

Chapter 6 International best practice

Introduction

6.1 This chapter considers the fifth item in the terms of reference:

Characteristics of international best practice in rail operations.

6.2 Australia's transport system, if it is to work effectively and efficiently, cannot ignore international developments and focus on the domestic scene only. As is evident from the earlier chapters in this report, witnesses in discussing the rail industry, especially the ability of rail to meet the expectations of their customers, often made reference to rail in other countries. This chapter considers this anecdotal input and the extent to which international performance indicators for the rail industry have been developed.

6.3 The committee noted the study undertaken by the Bureau of Industry Economics (BIE) in 1992–95 to develop international performance indicators for Australia's rail freight. In this study, BIE codified the performance benchmarks for rail freight into three broad groups:

- customer orientated performance indicators (price, reliability and service quality);
- operating performance indicators (operating efficiency, labour and capital productivity);
- and cost performance indicators.

In general, BIE found that the North American systems provided the best observed international performance indicators because they combined 'the key characteristics of being widely regarded as at the forefront of efficient operating performance, and also as having broad operating similarities to the Australian rail systems.' (BIE 1992, p. xi).

6.4 At the conclusion of its study, BIE sounded a note of caution. It said:

The influence of differences in operating conditions and financial and regulatory environments between railway systems have not been netted out of the customer and operating efficiency measures presented in this report. Accordingly, changes in these selected performance measures over time are much more meaningful than the absolute differences between them. The usefulness of making inter-system comparisons is reinforced by the decisions of a number of Australian systems (eg State Rail Authority of NSW and Queensland Rail) to benchmark their performance against the better North American systems. Traffic densities and haul lengths are, in general, much greater in the USA and Canada than in Australia. This affords North American railroads with greater economies of scale and density....However, in analysing operating costs, explicit steps have been taken to standardise for differences between systems that are beyond the control of management. (BIE 1995b, xi)

6.5 The committee was cognisant of these qualifications in its consideration of the evidence presented by witnesses when addressing this term of reference. Unfortunately, there have been few comparative studies which provide comprehensive and systematic evaluations of rail services in Australia and other countries. BIE's study attempted to provide quantitative and qualitative international benchmarks for Australian rail.

International models

6.6 Throughout the inquiry, the committee heard comparisons being made between the various Australian rail operations and rail systems in other countries. The implications from witnesses were that Australia should try to improve its rail service—attain world best practice—since Australia had most to gain from the advantages rail had to offer. As K B Davidson Consulting Pty Ltd put it:

...we continue to produce products with minimum transport cost components rather than those which would maximise income or maximise use of human, land and water resources. We pay more than we should in inventory and warehousing costs because of slow delivery times. Our exports suffer higher costs because of higher land cost component than would be available with a properly set up rail network. And we are limited in our ability to export perishables because of the slow delivery times imposed by road's 100–110 km/h ceiling. (Sub 25, *Submissions* p. 231)

6.7 Therefore Australia needs to reassess its rail industry, especially its service delivery in the context of improving efficiency and effectiveness so that Australia's economy may benefit. The models held up by various witnesses as examples for Australia to follow were Tranz Rail (New Zealand) and the more efficient larger rail systems in Canada and USA. Some witnesses also mentioned the iron ore rail systems in the Pilbara. In addition to the key findings outlined by BIE, witnesses focused on a number of other pertinent issues for international comparison such as integration/disaggregation, privatisation, size of rail operation, competition among rail operators and competition with other transport modes. Discussion on these aspects follows.

Structure

6.8 Tranz Rail and Charles W. Hoppe Inc both recommended an integrated structure as the best arrangement for a successful rail industry, citing the success of integrated models in North America. Charles Hoppe said:

Separation of the management of track from the management of train operations is not necessary to provide competitive rail access in markets where it is warranted and in addition that interface is more likely to produce lower service quality and less effective investment in plant from a market perspective. Most importantly, it adds complexity to an already complex business, giving trucks an additional advantage in the market and distracting railway managers from the market focus they need to compete successfully. (Sub 110, *Submissions* p. 1488)

6.9 Tranz Rail maintained that:

...the separation of the infrastructure and the concept of open access do not have to go together. There are many locations—for example, in the United States—where the infrastructure will be owned by a specific railway but has been opened to the operation of another railway to meet a particular competitive situation, as ordered by competition authorities. That has the benefit of at least keeping the control of the infrastructure within the hands of the users. (*Transcripts*, p. 160)

6.10 The committee heard arguments for and against vertical integration as the best structure for Australian rail. QR and the Pilbara iron ore rail lines were cited as successful examples of integrated rail entities which have achieved significant increases in efficiency and effectiveness. These rail systems were well run, profitable and operating to capacity.

6.11 The committee is also aware that a number of the recently privatised rail operations such as Tasrail and ASR are vertically integrated. However, on the basis of the evidence

received, the committee believes that how rail systems are to be structured should be left to the relevant organisation or jurisdiction. The committee believes there does not need to be uniformity of structures. The committee does have a concern, however, about third party access to a rail system that is vertically integrated (see chapter 4).

Size of rail operation

6.12 In its submission, National Rail Corporation (NR) noted that any comparisons with the US rail systems had to keep in mind the differences in operating environments which may significantly affect relative performance. The major difference was that US railroads had freight tasks and traffic densities which were 'several times greater than Australian railways, giving them economies of scale not possible in Australia. Even the smallest US Class 1 railroad has a freight task only slightly less than the total of all Australian general freight railways.' (Sub 26, *Submissions* p. 271)

6.13 The committee is cognisant that basic differences such as size and volume are fairly crucial in any international comparisons since none of Australia's rail systems or operations is large by international standards. While Australia has the distance travelled by North American rail operations, it lacks the population or density of settlement to build the business. The committee therefore accepts NR's comments as valid.

No appropriate model

6.14 There were also witnesses who maintained that there were no appropriate models Australia could use. The Victorian Department of Infrastructure claimed that:

The overseas models are so different. The US model and their interstate carriers are absolutely huge in comparison with us. CSX [a US intermodal corporation] carries 300 million and 400 million tonnes per annum and the geography, the population and the history of rail is so different. They tend to be freight railways in the US. They have developed the way they have for a lot of reasons. Whereas, in Europe, it is more of a passenger base system. Here in Australia...we are trying to make the best in rail of both freight and passenger. I do not think there is any model anywhere that you can simply pick up and say it is just what we need to fix the situation here. There are pieces of all of them that we can beg, borrow or steal to put into the Australian system to get the best Australian system. (*Transcripts*, p. 683)

6.15 Thew & McCann commented that government owned enterprises traditionally had strong trade union influences. Government ownership also 'gave rise to the notion that political influence could, and rightly should, be wielded in the management of publicly owned enterprises....Therefore the interests of the public served by government owned enterprises have often been subordinated to the interests of its government owners and its employees, with the consequence that these industries lack the long term strategic focus to achieve world's best practice.' (Sub 93, *Submissions* p. 1214)

6.16 While historically the comments quoted above are correct, changes such as corporatisation and privatisation in the last few years have changed rail in Australia. The result is a different focus. The committee therefore believes there are appropriate international models or parts of models which could be relevant to the improvement of Australian rail.

Reasons for international models

6.17 With corporatisation and eventual privatisation of rail operations, government influence on rail would be lessened and rail systems would be able to behave more like the private sector, endeavouring to return profit to their shareholders. It would then be in the best interest of the corporatised entity to adopt more efficient and effective strategies, especially international best practices, in order to improve operations. Greater efficiency and effectiveness have been cited by many witnesses as a possible outcome of privatisation (see chapter 3).

6.18 The committee is aware that some Australian rail organisations are already looking to international models for guidance and examples. For instance, RAC told the committee that it had set up a technical service group whose task was to scan international literature and present its findings every six months to RAC. This information was then fed into research so that the track may be improved (*Transcripts*, p. 1174). Similarly QR and Westrail were incorporating aspects of international models into their operations in order to streamline operations and increase efficiency (*Transcripts*, pp. 22, 1063). QR is aiming to make its coalhaul operations the world's best practice.

6.19 Complementing this view were those expressed by BHP Iron Ore Pty Ltd and Hamersley Iron Pty Ltd which cited the BIE reports showing both operations as being above world best practice in terms of locomotive, wagon and labour productivity and in terms of energy efficiencies (*Transcripts*, pp. 979–80, 1002–3). The committee is aware of this assessment. However, the committee believes that each of these Pilbara rail systems has the advantage of being single purpose heavy haul rail, acting as a 'conveyor belt' to move the iron ore to the port, with itself being both operator and customer. Therefore it was not feasible to use the Pilbara operations as a sensible model for all Australia's rail systems to be compared with since the latter were not so single purpose with only one user. However, as Westrail pointed out, Westrail had already incorporated improvements developed in the Pilbara in an effort to increase its efficiency and effectiveness (*Transcripts*, p. 1065).

6.20 While the committee notes what was said, it was conscious of the limited amount of evidence obtained and the subjective viewpoints being presented in discussions on international models. Rather than make a recommendation on this issue, the committee advocates each rail organisation monitoring international developments regularly so that collectively Australian rail may achieve and maintain consistently high levels of service.

International benchmarks

6.21 The Public Transport Union (PTU) was supportive of international best practice as a mechanism for helping rail to contribute 'to overall land transport efficiency by reducing congestion, conserving energy and lowering pollution.' However, the PTU claimed that any 'comparative analysis is greatly complicated by differences in cultural, economic, institutional and political structures which influence the productive process, and which may not be capable of empirical measurement.' The PTU believed benchmarks may be legitimate targets but international best practices 'is a concept much abused in the debate.' (Sub 39, *Submissions* pp. 491–2)

6.22 The PTU then listed a number of deficiencies which it claimed characterised international best practice as a concept:

- externalities which may be relevant to public sector enterprises, were often ignored;
- organised labour may be excluded in any development of international best practices;
- 'flexibility' in the context of international best practices sometimes had different meanings;
- international best practices emphasised internal processes when external linkages may be equally pertinent;
- international best practices often offered little insight into management practices; and
- concentration was placed on outputs rather than outcomes (Sub 35, *Submissions* p. 492).

6.23 While not endorsing all the comments made by the PTU, the committee nevertheless maintains some weight should be given to these aspects in any consideration of international benchmarks. It is important that Australia develops its own benchmarks which take into account Australian conditions, much as QR has achieved.

6.24 QR's benchmarking program monitored the operating costs of its coal haul. The main elements of the program were:

- a joint advisory group from the coal industry, department and QR to examine international best practices in relation to QR's coal haulage operations;
- a study by consultants which identified a list of performance indicators for monitoring QR's progress towards best practice;
- the adoption of a formula for monitoring rail freight costs so QR could achieve best practice by the year 2000; and
- a program of two yearly reviews of QR's progress against best practice and adjustment of the rail freight costs accordingly (Sub 81, *Submissions* pp. 1113–4).

6.25 Although QR's benchmarking program did not encompass freight charges or capital costs, the program was strongly supported by the mining industry. QR claimed the benchmarking exercise enabled it to reduce its freight rates for coal over a seven year period by 33 per cent. The projected reduction by 2001 is a further 25 per cent. QR maintained 'The reality is that our heavy haul network is rapidly moving towards world's best practice and benchmarking its operations against international operators' (*Transcripts*, pp. 468, 481).

6.26 NR stated that 'In terms of the day-to-day, week-to-week management of the organisation, we do not use international benchmarks. We simply use our corporate plans, our train operating plans and so on as the goals that we set ourselves to achieve the specific financial results that we want.' (*Transcripts*, p. 70) NR went on to say:

A lot of international benchmarks are derived from systems where the conditions are completely different....The traffic is much denser, the loads are much longer or much shorter, the crewing is different, the fuel costs are different and so forth, which makes the comparison in any detail in a management sense not particularly useful. The outcomes in the long run, where we compare on a year on year basis are...probably useful just to see how well we are getting and where we are getting to.

...Our figures for wagon productivity and locomotive productivity are in the range of world's best practice for US railroads. I think we are conscious of what they are and we are trying to be in that ballpark, but they are not used for day-to-day management. (*Transcripts*, p. 70–1)

6.27 The committee acknowledges the validity of comments made about international benchmarks by witnesses but believes it is possible for rail operators to select and adapt appropriate methodologies so that rail operators may set their own benchmarks as tools for achieving outcomes and for measuring and assessing outputs.

Models for benchmarking

6.28 Both BIE's study and comments from most witnesses to this inquiry focussed on rail freight. Many like Philip Laird pointed to the US big freight operations as relevant and to Tranz Rail in New Zealand as a small country model with a low resource base (*Transcripts*, p. 94). The Public Transport Users Association (PTUA) was one of the few witnesses who examined international models for rail passenger operations.

6.29 The PTUA maintained that the world leader in intercity passenger rail transport was Switzerland, where rail had kept pace in growth with car and bus travel. Switzerland developed a national strategy designed to make rail the basis of a multimodal fully coordinated national public transport service that provided a genuine alternative to the private car. The Swiss model had an integrated fare system; hourly services and a 'pulse timetable' which ensured trains and buses converged simultaneously on transfer points. Public and private rail, bus and ferry schedules had been integrated throughout Switzerland so that passengers may travel conveniently at a time of their own choosing. In other words, public transport became as flexible as the car (Sub 100, *Submissions* p. 1263; *Transcripts*, p. 833). The PTUA maintained that the key to Switzerland's success was collective planning which involved both public and private owners of the rail system and to some extent collective funding (*Transcripts*, p. 830).

6.30 According to *The Economist*, 'Innovation, congestion and privatisation have transformed the prospects for railways.' (*The Economist*, 21 February 1998, p. 20) Passenger rail was experiencing a resurgence.

For most intercity journeys [in Europe and Japan] of more than two hours and less than five, rail has the competitive edge in safety, reliability and speed over both aircraft and cars. As passenger numbers increase with better marketing and customer-friendly services, even the hurdle of cost should start to fall. (*The Economist*, 21 February 1998, p. 20)

6.31 In contrast, the PTUA believed that Australia's rail lines were still following the 'tortuous nineteenth century alignment that limit speed and carrying capacity, and increase fuel consumption. On any fair comparison, upgrading the rail line would deliver greater benefits to the nation than converting the Federal Highway to a freeway.' (Sub 100, *Submissions* p. 1264). The PTUA strongly supported a national approach to transport funding so that strategic priorities were given due weight (*Transcripts*, pp. 830–1).

6.32 On the basis of the evidence considered, the committee concedes it is difficult to nominate specific models for benchmarking, especially as complex formulae may be required to counterbalance differences in circumstances. The committee is mindful that Australia lacks the freight volume of North America and the population base for passenger traffic enjoyed by Europe and Asia. While the New Zealand model appears a suitable one for Australian rail, the committee is conscious that Trans Rail differ from Australian rail in a number of ways.

6.33 For instance, Trans Rail manages all public transport in New Zealand and is virtually a national monopoly. It was able to increase its freight business because road charges for trucks were increased steeply so that now they are four times that of Australia's (*Transcripts*, pp. 160–2).

6.34 Apart from safety and compliance regulations which are determined by government or regulatory authorities, road, sea and air transportation—especially private sector operators—tend to find their own benchmarking models. Given the current changes in the rail industry, where corporatisation and privatisation of public sector rail may result in increased competition among rail operators, the committee is inclined to support the rail industry's determination of its own models for benchmarking. The examples of the Pilbara rail operations which closely monitored international operations as well as each other showed that international best practices could be achieved when the commitment was made by rail operators. This was why the Pilbara rail operations had been mentioned as models for benchmarking by some organisations.

6.35 The committee believes there is benefit in encouraging staff exchanges between State rail authorities, private sector rail and other related operations with those operations such as the Pilbara rail systems so that there is greater awareness and experience of the best international models.

Performance indicators

6.36 When the BIE began its study in 1991 there was a general belief that Australia's competitiveness in international markets was determined in part by the costs of inputs and services provided by other enterprises, including government business enterprises such as State owned rail systems. Many of the service enterprises then were either monopolies or else were characterised by regulatory barriers to competition. The aim of the international best practices study was to see if performance levels could be raised among public sector service providers (BIE 1992, p. 1).

6.37 As BIE wrote:

In the absence of competitive pressures, incentives for sound performance are diminished and actual performance may be well below best practice. Where this occurs the development of performance measures offers a way of introducing competitive pressures indirectly through performance targets or yardsticks.

The performance measures developed for this project seek to achieve two objectives. The first is to compare the performance of Australia's infrastructure service providers against that of our international competitors from the perspective of users of those services. In particular we will address the question as to whether our traded goods sector is disadvantaged by the performance of our infrastructure services industries. The international comparisons developed for this part of the study focus on customer oriented indicators of price, timeliness and other aspects of service quality. (BIE 1992, p. 1)

6.38 The BIE acknowledged that the selection of performance indicators and the determination of world best practice were difficult tasks. The BIE process involved the Australian rail authorities, suppliers and industry consumers and followed the guidelines for effective performance monitoring, according to Hilmer (BIE 1992, p. 2). At the conclusion of their study, BIE found two characteristics of Australian rail:

...firstly, the Australian systems are inferior to 'world best practice' in their operating cost performance; and secondly, the Australian railways are taking significant steps towards closing the gap between their performance and 'best practice'. (BIE 1992, p. 68)

6.39 By 1995 it had noted reforms which had been implemented and improvements which resulted. The following were key findings for 1993–94:

- *Price* While freight rates had decreased by 1993–94 in real terms, Australian rates for hauling coal were still above observed world best practice in 1993–94. For example, Queensland Rail (QR) coal rail rates were doubled USA's rates while NSW rates were often 20 to 50 per cent higher than USA's. Grain rates were broadly comparable with those in North America when adjusted for distances. Australian general freight rates were closest to observed world best practice (BIE 1995b, pp. 24–41).
- *Service quality* Rail transit times averaged 35 per cent longer than road for major freight linehaul segments within Australia in 1994 (BIE 1995b, p. 51).
- *Labour productivity* This was measured in net tonne kilometres per freight employee and average freight revenue per freight employee. While there had been a 46 per cent improvement overall, labour productivity remained well behind best observed international performance. Significant opportunities for improvement remained (BIE 1995b, pp. 56–8).
- *Capital productivity* Australian locomotive, wagon and track productivity improved substantially between 1991–94, due to fleet rationalisation and an increased freight task. Performance gap between Australian systems and the observed world best practice system narrowed significantly (BIE 1995b, pp. 59–67).
- *Standardised operating costs* Australia still needs to reduce its freight operating costs to match achievable world best practice, although improvements were noted among the public sector rail. Corporate overheads was one key area which continued to exceed 1993–94 best practice levels (BIE 1995b, pp. 72–7).
- *Rail freight reform* The most important reforms relate to: streamlining corporate overheads; reducing signalling, control and rolling stock maintenance costs, restructuring rail systems to encourage competition, promoting competitive neutrality, allowing third party access to rail track, adopting commercial pricing policies, price oversight, introducing direct and transparent financial support for community service obligations, and removal of regulations that tie transportation of commodities to rail (BIE 1995b, pp. xvii–xviii).

6.40 Where evidence on performance had been given by witnesses, these referred back to the above BIE indicators in the absence of any other alternatives. It was obvious that the BIE study, dated as it now is, was still an important public attempt at objective assessment of rail freight. Based on the evidence presented in terms of international best practices, the

committee notes that improvements have continued among the various Australian rail systems.

6.41 As part of its submission, NR presented a chart in which its performance was compared with that of major US railroads on a number of performance criteria—based on BIE and a number of other sources—for the first four years of NR's operations. Not surprisingly, NR did better on some criteria, worse on others and was average on the rest (Sub 26, *Submissions* p. 272; *Transcripts*, pp. 70–1). NR commented that the quality of the infrastructure, which played a large part in rail freight efficiency, was an uncontrollable factor for NR since NR did not own or control the track over which it operated its trains. However, NR had recently sealed an agreement with RAC whereby NR will contribute to the upgrade of the infrastructure in parts of NSW so that NR may improve its operations (Subs 26, 26.01, *Submissions* pp. 271, 1512–3).

6.42 The importance of the adequacy of the infrastructure to achieve an efficient and effective rail service has been raised throughout this report. The establishment of the Australian Rail Track Corporation (ARTC) will have implication for national track infrastructure. As the body responsible for the interstate national track, the ARTC will have to ensure its infrastructure is in peak condition otherwise rail operators may challenge the access charges being levied. Perhaps the ARTC could benchmark its infrastructure against international models. It may be useful for ARTC to develop its own performance indicators for monitoring its ability to achieve outcomes.

6.43 It became clear to the committee that BIE's conclusions on the difficulties of developing performance indicators still applied. The complexity of the task, the need to standardise, its time consuming aspects, the difficulties in reaching consensus on terminology, and the need to apply these in a comparative meaningful way to international rail operators and systems made the committee hesitate to recommend that the development of international best practices for rail should be a high priority. The six key findings for rail freight listed by BIE—price, service quality, labour productivity, capital productivity, standardised operating costs, rail freight reform—are still relevant although the benchmark ratings for Australian rail operators and systems may well have changed since 1992–93. It appears more sensible to urge individual rail operators to examine aspects of relevant international rail operations, set their own operational benchmarks and apply these to improve their own operations.

6.44 The committee, however, sees merit in a subsequent parliamentary transport committee reviewing progress made by governments and industry since the BIE's reports of 1992–95.

6.45 Recommendation 16

The committee recommends that the transport committee in the next parliament should review:

- **responses by government and industry to the recommendations in this report**
- **progress in rail performance by government and industry since the Bureau of Industry Economics' reports of 1992–95.**

6.46 In the course of the inquiry, the committee had been told by various witnesses that the following improvements, among others, were desirable for rail: increased reliability, lower costs, improved customer satisfaction, better intermodal connection, extensive upgraded infrastructure, implementation of consistent operating regulations, national safety standards and national accreditation. In addition, some witnesses talked about environmental aspects such as fuel efficiency, exhaust emissions and better use of infrastructure.

6.47 While some of these elements may be accommodated within BIE's categories, others do not sit so comfortably, especially as rail needs to consider its development in the 21st century. Customer satisfaction, operating efficiency, labour and capital productivity and cost containment were still key factors in ensuring that a company operated effectively and efficiently. If any operator did not measure up, its customers would go elsewhere, profits would be affected and the operation may cease to exist. Commercial factors therefore dominate and competition would determine the appropriate performance indicators.

Conclusion

6.48 As has been mentioned elsewhere in this report, rail is reviving in various countries throughout the world. There have been renewed interests and increased investment in rail both in Australia and in other countries. Many of these international investors are interested in Australia's rail operations and appear keen to bid for new projects as well as for the rail operations being privatised. Therefore international comparisons are valid.

6.49 On the eve of the 21st century, the committee is conscious that concerns about the environment and other externalities mean that rail in Australia is being seriously considered as a viable transport option. Australia's rail therefore has to lift its game and perform at international best practice levels. Governments have to consider transport on a national intermodal basis.

6.50 While the committee acknowledges that the BIE's three broad categories of indicators are still relevant and the committee supports their continued use as performance measures, the committee believes the actual benchmark measures themselves are now out of date. Changes in the Australian rail industries over recent years mean that the international models cited may no longer be appropriate.

6.51 Although some witnesses claimed international models are totally inappropriate, the committee does not agree. Instead, the committee believes for instance, that the intermodal system in Switzerland and other parts of Europe should be examined by State passenger rail entities so that they may incorporate appropriate practices. Similarly, the committee is aware that the highest standards for a well run rail has been set by the Pilbara rail operations. The committee supports the view that Australia's rail system would benefit from comparison with other rail operations so Australia's rail industry could constantly improve. After all, that is what some public and private rail systems are doing already.

6.52 However, on the basis of the evidence considered, the committee concedes that to nominate specific models for national benchmarking may mean complex formulae may be required to counterbalance differences in circumstances. It appears more sensible therefore to urge individual rail operators to examine aspects of relevant international rail operations, set their own operational benchmarks, determine their own performance and apply these to improve their own operations.

Paul Neville MP
Chair

