will in part be due to the effects of fertiliser deregulation and the rationalisation of the grain transport and handling system.

TABLE 3.5 TRAFFIC TASK: WESTRAIL, 1988-89 TO 1992-93

Item	1988-89	1989-90	1990-91	1991-92	1992-93
Freight (m)					
Intersystem					
Tonnes	1.7	1.8	1.8	1.9	1.9
Net tonne-kilometres	1 119	1 142	1 165	1 188	1 210
Intrasystem					
Tonnes	19.6	20.2	20.6	20.9	21.3
Net tonne-kilometres	2 953	3 099	3 167	3 227	3 340
Total					
Tonnes	21.3	22.0	22.4	22.7	23.2
Net tonne-kilometres	4 072	4 241	4 332	4 414	4 550
Passenger ^a					
Total passenger					
kilometres (m)	103	107	111	116	120

a. Non urban passenger rail.

Note Figures may not add to totals due to rounding.

Source Westrail (pers. comm. 1988).

Employment

Table 3.6 presents the forecast staff numbers for Westrail between 1988-89 and 1992-93. Over the five-year period Westrail's staff level is expected to decrease by 593 (11 per cent). The largest decline is anticipated to occur in the Marketing and Operations area and the Mechanical Engineering area.

Capital investment

Forecasts of capital investment for Westrail over the period 1988-89 to 1992-93 are shown in Table 3.6. Westrail's capital investment is forecast to peak at \$55 million in 1988-89 and then decline sharply in 1990-91 to approximately \$19 million. In excess of 90 per cent of capital will be invested in the freight and common infrastructure area.

Financial outcome

Table 3.7 presents Westrail's financial projections between 1988-89 and 1992-93 which result from these strategies and application of resources as outlined above. The table indicates that the total

TABLE 3.6 RESOURCE PROJECTIONS: WESTRAIL, 1988-89 TO 1992-93

Item	1988-89	1989-90	1990-91	1991-92	1992-93
Rollingstock					
Locomotives	143	140	134	134	134
Wagons (bogie equivalent)	4 525	4 082	3 982	3 982	3 982
Carriageș ^a	51	36	36	36	36
Service and					
other	380	355	.355	355	355
Labour		1			
, Forecast staff	5 220	4 941	4 761	4 684	4 627
Capital investment (\$ million) ^b	55	44	21.	20	. 19

a. Includes non-urban railcars.

Note Excludes rollingstock provided to Transperth.

Source Westrail (pers. comm. 1988).

operating loss, in 1987-88 dollar values is estimated to reduce from \$68 million in 1988-89 to \$30 million in 1992-93, based on traditional government accounting conventions and includes proposed CSOs. Under the proposed commercial accounting basis, Westrail forecasts an improvement in the same period from a deficit of \$20 million to a surplus of \$16 million. The improvement in the deficit will be brought about by a fall in expenditure levels with the overall revenue levels forecast to rise only slightly over the period. Figure 3.2 presents the projected financial performance for Westrail for the period 1988-89 to 1992-93.

Transperth

Over the next five years Transperth plans to meet the metropolitan public needs by introducing a mix of service initiatives, operational improvements, measures to facilitate the use of public transport, market oriented programmes and technological improvements.

Transperth anticipates rail passenger boardings to increase by 2 per cent per annum over the next five years based on the rate of increase in population in metropolitan Perth which is currently more than 2 per

b. 1987-88 dollar values.

TABLE 3.7 FINANCIAL PROJECTIONS: WESTRAIL, 1988-89 TO 1992-93 (\$ million, 1987-88 prices)

Item	1988-89	1989-90	1990-91	1991-92	1992-93
Revenue					
Freight	183	183	185	187	193
Passenger ^a	23	23	23	24	24
Other	51	53	53	52	45
Total	257	259	261	263	262
Expenditure					
Operating	206	196	189	185	183
Superannuation	43	44	36	33	31
State taxes	7	7	6	6	6
Depreciation	23	26	30	31	27
Interest	46	51	52	49	45
Total	325	324	313	304	292
Surplus (Deficit)	(68)	(65)	(52)	(41)	(30)
Commercial adjustments Add					
Interest	22	26	28	28	28
Superannuation	31	33	25	23	21
Deduct					
Sales tax	5	5	5	5	5
Bank interest	0	0	(1)	(1)	(2)
Commercial result	(20)	(11)	(3)	6	16

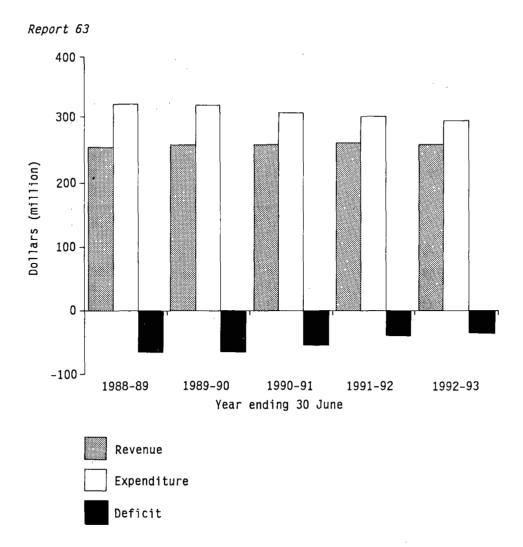
a. Includes reimbursements for concession fares and proposed Community Service Obligations.

Notes 1. Figures may not add to totals due to rounding.

4. Figures in parenthesis are negative values.

Source Westrail (pers. comm. 1988).

See Appendix IX for accounting procedures.
 Adjustments to the State Superannuation Scheme have significantly increased Westrail expenditure and resultant conventional deficit but the commercial adjustments made by Westrail counteract this effect.



Source Westrail (pers. comm.)

Figure 3.2 Westrail financial projections, 1988-89 to 1992-93

cent per annum. In addition, it expects a once only increase in patronage of 15 per cent by September 1989 due to the completion of the electrification of the Armadale line.

A new contract specifying services and standards required will be issued to Westrail who will be invited to tender for the services. The tender is expected to include details of all resources (human, energy and material) to be employed in the provision of the services and the actual work to be done to meet specifications. Payment in full will depend on the full provision of these resources and completion of the schedule work to the required standards.

Transperth intends to rationalise and improve its rollingstock. It is anticipated that 15 diesel railcars will be disposed of in 1989-90, followed by a further 16 in 1990-91. The diesel railcars will be replaced by 21 electric train sets which will be acquired over the next four years.

Table 3.8 presents Transperth's financial forecasts. It indicates the effects of the proposed plans that Transperth intends to adopt.

TABLE 3.8 TRANSPERTH FINANCIAL FORECASTS (RAIL), 1987-88 TO 1991-92 (\$ millions, 1987-88 prices)

Item	1987-88	1988-89	1989-90	1990-91	1991-92
Revenue	5.6	5.7	6.1	6.3	6.7
Expenditure	28.1	31.3	32.4	36.3	37.0
Profit (loss)	(22.5)	(25.6)	(26.3)	(30.0)	(30.2)

Source Transperth (1987b).

SUMMARY

The financial projections for AN and Westrail indicate that both railways are expecting to significantly improve their financial position over the next five years, with the objective of obtaining a profit on a commercial accounting basis. This will be achieved through the attainment of strategies aimed at maintaining and increasing markets, increasing revenues, reducing labour and other costs and reducing resource requirements such as rollingstock.

CHAPTER 4 INTEGRATION OF INTERSYSTEM OPERATIONS

The option of integrating the intersystem freight and passenger operations represents one level of integration between AN and Westrail. This chapter describes the option in detail, presents an analysis of the individual costs and benefits expected to flow from it, and outlines the financial, economic and social outcomes of the option.

DESCRIPTION OF OPTIONS

This option involves integration of the intersystem freight and passenger business now conducted by AN and Westrail, and therefore, the two railway organisations themselves would continue to exist separately. Practical arrangements would vary between ownership alternatives and these may affect the size of costs and benefits arising from this option. The two ownership options examined in this chapter are:

- . AN management of Westrail intersystem business; and
- a joint venture between AN and Westrail, to manage the intersystem business of both railways.

These ownership alternatives are covered in the Terms of Reference by items 4(a) and 4(c) (see Appendix I). Item 4(b), involving Federal Government ownership of intersystem operations is assumed to be, in practical terms, no different to AN management and operational control. This is because Federal ownership would involve AN ownership and operation of the same assets as are included in the AN management and control option. It is therefore disregarded in the subsequent analysis.

AN management and control

Under the AN management and control option, there are a number of scenarios which could occur. AN would manage and control Westrail's intersystem freight and passenger business, the scope of which may vary by:

- . level of management
 - AN assumes responsibility for:
 - : marketing of intersystem business; and
 - : marketing and running of intersystem trains.
- level of ownership
 - AN would own:
 - : nothing, but lease or pay running rights for track, infrastructure and rollingstock from Westrail;
 - : intersystem rollingstock, but pay running rights and terminal costs to Westrail; and
 - : all intersystem track, infrastructure and rollingstock.
- . staff arrangements
 - AN could:
 - : directly employ necessary staff;
 - : take staff made available from Westrail;
 - : contract Westrail to provide services; and
 - : contract external organisations to provide services.

These scenarios are not entirely independent of each other. For example, AN would only directly employ staff if AN also owned the rollingstock. The scenarios could be combined to represent a number of different ways in which AN could manage the intersystem business of Westrail. Each option may result in different financial impacts on AN and Westrail.

Some of the above options are impractical solutions for the integration of the two railways. For example, AN ownership of the standard gauge track between Perth and Kalgoorlie would create an unmanageable number of system boundaries between AN and Westrail. In many of the other options, there would be an increase in the number of interfaces between AN and Westrail, creating complications for the efficient management of intersystem business. After discussions with both railways, the simplest of the options was selected for analysis, and this option is also expected to display the greatest potential for efficiency.

Therefore the Bureau has assumed that AN would have complete control of both marketing and operation of intersystem freight and passenger services in the Perth-Adelaide corridor. Thus, the arrangements currently under negotiation for AN to operate intersystem passenger

trains would be included in or superseded by the new arrangements. Westrail would continue to operate all intrastate rail services within Western Australia, over both narrow and standard gauge lines, would maintain the standard gauge link between Perth and Kalgoorlie, and would provide other services that AN required for operating intersystem trains.

Integration at this level would involve an agreement between the railways and either or both governments, but no legislation would be required. The passenger arrangements currently under negotiation (outlined in Appendix VI) could provide a model for the integration agreement.

The main features of the arrangements would be expected to include:

- . AN operates intersystem trains over Westrail and AN tracks, and receives all revenues earned by intersystem business;
- AN has full responsibility for marketing the intersystem services, and for their management and administration;
- AN provides locomotives, rollingstock and crews for intersystem trains;
- Westrail retains responsibility for safe working of the standard gauge track from Kalgoorlie to Perth, including track maintenance, signalling and communications, train control and train examination;
- Westrail provides AN with reasonable access to the standard gauge line, as part of a running rights agreement;
- Westrail provides AN with terminal facilities, fuel and supplies, and with maintenance, cleaning and repair services in Perth for intersystem trains, on an agreed contract basis (with appropriate compensation paid by AN to Westrail);
- the Western Australian State Government pays AN a revenue supplement for intersystem passenger train services, to cover concessions, incentives and other agreed costs; and
- Westrail transfers its operations, marketing and administrative staff involved in intersystem traffic to the AN workforce.

If AN can introduce efficiencies, or enhance revenue because of the single control of interstate services, then it is possible for at least one of the railways to be better off.

^{1.} With the exception of provisions for transfer of superannuation. The transfer agreements between the Federal Government and State Governments of South Australia and Tasmania may also be affected.

Joint venture operation

The arrangements for a joint venture between AN and Westrail to manage and control intersystem traffic could take a number of forms. The main difference between this alternative and that discussed above would be the need to establish a new entity (referred to here as 'Inter-Rail') to manage and operate intersystem trains on the tracks of the two railways. There are a number of options for the structure and scope of operations for the new entity. There would be the same scenarios, as detailed in the AN management and control option: level of management, level of ownership of the assets; and staff arrangements. In addition, the scope of the operation of Inter-Rail could be any of the following:

- only intersystem traffic west of Kalgoorlie;
- . intersystem traffic between Perth and Adelaide; and
- . all intersystem traffic now managed by AN and Westrail.

For purposes of subsequent analyses the scope is assumed to cover intersystem traffic between Adelaide and Perth.

The important aspect of the joint venture is the unified marketing and operation of AN and Westrail intersystem services by a single organisation.

Inter-Rail could receive the revenues, market and manage the services, and provide the locomotives, rollingstock and crews for intersystem trains. Running rights and contracted services would be made available to Inter-Rail by both AN and Westrail, with each railway maintaining its own track and continuing to operate intrastate services. The Federal and State Governments would both pay revenue supplements to cover operating losses on passenger services. The Inter-rail staff would be drawn from the operations and administrative staff of both Westrail and AN.

Under this arrangement, the financial consequences are different to those for AN management and control. However, the scope for efficiency improvements by way of reductions in resources used and revenue enhancement that flows from single control of intersystem traffic would be the same so long as Inter-Rail pursues similar objectives to those of AN and Westrail.

Both AN and Westrail would be left with the operation of their intrasystem services, the ownership and maintenance of their full track systems, and the provision of services under contract to Inter-Rail. Westrail would lose about 10 per cent of its revenue, and

AN about 35 per cent. This loss would be offset to a large degree by payments for running rights and contracted services.

Table 4.1 shows the intersystem freight of the two railways that would be affected by integration. The forecasts are presented for a five-vear period from 1988-89.

EFFICIENCY GAINS AND LOSSES

In consultation with AN and Westrail, the Bureau has undertaken an assessment of possible efficiency gains and losses from the various integration options. These gains and losses are described under the headings of operational, managerial, workforce and marketing implications.

Integration is assumed to occur on 1 July 1988, although the costs and benefits are spread over five years, from 1988-89 on the basis that many of them would be expected to take some time to eventuate. Costs and benefits are expressed in financial terms in 1987-88 dollars.

TABLE 4.1 AN/WESTRAIL INTERSYSTEM FREIGHT FORECASTS,1988-89 TO 1992-93

Item	1988-89	1989-90	1990-91	1991-92	1992-93
AN ^a					
Tonnes (m)	1.7	1.8	1.8	1.9	1.9
NTK ^b (bn)	3.6	3.7	3.8	4.0	4.1
Revenue (\$m)	105	111	116	118	121
Westrail					
Tonnes (m)	1.7	1.8	1.8	1.9	1.9
NTK ^b (bn)	1.12	1.14	1.16	1.19	1.21
Revenue (\$m)	36	36	37	37	38

a. Excludes AN intersystem freight sent to or received from V-Line or NSW SRA.

Sources AN and Westrail (pers. comm. 1988).

b. Net tonne-kilometres.

c. 1987-88 prices.

It should be noted that these gains and losses are confined to intersystem freight traffic, on the grounds that arrangements currently under negotiation for passenger services will in fact proceed.

In this analysis, no significant distinction is drawn between the AN management and control and joint venture options in the efficiency gains and losses resulting from integration. In practice, however, there may be a difference. While some joint ventures are highly successful, there are difficulties, in many cases, because of the different priorities of the joint shareholders.

Operational implications

Important gains for the intersystem integration option (either joint venture or AN control) are in the operations area and result from the elimination of bottleneck problems at Kalgoorlie. More specifically efficiency gains would be expected from:

- through running of interstate trains eliminating the lengthy delays at Kalgoorlie; and
- the consequent rationalisation of AN's Parkeston yard and related facilities.

Both AN and Westrail have developed plans at various times in the past to address this issue. However, little progress has been made due to industrial relations difficulties and an inability to negotiate arrangements that are satisfactory to both railways. For purposes of the analysis, it is assumed that no rationalisation will occur at Kalgoorlie-Parkeston in the Base Case.

These gains would be in the nature of savings in locomotives (reflected in reduced future investment and maintenance requirements), savings in staff, and some minor savings in materials, fuel and other supplies.²

Elimination of Kalgoorlie stops permits faster transit times. In turn, scheduling of locomotives can be improved to increase average

The release of land at Parkeston is a further possibility. However, because of the access to private sidings at this location, and other complications, the future of the land in the event of closure is not clear, and is not considered further in this analysis.

locomotive utilisation so that fewer locomotives are required for the intersystem task. Scheduling improvements of this type would thus generate the savings in locomotive and wagon numbers.

The elimination of the bottleneck does not follow automatically from the integration of the railways. Negotiations with the relevant unions would be required to overcome the industrial relations objections to the through running of trains and the Parkeston rationalisation. The integration is expected to make these negotiations easier and more fruitful. For purposes of the analysis, it is assumed that the negotiations would be successful, and would take two years to complete. The benefits would be phased in over a further two years, with full benefits available in 1991-92. The benefits of rationalisation at Parkeston would be available at the same time, as surplus staff either take redundancy or are productively employed elsewhere in the system.

Based on advice from the railways, through running of trains reduces the requirement for standard gauge mainline locomotives by seven units, compared with the number that would otherwise be required to handle the intersystem task. As AN has embarked on a program of locomotive replacement, this saving in locomotive numbers can have an immediate effect by AN choosing to scrap a larger number of obsolete locomotives. It is assessed that the cost reduction from savings in fuel, crew and maintenance costs would be \$2.2 million.

Both AN and Westrail would make savings in staff involved in train examination, marshalling and shunting, locomotive servicing and operations at Parkeston and West Kalgoorlie. It is estimated that 40 staff would become surplus, yielding savings of \$1.2 million per year. In addition, associated savings in materials and other costs would realise \$150 000 annually. The surplus savings would materialise provided these staff accept redundancy or are productively redeployed.

Redundant staff would include fitters, examiners, yardmen and others in the operations and mechanical engineering branches of both railways. AN has indicated that civil engineering staff would be retained at Kalgoorlie for track maintenance east of Kalgoorlie. Westrail also suggested that a large presence in Kalgoorlie would be maintained, comprising civil engineering and signals and communications staff, and operations, marketing and mechanical engineering staff employed on intrastate services.

Because Westrail would continue to operate in its own right to run intrastate services under this option, there appear to be no other

opportunities for efficiency improvements in the rail systems. Savings of resources in the managerial and other operational areas would not be available while resources employed on country services on both rail systems would be expected to be just as fully employed as they would be in the Base Case. Table 4.2 provides a summary of the resources saved at Kalgoorlie under intersystem integration.

Managerial implications

There may, however, be some additional cost pressures. There would be a requirement to negotiate a series of agreements for the new arrangements to be effective. This would involve costs for outside services such as legal advice, valuations and consultants. The value of these costs cannot be estimated with any accuracy, but a once only allowance of \$0.5 million is made to cover them.

In the Inter-Rail case, where a new organisation is set up, a reasonable assumption is that operations, marketing and managerial staff would be drawn from Westrail and AN. The numbers and type of staff required by Inter-Rail are likely to be similar to those employed by the two railways on intersystem traffic, so there would be no increase or decrease in resources employed and costs incurred. However, a new top management structure and board would be required by Inter-Rail, with associated costs of salaries, on-costs, office supplies and office space. This management structure might include a General Manager, with four assistants to cover marketing, operations, engineering and corporate services, and appropriate secretarial support staff. The net additional costs resulting from this are estimated at \$400 000 a year. However, this cost may be higher depending on the detailed arrangements negotiated for Inter-Rail. These costs are not covered in this study.

Workforce implications

It is expected that railway unions would attempt to use the amalgamation as an opportunity to improve pay rates and conditions. Information from the railways indicates that pay and conditions are better in some respects for AN staff and in other respects for Westrail staff. Westrail staff moving over to AN would be unwilling to give up any advantages, while AN unions would be unwilling to accept a group doing the same tasks with better pay and conditions.

In the Inter-Rail case, where a new series of awards would have to be negotiated, the risks of unions extracting better pay and conditions are probably higher than for the AN takeover case. On the other hand, the risk of better pay and conditions spreading throughout the AN

TABLE 4.2 RESOURCES SAVED AT KALGOORLIE: INTERSYSTEM INTEGRATION

2.2 ^t
1.2
0.2

a. 1987-88 prices.

.. Not applicable.

Source BTCE estimates.

workforce is higher with an AN takeover, whereas the joint venture option may confine the changes to Inter-Rail itself.

However, insufficient information is available to speculate on the likely outcomes of these negotiations with any confidence. In the worst case, where the whole AN workforce benefits from improvements, the financial cost may be several million dollars per annum. On the other hand it may be possible to negotiate arrangements that provide some benefits to the workforce, but with offsets in the form of more efficient working practices and multi-skilling as part of a package that results in no additional costs.

Under current arrangements, the redundancy of staff involves the railways in a once only lump sum payment to those employees made redundant. For 40 employees with a payout of \$18 000 (AN pers. comm. 1988) the cost is estimated to amount to \$700 000 (assuming they are not redeployed elsewhere). This payout is expected to be spread evenly between 1990-91 and 1991-92.

A workforce related matter that will require negotiation between the railways and governments is the question of superannuation. For redundant employees who were members of schemes, payments related to their contributions would be expected. For employees transferring from Westrail to AN, or from Westrail and AN to Inter-Rail, suitable

b. Based on a new purchase price of \$2.5 million per locomotive, and a capital recovery factor calculated at 10 per cent interest rate over a life of 25 years, with maintenance costs saved estimated at \$45 000 per locomotive.

arrangements for the transfer of accrued superannuation liabilities would need to be negotiated.

There is also a possibility of industrial action by unions in response to the integration. However no allowance has been made for any costs associated with such disputes.

Marketing implications

The through running of trains at Kalgoorlie will provide a significant improvement in transit times and reliability of arrival times for

intersystem traffic, and these are important aspects of service quality for shippers in the corridor. The single control of intersystem freight also permits a more intensive and flexible marketing effort to be made for this traffic. Accordingly some increase in intersystem traffic volumes could be expected, although the extent of this increase cannot be calculated without detailed examination.

For purposes of analysis, it has been assumed that increases in revenue are derived from two sources:

- extension of interstate piggyback traffic over the Kalgoorlie -Perth sector, in view of the through running arrangements and rationalisation of Parkeston; and
- . a 5 per cent increase in freight volume for all intersystem traffic carried across the Nullarbor Plain.

These traffic increases would be over and above those resulting from the current plans and proposals of AN and Westrail in the Base Case.

The rail operator (AN or Inter-Rail) would receive increased revenue and would incur increased costs for the carriage of the additional piggyback traffic. According to Inter-State Commission (ISC) (1987), approximately 56 000 tonnes of piggyback freight was loaded or unloaded at Parkeston in 1985-86. Westrail suggest that about 75 per cent of this freight had Perth as its origin or destination, the balance being traffic for northern or southern parts of Western This results in around 40 000 tonnes of additional piggyback traffic between Perth and Kalgoorlie. It is assumed that rail would capture 50 per cent of this traffic. Over a distance of 650 kilometres, and at a freight rate of 4.0 cents per net tonne kilometre, this traffic generates additional revenue of around \$0.5 The marginal cost of hauling this traffic by rail is estimated to be \$0.1 million resulting in a net contribution to profits of \$0.4 million. This benefit is anticipated to occur beginning in 1990-91.

The second assumed increase in revenue is from a 5 per cent increase in volume for all freight traffic between Adelaide and Perth. This general increase in freight volume involves a larger tonnage (about 85 000 tonnes) and a longer distance (taken as Adelaide to Perth, 2600 kilometres). The resulting revenue increase, assuming an average freight rate of 3.3 cents per net tonne kilometre would amount to \$7.3 million a year, and additional marginal operating costs to about \$2.2 million (including terminal costs). A net contribution of \$5.1 million a year results. An increase in freight task of this nature is likely to be gradual, and accordingly it is assumed that 20 per cent of the increase occurs in each of the first five years.

The combination of these two sources of additional traffic would therefore add \$7.8 million to revenue by 1992-93, and contribute \$5.5 million to railway profitability.

These estimates of additional revenue and costs are intended to be illustrative of the possible revenue gains from intersystem amalgamation.

Summary

The efficiency gains and losses for the option of intersystem integration are summarised in Table 4.3. The table shows that the efficiency gains would reach \$9.1 million a year by 1992-93 (\$8.7 million for the joint venture case).

FINANCIAL, ECONOMIC AND SOCIAL CONSEQUENCES

Financial results for AN and Westrail

AN management and control

Table 4.3 shows that there is a total of \$9 million of financial benefits arising from the intersystem integration, to be shared between AN and Westrail. It is important to note that there are a variety of ways of sharing the benefits, and that both railways can benefit from the intersystem integration.

The loss of intersystem revenue for Westrail would be offset by the avoidance of direct costs for the carriage of the freight, and income from payments for running rights and contracted services. As intersystem operations are profitable for Westrail (ISC 1986), it would lose the opportunity to earn these profits with intersystem integration.

AN would receive all intersystem revenue and pay direct intersystem costs. In addition there would be ongoing savings to AN from

rationalisation at Parkeston, and improvements to revenue generated by service improvements.

Joint venture option

Again, there is the same \$9 million of financial benefits arising from the integration. These benefits could be shared in a variety of ways between AN, Westrail and Inter-Rail. The impact on each of the three

TABLE 4.3 SUMMARY OF EFFICIENCY IMPACTS: INTERSYSTEM INTEGRATION, 1988-89 TO 1992-93

(\$ million, 1987-88 prices)

Item	1988-89	1989-90	1990-91	1991-92	1992-93
AN management/control					
Operational					
Through running and	i				
rationalisation of					
Parkeston	2.2	2.2	2.9	3.6	3.6
Manageria1					
Direct costs	(0.5)	• •	••		••
Workforce					
Redundancy payments		••	(0.4)	(0.4)	••
Marketing					
Piggyback ^a	••		0.4	0.4	0.4
Increase in volume ⁶	1.0	2.0	3.1	4.1	5.1
Total	2.7	4.2	6.0	7.7	9.1
Joint venture					
Additional costs					
Inter-Rail	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)
Head office	(,		(00.7)	(,	(***)
Total	2.3	3.8	5.6	7.3	8.7

a. Net contribution after deducting marginal rail operating costs.

Source BTCE estimates.

^{..} Not applicable.

Notes 1. Figures may not add to totals due to rounding.

^{2.} Figures in parenthesis are negative values.

railways would depend on the detailed arrangements negotiated amongst them in such areas as running rights and contracted services. This is a matter for further analysis and is beyond the scope of the study.

Economic impact

The assessment of the direct national economic impact of the integration option is made on the basis of the identified changes in resources required by the option.

The resources saved, and the additional resources required for this option, compared with the Base Case described in Chapter 3, have been discussed before. These resources are essentially valued on the basis of their financial costs, after deducting relevant specific taxes and subsidies. The financial costs are regarded as reasonable approximations to the economic values of the resources.³

It should be noted that economic analysis is not concerned with revenues, and is only concerned with prices insofar as they represent a means of approximating the economic value of resources. Thus the additional revenue earned by AN or Inter-Rail from carriage of extra freight is not included in the analysis: however the economic costs of road transport, where road transport is the alternative mode for that freight, are included. Similarly, any improvements to employee wages or conditions would be disregarded unless it was accompanied by changes in employment levels, output levels or the demand for those skills in other parts of the national economy.

Table 4.4 summarises the economic impact over the first five years of possible integration. The resources saved exceed the additional resources required in each year of the analysis, so there is an unequivocal saving in resources by following this option compared with the Base Case.

If the net economic savings are discounted at a discount rate of 7 per cent per annum, the present value of the savings in 1987-88 amounts to \$33 million.

Social consequences

An important consequence of the intersystem integration option is the eventual redundancy of 40 railway staff in Kalgoorlie and this may have social implications. Based on reports of employment

A full discussion on the evaluation of the benefits and costs in economic analysis is provided in BTE (1987b).

Report 63

TABLE 4.4 ECONOMIC IMPACT: INTERSYSTEM INTEGRATION, 1988-89 TO 1992-93

(\$ million, 1987-88 prices)

Item	1988-89	1989-90	1990-91	1991 - 92	1992-93
Resources saved					
Labour	• •	• •	0.6	1.2	1.2
Materials	• •	••	0.1	0.2	0.2
Locomotives ^a	2.2	2.2	2.2	2.2	2.2
Truck operating					
costs	2.1	4.2	6.7	8.8	10.9
Road damage costs	0.1	0.3	0.4	0.6	0.7
Total	4.4	6.7	10.0	13.0	15.2
Additional resources					
Rail operating					
costs	0.4	0.9	1.5	1.9	2.3
Direct costs	0.5		• •	• •	• •
Total	0.9	0.9	1.5	1.9	2.3
Net impact:	3.5	5.8	8.5	11.1	12.9

a. The capital cost saving for this item is used as a proxy for the crew, maintenance and fuel savings resulting from disposal of old locomotives.

Note Prices have been adjusted by eliminating specific taxes. No attempt has been made to calculate shadow prices for resources used.

Source BTCE estimates.

opportunities in Kalgoorlie (see Appendix VIII), it is estimated that almost all of these employees would find alternative employment within 12 months of becoming redundant. Many of these people would be as well off as they would have been had they remained with AN and Westrail, given the buoyant labour market in Kalgoorlie and the level of likely redundancy payment.

There may be a very small number of railway employees who elect to take redundancy but are unable to obtain alternative employment and

^{..} Not applicable.

would be expected to end up reliant on unemployment or other forms of benefit once their redundancy pay has been spent. These people would be expected to suffer a drop in living standards and stress-related health problems commonly associated with unemployment.

Given that rail would be expected to capture freight from road transport, there would also be a loss of jobs in the road freight industry. The extent of this job loss in the road transport industry could amount to around 20 positions in 1988-89, rising over time (as more freight is transferred to rail) to about 125 positions by 1992-93.

A reduction in the road transport of freight would be expected to reduce the risk of accidents, the impact on other road users and the environmental effects of the trucks displaced. The rail carriage of piggyback traffic would, assuming the universal use of 6-axle semitrailer units reduce heavy commercial vehicle traffic flows by about 19 vehicles a day or 11 per cent on the Great Eastern Highway in 1992-93. The general increase in rail traffic, assuming it is captured entirely from road transport, would reduce Eyre Highway traffic flows by 16 vehicles a day or 8 per cent.

The impact on environmental factors and other road users of these changes in traffic flows is unlikely to be measurable, but might involve about five less trucks in casualty accidents per annum in the two States.

CHAPTER 5 FULL SYSTEM INTEGRATION

As with the intersystem integration option there are two ownership alternatives included in the Terms of Reference for the full system integration option. These forms of ownership are:

- . Federal Government ownership of Westrail operations; and
- a joint venture between the Federal and West Australian Governments.

DESCRIPTION OF OPTIONS

Metropolitan services

The Terms of Reference (see Appendix I) require the study to consider the full integration option with the metropolitan rail operations both included and excluded. In the case of exclusion this means that the current arrangement whereby Westrail provides services under contract to Transperth would cease. Transperth would then operate urban passenger trains in its own right, in a similar manner to that in which the State Transport Authority (STA) operates metropolitan services in Adelaide. Assuming that the STA model is followed, Transperth would:

- acquire a network of Perth urban rail lines from Westrail; comprising the three main lines between Perth City station and Fremantle, Midland and Armadale;
- take responsibility for the safe working of the urban lines, including maintenance, signalling and communications, train control and train examination;
- provide access to the integrated AN/Westrail system to these lines on a running rights agreement basis;
- acquire the urban passenger rollingstock and suitable facilities for its maintenance;
- take over those Westrail staff involved in operations, rollingstock maintenance and track maintenance for the urban services; and

 set up an appropriate independent management and administrative structure to operate these services.

In this way, the metropolitan services would be divorced from the rest of Westrail, and operated independently. This would leave Westrail's interstate and country passenger and freight services to be integrated with AN.

Links between Transperth and the integrated railway may be confined to the running rights agreement allowing access for country and interstate trains to the urban rail network. The integrated railway might also provide specific services to Transperth under contract, such as rollingstock maintenance or technical services.

The alternative of including metropolitan services involves the continuation of existing arrangements where the integrated railway would provide urban services under contract to Transperth. The activities undertaken by the integrated railway on behalf of Transperth would be identical to those described in Chapter 2 as being provided by Westrail.

Federal ownership

The option of Federal ownership essentially involves a full takeover by AN of all Westrail country and intersystem services. As a result, there would be no role for Westrail as a separate organisation and it would be abolished.

By agreement between the Federal and State Governments, AN would be expected to acquire:

- all railway track, reservations and associated communications and signalling facilities, other than those acquired by Transperth;
- all Westrail non-urban rollingstock, both narrow and standard gauge;
- offices, stations, workshops, yards and other facilities operated by Westrail and not required by Transperth¹;
- . all Westrail staff not transferred to Transperth; and
- any other relevant assets of Westrail that are required to operate the railway.

The Australind service uses one platform at Perth City station, whereas other country and intersystem passenger services operate from the Westrail Centre, East Perth.

The precise details of these arrangements would be subject to negotiation between the two Governments, covering such areas as liabilities to be transferred, Westrail's non-railway activities, undertakings to staff, and land ownership. The questions of any payments between the two Governments, and the future treatment of West Australia by the Grants Commission would also be subject to negotiation.

However, for purposes of the analysis, it is necessary to make assumptions about the arrangements entered into for the amalgamation. These assumptions include:

- . AN takes over both assets and liabilities of Westrail;
- . employee wages and conditions are at least maintained; and
- satisfactory arrangements are made for transfer of leave, seniority and superannuation liabilities between the parties.

Joint venture operation

The joint venture option requires the setting up of a new entity (which is referred to in this report as 'Ausrail') with the objective of taking over the complete operations of both AN and Westrail. The Federal and Western Australian State Governments would each hold shares in the new entity. The Australian National Railways Commission and the Western Australian Government Railways Commission would both be abolished, and the relevant Acts repealed and replaced by new legislation.

The important aspect of the joint venture is the unified management and control of AN and Westrail in a single organisation. The new entity is assumed to follow similar corporate objectives to both AN and Westrail.

Again, details of arrangements would be negotiated between the two Governments. However, for analysis purposes a series of assumptions are made:

- Ausrail aquires both assets and liabilities of AN and Westrail excepting those Westrail assets transferred to Transperth;
- all employees of Westrail (other than those transferred to Transperth) and AN (other than those 'made available' by AN to STA) are transferred to direct employment by Ausrail; and
- similar arrangements with regard to wages, conditions, workforce policies and superannuation liabilities to those assumed for the Federal control option.

From an operational viewpoint, Ausrail would run trains in a very similar way to the expanded AN, and the efficiency and revenue gains would be assumed to be the same. The main difference between the two ownership alternatives relates to the financial flows generated in each case.

While the analysis of the joint venture option has assumed that the joint venture would be a permanent arrangement, it should not be taken to preclude the possibility of alternative ownership arrangements being developed at a later stage where this becomes desirable.

EFFICIENCY GAINS AND LOSSES

A variety of potential gains and losses from amalgamation have been identified in conjunction with advice from the rail operators. Table 5.1 provides a summary of benefits and costs, and briefly describes their nature.

Operational implications

Elimination of bottlenecks

The gains to be made from elimination of the bottleneck at Kalgoorlie in the forms of through working and rationalisation of the Parkeston facilities, were discussed in Chapter 4. In summary, savings from the reduced locomotive fleet, lower staff levels and associated materials expenditure were estimated to amount to \$3.6 million a year. This saving would take effect in part in the third year of amalgamation to allow time for the necessary changes to be implemented and in full in 1991-92.

Workshops

The two railways currently operate three large mainland workshops, in Perth, Port Augusta and Adelaide. Each workshop has its own rationale for existence, and it is not anticipated that there would be complete closures of any workshop within the initial five year analysis period.

There has been, and are further plans for, rationalisation of engineering activities at all three workshops. This has occurred in conjunction with an approach to rollingstock maintenance whereby components are overhauled on a service exchange basis. Service exchange enables the actual overhaul work to be undertaken at a location that is remote from the point at which the rollingstock is normally located, as well as reducing the time that rollingstock is out of service and improving the scheduling of work in the workshop.

Although the Midland workshops in Perth are geographically remote from AN's facilities, it may be possible to rationalise some activities

TABLE 5.1 SUMMARY OF BENEFITS AND COSTS: FULL SYSTEM INTEGRATION

Benefit/cost	Nature of benefit/cost
Operational	
Elimination of bottlenecks	
Rationalisation at Parkeston	Reduced staff, possibly some materials savings
Through working at Kalgoorlie	Reduced locomotive numbers, staff and fuel savings,
	improved train times/service
Rationalisation of resources	
Reorganisation of workshops and running	Reduced staff. lower future capital investment
depots to reduce duplication	for machinery
Sharing of specialised track maintenance equipment	Possible staff and future investment savings
'Massed reserves' effect on rolling stock	Reduced locomotive and wagon numbers, leading to
	lower future capital investment
Managerial	
Spreading of overheads	
Minimising duplicated functions by reducing	Lower staff levels, some reduction in materials
staff	and office requisite costs
Sharing of computer systems	
Avoiding costs of separate development,	Reductions in staff, purchases of equipment and
using surplus capacity	outside services
Direct cost of amalgamation	Legal costs, managerial time etc.
Release of surplus real estate	Revenues from sale or rent

TABLE 5.1 (Cont.) SUMMARY OF BENEFITS AND COSTS: FULL SYSTEM INTEGRATION

Benefit/cost	Nature of benefit/cost		
Marketing			
Revenue enhancement			
Better service quality	Higher freight task for intersystem traffic		
Workforce			
Alignment of awards			
Trade-offs between Westrail and	Higher wages		
AN wages and conditions			
Other costs and benefits			
Transperth costs			
For separate organisation	New staff, materials, office space costs, contracted		
	services		

Source Prepared by BTCE in consultation with Westrail and AN.

between the three workshops. Each workshop could specialise in overhauls of particular components or in overhauls of rollingstock of individual gauges. As a result, Midland might lose some engineering activities and gain more work in other activities, while the South Australian workshops might gain some West Australian work and lose some of their existing work.

Similarly, some degree of rationalisation would be expected amongst the running depots operated by the two railways.

The details of this type of reorganisation would require a comprehensive analysis at the working level, which is beyond the scope of this study. However, investigations have indicated that staff savings of the order of 290, or 11 per cent of total productive staff in workshop and running depots in 1992-93, worth approximately \$8.7 million, are possible. Savings would arise from the elimination of some duplicated functions by the merged railway and by moving towards greater specialisation of some tasks in the following areas:

- foundry
- . manufacturing activities
- paint shop
- . machine shop
- . running depots at Forrestfield, Port Augusta and Kalgoorlie
- major maintenance of all standard gauge rollingstock and equipment.

This list is not intended to be exhaustive, since there may be a number of other alternative measures which could lead to further staff savings. It should be noted that savings in administrative, design, laboratory and other overhead functions are excluded from this calculation but are covered under managerial implications.

It is assumed that these savings would not occur in the first year of the merger due to delays caused by planning and negotiation. Savings are estimated to occur evenly between the second and fourth years of the amalgamation, with a settled situation being reached by 1992-93.

Additional savings would come from disposal of redundant workshop plant and other facilities. The value of these savings is estimated at \$3 million. This would be a once-off benefit, spread over 1989-90 and 1990-91.

In the longer term consideration should be given to the continued

existence of large scale workshops at the three locations. Such consideration would include the possibility of rationalising to two, or even to a single location, and the scope for contracting out heavy engineering work to local engineering firms. The potential savings of these long-term possibilities are not included in this report as they would eventuate outside of the forecast period, but nonetheless may be very significant.

Rollingstock

The 'massed reserves' effect is brought about by combining the two rollingstock fleets and relates to the possibility of achieving a higher level of productive utilisation of locomotives and rollingstock by reducing the number required as reserves to meet demand peaks and to cover out-of-service units while under repair or maintenance. This effect could be important where there are pronounced seasonal peaks in demand which are complementary.

Reserves of capacity are also maintained to meet unexpected changes in demand and a reduction in these reserves should be possible. Reductions in the rollingstock fleet would also be expected from improved scheduling of wagons and more efficient timetabling across the two systems.

The extent of both these reductions is estimated to amount to 5 per cent of the 1992-93 wagon fleet of the two railways. Accordingly 480 wagons would be sold for scrap yielding \$0.5 million, over the years 1989-90 to 1991-92. If these wagons could be sold for further productive use, then this value could increase significantly.

Track maintenance equipment

Both AN and Westrail employ specialised track maintenance equipment. By sharing this equipment over a system of virtually twice the track length, more intensive utilisation may be possible, leading to a demand for reduced numbers of units.

The benefits of such equipment would also be improved by optimising their use over two systems rather than one, allowing more intensive maintenance of those locations with the most productive traffic flow/track quality trade-off.

The value of these cost savings is estimated at \$1.5 million in 1990-91, as a one-off cost representing capital expenditure on equipment that would not be required by AN or Austrail in the event of integration.

Summary of operational implications

Overall, these cost savings are estimated at \$12 million a year by 1992-93, with lower savings in earlier years as the operational changes are implemented. These savings are summarised in Table 5.2.

TABLE 5.2 VALUE OF OPERATIONAL IMPLICATIONS: FULL SYSTEM INTEGRATION, 1988-89 TO 1992-93

(\$ million, 1987-88 prices)

Area of saving	1988-89	1989-90	1990-91	1991-92	1992-93
Through working-Kalgoorlie	/				
rationalisation of					
Parkeston	2.2	2.2	2.9	3.6	3.6
Reorganisation of workshop	S				
- labour	• •	2.9	5.8	8.7	8.7
Surplus workshop plant	• •	1.5	1.5		
'Massed reserves' effect	• •	0.1	0.2	0.2	
Track maintenance equipmen	t	• •	1.5	• •	••
Total	2.2	6.7	11.9	12.5	12.3

^{..} Not applicable.

Source BTCE estimates.

Managerial implications

Spreading of overheads

The concept of spreading overheads to minimise duplication of 'head office' type functions provides a significant source of resource savings. These savings relate to the top management structure of the two railways, and to such functions as accounting, supply, personnel, corporate services and marketing. Some savings should also be possible in the planning, design and management areas of the operations and engineering branches.

The source of these benefits is the replacement of two head office structures with a single structure. Savings would be generated by a reduced number of senior staff positions, and associated costs of office supplies and support services. An integration might also allow economies of scale to be exploited that were not worthwhile for smaller organisations.

In essence, a large scale reorganisation of the administrative structure would be required in Perth and Adelaide. Detailed cost savings would only become apparent after the reorganisation had been studied in depth, and that task is beyond the scope of this study. However, broad estimates of the level of savings have been made based on views expressed by railway staff.

Because of definitional difficulties, levels of salaried staff (as opposed to wages staff) are taken to represent overhead/head office type functions. Currently, Westrail and AN employ approximately 3000 salaried staff between them. Significant savings are planned without integration in both railways, so current staff levels would be expected to decline in any event over the next five years to a level of 2600 staff. This process would receive greater impetus under Because of the need to plan and implement the amalgamation. reorganisation process to obtain the best results, no savings have been assumed in the first year of integration. It is also assumed that full reorganisation would take four years to implement, with benefits spread uniformly over those years. By the fifth year, the new organisational structure would be in place and fully operational, and the full extent of savings would be available. The extent of this saying is estimated to be 380 staff and assuming an average total cost per person of \$40 000 results in a cost saving of \$15.2 million. Associated savings in office requisites, telephones and similar expenses are assumed to amount to \$0.8 million on the basis of these costs representing 5 per cent of the staff costs.

Sharing of computer systems

Savings would also be expected in the sharing of computer systems at the head office of the integrated railway, resulting in lower expenditure on software, hardware and computer staff. More specifically savings and costs would be expected to involve:

- . sale of one main frame computer, worth about \$300 000;
- . reduced software maintenance at a cost saving of \$180 000 a year;
- . staff savings of 22 personnel worth \$0.9 million a year;
- . computer hardware upgrading as a once only cost of \$1 million; and
- installation and leasing of high speed Telecom lines between Adelaide and Perth at a once only cost of \$100 000 and \$100 000 per annum respectively.

Overall, it is estimated that \$1.0 million a year could be saved from 1989-90. These savings are based on the above assumptions and different management of the information services could significantly alter these savings.

Direct costs

The direct cost of amalgamation also falls under the management implications heading. As suggested in Chapter 4, outside services such as legal advice, property valuation and other consultants might also be employed. A once only allowance of \$1.0 million is made to cover these costs, incurred in 1988-89 only. This cost is higher than the cost for the same item in Chapter 4, reflecting the greater complexity of the full system integration.

Surplus real estate

The reorganisation of workshops and the rationalisation of Kalgoorlie-Parkeston and head offices would be expected to release, for rent or sale, surplus real estate which would not otherwise be available. For the purpose of assessment of the options in this report this amount has been estimated at \$900 000 per annum on a rental basis for the release of 6000 square metres of office space, by 1992-93.

Summary of managerial implications

The savings from spreading overheads, sharing computer systems and the direct costs of integration are summarised in Table 5.3. The value of these costs and savings is estimated to amount to nearly \$18 million a year by 1992-93.

Marketing implications

Revenue enhancement

The possibilities for revenue enhancement are restricted to interstate freight and have been discussed in Chapter 4. There it was estimated that revenue from additional freight would amount to \$7.8 million a year and marginal costs for carriage to \$2.3 million by 1992-93. No additional passenger revenue was expected, and there appears to be no scope for increasing freight rates (as opposed to increasing rail's market share).

The amalgamation of the two railways may introduce certain threats to the revenue base of the railway, in such areas as State negotiated contracts and State regulation of road transport. These aspects are discussed in Chapter 6.

Workforce implications

The main workforce issues raised by the amalgamation relate to the scope for alignment of industrial awards, and the management of the staff reduction process. AN and Westrail have undertaken an analysis of the significant differences in wages and working conditions between

TABLE 5.3 VALUE OF MANAGERIAL IMPLICATIONS: FULL SYSTEM INTEGRATION, 1988-89 TO 1992-93

(\$ million, 1987-88 prices)

Area of saving/cost	1988-89	1989-90	1990-91	1991-92	1992-93
Overheads					
Staff	4.0	8.0	12.0	15.2	15.2
Associated savings	0.2	0.4	0.6	0.8	0.8
Computer system					
Staff	0.5	0.9	0.9	0.9	0.9
Other savings	(0.7)	0.1	0.1	0.1	0.1
Direct cost	(1.0)				
Surplus real estate		0.2	0.5	0.7	0.9
Total	3.0	9.6	14.1	17.7	17.9
•					

^{..} Not applicable

Note Figures in parenthesis are negative values.

Source BTCE estimates.

the two organisations. Most of the conditions examined are similar in the two railways, while salary levels are higher at Westrail for some categories and higher at AN for others.

Flexibility in the deployment of staff is important in obtaining the maximum operational benefit from amalgamation, and flexibility is likely to be compromised without a uniform award structure between the two railways. It is not possible to predict the outcome of industrial negotiations for new uniform awards. For the purpose of analysis, an increase of \$2.0 million in the level of salaries and wages has been assumed to occur beginning in the second year of amalgamation. This financial cost will fall marginally in subsequent years as the level of the workforce itself falls.

The staff savings following an integration of the two railways are presented in Table 5.4. A total of 732 staff would become surplus in the integrated railway over the first five years. These staff savings would accrue from the rationalisation at Kalgoorlie, of the workshop and of the computer systems and from the reduction in overhead

TABLE 5.4 WORKFORCE REDUCTIONS AND REDUNDANCY PAYMENTS: FULL SYSTEM INTEGRATION, 1988-89 TO 1992-93

	Numbers of staff							
Item	1988-89	1989-90	1990-91	1991-92	1992-93			
Kalgoorlie	••	••	20	20	••			
Workshops		95	95	100				
Overheads	100	100	100	80				
Computer	11	11	• •	• •	• •			
Total	111	206	215	200				
Redundancy (\$ million) ^a	(2.0)	(3.7)	(3.9)	(3.6)	••			

a. 1987-88 prices.

Note Figures in parenthesis are negative values.

Source BTCE estimates.

functions. This staff surplus would give rise to severence payments of over \$13 million. These are estimated to be spread over the first four years.

Most of the benefits of integration result from reductions in staff levels, and the achievement of these staff reductions requires considerable attention to industrial relations issues. Alternative policies that restrict management flexibility will almost inevitably result in a slower rate of staff shedding and the deferral of potential savings in staff costs.

Other costs and benefits

Transperth costs

As noted at the start of this chapter, one option is that Transperth would take full responsibility for running metropolitan services in Perth. The integrated railway would have no involvement in these services, and its only relationship with Transperth would be in the form of a running rights agreement to allow freight and inter-city passenger trains to use the urban rail network.

^{..} Not applicable.

In general, Transperth would take control of all the Westrail resources currently employed on urban services. This includes staff, rollingstock, track, signals and communications, property and facilities/buildings. It is assumed that the cost to Transperth of operating these resources would be similar to the cost to Westrail. Thus the reduction in costs faced by Westrail would be matched by an increase in costs to Transperth of similar, although possibly greater, size as Westrail may not be able to reduce overheads in proportion. Similarly, the loss of revenue to Westrail from the cessation of payments for contracted services would be matched by a reduction in payments by Transperth.

The only area of additional cost to Transperth that has been identified relates to the establishment of a new top management structure and head office staff to administer the expanded functions of Transperth. This would include, for example, senior managers concerned with mechanical engineering, civil engineering and signals and communications. In approximate terms this additional cost is estimated to amount to about \$500 000 a year, including salaries, oncosts and costs of office space and supplies. This cost would be incurred in 1988-89 and each year thereafter.

In the alternative case, where the integrated railway provides metropolitan services under contract to Transperth, there would be no additional cost to either Transperth or AN/Ausrail. It is assumed that AN/Ausrail would operate in the same way in offering services as Westrail expects to operate over the next five years, incurring the same costs and earning the same revenue.

Summary

The efficiency gains and reductions for the full integration options are presented in Table 5.5. The table shows that there could be annual savings of approximately \$33 million under full integration by 1992-93, with no significant difference arising from Transperth's inclusion or exclusion.

FINANCIAL, ECONOMIC AND SOCIAL CONSEQUENCES

Financial results for railway operators

With the full system integration, the financial accounts for AN and Ausrail would be essentially the same. There would be no separate accounts for Westrail, as it would not exist, but the financial accounts of Transperth would be affected. The financial results for AN or Ausrail are shown in Table 5.6.

TABLE 5.5 SUMMARY OF EFFICIENCY IMPACTS: FULL SYSTEM INTEGRATION, 1988-89 TO 1992-93

(\$ million, 1987-88 prices)

Item	1988-89	1989-90	1990-91	1991-92	1992-93
Operational	2.2	6.7	11.9	12.5	12.3
Managerial	3.0	9.6	14.1	17.7	17.9
Marketing ^a	1.0	2.0	3.5	4.5	5.5
Workforce	(2.0)	(5.7)	(5.9)	(5.6)	(2.0)
Transperth ^b	(0.5)	(0.5)	(0.5)	(0.5)	(0.5)
Total	3.7	12.1	23.1	28.6	33.2

Net contribution after deducting rail operating costs (see Chapter 4).

Note Figures in parenthesis are negative values.

Source BTCE estimates.

In general terms, the table shows that the integrated railway would have higher revenue levels, some reduction in costs, and a significant reduction in net loss, when compared to the two railways operating independently. By the fifth year of the integration, when the effects would be expected to have fully worked through, a surplus of \$33 million is expected compared with the estimated loss of \$24 million projected for AN and Westrail operating independently.

There would also be apparent gains in the financial accounts from changing from the Westrail system of accounting to that adopted by AN, and these changes are shown in Table 5.6. Under AN or Ausrail control, the Westrail payments of payroll tax and other minor taxes would no longer be made. There are also likely to be changes to the way in which superannuation is accounted for, and it is assumed that the AN model is followed. These changes are financial transfers rather than economic resources, with no net gain to State or Federal Government finances.

Separate accounts for Transperth are not presented. However, the expectation is that the Transperth net result would deteriorate by about \$500 000 a year, in each year, if Transperth operates its own services. It should be noted that Transperth, as a separate entity,

b. Only applies when Transperth excluded from the integration.

^{..} Not applicable.

Report 63

TABLE 5.6 FINANCIAL IMPACT ON AN OR AUSRAIL: FULL SYSTEM INTEGRATION, 1988-89 TO 1992-93

(\$ million, 1987-88 prices)

Item	1988-89	1989-90	1990-91	1991-92	1992-93
Forecast profit (loss)					
Westrail _,	(68)	(65)	(52)	(41)	(30)
AN	(8)	(7)	(5)	0	6
	(76)	(72)	(57)	(41)	(24)
Revenue effects					
Additional traffic	2	. 3	5	6	8
Cost effects					
Additional traffic	-	(1)	(1)	(2)	(2)
Operational savings	2	7	12	13	12
Managerial savings	, 3	. 10	14	18	18
Workforce costs	(2)	(6)	(6)	(6)	(2)
Net outcome	4	12	23	29	33
Adjusted profit (loss)	(72)	(60)	(34)	(12)	9
Accounting adjustments					
Taxes ^a	7	7	6	6	6
Superannuation ^b	28	28	21	20	18
Final adjusted		:.			
profit (loss)	(37)	(25)	(7)	14	33

a. Payroll tax and other minor taxes paid by Westrail but not AN.

Notes 1. Assumes AN/Ausrail takes over full Westrail liabilities, and continues to supply urban services to Transperth.

Source BTCE estimates.

b. Adjustment to superannuation payments for ex-Westrail staff to accord with AN payment arrangements.

^{..} Not applicable.

⁻ Rounded to zero.

^{2.} Figures may not add to totals due to rounding.

^{3.} Figures in parenthesis are negative values.

would be in a stronger position to pursue its own independent corporate objectives, including the control of costs directly under its supervision. If the integrated railway continues to provide metropolitan services, no change to Transperth costs and revenues would be expected.

In the case of Federal control of the integrated railway, the Federal Government would meet the full cost of the annual deficit, while in the case of the joint venture (Ausrail) the deficit would be split between the Federal and State Governments in accordance with their shares of the joint venture or some other negotiated formula.

Economic impact

The economic impact of this option is assessed in a similar way to that in the previous chapter. The changes in resource usage are calculated in comparison with the Base Case, and these resources are valued on the basis of financial costs less relevant specific taxes and subsidies. The analysis is undertaken from the national viewpoint, and is not concerned with the distribution of the gains and losses between various parties.

The results of the analysis are shown in Table 5.7 over the first five years of possible integration. The resources saved exceed the additional resources required in each year of the analysis, and as with the Chapter 4 option, there is an unequivocal national benefit to be derived from the integration compared with the Base Case. Discounting the costs and benefits at a discount rate of 7 per cent per annum, results in a present value of savings of \$106 million.

Social impact

The main social impact of the option is the possibility of unemployment resulting from the redundancy of about 730 Westrail and AN staff. These staff surpluses arise from the rationalisation of Kalgoorlie-Parkeston, railway workshops, and head office functions.

Redundancy is expected to continue to be on a voluntary basis, and most people taking redundancy would expect to be either close to retirement or to have little difficulty in obtaining a new job. Accordingly numbers of employees left reliant on the unemployment benefit would be very low, and would include only those whose expectations of alternative employment after voluntary resignation were disappointed.

Redundancies would be spread primarily amongst Perth, Kalgoorlie, Port Augusta and Adelaide. The actual numbers in each of these locations

Report 63

TABLE 5.7 ECONOMIC IMPACT: FULL SYSTEM INTERGRATION, 1988-89 TO 1992-93

(\$ million, 1987-88 prices)

Item	1988-89	1989-90	1990-91	1991-92	1992-93
Resources saved	,			-	
Labour	4.4	11.7	19.2	26.0	26.0
Office/other ^a	0.2	0.6	1.2	1.7	1.9
Locomotives	2.2	2.2	.2.2	2.2	2.2
Rollingstock	• • •	0.1	0.2	0.2	
Track maintenance					
equipment		• •	1.5	• •	
Workshop machinery		1.5	1.5	• •	
Computer costs	(0.7)	0.1	0.1	0.1	0.1
Truck operating costs	2.1	4.2	6.7	8.8	10.9
Road damage	0.1	0.3	0.4	0.6	0.7
Total	8.3	20.7	33.0	39.6	41.8
Additional resources					
Rail operating costs	0.4	0.9	1.5	1.9	2.3
Direct costs	1.0	• • •	••	••	••
Total.	1.4	0.9	1.5	1.9	2.3
Net impact	6.9	19.8	31.5	37.7	39.5

Includes associated costs, office supplies and surplus real estate.

Notes 1. Prices have been adjusted by eliminating specific taxes.

No attempt has been made to calculate shadow prices for resources used. Excludes any additional costs to Transperth.

2. Figures in parenthesis are negative values.

Source BTCE estimates.

would depend on the implementation and outcome of the rationalisation procedure. Of the 730 surplus staff, around 400 would be white-collar clerical and professional employees. For these people, the unemployment rate is low, around 3 per cent (see Appendix VII), and therefore assuming that suitable incentives are made available, most

^{..} Not applicable.

should find voluntary redundancy attractive. The remaining 330 staff are blue-collar skilled or unskilled workers. The rates shown in Appendix VIII are around 5 per cent for tradesmen, 6 per cent for plant and machine operators, and 10 per cent for unskilled labourers. This suggests that a larger proportion of these people would find voluntary redundancy unattractive. (The exact proportion would depend on the amount of incentive offered).

Rail would be expected to capture freight from road transport in the interstate freight area. Within the five-year horizon considered by the study, the overall impact on the road freight industry would be similar to that of an intersystem integration, with a total job loss in the road freight industry of approximately 125 positions by 1991-92.

The reduction in road transport of freight would reduce the incidence of accidents, impact on other road users and the environmental effects of the displaced trucks. The increase in real carriage of piggyback traffic to Perth would be the same as for an intersystem merger, with a reduction in traffic flows of about 19 heavy vehicles a day or 11 per cent of such traffic on the Great Eastern Highway at Northam. The impact on trans-Nullabor traffic would also be similar with a reduction in Eyre Highway heavy traffic flows of 16 vehicles a day or 8 per cent at Ceduna.

There would also be a reduction of about five trucks involved in casualty accidents per annum in the two States. The impact on other road users and other environmental factors will be negligible. The basis for calculating road transport values is presented in Appendix VII.

CHAPTER 6 CONCLUDING REMARKS

This study has presented an assessment of the economic, financial and social costs and benefits to the railways, governments and nation of several options for partial or complete integration of the AN and Westrail systems.

The purpose of this chapter is to summarise the findings of the earlier chapters and put them in context. The chapter also looks at the general issues which affect all options, and discusses the threats and opportunities which may affect the future of a merged railway.

GENERAL PERSPECTIVE

The issues and options surrounding the integration of Westrail and AN can be considered in a wider context. General government policies are directed towards restructuring the economy with particular emphasis on improving efficiency and productivity, to promote the objective of improved living standards and reducing the impact of the balance of payments constraint on national economic growth.

The transport sector has been particularly identified because of its role in providing services to the manufacturing, mining and agricultural industries, both for export and domestic consumption. Efficiency in the transport sector is important not only in its own right, but because of the contribution it can make to efficiency and competitiveness in these other sectors.

The importance of the transport sector is reflected in the interest by both Federal and State Governments in deregulation, improved market performance by State owned enterprises, greater accountability and the general environment of expenditure restraint. The establishment of the Railways Industry Council is a direct acknowledgement of these factors.

The Bureau's study has concentrated on the short to medium term, clearly identifiable areas of costs and benefits in the analysis. These costs and benefits, which are summarised in the next section of

this chapter, are significant in themselves, but have a broader significance in the context outlined above. This significance can be illustrated by identifying areas of potential long-term gains resulting from integration. These include:

- better service quality for rail customers due to elimination of bottlenecks and coordinated marketing and operations;
- in the long-term, the prospect of lower freight rates reflecting the greater efficiency of integrated operation;
- reduced levels of future investment spending because of the higher productivity levels for capital equipment in the larger organisation;
- the larger organisation might also be better placed to adopt new technology, leading to further productivity improvements, and attracting the best quality managerial staff; and
- a reduced call on public sector funding at the State and Federal level to finance operating deficits, with consequences for fiscal policy and the public sector borrowing requirement.

These longer term consequences are consistent with the general objectives of such initiatives as the establishment of the Railway Industry Council, in developing a strategy to improve the viability and competitiveness of the rail industry throughout Australia. In this context, the integration may have wider implications for structural change more generally in the rail sector.

FINANCIAL ECONOMIC AND SOCIAL CONSEQUENCES OF INTEGRATION OPTIONS

A major problem in attempting to determine the costs and benefits which would flow from an amalgamation of the operations of AN and Westrail has been in defining the nature of the Base Case, the non-integration option. Both railways have plans for significant improvements in productivity and financial viablility, and it is important that the integration options do not double count these improvements.

Although a number of the benefits which would flow from a merger of the two systems could also be attained without integration given the adoption of appropriate cooperative strategies by both systems, a conservative approach has been taken which assumed that these benefits would not eventuate within a five-year horizon without an integration. This is because past experience suggests that cooperation between the two railway systems and the various unions representing their employees would not be readily forthcoming without integration. The

integration of AN and Westrail would act as a catalyst to bring about latent efficiency gains that have been identified previously, but for a variety of reasons have not been achieved by the railways operating independently. Similarly, an amalgamation does not guarantee the immediate acceptance of such strategies. Therefore an appropriate lead time to their introduction has been allowed.

The specific costs and savings in Chapter 4 and 5 should be regarded as illustrative of the outcomes of strategies and tactics available to an integrated railway, rather than as the results of a precisely formulated, fully justified and detailed program of rationalisation. It is possible that, with more detailed analysis than was possible for this study, other areas of savings may be identified, the value of savings and costs may increase or decrease, or the ordering of priorities assigned to individual savings may change. Accordingly the resulting costs and savings should be regarded as indicative of the level of costs and benefits.

The results of the analysis are also based on a number of assumptions. The most important of these is that all of the railway organisations, irrespective of their ownership of control, should operate in an efficient manner. The pursuit of other objectives may result in the savings described in Chapters 4 and 5 not materialising and the financial and economic benefits not occurring. Relaxing or changing these assumptions will affect the outcomes.

Financial outcomes

Table 6.1 outlines the financial consequences of the Base Case and the various integration options under consideration.

Under the Base Case, the combined losses of the two railways are expected to amount to about \$76 million in 1988-89, declining to about \$24 million over the next five years.\(^1\) The intersystem integration option is expected to reduce the level of losses by around \$9 million a year by 1992-93. How these financial gains are shared amongst the railway operators would depend on negotiations between the railways and relevant governments. Assuming that the joint venture Inter-Rail operates at the same efficiency level as AN, no significant difference in the results would be expected between the two ownership alternatives relating to the intersystem amalgamation.

On the basis of government accounting practices for Westrail.
 Using commercial accounting methods, the level of losses would be significantly lower.

The savings available from full integration are very much larger. By 1992-93, they would be expected to amount to around \$33 million a year in financial terms. There would be a strong prospect of the integrated railway operating profitably by the early 1990s. There is no significant difference in the outcome between the two ownership options, provided they achieve the same level of efficiency.

A detailed examination of the financial impacts on passenger services as distinct from freight services has not been undertaken. However, in broad terms, it is estimated that the loss on passenger services would be reduced by less than \$2 million in 1992-93, with the balance of savings applying to commercial freight services. The impact on passenger services may flow through to lower CSO payments.

TABLE 6.1 FINANCIAL CONSEQUENCES OF OPTIONS, 1988-89 TO 1992-93 (\$ million, 1987-88 prices)

Option .	1988-89	1989-90	1990-91	1991-92	1992-93
Base Case			··· , ,		
AN	(8)	(7)	(5)	0	6
Westrail ^a	(68)	(65)	(52)	(41)	(30)
Total	(76)	(72)	(57)	(41)	(24)
Intersystem integration					
AN/Westrail/Inter-Rail	(73)	(68)	(51)	(33)	(15)
Full system integration					
AN/Ausrail	(72)	(60)	(34)	(12)	9

a. Based on government accounting practices.

Note Figures represent financial surplus or (deficit).

Source BTCE estimates.

The inclusion of Transperth operations in the full scale integration also makes little difference to the financial outcome. The operation of urban passenger services by Transperth in its own right might involve Transperth in some additional costs as the economies of scale between Transperth and Westrail are unwound. However this additional cost is estimated to be less than \$1 million a year.

Economic outcome

The results of the economic analysis are summarised in Table 6.2 in terms of net present values over the five-year analysis period. As shown in the table there is a clear national economic gain from the intersystem amalgamation. Over the first five years, and discounted at 7 per cent, this gain is estimated at \$33 million.

For the full system integration, the gain is much larger, estimated at \$106 million over the five-year period. Thus full system integration provides a significantly higher national benefit. Although separate analyses have not been undertaken, the ownership options make no significant difference to these conclusions under the assumptions made. Likewise the inclusion or exclusion of Transperth in the full system integration makes no substantial difference, since the net additional cost of including Transperth is estimated to be less than \$1 million.

The extension of the analysis over a longer period than five years would produce higher net present values. However, the relativity between the integration and ownership options would remain essentially unchanged.

TABLE 6.2 ECONOMIC CONSEQUENCES OF OPTIONS (\$ million)

Option	Net present value
Intersystem integration	33
Full system integration	106

Note Based on costs and benefits compared to Base Case, discounted at 7 per cent over five years.

Source BTCE estimates.

Social aspects

The analysis in this area has concentrated on the social impacts of unemployment for railway staff.

Table 6.3 displays the anticipated reductions in total railway staff numbers arising from the integration of the intersystem operations and full integration. The reduction arising from the intersystem integration results from the consolidation and rationalisation of the

Parkeston-Kalgoorlie operations. On the other hand, those reductions arising from total integration will, in addition to these savings, also result from consolidation of operational areas, particularly workshops and from the consolidation of headquarters. The combined staff levels of the two systems under intersystem and full integration will decrease by 40 and 730 respectively over the Base Case by 1992-93, when the full adjustments to the integration would have been completed.

Of the AN and Westrail staff taking redundancy, well over half would be expected to obtain alternative employment, while a large proportion of the remainder would withdraw from the labour force, taking early retirement. Estimates of the numbers becoming unemployed on a long-term basis are very difficult to assess, but may be of the order of 150, or about 20 per cent of the total number made redundant in the full integration case.

TABLE 6.3 EMPLOYMENT CONSEQUENCES OF OPTIONS, 1992-93

Option	Estimated number of employees	Reduction compared to Base Case
Base Case	10 240	
Intersystem integration	10 200	40
Full system integration	9 510	730

^{..} Not applicable.

Source BTCE estimates.

Other social aspects arise from the transfer of freight from road to rail, which is expected to occur under both types of integration. The reduction in the levels of congestion and road crashes are small but important. There may also be some unemployment among road transport workers.

THREATS AND OPPORTUNITIES

The financial results outlined in Table 6.1 incorporate the projections of the likely outcomes of the various merger options discussed in Chapters 4 and 5. However, there are a number of other factors, mostly unquantifiable, that may affect those results. These opportunities and threats, whose effects will vary with the level of integration, are summarised in Table 6.4.

TABLE 6.4 THREATS AND OPPORTUNITIES

Threat/opportunity	Nature of impact
Threats Deregulation of road transport in WA	Reduced revenues
Constraints on management of staff reductions	Deferral of labour cost savings
Contractual commitments	Lack of flexibility in increasing freight rates/reducing costs
Opportunities Further rationalisation of workshops	Staff savings and reduced future investment
Further improvement to intersystem tonnages	Increased revenues
Diversification of rail and non-rail activities	Less risk of variability in revenue

Source BTCE assessment.

Two sources of revenue threats are identified in Table 6.4. Some Westrail freight is carried as part of a more general contract negotiated between the Western Australian Government and particular industrial or resource firms. These contracts are of a long-term nature and are unlikely to be directly affected by an integration of the rail systems. However, with the separation of Westrail from State Government control, such comprehensive arrangements may be less likely to occur in the future.

The other possible threat to rail revenues is the deregulation of road transport, particularly for the carriage of grain, fertiliser and oil products, in Western Australia. This threat exists whether integration occurs or not, although it is possible that it is more likely in the full integration case and in the AN ownership option because the State Government would have no interests in rail operations that it wished to protect. There is also the question of whether or not an integrated system would be better placed to face

greater road competition, by virtue of previous experience in South Australia, and the larger financial base of the integrated organisation.

The impact of deregulation is difficult to assess, although some downward pressure on rail freight rates is expected. It might also speed up the process of branch line closures, as the lower rates render marginal lines unviable.

Westrail have estimated that deregulation would reduce net revenue by \$10 million a year if there are no increases in road user charges. The Western Australian Department of Transport has indicated that deregulation would be accompanied by the introduction of appropriate charges on road vehicles to recover the cost of road damage, and if this occurs the annual net loss of revenue has been estimated by Westrail to be between zero and \$2 million depending on the extent of intermodal shift.

Current policies of voluntary redundancies, if maintained may result in projected staff savings not being achieved in the time frame considered. The level of staff savings would depend upon the attractiveness of voluntary redundancy, redeployment and retraining schemes. The assumption in this report is that these schemes will be successful in achieving the reduced staff numbers over a five-year period. If they are not, the full value of savings described earlier will not be available.

The amalgamation of workshop operations, as mentioned in Chapter 5, may allow a long-term rationalisation to reduce the number of workshops, with further gains in terms of reduced costs and capital requirements. If one of the three existing workshops were to be closed in the more distant future, additional job savings could be of the order of 1000 employees, worth \$30 million in cost savings a year. There would also be savings from the release of capital equipment and other assets. Offsetting this saving would be the cost of contract purchasing of supplies or services from outside suppliers, or of some additional staff in the two remaining workshops.

Amalgamation of operations and marketing, with a more unified intersystem strategy may result in reduced costs and an improved intersystem freight task and hence increased revenues.

Additionally, the increase in magnitude of operations from a merger will result in a greater diversification of freight task and hence reduce the risk for the railway through a reduction in revenue fluctuations associated with varying demand levels. Alternatively,

the railway will be able to accept freight tasks previously considered too risky.

Like any business operation, railways face risks from a variety of sources, some of which are amenable to be influenced by railway management, and some of which are not. One critical area of risk is traffic levels, which, while they can be affected by pricing policies and service levels, are also subject to external influences. For example a railway might lose a large proportion of its traffic because a mine closes as a result of low world prices for minerals or because a grain crop fails after bad weather. Loss of such traffic, where costs cannot be immediately adjusted to the same extent, is likely to severely affect profitability.

The integration of Westrail and AN provides the opportunity for reducing the risk levels that each railway faces individually. The prime reason for this is that individual product lines that may represent a significant share of the business for each railway, are only half as significant for the combined railways. Thus, for example, coal carriage for the Electricity Trust of South Australia represents 10 per cent of AN's revenue, but only 5 per cent of the combined revenue. Loss of this contract would affect the viability for the combined railway to a lesser extent. In addition, operating in a wider market permits greater flexibility in redeploying resources that become unemployed in any one product line, or are required for an unexpected expansion in business.

Without a detailed examination of each product line it is not possible to quantify the level of risk or the change in it as a result of integration. However, the earlier discussion suggests that amalgamation leads to a benefit for the combined railway rather than a cost.

Westrail has successfully diversified into other land transport related activities. The integration of the two railways may extend the application of this strategy into new areas.

SUMMARY OF FINDINGS

This study has considered the economic, financial and social consequences of a number of options for integration of AN and Westrail operations. The major findings of the study are as follows:

In the event of integration of intersystem operations, there would be clear financial savings to the railways and economic savings to the country as a whole.

Report 63

- An integration of full system operations would provide much larger savings than the intersystem integration from both financial and economic viewpoints.
- The main source of integration benefits is expected in the operational, managerial and marketing areas, with consequent reductions in the labour required and more efficient use of plant and equipment.
- The main social consequence of amalgamation would be the possibility of some unemployment amongst those employees of AN and Westrail taking redundancy as staff requirements are reduced. There may also be some unemployment for road transport industry personnel. Other social impacts are comparatively minor although beneficial.

The wider significance of the integration of AN and Westrail relates to the restructuring of the rail industry and the contribution that a more efficient rail system makes to improving the performance of the Australian economy in general.

APPENDIX I TERMS OF REFERENCE

This study has been undertaken in accordance with the following Terms of Reference.

- The Federal Government and the Western Australian Government have agreed to examine the desirability of integration of the Australian National Railways Commission (AN) and the Western Australian Government Railways (Westrail).
- 2. A study on the form of integration and the areas from which benefits might flow will be carried out by the Bureau of Transport and Communications Economics (BTCE) under the direction of a Steering Committee consisting of the Federal Department of Transport and Communications, AN, the State Department of Transport and Westrail. The Steering Committee will be jointly chaired by the respective Departments.
- 3. The study will assess the economic and financial costs and benefits to the Federal and Western Australian Governments and to the nation of:
 - a. integration of AN and all Westrail operations
 - b. integration of AN and Westrail operations, excluding metropolitan rail operations
 - c. integration of AN and Westrail intersystem freight and passenger operations.
- 4. In assessing these integration options, the study will consider, where appropriate:
 - a. a joint venture between AN and Westrail
 - b. Federal Government ownership
 - c. AN management and operational control of Westrail intersystem freight and passenger operations.

Report 63

- 5. The study will address operational, managerial, marketing, financial and industrial implications of the integration options.

 An assessment of social costs and benefits will also be included.
- 6. The Steering Committee will also examine the relationship between the Federal Government's and the Western Australian Government's transport policies and the integration options.
- 7. The Steering Committee will report to the Federal Minister for Land Transport and Infrastructure Support and the Western Australian Minister for Transport in the early part of 1988.

APPENDIX II FURTHER DETAILS OF RAIL SYSTEMS

This appendix provides information about the AN and Westrail railway systems. It briefly discusses the history of the two railways, their management structure and the non-railway activities that each is involved with. In addition, the appendix includes expanded statistical tables for data presented in Chapter 2. These tables, in general, cover the period between 1983-84 and 1987-88.

BACKGROUND

Australian National

AN was established in 1975 through the amalgamation of the Commonwealth Railways (CR) with the Tasmanian Railways and the South Australian Railways (SAR), following the transfer of those State railway systems to the Commonwealth.

Although the formal transfer of the State railway system occurred on 1 July 1975, actual operational responsibility for those systems was not transferred until 1 March 1978. During this interim period AN, (and hence the Commonwealth) was responsible for the deficits of those railways while having only limited control over their operations.

AN did not assume responsibility for the South Australian metropolitan passenger rail service, which was split off from the transferred SAR. However, as all SAR employees were transferred to AN, it therefore has to make its staff available to the State Transport Authority for the operation of the metropolitan railways.

Following its creation, AN rationalised its network and track. Specifically it:

- closed the Northern Australian Railway from Darwin to Birdum in 1976-77;
- opened a new standard gauge line to Alice Springs from Tarcoola in 1980 and subsequently demolished the old narrow gauge line from Maree to Alice Springs;

Report 63

- opened a standard gauge line to Adelaide from Crystal Brook near Port Pirie in 1982; and
- transferred the ACT railway to the State Rail Authority of New South Wales in 1985.

AN currently operates all non-metropolitan rail passenger and freight services in South Australia extending interstate to Kalgoorlie, Alice Springs, Serviceton and Broken Hill. It also operates the railway in Tasmania (Tasrail) which provides freight services only.

Westrail

The construction of the first government railway in Western Australia began in 1879. The initial track was built between Geraldton and Northampton covering 53 kilometres.

In 1882 the 'Land Grant System' which allowed the construction of private railroads was introduced. This led to the contruction of the Great Southern Railway, between Albany and Beverley; and the Midland Railway, between Midland and Walkaway.

These private railways were gradually taken over by the Western Australian Government Railways. The Goldfields Railway was opened in 1894, from Northam to Southern Cross, and extended to Kalgoorlie in 1897. Contractors operated the railway until 1899 when the Western Australian Government took control.

Expansion of the railways occurred rapidly and by 1914 the government had 5362 kilometres of narrow gauge railway open. Since then 1600 kilometres have been constructed. However, owing to declining traffics in some areas, it became necessary to withdraw services and close unprofitable branch lines.

The limited maintenance of track and rollingstock left the Western Australian Government Railways in poor condition after the Second World War. Over half of the system's wagon capacity and 90 per cent of its locomotives were more than 30 years old and of obsolete design. In 1946 a Royal commission recommended that the railway be rebuilt from its foundations and approval was granted to purchase new equipment.

In 1961 the Railway Standardisation Act was passed with the aim of creating a standard gauge line linking Western Australia to the Eastern States. The project encountered some problems especially in financing and was not completed until 1973 when the last major part of the project was brought into full operation.

On 19 September 1975 the Western Australian Government Railway officially became Westrail.

ORGANISATIONAL STRUCTURE

Figures II.1 and II.2 show the organisational structure of AN and Westrail. The figures indicate that the management structures in the two organisations are fairly similar.

NON-RAILWAY ACTIVITIES

Australian National

AN engages in a number of complimentary activities, such as AN Retail, rental and leasing of property and AN consultancy.

AN Retail engages in retail sales to AN employees in Port Augusta and in isolated railway settlements. AN also manages the rental of employee housing in remote areas and the leasing of industrial and commercial properties.

Westrail

Apart from running rail freight and passenger operations, Westrail has diversified its activities into areas which it sees as complementing its major business. These businesses are discussed below.

Total West

Total Western Transport Pty Ltd is a broad-based freight company established in 1982 at the time of deregulation of general freight in WA. It is jointly owned by Gascoyne Trading Pty Ltd and Westrail and is now the largest private freight transport operator in the Southern half of the State.

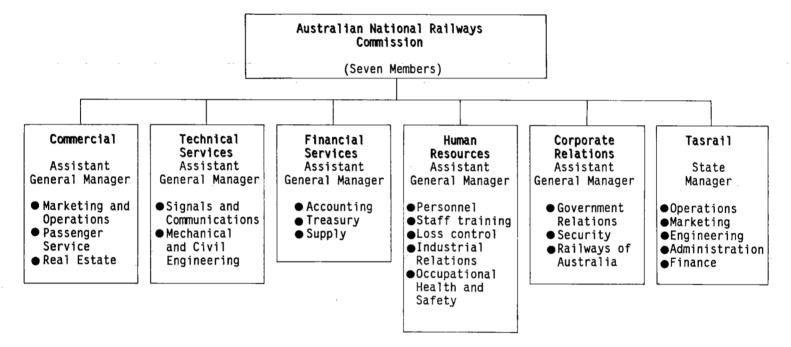
Total West's range of activities includes general freight (rail and road), overnight express services under the trading name Nite Road, warehousing and distribution, specialised transport related services, and bulk haulage.

Western Quarries

This joint venture with Western Quarries Proprietary Ltd was established in 1986. The company operates a quarry near Toodyay and transports the product by rail to a metropolitan distribution centre in the Kewdale rail complex.

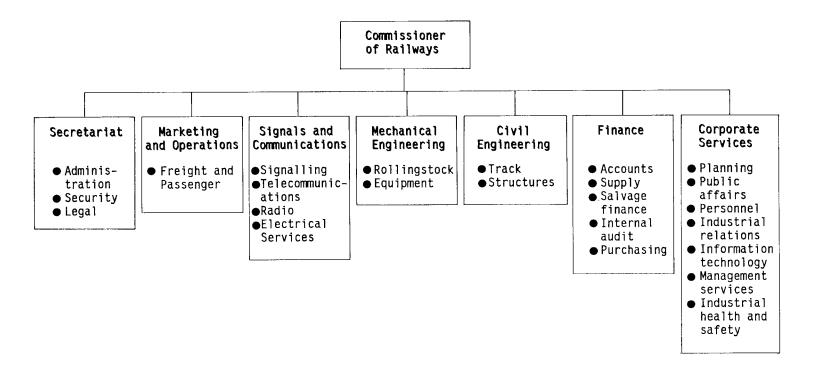
Property development

Westrail's property business centres on the development of distribution and transport related commercial activities on property under its control.



Source AN (1987).

Figure II.1 Australian National management structure



Source Westrail (1987a), (pers. comm.)

Figure II.2 Westrail management structure

Report 63

Income from property related activities amounted to \$4.9 million in 1986-87 for Westrail. New projects envisaged will increase income for the forthcoming year by approximately \$5 million.

Consultancy

Westrail markets its consultancy services both within Australia and overseas. Within Australia, Westrail completed several studies for Robe River Iron Associates and BHP Engineering, Perth.

Overseas, negotiations took place to provide facilities for training of key personnel from the Indonesian Railways and the Indian Railways. A major achievement in 1986-87 was the recruitment of Westrail's chief chemist as consultant in oil and material testing in Vietnam.

ROLLINGSTOCK

Table II.1 shows the current rollingstock numbers for AN and Westrail.

TABLE II.1 ROLLINGSTOCK NUMBERS: AN MAINLAND AND WESTRAIL

Item	ANª	Westrail ^b
Locomotives		
Broad Gauge	76	••
Standard Gauge	111	43
Narrow Gauge	17	121
Total	204	164
Passenger Cars		
Broad Gauge	38	••
Standard Gauge	163	1
Narrow Gauge	6	47
Total	207	48
Railcars and trailers		
Broad Gauge	14	••
Standard Gauge	10	8
Narrow Gauge	0	81
Total	24	89

TABLE II.1 (Cont.) ROLLINGSTOCK NUMBERS: AN MAINLAND AND WESTRAIL

Item	AN ^a	Westrail ^b
Freight Wagons ^C		
Broad Gauge	2 180	••
Standard Gauge	3 160	1 393
Narrow Gauge	382	4 039
Total	5 722	5 432
Brake Vans etc ^d		
Broad Gauge	45	••
Standard Gauge	89	5
Narrow Gauge	11	9
Total	145	14
Service Stock		
Broad Gauge	223	
Standard Gauge	567	73
Narrow	60	228
Total	850	301
Total	7 152	6 048

a. As at February 5 1988.b. As at June 30 1987.

c. All wagon numbers are bogie equivalents.

d. Of the total brake vans 66 are inactive awaiting disposal.

^{..} Not applicable.

Report 63

EMPLOYMENT

Table II.2 shows the changes in staff in the major operational areas since June 1984 for AN's mainland operations and Westrail.

TABLE II.2 STAFF EMPLOYED: AN MAINLAND AND WESTRAIL, 1984 TO 1988

Branch	1984	1985	1986	1987	1988 ^â
AN					
Operations/marketing	3 427	3 128	2 906	2 769	2 515
Technical	3 966	3 789	3 539	3 462	3 260
Corporate	735	781	715	699	594
Total	8 128	7 698	7 160	6 920	6 369
Westrail					
Operations/marketing	2 880	2 657	2 363	2 134	2 082
Technical	4 319	3 887	3 694	3 258	3 101
Corporate	578	557	542	508	445
Total	7 777	7 101	6 599	5 900	5 628

a. Projected.

Note Staff employed at June 30 of each year.

FINANCIAL PERFORMANCE

Table II.3 and II.4 provide details on the financial performance of AN's mainland and Westrail's operations respectively, between 1983-84 and 1987-88.

TABLE II.3 FINANCIAL PERFORMANCE: AN MAINLAND, 1983-84 TO 1987-88 (\$ million, 1987-88 prices)

Item	1983-84	1984-85	1985-86	1986-87	1987-88 ^a
Revenue					
Freight	246.1	264.8	250.6	232.0	235.6
Passengers - revenue ^b	29.1	28.4	31.4	29.8	28.2
- cso ^c	na	na	na	29.0	27.0
Other	18.3	19.7	21.0	17.7	13.3
Total	293.6	312.9	303.2	308.5	304.1
Expenditure	381.4	364.6	326.3	306.5	284.7
Operating					
Surplus/(Deficit)	(87.8)	(51.7)	(23.1)	2.0	19.4
Less interest	20.2	25.4	18.2	16.4	16.4
Less superannuation	18.9	22.8	15.3	13.6	13.1
Net surplus/(deficit)	(126.9)	(99.9)	(56.6)	(27.9)	(10.0)

a. Projected results for financial year.

Notes 1. Data before 1985-86 includes Tasrail.

Sources AN (1987). AN (pers. comm. 1988).

b. Includes reimbursements for concession fares.

c. Community Service Obligations, there were no payments prior to 1986-87.

na Not applicable

^{2.} Figures may not add to totals due to rounding.

Report 63

TABLE II.4 FINANCIAL PERFORMANCE: WESTRAIL, 1983-84 TO 1987-88

Item	1983-84	1984-85	1985-86	1986-87	1987-88 ⁶
Revenue					
Freight	233.2	259.7	229.8	209.7	201.9
Passengers - revenue ^b	10.9	11.2	11.1	10.9	10.6
- cso ^c	12.3	12.9	12.5	10.6	11.8
Other ·	51.0	49.2	51.8	49.3	45.7
Total	307.3	332.9	305.2	280.5	270.0
Expenditure					
Operating	290.9	294.9	265.3	227.6	212.7
Superannuation	18.1	19.8	20.8	22.4	43.5
State taxes	9.7	9.0	7.9	8.7	7.4
Depreciation	15.4	15.2	17.0	23.6	23.2
Interest	46.5	47.9	45.7	46.8	45.9
Total	380.6	387.7	356.8	329.1	332.7
Surplus/(Deficit)	(73.3)	(54.8)	(51.6)	(48.4)	(62.7)
Commercial adjustments					
Add					
Interest	20.2	20.9	21.1	22.6	22.0
Superannuation	3.2	5.9	8.3	11.2	31.7
Deduct					
Sales tax	6.3	6.3	5.9	5.6	5.6

(\$ million, 1987-88 prices)

Bank interest

Commercial result

Sources Westrail (1987a). Westrail (pers. comm. 1988).

(58.0)

1.8

0.5

(34.8)

0.3

(28.4)

0.1

(20.3)

(0.5)

(14.1)

a. Projected results for financial year.

b. Includes reimbursements for concession fares.

c. Community Service Obligations.

FREIGHT OPERATIONS

Tables II.5 and II.6 decribes the freight operations and commodity groups carried by both AN mainland and Westrail from 1985-86 to 1987-88.

TABLE II.5 FREIGHT OPERATIONS: AN MAINLAND AND WESTRAIL, 1983-84 TO 1987-88

Item	1983-84	1984-85	1985-86	1986 <i>-87</i>	1987-88 ⁶
AN ,					
Earnings (\$m) ^b	225.8	232.1	250.6	232.0	235.6
Tonnes carried (m)	9.9	10.7	11.0	10.7	11.2
NTK ^C (m)	5 511	5 582	6 679	6 437	7 022
GTK ^d (m)	12 400	13 100	14 523	15 309	16 851
Train kilometres (m)	7.42	8.95	9.27	7.6	8.7
Average haul/net					
tonne (kilometres) [†]	557	522	624	607	564
Westrail .					
Earnings (\$m) ^b	232.2	259.7	229.8	209.7	201.9
Tonnes carried (m)	19.9	22.0	20.1	21.2	21.4
NTK ^C (m)	3 903	4 328	4 005	4 062	4 077
GTK ^d (m)	8 079	8 986	8 258	8 260	8 317
Train					
kilometres (m)	7.1	7.8	7.1	6.4	na
Average haul/net					
tonne (kilometres)	196	197	198	191	190

a. Projected results for the financial year.

b. 1987-88 prices.

Net tonne-kilometres.

d. Gross tonne-kilometres.

f. Includes Tasmania.

g. No reliable projections.

Report 63

TABLE II.6 FREIGHT COMMODITIES: AN MAINLAND AND WESTRAIL, 1985-86 TO 1987-88

1		1985	5-86			1986	-87			1987	7-88	a
Freight group		nnes 000)		NTK ^b		nnes 000)		NTK ^b (m)		nnes 000)	-	NTK ¹
AN												
Forwarders/												
Intermodal Manufactured	2	480	3	402	2	588	3	487	2	891	3	823
products	1	215	1	724	1	099	1	064	1	766	1	791
Bulk	7	017	1	552	6	987	1	885	6	604	1	461
Total	10	712	6	678	10	674	6	437	11	261	7	075
Westrail				:		,						
Ores and												
minerals	10	836		991	11	446		991	11	966	1	010
Energy	1	273		278	1	211		285	1	081		297
Agriculture	6	340	1	598	6	065	1	578	5	339	1	448
Manufactured		857		130		867		130		855		124
Intersystem	1	474		957	1	569	1	018	1	715	1	113
Other		97		52		106		60		21		85
Departmental		299		50		334		50		383		54
Tota1	21	176	4	054	21	598	4	112	21	360	4	131

a. Projected results for the financial year.

b. Net tonne-kilometres.

PASSENGER OPERATIONS

Tables II.7 and II.8 present information on passenger operations and passenger journeys for both AN and Westrail in 1985-86, 1986-87 and 1987-88.

TABLE II.7 PASSENGER OPERATIONS: AN MAINLAND AND WESTRAIL, 1985-86 TO 1987-88

(('	' ()()())

	198	5-86	198	6-87	198.	7-88 ⁶
AN	<u>-</u>					
Earnings (\$) ^b	31	388	29	078	30	900
Passenger journeys		332		329		333
Train kilometres	2	486	2	381	2	400
Westrail						
Earnings (\$) ^b	7	563	10	585	10	481
Passenger journeys		209		376		333
Train kilometres		na		936	2	900

a. Projected results for the financial year ending 31 December 1987 for AN, and as at 30 June 1988 for Westrail.

b. 1987-88 prices, excluding CSOs but including fare concession reimbursement.

na Not available.

Report 63

TABLE II.8 PASSENGER JOURNEYS: AN MAINLAND AND WESTRAIL, 1985-86 TO 1987-88

('000')

	1985-86	1986-87	1987-88 ⁶
AN	,		
Overland	157.0	156.8	164.2
Indian Pacific	33.9	36.4	34.0
Trans Australian	31.1	32.0	30.4
Ghan	29.4	27.2	26.4
The Alice	7.6	6.0	3.2
SA Country	63.3	70.4	75.0
Tota1	322.2	328.8	333.4
Westrail			
Country	154.6	154.9	156.0
Intersystem	54.1	58.6	92.0
Total	208.7	213.5	248.0

a. Projected results for the financial year.

Note Figures may not add to totals due to rounding.

APPENDIX III ANALYSIS OF PREVIOUS RAIL INTEGRATIONS

Both Westrail and AN have previously been involved in railway integrations. Westrail has participated in the takeover of several private railways, the most recent being the takeover of the Midland Railway in 1964. For its part AN was created out of the combination of the Commonwealth Railways, South Australian Railways and Tasmanian Railways.

MIDLAND RAILWAY

The Midland Railway, a private railway constructed between Midland and Walkaway, near Geraldton, commenced operation in November 1894. Financed by land grants of 1.3 million hectares, it was plagued with financial crises in its early years, being unable to sell the land. At the beginning of this century the railway's operations improved, with increased traffics and land sales. Following the First World War, the construction of a parallel Government line affected the railway and it was unsuccessfully offered for sale to the Western Australian Government for the second time (the first unsuccessful offer was in 1905).

The railway's position improved until the late 1950s when the need for funds for rehabilitation and for new rollingstock, particularly diesel locomotives caused an increase in debt. Revenue was growing but it was constrained by road competition, Government control of freight rates and fares and by the need to provide for concessions without Government compensation. Costs had been reduced as far as possible without further capital investment. Further rehabilitation was undertaken, adding to the existing debt and ensuring that no further dividend would be paid (none had been paid since 1944). By 1963 the railway had reached a critical financial situation and was again offered for sale to the State Government in an attempt to recover some benefit for the shareholders and creditors.

At that time, the Government realised the potential for a merger of the two railways. The merger was expected to develop transport to the north-west and to provide savings from rationalisation of facilities and the use of the Midland Railway's fleet of diesel locomotives.

The merger agreement

The eventual price paid to the company was about \$2.5 million, plus the railway's debts valued at \$2.8 million. The company's assets had been valued at about \$8.6 million. Other liabilities to directors, staff and others totalling \$0.45 million were not accepted by the Government – it had to be paid out (if at all) from the company's cash surplus.

In 1964, all Midland Railway Company's buildings, land and assets were transferred to the Western Australian Government Railway (WAGR), with the exception of subsidy lands and mineral rights, which were transferred to other State Government departments.

The most difficult matter involved in completing the takeover was protecting seniority rights of the former Midland Railway staff. Award conditions were not a problem, as almost identical awards were used. The Government had agreed that no employee should, as far as possible, be disadvantaged by the takeover.

Seniority of wage staff was settled satisfactorily after discussions with the trade unions. As there was approximately one employee in each classification to every ten in the WAGR, the Midland Railway's Seniority list was slotted in at every tenth position on the WAGR list. Long service leave and retirement gratuity scheme entitlements were transferred with staff and where necessary, an allowance was paid to ex-Midland Railway staff to maintain their previous salary.

Westrail believes that no transferrable lessons are to be learned from the amalgamation of the Midland Railway Company and the Western Australian Government Railways.

INTEGRATION OF SOUTH AUSTRALIAN RAILWAYS WITH AUSTRALIAN NATIONAL RAILWAYS

As noted in Chapter 2, Australian National Railways was formed in 1975 through the amalgamation of the former Commonwealth Railways with the Tasmanian Railways and the South Australian Railways (SAR). Although the Australian Constitution under section 51 (xxxiii) and (xxxiv) makes provision for the transfer of State Railways to the Commonwealth and the construction by the Commonwealth of railways in the States, this was the first (and only) such takeover proposal. The South Australian integration is the more relevant to this study, both for its physical proximity and for the terms and conditions agreed between the South Australian and Commonwealth Governments.

The South Australian transfer agreement

The Agreement between the Commonwealth and the South Australian Government attempted to cover all the areas critical to the transfer of South Australia's non-metropolitan railways to the Commonwealth. The more straightforward provisions covered the definition of what was to be transferred in terms of land and assets, undischarged liabilities and legal actions and the payment of financial compensation, and various minor aspects including such matters as an authority for the Commonwealth to provide road services without restrictions, and the provision of passenger concessions.

The Agreement also covered a number of complex areas containing issues which could not be resolved simply and would have long-term consequences for the takeover. These included:

- Restrictions upon the use of the land transferred to AN. AN cannot use the land for non-rail purposes and is required to return the land to the State when it is no longer required for railway purposes.
- . The requirement that all SAR staff be transferred to AN with those required for the metropolitan passenger service being 'made available' to the State Transport Authority (STA). This has added a component to the commercial relationship between the two organisations, with increased administrative effort and opportunity for conflict.
- Reciprocal arrangements for the use by AN and STA of the other's facilities - a necessary arrangement but one which would require continuing negotiations.
- An interim period (lasting for three years) during which AN would have financial responsibility but very little control over operations -an arrangement regarded by AN as unsatisfactory in its separation of authority from responsibility.
- Requirement by AN to:
 - maintain operational standards and not to close lines or reduce services without State agreement;
 - maintain fares and charges at a level relative to those of other rail systems; and
 - not reduce the level of employment in the railway workshops by way of redundancy without State agreement.

Staff transfer

Included in the 'Principles of Agreement' negotiated between the Commonwealth and South Australian Government, and confirmed by exchange of letters between the Prime Minister and Premier rather than in the formal transfer agreement, was the principle that no transferring staff should be disadvantaged. This imposed upon AN the obligation to maintain additional benefits, and hence higher labour costs, for such employees for the duration of their working lives. The principle has continued to be utilised in opposition to subsequent initiatives by AN which may affect ex-SAR employees. A detailed discussion of staff aspects of the transfer is contained in Appendix IV.

SUMMARY

These two mergers differ significantly from each other and have had different problems, and hence different lessons for future integrations. The Midland Railway takeover was essentially a commercial arrangement with the problems raised being immediate, one-off problems, such as those involved with integrating workforces. In this operation the unions did not impose any unusual long-term obligations upon Westrail, and the company itself was neither able, nor interested in imposing conditions; its sole interest was in getting a return for the sale.

The SAR integration with AN, on the other hand, had a number of long-term obligations imposed on it, not only by the unions, under the 'no disadvantaged transference' arrangement, but also by the South Australian Government. The Government negotiated these conditions, not in its role as the seller of the railway but in its role as Government of the State in which the railway operated. This was particularly significant in the requirement agreed by the Commonwealth Government to operate the railway under certain conditions, such as maintaining operational standards and services, charges and levels of employment in workshops. Thus AN's ability to pursue its commercial objectives was reduced.

APPENDIX IV EMPLOYMENT ASPECTS

Changes in pay and conditions for staff of the two rail systems, arising out of the integration of their industrial awards, will have a significant impact on the economics of the integration. Variations in staff numbers, retirement schemes, and redeployment and training strategies will also have an impact. The extent of these impacts will vary according to the form of integration and the staffing policies considered.

THE SOUTH AUSTRALIAN RAILWAYS EXPERIENCE, 1975-78

The amalgamation of South Australian Railways (and Tasmanian Railways) into AN in 1975 took the form of a takeover by AN of the total railway except the metropolitan passenger service. When the employment conditions of employees to be transferred were considered, the governing principle was that no employee was to suffer loss of pay or be otherwise disadvantaged by the transfer. Conditions of employment were not contained in the rail transfer agreement.

The agreement however, did contain a provision for AN to make its employees available to the State Transport Authority (STA) for the administration, maintenance and operation of the metropolitan railways. This was necessary because, although the South Australian Metropolitan Railways were not transferred to AN, all former SAR staff were transferred under the takeover arrangement.

Awards and Industrial Coverage

Prior to transfer, SAR employees were under the jurisdiction of the Commonwealth Conciliation and Arbitration Commission (CAC) while AN employees were covered by the Public Service Arbitrator (PSA). Following the transfer, a new set of awards was established under the CAC covering all employees of AN while the PSA was phased out. The Public Service Board, at its insistence, was granted access to the CAC in certain instances.

The Commonwealth's objective was to produce a common code of terms and conditions to apply to all employees of AN, both former State railway employees and former Commonwealth Railways employees. This was achieved through a common set of industrial awards; however to ensure that transferring State railway employees were not disadvantaged while some better conditions of employment did not 'flow-on' throughout AN, some unique conditions were confined to former State railway employees.

Superannuation

Although the Transfer Agreement made provision for the transfer of funds from the State Superannuation Fund to the Commonwealth Superannuation Fund, the Commonwealth was unable to transfer all State railway superannuation contributors to the Commonwealth Superannuation Fund. Instead, following pressure from the unions and the South Australian Government, transferring employees were offered the once-only choice of remaining with the State Superannuation fund or joining the Commonwealth Superannuation Fund. Those employees who were not members of the State Superannuation Fund would not be required to join the Commonwealth fund. A cost-sharing arrangement between the State and the Commonwealth to cover the higher employee cost of the State fund was agreed, with AN to make employer contributions to the State Superannuation Fund. The South Australian Superannuation Act was amended.

Leave entitlements

Because the South Australian long service leave provisions had been upgraded to give better conditions than those of the Commonwealth long service leave arrangements, it was not possible to place transferring SAR employees under the Commonwealth long service leave provisions. Accordingly, an arrangement was implemented, by amendment to the Australian National Railways Commission (ANRC) Act 1983, that transferring employees would be entitled to choose between the South Australian provisions at the time of transfer or the prevailing Commonwealth provisions in relation to any application for long service leave or payment in lieu.

Annual leave entitlements were the same for both systems, however SAR employees received their entitlement in advance on 1 July each year whereas AN employees earned their entitlements as at 1 January each year. Attempts to bring ex-SAR employees entitlements into line with AN entitlements were unsuccessful, with the 'no disadvantage' principle being quoted by unions.

AN sick leave provisions were slightly more favourable than those of SAR, and all employees were subsequently covered by the AN provisions. Employees of each of the systems retained their accrued leave entitlements upon amalgamation, with AN taking over the accrued liability for these entitlements.

Workers Compensation

As the South Australian scheme applying to transferring staff had certain advantages over the Commonwealth scheme, the ANRC Act was amended to allow transferring staff to choose, at the time of a work-related injury, which compensation scheme they would be covered by. The South Australian scheme was amended in 1987 and in order to prevent a flow-on of the improved conditions to transferred staff, the choice for those staff was restricted to one between the Commonwealth conditions and those in force in South Australia prior to the 1987 amendments.

Redundancy provisions

At the time of the Transfer Agreement, the Commonwealth provisions were oriented to redeployment of surplus staff, with special provisions for income maintenance, relocation assistance and retraining. The South Australian scheme concentrated on termination of employment and severance payment.

An arrangement was established that if any transferred South Australian employee should become redundant, the employee would have the choice at that time whether to be covered by the South Australian provisions current at the time of transfer or by the Commonwealth arrangements then current.

Seniority

Seniority in AN is determined by seniority in class or grade, and within a class or grade, by date of appointment for officers and by length of continuous service at that class or grade for employees.

At amalgamation, once comparable classification had been determined for the staff of each of the systems, so that staff could be satisfactorily classified within the new organisation, staff were then granted seniority under the same rules, that is by either length of service or date of appointment in the equivalent classification in their previous railway system.

Where staff could not be graded satisfactorily due to variations between systems, finite exceptions were established for such staff and special 'holding' rates created. These exceptions are diminishing due to promotion or retirement/resignation of such staff.

Integration of senior management

The head office of the Commonwealth Railways had been physically located in Melbourne prior to amalgamation. Upon the transfer to Adelaide, employees located in Melbourne were offered the opportunity of transferring to Adelaide or accepting a redundancy package.

Following amalgamation, a management organisational structure was established for the new organisation, positions advertised and officers appointed to the positions from the top down.

House rental subsidy

Any SAR housing rental subsidy for transferring employees was to be continued by ANRC.

AN-WESTRAIL MERGER

General administrative issues

Staff employed by AN are covered by four operative Federal Awards, whereas Westrail staff are covered by four State and two Federal Awards. To facilitate interstate co-operative ventures and ultimately the establishment of one common industrial award system for the railway industry, it would be desirable to have all staff employed under any merger agreement covered by the Federal Industrial system. Consequently, as in the case of the 1975 merger, one set of Federal Industrial Awards could be established, with unique conditions where necessary to allow for provisions above the base line for some workers. It may be possible to do this within the existing AN award system or a new set of awards may be necessary. Table IV.1 lists the existing awards.

With respect to superannuation, Westrail staff are covered by the Western Australian State Superannuation Fund, whereas AN employees, with the exception of some former South Australian and Tasmanian railway workers, are covered by the Commonwealth Superannuation Scheme. There is no reciprocal transfer arrangement between the two superannuation schemes, nor is the Western Australian fund able to accept employer contributions from anyone except the State Government. It will be necessary to determine the appropriate superannuation conditions for transferring staff before deciding upon the appropriate strategy for superannuation coverage, whether it be continued

TABLE IV.1 COMPARISON OF INDUSTRIAL AWARDS COVERING AN AND WESTRAIL STAFF

Staff classification	Australian National	Westrail
Salaried officers	Salaried Officers (ANR) Award 1978 ^a	Railway Officers Award No 1, 1985 ^b Railway Salaried Officers Award 1960 ^a
Locomotive employees	Locomotive Enginemen's (ANR) Award 1978 ^a	Government Railways Locomotive Enginemen's Award, 1973 ^b
Professional and technical officers	Professional and Technical Officers (ANR) Award 1978 ^a	Railway Professional Officers Award 1974 ^a
Traffic operating, workshop and miscellaneous grades,	Traffic Operating Workshops and Miscellaneous Grades (ANR) Award 1978 ^a	Railway Employees Award No 18, 1969 ^b AWU (Government) Construction and Maintenance Award of 1965 ^c

a. Federal award.

Sources AN (pers. comm. 1988). Westrail (pers. comm. 1988).

membership of the Western Australian fund for Westrail staff, or transfer to the Commonwealth scheme. In either case, legislative amendment will probably be necessary. Appendix V discusses this further.

Similarly, with workers compensation, it will be necessary to establish coverage for all transferring staff, whether under their existing conditions, under one consolidated set of conditions or with a choice, as with the 1975 merger. Leave provisions will also need to be covered and accrued liabilities for leave, workers compensation and superannuation accounted for.

b. State award.

c. State award covering approximately 50 employees in a special project force on construction work.

General policy issues

Both the range of staff affected, as well as the employment conditions to be provided, will depend upon the degree of integration. Without canvassing all the possibilities, some options might be:

- . allowing all staff to retain existing conditions;
- . amalgamating all staff to one set of conditions; and
- allowing staff the choice of either retaining existing conditions or being covered by the 'preferred' set of conditions.

Staffing policies such as numbers of staff redeployments, staff right to refuse transfer, and others will need to be resolved. This will be particularly important if the integration is not a total one, for example if the Perth metropolitan passenger system is excluded, or the merger covers only intersystem operations. Reconciliation of seniority tables where staff are merged will need consideration. Finally, financial responsibility for accrued liabilities for leave, superannuation and possibly workers compensation will need to be determined.

A significant issue relating to manpower in an integration is the transfer of staff, not only from one organisation to another, but also for redeployment within an organisation. This will allow the most efficient use of staff who would otherwise be redundant, particularly where no involuntary retrenchment is possible. The policy issue of whether staff would be compelled to transfer, or will have options available, must be decided.

Surplus staff

Although one of the potential areas of savings under integration is of staff reductions arising out consolidations rationalisations, the potential savings cannot be realised if surplus staff remain in employment. While natural attrition will reduce staff numbers, the existence of surplus staff both now and as projected for the Base Case establishes that natural attrition and existing retirement schemes have not worked fully. Consequently unless additional retirement incentives are provided then the additional surplus created by the merger will not be translated into staff reductions in the short to medium term. The optimal approach of such a scheme would be to target staff clearly identified as surplus and with no reasonable possibility of redeployment, perhaps with the option to allow those occupying a position to which a surplus person could be redeployed, to also take advantage of the scheme. Table IV.2 describes the redundancy schemes currently available within AN and Westrail.

TABLE IV.2 VOLUNTARY REDUNDANCY SCHEMES: AN AND WESTRAIL

Item	AN	Westrail
Name	1. Voluntary termination incentive scheme (VTIS)	Selection voluntary severance scheme
	Voluntary redundancy incentive scheme (VRIS)	
Eligible Staff	 Periodically available to staff identified as being redundant (selective) 	Periodically available to staff identifed as being redundant (selective)
	 Periodically offered to staff occupying positions declared to be surplus (selective) 	
Takeup	1. Voluntary	Voluntary
	2. Voluntary	
Benefit	 Payment based on 2 week pay for each year of service up to a maximum of 52 weeks 	pay for each year of
	Payment of outstanding recreation and long service leave	Accrued and pro rata annual long service leave
	Refund of superannuation contributions plus interest	on Refund of superannuation contributions plus interest and for employees who have completed 10 years
	 Payment based on 2 week pay for each year of service up to a maximur of 52 weeks, reducing by 10 per cent for each year over 55 years of age. 	employment an additional payment of 2.5 times the primary contribution or for employees aged 55 or

Report 63

TABLE IV.2 (Cont.) VOLUNTARY REDUNDANCY SCHEMES: AN AND WESTRAIL

Item	AN	Westrail		
	Pro rata long service	additional units of		
	leave.	superannuation		
		Where applicable,		
	A superannuation	partial refund of Provident		
	redundancy benefit,	Fund contribution or		
	differing in nature	Surrender value of		
	according to which	Endowment Fund Benefits or		
	superannuation scheme	option to retain membership		
	an employee is covered	to age 65.		
•	by.			

APPENDIX V LEGAL ASPECTS

A number of legal issues have been identified which are relevant to a prospective merger: others will doubtless arise. Some are purely administrative obstacles to be overcome, while others, primarily contractual commitments, may have financial implications. While it is beyond the scope of this study to analyse these issues in detail, they are noted as being relevant to future analysis and negotiation.

LEGAL ADMINISTRATIVE MATTERS

Conduct of Road Passenger and Freight Services

Westrail operates road services in Western Australia, both in its own right and as part of a joint venture, and this raises the issue of the ability of AN to provide road services.

This matter is covered by Sections 9 to 11 of the Australian National Railways Commission (ANRC) Act 1983. The Act provides that AN may provide passenger and freight road services, incidental or supplementary to, or in association with railway services:

- between locations in different States or Territories, or within a Territory;
- between locations within a State where this is incidental to the exercise of some other power of the Commission;
- between locations within a State where this is part of a journey (by freight or passenger) whether interstate or outside of Australia and the remainder of the journey is provided by some other party; and
- between locations within a State where this is authorised under a law of that State.

The Railways Agreement (South Australia) which has been enacted by legislation of both the Commonwealth and South Australian Parliaments, provides authorisation for AN to operate road passenger and freight services within South Australia without restriction. Consequently, it

is not necessary to determine whether such intrastate services could be conducted under the authority of the ANRC Act alone.

While many intrastate road services could be conducted by AN or a joint venture without specific authority from the relevant State, it would be preferable for the legislation enabling the merged operation to also authorise the provision of such road services. If AN is to operate the merged system, then enabling legislation will be required from the Western Australian Parliament only, whereas in a joint venture, legislation will be required from the Commonwealth, Western Australian and South Australian Governments.

Superannuation portability for Westrail staff

This matter is also being considered under the negotiations for the provision of interstate passenger rail services in Western Australia by AN, with respect to the transfer of Westrail passenger services staff on the Indian Pacific and Trans-Australian trains to AN.

The current position is that:

- . There is no reciprocal transfer arrangements between the Western Australian State Superannuation Fund and the Commonwealth Superannuation Scheme, so that Westrail staff could not simply transfer to the Commonwealth scheme.
- . The Western Australian fund is unable to accept employer contributions from anyone except the State Government, which prevents the Commonwealth from paying contributions to allow the staff to remain with the state fund.

A possible solution may be the payment of a transfer value to the Commonwealth scheme from the state fund. Another arrangement could involve the Commonwealth paying contributions to the Western Australian Government for payment to the state fund. Alternatively, amendments to appropriate state and Commonwealth legislation would allow the Commonwealth to pay contributions to the state fund, or allow former Westrail staff to transfer to the Commonwealth scheme.

While this is a minor issue in the context of the interstate passenger services negotiations, due to the small number of staff involved, it would become a major issue in the context of the merger of AN and Westrail operations, whether conducted by AN or a joint venture. In the latter case the position of current AN staff with respect to superannuation would also need to be considered.

CONTRACTUAL COMMITMENTS

Both AN and Westrail have contractual commitments which will have financial consequences for the railways. These commitments may be broadly categorised as follows:

- commercial commitments to purchase capital items or supplies;
- commercial freight agreements which are entered into by direct negotiations with clients and may cover such matters as the life of the agreement, price, task, obligations of the parties, and escalation and review provisions;
- . commitments to repay capital and interest on loans; and
- commitments made at Government direction for the provision of specific freight and passenger services. Such commitments, which include CSO's, may have an indefinite life.

Westrail

Westrail currently has 93 commercial contracts for the carriage of freight. The major contracts, with lives of up to five years and varying escalation principles involve carriage of grain, oil, minerals, wool, timber, chemicals and containers. The most recent of these is an agreement for the carriage of bauxite, alumina and caustic soda for Alcoa worth \$30 million (Daily Commercial News, 16 March 1988).

The minor ones include 54 agreements with farmers for off-farm pick up of grain, renegotiated yearly and 12 agreements with road contractors, also renegotiated yearly for off-farm pick-up of wool. Westrail has contracts for the supply of equipment (rollingstock, road vehicles, intermodal equipment, plant and equipment) worth \$4.1 million. Westrail has also been appointed turnkey contractor for the Perth metropolitan railway electrification project.

A number of Agreements enacted by State Parliament include a requirement for the provision of freight services by Westrail. These Agreements (numbering around 10, with some multiple agreements) are ongoing, and incorporate non-rail obligations such as royalty payments, harbour construction, licences and the like. Escalation of freight rates are covered by a standard escalation formula, with provision for review on a five yearly basis. Commodities covered include bauxite, alumina, caustic soda, coal, lime, mineral sands, nickel, oil, woodchips and iron-ore. Three such arrangements for the carriage of bauxite, alumina and caustic soda for Alcoa were recently replaced by a commercial contract as noted previously.

Westrail also has total debts of \$353 million including a Commonwealth advance of \$20.3 million, private and public loans of \$156 million, a general loan and capital works fund of \$151 million and other current liabilities. Total interest payments for the 1986-87 financial year totalled \$44.8 million, including interest payments to the Commonwealth of \$1.98 million.

Australian National

AN currently has approximately 150 commercial contracts including:

- carriage of freight (oil, steel products, petroleum products, grain, minerals, containers and coal briquettes);
- supply of goods and services (locomotives, distillate, rollingstock spares, track materials, plant and equipment, uniforms, stationery and printing etc);
- . building and construction; and
- salvage and disposal of assets.

Contracts vary in length of life with contracts for supply of goods and services usually of two-year duration, and freight contracts often of longer duration (one contract expires next century). Escalation principles vary and are negotiable.

AN's total debt equals \$315.3 million of which \$204.9 million are Commonwealth loans. This includes \$141.7 million lent for expenditure on the Tarcoola to Alice Springs railway line, which remains free of interest until the Minister for Finance determines otherwise. Other debt comprises \$81.3 million in loans, creditors of \$29 million and an overdraft of \$0.1 million. Total interest payments for the 1986-87 financial year were \$19.6 million.

While the economic value of such commitments will have been included in the forecasts made by the systems, the possibility of a significant change to that value arising out of a merger, due to the nature of the commitment or to the possibility of renegotiation, or due to related strategies such as deregulation in Western Australia, will need to be considered for future negotiations. Such an analysis is beyond the scope of this study.

APPENDIX VI SUMMARY OF DRAFT INTERSTATE PASSENGER SERVICE AGREEMENT PRINCIPLES

PREAMBLE

An agreement to integrate the interstate rail passenger services into and out of Perth is currently being negotiated between the Western Australian Government, Westrail and AN. The purpose of the agreement is to:

- . place interstate rail passenger services under single management;
- . increase the market appeal and revenue from the service; and
- reduce cost levels.

The agreement will result in AN taking complete responsibility for the Trans Australian train (Adelaide-Perth); responsibility for the Indian-Pacific (Sydney-Adelaide-Perth) will continue to be shared with the State Rail Authority of New South Wales, which is not involved in this agreement.

The agreement should result in more effective marketing, higher levels of patronage, improved cost recovery and benefits to the tourism industry in the states and in Australia.

THE AGREEMENT

The agreement will run indefinitely from 1 July 1988 and will require the approval of the Federal Minister of Land Transport and may also require legislation to be enacted in the Western Australian State Parliament.

The agreement will not discharge either Westrail or AN of any current liabilities or obligations under existing arrangements; however neither the State nor AN should incur additional expenses.

Disputes arising from this agreement will be referred to the Australian Commercial Disputes Centre before either party resorts to formal action. Any party may give two years notice to terminate the

Agreement, but the parties agree to enter negotiations (based on the reasons for intended withdrawal) to attempt to reinstate the arrangements. In the event of termination, the present arrangements will resume.

From the date of this agreement, the Trans Australian Service Agreement of December 16, 1986, which governs current operations, will terminate.

OPERATIONAL ARRANGEMENTS

The agreement covers the intersystem passenger, mail, parcel and motor rail carried on the service; but freight services are excluded. AN will have administrative, financial and managerial control of the service, though it cannot terminate the service without Western Australian approval.

Westrail will (at and West of Kalgoorlie):

- . be responsible for the safe running of the service;
- provide running rights for the track, signalling, locomotives crews and guards for the service;
- change schedules as requested by AN (provided that such changes do not disrupt freight services); and
- cease to be a member of the Railways of Australia (RoA) Interstate Passenger Services Group and Passenger Marketing Officers Committee.

SERVICES AND FACILITIES

For at least the first two years of the agreement, Westrail will provide all services and facilities for the service to AN (such as catering, cleaning, repairs, access to terminals and booking facilities). After the first twelve months of the agreement, AN can, provided twelve months notice has been given, obtain these services from other sources, although Westrail will be a 'preferred supplier'.

FINANCIAL ARRANGEMENTS

AN receives all revenue from the service, in addition to a tourism-related financial incentive, concession reimbursements and a revenue supplement from the State. A financial incentive is paid by the State to AN for additional interstate passengers above an agreed annual level. Passenger concessions currently available with Westrail will be honoured by AN, and the State will reimburse AN for these concessions.

The revenue supplement is agreed to, in advance, for a three year period and takes into account:

- . costs incurred by AN for operating the service;
- revenues derived from the operation;
- . any costs incurred paid by other rail systems; and
- other relevant factors.

If the parties cannot agree to the value of the supplement in future periods of three years, the amount of the preceding year's supplement, adjusted by the Consumer Price Index, will be paid.

LEGAL LIABILITY

In the case of any accident or other incident on the service which leads to a liability the parties will determine which railway service was responsible. If one service is found responsible, it will be fully liable. If both parties are to blame, they will be liable in equal shares. Where the parties cannot determine which service was responsible, a joint Board of Inquiry with an independent chairman will decide which was liable.

STAFFING MATTERS

Current Westrail on-train staff (that is, conductors and lounge-car staff) will have two options: either to become AN staff, or to remain Westrail staff and be made available to AN. Staff who do not take either option will no longer be employed on the service and may become eligible for Westrail staff redundancy programs. No more than 25 on-train staff will be accepted by AN.

For transferring staff who become AN employees:

- superannuation authorities will determine the portability of their superannuation;
- . AN will consult relevant unions about terms and conditions; and
- Westrail will pay AN for accrued liabilities for long service leave and annual leave.

APPENDIX VII ROAD TRANSPORT ASPECTS

Options to amalgamate AN and Westrail are expected to affect the road freight task in South Australia, Western Australia and more specifically between Perth and Adelaide. This appendix discusses current trends in road transport in the two States, with particular emphasis on the following aspects:

- . the road freight task
- . truck accident rates
- traffic flows and road usage
- truck operating costs
- road damage costs.

Data limitations make it difficult to identify truck and freight statistics along specific routes. Where data on particular aspects are not available, State averages are used.

THE ROAD FREIGHT TASK

The distance between Adelaide and Perth is 2720 kilometres by road and 2645 kilometres by rail. Most of the freight currently transported by land is by rail. In 1984-85, 878 million NTKs of general freight was carried between Adelaide and Perth by road, and 2617 million NTKs was carried by rail (BTE 1987a). Between most other capital cities, the land freight task is split evenly between road and rail, though 70 per cent of the general freight carried between Sydney and Melbourne is by road transport.

The major freight task by road is performed by articulated vehicles with this trend becoming more pronounced over time. In the twelve months to September 1985, articulated vehicles accounted for 74 per cent of freight tonne kilometres in Australia, while they accounted for only 10.5 per cent of the number of trucks. In 1970-71 articulated trucks carried 56 per cent of road freight in Australia (ABS 1986, BTE 1984).

Table VII.1 shows the number of trucks and the size of the road freight task in South Australia and Western Australia.

TABLE VII.1 TRUCK NUMBERS AND USAGE BY STATE OF REGISTRATION: TWELVE MONTHS TO SEPTEMBER 1985

Item	Rigid total	Less than 6 axles	Tota1	— All trucks		
Number of vehicles						
(thousands)						
South Australia ^a	42.2	2.4	2.6	0.3	5.3	47.5
Western Australia ^a	57.5	3.1	1.2	0.5	4.8	62.3
Tonne kilometres						
(million)						
South Australia	1 616	1 032	4 525	565	6 122	7 738
Western Australia	2 546	1 771	1 795	1 854	5 420	7 966
Vehicles kilometres						
travelled (million)		4.2				
South Australia	606	104	276	27	407	1 013
Western Australia	948	157	116	61	334	1 282

a. Includes all State Registered Trucks.

Sources BTCE estimates and ABS unpublished data.

Changes in freight task due to amalgamation of rail services

If the amalgamation of rail services does occur some of the freight currently transported between Adelaide, Kalgoorlie and Perth by road, will be diverted to rail. The Bureau projects that by 1992-93, 85 000 tonnes of general freight carried each year between Adelaide and Perth will be diverted to rail. By the same year 20 000 tonnes of piggyback traffic per annum is expected to be carried between Kalgoorlie and Perth by rail instead of by road. This means an annual decrease of 5700 truck loads between Adelaide and Perth and 7000 truck loads between Kalgoorlie and Perth (the additional 1300 being piggyback units) assuming an average 15 tonne payload for a six-axle articulated truck. The diversion of freight from trucks to rail will mean a decrease of 242 million NTK each year (110.5 million NTK from the road

freight task in South Australia, and 131.8 million from the Western Australian road freight task). In terms of vehicle kilometres travelled, the diversion of freight from road to rail will mean a decrease of 7.3 million VKT per year in South Australia and 8.8 million VKT per year in Western Australia.

TRUCK ACCIDENT STATISTICS

Recent studies in vehicle safety suggest that vehicle performance, reliability, and mechanical components have improved in recent years and this has led to increasing safety (RoRVL 1985). There has been a general decreasing trend in road accidents in Australia in recent years. This trend is seen in Western Australia and South Australia (ABS 1988). Though trucks are involved in only a small proportion of total road accidents, the accidents in which trucks are involved tend to be more serious. In South Australia during 1986, trucks were involved in 7 per cent of all road accidents, but 13 per cent of all accidents involving fatalities (ABS pers. comm. 1988). The number of vehicles involved in casualty accidents (where a fatality or injury occurs) for each State is shown in Table VII.2. Accident rates are reported for specific routes (because road accidents are relatively infrequent), nor are the number of persons killed or injured in accidents involving trucks recorded in each State so a casualty accident rate is calculated for each State.

TABLE VII.2 TRUCKS INVOLVED IN CASUALTY ACCIDENTS BY STATE, 1986

	Rigid truck		Articulate	d truck	Total	truck
State	Number of vehicles involved	-	Numbers of vehicles involved	•	Number of vehicles involved	Rate per 100 million NTK
South Australia Western Australia	383 268	23.7	147 103	2.50 1.90	530 371	6.85 4.66

Sources ABS (pers. comm. 1988). BTCE estimates.

A change in the road freight task is likely to occur with a rail merger. The decrease, as described above, is most likely to affect

articulated trucks. Given that the projected decrease in road freight task is 110 million NTK in South Australia, there would be two to three less trucks involved in casualty accidents per year in South Australia. In Western Australia, a decrease of 132 million NTK in the road freight task would result in two to three less trucks involved in casualty accidents in that State. These calculations are based on the rates specified for articulated trucks in Table VII.2.

TRAFFIC FLOWS AND ROAD USAGE

Average annual daily traffic numbers are given for certain points for the Adelaide-Perth National Highway in Table VII.3. In this table, heavy traffic is defined as:

- . heavy trucks and buses with dual wheels
- semi-trailers
- . heavy multi-unit vehicles (road trains).

This table should be read in conjunction with Figures 2.1 and 2.2, the maps showing relevant towns and roads.

TABLE VII.3	TRAFFIC	FLOWS AT	SELECTED	SITES,	1984
-------------	---------	----------	----------	--------	------

Town and count station position	AADT ^b	Number of heavy vehicles per day		
Northam (East)	1 520	180		
Coolgardie (West)	700	130		
Norseman (East)	340	110		
Ceduna (East)	550	210		
Port Augusta (East)	840	330		

a. The direction in parenthesis shows the position of the count station in relation to the town.

Sources Main Roads Department (1988). National Association of Australian State Road Authorities (1985).

If 85 000 tonnes of general freight are diverted from road to rail between Adelaide and Perth, and 20 000 tonnes between Kalgoorlie and Perth, it is projected that there will be 16 heavy vehicles less per

b. Annual Average Daily Traffic, in both directions.

c. See text for definition.

day passing through Port Augusta, Ceduna and Norseman, and 19 heavy vehicles per day less at Coolgardie and Northam.

TRUCK OPERATING COSTS

Table VII.4 summarises the costs per kilometre associated with operating a six-axle articulated truck. The cost per kilometre totals 68.1 cents. It is projected that the average load on each truck will be 15 tonnes (20 tonne loads westwards and half of the trucks carrying full loads back eastwards). The truck operating cost is then estimated at 4.5 cents per NTK. It is projected that the road freight task will be decreased by 242 million NTK per annum by 1992-93. This represents a saving of \$10.9 million in truck operating costs.

TABLE VII.4 AVERAGE RESOURCE COSTS FOR OPERATING A
SIX-AXLE ARTICULATED TRUCK
(cents per kilometre)

Item	Cost
Capital assets	
Prime mover	8.4
Trailer	3.0
Insurance	4.4
Fue1	18.1
Wages and overheads	17.8
Maintenance and repairs	6.6
Tyres	6.8
Administration	3.0
Total	68.1

Source Derived from BTE (1987b).

Using the estimates in Table VII.4, there will be a saving of truck operating costs of about \$6.0 million in Western Australia and \$4.9 million in South Australia each year, if 85 000 tonnes of general freight is diverted from road to rail between Adelaide and Perth, and 20 000 tonnes between Kalgoorlie and Perth.

ROAD DAMAGE COSTS

Many variables affect the amount of pavement damage caused by heavy vehicles including:

Report 63

- . the roughness of the road surface
- axle load
- truck speed
- . the design and operation of the truck suspension.

These variations make road damage costs very difficult to quantify and the following costs are indicative only, as they are based on average values and simplistic assumptions.

The South Australian Highways Department calculated the savings in pavement costs and maintenance costs for a reduction in heavy vehicle traffic between Adelaide and the South Australia – Western Australia border. The Highway Department estimates that it will save 0.2 cents per NTK of freight diverted to rail (South Australian Highways Department pers. comm. 1988). The transfer of 85 000 tonnes of general freight will mean an annual reduction of 110 million NTK from the road freight task in South Australia. This represents an annual reduction of \$220 000 of road damage costs by 1992-93.

The Western Australian Main Roads Department calculated changes in maintenance costs and pavement costs for the decrease in vehicles between the South Australia – Western Australia border and Perth and Kalgoorlie and Perth. The Main Roads Department estimates that it will save 0.35 cents per NTK of freight diverted to rail (Western Australian Main Roads Department pers. comm). The transfer of 85 000 tonnes of general freight between Adelaide and Perth and 20 000 tonnes between Kalgoorlie and Perth means a reduction of 132 million NTK from the annual freight task in Western Australia. This represents an annual saving of \$460 000 of road damage costs.

APPENDIX VIII EMPLOYMENT PROSPECTS FOR AN AND WESTRAIL STAFF

Staff numbers in AN and Westrail have declined significantly in recent years. This has been part of cost reduction measures to make railways more efficient, and has occurred without compulsory retrenchment. Any possible amalgamation of services and administration will probably be accompanied by a further reduction in staff numbers, as discussed elsewhere in this report. This appendix discusses the opportunities of re-employment for staff.

Table VIII.1 shows the unemployment rate (average over four months of 1987) in Perth, Adelaide, South Australia and Western Australia. Both Adelaide and Perth have higher male unemployment rates than the average for Australian capital cities. In Western Australia, the unemployment rate is generally lower than the Australian average, while in South Australia, the unemployment rate is generally higher. A reduction in staff numbers is most likely to occur in Perth, Adelaide, Kalgoorlie and Port Augusta. Unemployment rates are not available for the latter two towns, however employment prospects in these towns are discussed below.

The types of occupations most likely to be affected under an amalgamation of AN and Westrail would be clerical, semi-skilled workers, drivers and machine operators. No statistics are kept on job prospects for particular occupations in specific areas, but the unemployment rates of occupation groups (by last full-time job) are given for South Australia and Western Australia in Table VIII.2. Table VIII.2 classifies persons by ASCO (Australian Standard Classification of Occupation), a skill-based classification developed as a national standard for classifying occupations. The table suggests that semi- and un-skilled category workers would experience some difficulty in obtaining reemployment in the workforce. Clerks or professionals would not be expected to experience the same degree of difficulty.

TABLE VIII.1 UNEMPLOYMENT RATE OF THE CIVILIAN POPULATION AGED 15
AND OVER, BY CITY OR STATE, AVERAGE OF FEBRUARY, MARCH
AUGUST AND NOVEMBER 1987

(per cent)

<i>Males</i>	Females	Persons
9.0	9.2	9.1
8.0	8.4	8.2
7.2	8.1	7.5
9.2	9.4	9.3
7.2	8.6	7.8
7.8	9.0	8.3
	9.0 8.0 7.2 9.2 7.2	9.0 9.2 8.0 8.4 7.2 8.1 9.2 9.4 7.2 8.6

a. City consists of Capital City Statistical Division.

Source ABS (1987).

Reports on jobs prospects in Port Augusta and Kalgoorlie were obtained from Commonwealth Employment Service offices in the respective towns. The unemployment rate in Kalgoorlie is much lower than the State average, the latter being approximately 4.5 per cent. There are plenty of jobs available for skilled persons, especially tradespeople, clerks and plant operators. Any persons with specific job skills should be re-employed quickly. Job opportunities for labourers and (especially) unskilled persons are not as good.

In Port Augusta, the unemployment rate is about the same as the State average. There are good opportunities across all age groups, with the best prospects for younger persons. There is not a great demand for specific skills, and most jobs are available in the rapidly increasing tourism and hospitality industry. The Port Augusta CES office also lists jobs for Roxby Downs Management Company who require many semiskilled and unskilled persons (Roxby Downs is a uranium mining operation about 350 kilometres north of Port Augusta).

TABLE VIII.2 UNEMPLOYMENT RATES BY ASCO CLASSIFICATION, BY STATE, AVERAGE OF FEBRUARY, MARCH, AUGUST AND NOVEMBER 1987

(per cent)

State	Managers and administrators	Pro- fessionals	Para- professionals	Trade persons	Clerks	Sales persons and personal service workers	s Plant and d machine i l operators e and	Labourers and related workers
South Australia	2.2	2.9	na	4.6	3.5	5.3	7.4	9.7
Western Australia	na	3.0	na	4.9	3.4	5.8	5.1	10.5
Australia	1.7	1.7	2.1	4.5	3.1	5.4	5.6	9.2

na Not available due to sampling variability too high for most practical purposes.

Source ABS (1987).

APPENDIX IX ACCOUNTING PROCEDURES

AUSTRALIAN NATIONAL

In general, AN prepares its accounts in compliance with Australian Accounting Standards and guidelines issued by the Commonwealth Department of Finance. The accounts are prepared on an accrual basis with the railway's fixed assets valued at historical cost and depreciated on a straight line basis.

Under section 67 of the Australian National Railways Commission Act 1983, AN is not subject to taxation under the laws of Australia or of a State or Territory, except as provided for by legislation. In practice, AN pays all fuel taxes, customs duty, bank accounts debit tax, fringe benefits tax and financial institutions duty in those States where it applies.

AN self insures against legal liability, but has purchased insurance cover for liability in excess of \$7.5 million. AN maintains a provision to meet liabilities arising from damage to their property, consequential loss, and workers' compensation.

AN also provides for the full accrued liability for the cost of employees' recreation leave. There is a provision for long service leave, which during 1986-87 was changed from an actuarial formula to actual calculation. This resulted in a \$3.99 million reduction in the provision of long service leave. Under provisions of the *Railways Agreement (South Australia) Act* 1975 AN is obliged to provide for long service leave for former employees of the South Australian Railways at a special rate which results in additional costs of approximately \$1.2 million per annum.

AN does not operate its own superannuation fund. AN mainland staff are eligible to contribute to the Commonwealth Superannuation Scheme, while contributors to the South Australian Superannuation Fund at the date of amalgamation have their rights under the scheme preserved. Since 1 July 1984 employer contributions to both these schemes have been made at the rate of 20.4 per cent of wage and salary payments.

As a matter of policy the Government has decided that any deficit accruing after the 1 July 1976 will be eliminated by an increase in the future contribution rate.

AN receives financial assistance in a variety of forms including Commonwealth supplements and low interest government loans. The Commonwealth supplement for commercial operations is based on an annual estimate comprising the cash component of the expected loss on these operations for the year. It is AN's policy to eliminate the need for this supplement. Funds for CSOs are additional amounts received from the Commonwealth to meet losses incurred in operating non-commercial services which the Government requires AN to provide. At present AN receives pre-determined annual revenue supplements in respect of passenger services and Tasrail. In accordance with accounting standards, all revenue supplements are treated as revenue.

Loans from the Commonwealth amounted to \$204.9 million at 30 June 1987. Included in this total is \$141.7 million lent specifically for the Tarcoola to Alice Springs Railway which remains free of interest until the Minister for Finance determines otherwise. The interest rate charged on other Commonwealth loans incurred or refinanced since 1 July 1985 is 0.5 per cent above the secondary market yield to maturity on ten year Treasury Bonds.

AN may also raise loan funds through private treaty or public floatation and repayment of loan principal and interest is normally guaranteed by the Commonwealth. These loans amounted to \$81.3 million at 30 June 1987.

The interest cost as well as the establishment and maintenance cost of loans used for purchases of plant, equipment, rollingstock and construction of permanent way are treated as part of the cost of these assets and do not appear in the expense account until the asset is brought into operation.

Land transferred from South Australia in 1975 must be returned to the State free of charge where it is no longer required for railway purposes.

Westrail

Westrail's accounts have been prepared on an accrual basis and except for investments and property assets acquired under a State Agreement at valuation, assets are valued under the historical cost convention.

Depreciation of fixed assets is calculated by applying the straight line method; however, an asset is treated as an expense when it falls within the category of a minor work. Westrail is subject to customs and excise tax, fringe benefits tax, sales tax on goods for retail sale only and some State taxes such as payroll tax.

Westrail also insures against its legal liability to the public subject to an excess of \$1 million, and for workers compensation subject to an excess of \$2 million for common law award or settlement. Westrail is self insured against damage to its property. In addition Westrail has comprehensive motor vehicle insurance.

Westrail has made provision in its accounts for accrued annual and long service leave including annual leave loading where applicable. Long service leave entitlement is calculated on the basis of when the long service leave term actually becomes due except where employees are 55 years and over, in which case the accrued liability is calculated on a pro-rata basis.

In relation to superannuation, Westrail records the share of superannuation liability to former employees met in full from the State superannuation scheme at the time of payment. No provision has yet been included in Westrail's accounts for future superannuation activities. A new superannuation scheme was introduced with modified benefits, however an updated assessment of the total liability, including the impact of the new superannuation scheme has yet to be made.

Westrail receives assistance in different forms including Commonwealth advances, special purpose grants from the Commonwealth and supplements for operating deficits. Commonwealth advances are usually granted for the purpose of upgrading rail networks and a rate of interest is charged. Grants and assistance come in the form of employment programs, apprentice training and recoupment from Transperth for operating suburban rail passenger services.

Westrail pays interest on the following accounts:

- . advances by the Commonwealth
- . loan funds
- private/public loans
- . advances by client companies
- . financial leases.

Table IX.1 provides a summary of the main differences in accounting procedures and taxation and liability arrangements between AN and Westrail.

TABLE IX.1 SUMMARY OF ACCOUNTING, TAX AND LIABILITY DIFFERENCES

	AN	Westrail
Accounts	Accrual basis	Accrual basis
Fixed Assets	Historical cost convention	Historical cost convention
Depreciation	Straight line basis	Straight line basis
Tax	Customs and excise taxes Fringe Benefits tax Financial Institutions Duty	Customs and excise tax Fringe benefits tax Some State taxes including payroll tax
a Insurance cover	Self insures up to \$7.5 million	Self insures up to \$1 million (public liability) and \$2 million (workers compensation)
Assistance	Revenue supplements (Commonwealth)	Revenue supplements (State) Commonwealth Advances
	No interest loans Special purpose grants	Special purpose grants
Superannuation	Contributions to Commonwealth and SA Government Funds	Records liability at time of payment to former employees
Leave	Full provisions made for accrued liability for annual leave and long service leave	Full provisions made fo accrued liability for annual leave and long service leave
Renewal of Track Assets	Recorded as expense	Capitalised and depreciation raised

Sources AN (1987). Westrail (1987a).

REFERENCES

- ABS Australian Bureau of Statistics.
- AGPS Australian Government Publishing Service.
- BTE Bureau of Transport Economics.
- ISC Inter-State Commission.
- ABS (1986), Survey of Motor Vehicle Usage, Cat. No. 9208.0, AGPS, Canberra.
- ___ (1987), The Labour Force, Australia, Cat. No. 6023.0, AGPS, Canberra.
- __ (1988), Road Traffic Accidents Involving Casualties (Admissions to Hospitals), Cat. No. 9405.0, AGPS, Canberra.
- Australian National Railways (1986), Australian National Systems Map No. 1, January 1986, Australian National Railways, Adelaide.
- ___ (1987), Annual Reports 1986-87 and earlier reports, Australian National Railways, Adelaide.
- BTE (1984), Overview of Australian Road Freight Industry, Occasional Paper 59, AGPS, Canberra.
- ___ (1987a), An Assessment of the Australian Road System, Report No. 61, AGPS, Canberra.
- __ (1987b), The Tasmanian Rail System: An Assessment of Costs and Benefits, Report No. 62, AGPS, Canberra.
- ISC (1986), Cost Recovery Arrangements for Interstate Land Transport, AGPS, Canberra.
- __ (1987), A Potential Extension of Intermodal Rail Services, AGPS, Canberra.
- Main Roads Department, Western Australia (1988), *Traffic Profiles*, *Rural Permanent Count Stations* 1986-87, Report No. 0077I.

Report 63

National Association of Australian State Road Authorities (1985), Data Bank.

RORVL (1985), Review of Road Vehicle Limits for Vehicles using Australian Roads, Department of Main Roads, Sydney.

Royal Commission into Grain Storage, Handling and Transport, Cost Structures, Working Paper No. 3, September, 1987.

Transperth (1987a), Annual Report, 1987, Transperth, Perth.

__ (1987b), Forward Financial Projections 1987-88 to 1991-92, Transperth, Perth.

Westrail (1987a), *Annual Reports* 1986-87 and earlier reports, Westrail, Perth.

__ (1987b), Financial and Statistical Statements 1985-86 and earlier reports, Westrail, Perth.

__ (1987c), CCE Plan No. 67800, September, 1987, Westrail, Perth.

ABBREVIATIONS

ABS	Australian Bureau of Statistics
ALTP	Australian Land Transport Program
AN/ANRC	Australian National Railways Commission
ASC0	Australian Standard Classification of Occupation
Ausrail	Name used to identify joint-venture, total merger of AN
	and Westrail
BTCE	Bureau of Transport and Communications Economics
CAC	Commonwealth Conciliation and Arbitration Commission
CES	Commonwealth Employment Service
CS0	Community Service Obligation
ESA	Equivalent Standard Axles
GTK	Gross tonne-kilometres
Inter-Rail	Name used to identify joint venture, intersystem
	railway
ISC	Inter-State Commission
NTK	Net tonne-kilometres
PSA	Public Service Arbitrator
RoA	Railways of Australia
RoRVL	Review of Road Vehicle Limits
SAR	South Australian Railways
SRA	State Rail Authority of New South Wales
STA	State Transport Authority of South Australia
VKT	Vehicle kilometre travelled
V/Line	Victorian Railways
WAGR	Western Australian Government Railways (Westrail)