AWB Submission

To

The Productivity Commission Inquiry into Progress in Rail Reform

Executive Summary

- The AWB markets wheat and other grains in Australia and overseas on behalf of 45,000 growers. Australia accounts for approximately 10% of world trade in wheat, making it the fourth largest exporter behind the United States, Canada and the European Union. Export revenue for the AWB is normally in excess of $3.0 billion per annum with a record revenue for 1996/97 year (October 1 - September 30) of $4.7 billion. The AWB annually carries approximately 11 million tonnes of grain on rail, mostly for export. The average rate paid to rail systems is approximately $16/tonne and this equates to annual expenditure of the order of $180 million on rail transport, although in some years this can approach $300 million.

- In real terms, grain haulage rates have fallen dramatically since the mid 1980's and this change has been driven by deregulation of the grain haulage, allowing greater competition between road and rail. The AWB believes greater competition between rail operators will further reduce rail haulage costs. However, the ability to introduce competition between rail operators has been limited by a number of factors including break of gauge between the states and rail access complexities.

- Historically, regulation has been enforced to compel the AWB to use the government owned rail operator in each state to haul grain, creating state based monopolies for rail haulage. Whilst deregulation has occurred and track access regimes developed to allow new operators onto the rail network, the process of change has been slow and the full effects of competition within the rail industry have not yet been experienced.

- Other factors which influence costs include the age of rollingstock utilised in grain transport and track management issues. Some systems use older (up to 40 years old) locomotives for grain haulage. Older locomotives are generally have smaller haulage capacities, are fuel inefficient and costly to maintain.

- Rail operators have highlighted to the AWB problems with track management which include insufficient funding, poor track maintenance work practices and a lack of commercial focus by managers of the rail infrastructure.

Summary of Recommendations

Train Operating Issues

- Encourage new train operators to enter markets for the haulage of grain to develop greater competition for grain haulage.

- Encourage the uptake of newer technology rollingstock to reduce transport costs.

- Improvements to Australia's grain storage and handling system will also reduce costs for rail operators. Initiatives include increasing loading rates at country silos and discharge rates at ports along with the introduction of 24 hour, 7 day/week operation to allow greater utilisation of rail assets.

Rail Access Issues

- Ensure a number of operators are able to access the rail system in each state. If infrastructure is sold with rail operations without reasonable track access arrangements, then a series of state based public monopolies could be replaced with state based private monopolies.

- The proposed National Track Access Authority assumes control for **all interstate movements,** regardless of their origin and destination points. If established in this way, potential train operators will be able to deal with a "one stop shop" rather than be required to submit multiple applications to various State and Federal track access organisations if grain is sourced from a branch line which is not part of the NTAA's intercapital track network.

- In conjunction with developing standard access arrangements, the standardisation of other procedures such as safeworking and locomotive driver accreditation to allow greater resource mobility is recommended.

- Encourage the adoption of contemporary track management practices which recognise the need for commercial management of the rail network to reduce track access costs.

- Encourage the adoption of standard gauge throughout Australia's branchline network to allow greater competition between rail operators and improve rollingstock and train crew utilisation.

Background

AWB

- The AWB markets wheat and other grains in Australia and overseas on behalf of 45,000 growers.

- On average, the Australian crop represents only 3% of world production, but as 80% of nations crop is exported, Australia accounts for approximately 10% of world trade in wheat, making it the fourth largest exporter behind the United States, Canada and the European Union.

- Export revenue for the AWB is normally in excess of $3.0 billion per annum. Export revenue for the 1996/97 year (October 1 - September 30) is expected to be around $4.2 billion.

- The AWB is a statutory marketing authority with Federal and State Government legislation providing it with the sole export licence to market Australian wheat internationally. This arrangement is reviewed regularly and is due for assessment in 1999.

- Whilst not constituted as a grower organisation, the operating principles of the AWB are similar. A restructure of the organisation will formally convert the AWB into a grower owned company in 1999.

AWB and Rail

- Based on 5 year averages, the AWB annually carries approximately 11 million tonnes of grain on rail. Mostly rail is utilised for export grain, although some grain for domestic users are also carried on rail.

- All AWB grain hauled on rail is carried by the respective state based rail systems.

- The average rate paid to rail systems is approximately $16/tonne.

- In an average year, the AWB expects to spend of the order of $180 million on rail transport, although in some years this can approach $300 million.

- In real terms, grain haulage rates have fallen dramatically since the mid 1980's and this change has been driven by deregulation of the grain haulage, allowing greater competition between road and rail.

- Rail still has a strategic advantage over road in export markets, given rail's capacity to move large tonnages in a short timeframe to meet shipping schedules.

- However, the ability to introduce competition between rail operators has been limited by a number of factors including break of gauge between the states and rail access complexities.

- Grain is a significant user of the rail track network. Based on AWB Benchmarking reports and Australian Railways Association data total grain (ie AWB + non AWB) carried on rail accounts for approximately 8.5% of total tonnes hauled by the state based government owned rail systems. To facilitate this task, 60% of the nations track network is utilised.

- Historically, regulation has been enforced to compel the AWB to use the government owned rail operator in each state to haul grain, creating state based monopolies for rail haulage.

- Whilst deregulation has occurred and track access regimes developed to allow new operators onto the rail network, the process of change has been slow and the full effect of competition within the rail industry has not yet been experienced.

1. Effective & Efficient Use of Rail

1.1 Performance of Rail Systems

- In 1994, the AWB conducted a Benchmarking Report which analysed the performance of the Australian Rail Operators over the period 1990/91 to 1992/93 inclusive.

- To prepare for this submission, the AWB requested similar data from the rail systems on their performance during the 1996/97 year.

- Detailed responses were received from Queensland Rail, V/Line Freight and Westrail. FreightCorp supplied limited data as they will be making a detailed submission to this Inquiry. Australian National also submitted a limited response to the AWB, as much of their information base is restricted during its sale process.

- Note that between 1992/93 and 1996/97, the structure of Australian rail operators has changed significantly, with most being corporatised and all (to varying degrees) feeling the impact of National Rail assuming control of interstate freight services. Further, the 1996/97 harvest was a record year, improving efficiency performance indicators.

- Consequently, comparisons between the two data sets cannot be easily made. However, the data does demonstrate significant productivity improvements have taken place in many of the Australian Rail Systems:

    - **Total staff on grain haulage:** 76% and 72% reduction in numbers in Westrail and V/Line Freight respectively (note; this data excludes the impact of contracting out functions such as rollingstock and track maintenance which have taken place since 1992/93).

    - **Shunting staff:** Westrail (97%) and V/Line Freight (45%) recording the largest decreases.

    - **Locomotives used in grain haulage:** 33% reduction by V/Line Freight and 10% reduction by Westrail. Smaller, low powered locomotives (less than 1,000 horsepower) reducing by the largest percentage.

    - **Wagons used in grain haulage:** 11% reduction by Queensland Rail, 10% reduction by Westrail.

1.2 Barriers to Interstate Running

Despite these improvements, there are still areas the AWB believes where efficiency gains can be generated to improve competition between rail operators and encourage a more efficient system for grain haulage.

1.2.1 Break of Gauge

- The use of three different track gauges impairs the movement of rollingstock between (and in some cases within) states. The break of gauge compels each operator to keep wagon and locomotive fleets which are larger than required to cope with an average harvest.

- If all Australian systems shared a common gauge, the capacity for greater rollingstock utilisation would be possible through either interstate haulage of grain (introducing competition between systems), or:

- Alternatively, a common gauge would allow rail operators to share grain wagons between each other depending on local harvest and shipping requirements.

1.2.2 Track Access

- The development of formal track access arrangements is welcomed by the AWB. This initiative will allow greater competition between rail operators (both existing and new) for grain haulage tasks.

- However, the existing track access arrangements are complex in nature and vary between states. This structure compels operators to deal with several different track access bodies to operate a single interstate freight train.

- Whilst the proposed National Track Authority will reduce administrative hurdles in most instances for interstate freight services, it may further exacerbate current difficulties for interstate grain haulage.

- For example, a special purpose parcel of grain needed to be hauled from Warracknabeal in Western Victoria to Port Kembla in New South Wales would currently require an operator to negotiate with the Victorian Rail Track Corporation (Warracknabeal to Albury) and the Rail Access Corporation of New South Wales (Albury to Port Kembla).

- To make the same move under the new National Track Access Authority, an operator could potentially be required to negotiate with three parties:

  - Victorian Rail Track Corporation (Warracknabeal to Murtoa).

  - National Track Authority (Murtoa to Moss Vale, New South Wales).

  - Rail Access Corporation (Moss Vale to Port Kembla).

- On this basis, the AWB recommends that the National Track Access Authority assumes control for **all interstate movements,** regardless of their origin and destination points. If established in this way, potential train operators will be able to deal with a "one stop shop" rather than be required to submit multiple applications to various State and Federal track access organisations.

1.2.3 Operating Arrangements/Procedures

- In conjunction with developing standard access arrangements, the standardisation of other procedures (such as safeworking and locomotive driver accreditation) should also be examined as a means to reduce operator costs.

- Another long term issue which should also be examined is the capacity to develop national standards for rollingstock to allow a wagon which is accredited in one state to operate all over Australia.

1.3 Condition of Assets

1.3.1 Rollingstock

- Whilst limited data has been provided to the Australian Wheat Board, it appears a large portion of rollingstock utilised in grain haulage is beyond its economic life and costly to maintain and operate.

- Westrail and V/Line Freight appear to have relatively modern grain locomotive fleets (average age of 10 - 15 years), the other rail systems largely utilise older locomotives for grain tasks.

- The AWB believes the cost of new locomotives would be more than offset by the efficiencies generated by this investment.

- The oldest grain locomotive fleet appears to be FreightCorp in New South Wales with an average age of around 30 - 35 years. FreightCorp's fleet also includes many low powered units which are maintenance intensive and fuel inefficient compared to contemporary standards.

1.3.2 Locomotives

The inefficiencies of older locomotives are numerous. Some of the problems include:

- **Horsepower -** Many locomotives used in grain traffic are low powered requiring 2 or 3 aged units to perform a task which could be handled by a single modern locomotive. This is particularly a problem within New South Wales where approximately 70 of the '48' class locomotives are used for branchline haulage of grain.

- **Maintenance -** Studies by Travers Morgan for the Bureau of Industry Economics indicates older locomotives are four to five times more costly to operate. These cost inefficiencies are further compounded when large numbers of low powered units are used in the grain task.

- **Fuel Usage -** Until the mid 1970's fuel consumption was not a significant cost item for rail operators. Following the fuel crisis in the 1970's, locomotive manufacturers have concentrated on fuel economy and a new locomotive will be 20% to 30% more fuel efficient than a unit built in the 1960's.

1.3.3 Wagons

- Most wagons used for hauling Australia's grain crop are generally older design, low net tonnage capacity with relatively high tare weight. Consequently, more wagons are required than necessary to haul a parcel of grain than if contemporary high capacity wagons were used.

- The impact of lower net tonnage wagons includes increased rollingstock capital costs (extra locomotives are needed), wagon maintenance and fuel efficiency.

1.3.4 Track

- The average speed for Australian grain trains appears to be of the order of 30 to 40 kilometres/hour and clearly impacts on resource utilisation and the costs paid by the industry. The AWB cannot offer an engineering assessment of track throughout Australia. However, during discussions with rail organisations, reasons cited for these speeds include:

  - Line speeds - some line sections have maximum speeds of only 10 km/h.

  - Axle loadings - Whilst some parts of Western Australia and New South Wales allow axle loads of 24 - 25 tonnes, most of Australia's grain network is restricted to 16 - 19 tonne axle loads. North American systems generally operate between 25 - 30 tonne axle loads - up to 88% better than parts of Australia. Higher axle loads would permit the use of larger, more efficient wagons and locomotives, reducing operating costs.

  - Insufficient funding to lift track speeds to commercially sustainable levels.

  - Poorly managed use of maintenance resources (i.e. what funding is available has been used to fund inefficient track maintenance work practices).

- Track standards - the AWB requires services which are safe, reliable and minimise risk. However, mention was made by several operators that track standards were largely established by people with non commercially oriented backgrounds, i.e. engineering standards are considered in preference to the commercial practice adopted by overseas rail networks.

1.4 Adoption of New Technology

- Australian rail systems have adopted some components of new technology for use in grain haulage. These include:

  - V/Line Freight's Road Transferable Locomotive.
  - "Locotrol" remote locomotive control system and "Simview" computer based logistics tool in Western Australia.
  - In cab computer signalling systems being introduced in Queensland.

- Whilst these initiatives will improve rail costs, the Australian rail industry has largely been conservative in adopting new technology. This could be attributed to a number of long term factors:

  - Limited Government funding:

  - The risk adverse nature of State Government investment policies:

  - The relative political "unattractiveness" of rail freight compared to passenger and other funding portfolios.

- As a general comment, the main problem with most of the assets employed by many of the Australian rail systems (excluding Westrail and to a lesser extent V/Line Freight) is that it is beyond its economic life and costly to operate. If proven technology from the mid 1980's was adopted for Australian grain haulage, freight costs could be expected to fall, given that a significant proportion of the rollingstock is based on 1950's and 1960's technology. In some areas, safeworking systems date back to the early part of the century.

1.5 External Factors Which Impact on Rail Performance

- Two other issues which impact directly on rail's performance and costs are the age and efficiency of Australia's grain handling and storage system and delays to the shipping programme. Both these issues (which are largely beyond the control of rail operators) will require further attention if Australia is to maintain its competitiveness in world grains markets. These issues require industry resolution to ensure logistics costs are minimised.

1.5.1 Grain Storage & Handling

- Most of Australia's grain handling and storage network was established in the first half of this century. Whilst in many cases (especially in Western Australia) this network has been upgraded, there are still a large number of storage sites throughout Australia where wagon loading rates are very slow (between 200 - 300 tonnes per hour) and this impacts on rail capital and operating costs.

- While most rail systems are prepared to operate 24 hours/day, 7 days/week, the same cannot be claimed by all of the storage and handling industry. For example, if rail operators have the capacity to load and discharge grain wagons on a 24 hours/day 7 day/week basis, additional train crewing and rollingstock utilisation efficiencies would be attained.

- The performance of storage operators in the logistics chain will become more critical as Australia's competitors in export markets (especially Argentina) improve their position in the market place following recent upgrades of their grain handling facilities.

1.5.2 Shipping Issues

- Australian rail systems generally aim to accumulate grain cargoes to coincide with the arrivals of a nominated vessel. This practice minimises multiple handling of grain in many instances allows grain to be moved directly to port from the country receival point.

- When a ship fails survey (due to structural or hygiene problems) the resulting disruption to the grain accumulation programme can be costly with accumulated grain congesting terminals, requiring double handling and slowing or stopping the unloading of rail wagons.

2. Private Sector Participation

- The AWB has no experience with private rail operators. This will change over the next 12 months following the recent privatisation of Australian National and planned sale of V/Line Freight and National Rail during 1998.

- The AWB welcomes the privatisation of rail operators, especially if this initiative promotes competition, furthers cost efficiency reforms and improves service and investment in rollingstock and track.

- But to develop competition, a number of operators must be able to access the rail system. If infrastructure is sold with the business without reasonable track access arrangements, then a series of state based public monopolies will be replaced with state based private monopolies.

- Consequently, the AWB recommends any sale of a state based rail operator is structured in a manner that permits a commercially viable access regime which allows competitors use the track network.

- Further, the closure of branchlines by a private operator will push additional tonnage onto the road network, increasing the need for additional Government expenditure in this area. This factor should also be examined as part of any sale process.

3. Access and Utilisation of the Rail Network

3.1 Track Access

- As stated in Section 1.2.2, the AWB welcomes the development of track access regimes to allow greater competition between rail operators.

- However, there is a need for consistency between the States and the Federal Government to allow an operator who is certified to run in one state to also operate across the nation. This initiative would substantially reduce administrative entry barriers which potential operators now face.

- The National Track Access Authority will greatly assist the facilitation of competition on interstate corridors.

- Much of Australia's grain production is adjacent to state owned branchlines.

- Consequently, the development of the National Track Access Authority could add a further administrative layer for train operators who are seeking to run interstate grain trains.

3.2 Management of the Track Network

- Discussions with rail operators indicate reform of track maintenance work practices has not generally taken place to the same degree as the improvements recorded in train operating areas.

- Rail operators also drew attention to the perception that the track network was managed principally on the basis of engineering standards established in the early 1900's rather than adopting a contemporary, commercial focus when setting track speed and safety standards.

- This anecdotal evidence appears to be borne out when the Australia's relatively low axle loads and speed limits are considered.

3.3 Utilisation of the Track Network

- The AWB accepts that the branchline track network is under utilised, especially in drought years.

- However, shortline operators in Canada and the United States along with Tranzrail in New Zealand profitably run trains with similar levels of track utilisation compared to many branchlines in Australia.

- This variance between overseas and Australia could be due to costly inefficiencies in current Australian track maintenance work practices and track management.
- Alternatively, insufficient funding for track upkeep over a long period of time has led to a maintenance debt creating an environment where maintenance

schedules address the worst problems, but ignore an overall co-ordinated approach to maintaining the network.

3.4 Closure of Branchlines

- The AWB believes that the closure of branchlines is an initiative which should be considered very carefully before any action is taken.

- Lines should be closed only where efficient train operations and track management strategies demonstrate the branchlines are still not viable.

- Even in this instance, the financial and social impacts of moving tonnage from the rail network onto the road network should also be considered prior to the line closure.

- If branchlines are closed, additional funding will be necessary to cope with the increased tonnages which will be carried by road transport.

- This funding may be required initially to upgrade roads to handle increased numbers of heavier trucks, as well as on going maintenance costs which will be higher than previous levels. The funding quantum will vary with each individual line closure.

4. Investment And Ownership

Earlier sections of this report have outlined concerns that the current levels of investment in both track and rollingstock are not appropriate for efficient running of trains.

4.1 Impact of Insufficient Investment on Costs

- At an infrastructure level, the lack of investment on track and signals constitute one of the main factors which has resulted in slow track speeds and low axle load capacities.

- The impact of low infrastructure funding levels also effects train operating costs. Slow running trains consisting of lightweight wagons hauled by inefficient aged locomotives are costly to run for a number of factors:

  - longer running times increase the number of wagons and locomotives required for the task than is necessary in an efficient system. These extra resources impact on capital charges, fuel and rollingstock maintenance costs.

  - as train speeds are relatively slow, train crew and train control costs are also higher than necessary.

  - lightweight low capacity wagons have poor net to tare tonne ratios, increasing fuel costs.

  - lightweight locomotives generally have limited haulage capacities and restrict the potential economies of scale of bulk haulage.

  - As a guide a 20% (approximately $3.20/tonne) reduction in rail costs would improve returns for AWB growers by approximately $36 million annually.

5. International Best Practice

- Despite significant reform during the 1990's, Australian rail systems are still short of best observed practice of large North American systems such as Burlington Northern in the United States.

- However, many of the benefits of North American systems relate to the tonnage and distance efficiencies which are not available to Australian rail operators.

- For example, Burlington Northern haul around 38 million tonnes of grain annually, compared to the Australian average of 2.5 million tonnes by each rail system.

- Further, Burlington Northern's average grain haul length is over 1,400 kilometres compared to the Australian average of around 300 kilometres.

- This capacity provides significant scope for investment in rollingstock and track to provide a cost effective service to grain growers in Canada and the United States.

- The North American system also benefits from a universal standard gauge network which allows greater competition between operators and generates economies of scale for the construction of rollingstock and upkeep of track.

6. Conclusions and Recommendations

The recommendations are separated into two sections. Firstly, those components which can improve the efficiency of train operations. Secondly, issues related to rail access and maintenance of the infrastructure which will allow greater competition between rail operators and reduce the costs of managing the track assets.

Train Operating Issues

- Encourage new train operators to enter markets for the haulage of grain to develop greater competition for grain haulage.

- Encourage the uptake of newer technology rollingstock to reduce transport costs.

- Improvements to Australia's grain storage and handling system will also reduce costs for rail operators. Initiatives include increasing loading rates at country silos and discharge rates at ports along with the introduction of 24 hour, 7 day/week operation to allow greater utilisation of rail assets.

Rail Access Issues

- Ensure a number of operators are able to access the rail system in each state. If infrastructure is sold with rail operations without reasonable track access arrangements, then a series of state based public monopolies will be replaced with state based private monopolies.

- The proposed National Track Access Authority assumes control for **all interstate movements,** regardless of their origin and destination points. If established in this way, potential train operators will be able to deal with a "one stop shop" rather than be required to submit multiple applications to various State and Federal track access organisations if grain is sourced from branch line which is not part of the NTAA's intercapital track network.

- In conjunction with developing standard access arrangements, the standardisation of other procedures such as safeworking and locomotive driver accreditation and national rollingstock standards to allow greater resource mobility between states is recommended.

- Encourage the adoption of contemporary track management practices that recognises the need for commercial management of the rail network to reduce track access costs.

- Encourage the adoption of standard gauge throughout Australia's branchline network to allow greater competition between rail operators and improve rollingstock and train crew utilisation.