

AUSTRALIAN ROAD TRANSPORT CHARGES AND TAXES

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ABSTRACT: *This paper examines aspects of current road transport cost recovery policies in Australia, drawing on work undertaken during the Inter-State Commission's Investigation of Cost Recovery Arrangements for Interstate Land Transport (the Report on which was released in 1986).*

The paper begins with a short discussion of Federal Government imposts on road users noting the lack of clear distinction between taxes and road user charges. However, the main focus is on the range of State and Territory Governments' imposts on road users, including vehicle registration charges, business fuel franchise fees, stamp duties, drivers' licence fees and road transport taxes. The factors involved in determining registration charges are analysed, along with the criteria used to classify vehicles for registration. The significance of exemptions from registration charges is also considered. The paper concludes that the differing structures and levels of charges between the States and Territories do not reflect relevant road costs and this discrepancy is exacerbated by the many concessional rates available. Changes in registration arrangements are discussed, with particular reference to the development of charges under the new Federal Interstate Registration Scheme.

Finally, the paper explores some current issues relating to interstate registratin charges, the role of the Inter-State Commission in this area, and the need for an efficient road user charge structure in the context of the development of cost recovery policies in Australia.

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1. INTRODUCTION

This paper examines aspects of current road transport cost recovery policies in Australia, drawing on work undertaken during the Inter-State Commission's 1986 Investigation of Cost Recovery Arrangements for Interstate Land Transport (Inter-State Commission 1986).

The major recommendation in this report related to the setting of registration charges for various classes of road freight and passenger vehicles engaged in interstate trade and commerce. These charges were accepted by government and are now levied under the Federal Interstate Registration Scheme. On 9 January 1987 the Federal Minister for Transport requested the Commission to report by 31 August 1987 on the levels of charges which should be fixed for 1988 under this Scheme.

This paper focusses on the structures and levels of the wide range of Federal, State and Territory governments' imposts on road users and the extent to which they reflect road costs.

Although more recent data are available for some of the figures contained in the Commission's 1986 report and discussed here, these are unlikely to affect the thrust of this paper's arguments. The data are of course being updated for the Commission's current review of vehicle registration charges. Since the Commission reported, some of the factual information has also changed: most noticeably that concerning arrangements for the registration of interstate vehicles.

1.1 Charges and Taxes

Government imposts on road users may be divided into two broad groups:

Charges are payments for the use of roads, being generally unique to road users, the revenue from which may be hypothecated for road expenditure. Examples are the Australian Bicentennial Road Development (ABRD) and Australian Land Transport Program (ALTP) fuel levies (except those falling on non-road users eg. railways) and vehicle registration fees.

Taxes are payments, being similar to those applying in other sectors of the economy, the revenue from which flows to consolidated revenue. Examples include fuel excise duties and stamp duties on registration.

The importance of defining imposts is often noted in the literature. For example, this distinction between taxes and charges was proposed by the National Road Freight Industry Inquiry (NRFII) as one of the following principles for the classification of government imposts paid by road users.

- 1 As far as possible, any one levy should be classified as either a general tax or as a road user charge.
- 2 Yields from those levies classified as road user charges should be hypothecated formally to road expenditure.
- 3 The pay-as-you-go principle should be adopted. Hence for the Commonwealth Government and for each State government (all considered separately) and for each year, the yield from road user charges plus the amount received from inter-governmental transfers earmarked for road expenditure should equal direct expenditure on roads plus the amount of earmarked road funds transferred to other governments.
- 4 Broadly, the charging instruments which have the most direct impact on the amount and nature of road use should be assigned as road user charges, and those with the least direct impact should be classified as general taxes.
- 5 The level of general taxation should be applied similarly to competing modes of transport (NRFII 1984:223).

The significance of classifying imposts is apparent when identifying what revenues are relevant for comparison with costs. The Inter-State Commission, for instance, in its 1986 investigation (and the current review) was directed in the terms of reference as to what funds should be treated as relevant Federal revenues. The issue of what are vehicle costs also needs definition (see ISC 1986:chapter 7).

While it is not intended in this paper to examine the merits of full cost recovery in terms of economic efficiency criteria, it is important to note that the appropriate relationship between prices and costs for the road sector depends on the relationship between prices and costs in related sectors. The presence of substitutes and/or complements for road transport services complicates the problem of determining an efficient (but second-best) structure of charges for road use. Thus, the Inter-State Commission, in its investigation of road cost recovery, was (and is) required to take into account the level of recovery of costs in respect of interstate

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railway services. However, in this paper, it is sufficient to note that in the road sector, prices (charges) should be related to the costs of providing the service (road provision and maintenance) in a systematic (that is, efficient) manner.

2. GOVERNMENT IMPOSTS ON ROAD USERS

2.1 Federal Government

The Federal Government has been involved in funding roadworks since 1922 (ISC 1986:chapter 6). For much of this period there has been no formal linking (or hypothecation) of the revenue derived from road users to expenditure on roads. Table 1 shows for the financial year 1982-83 the total amount of revenue derived from Federal imposts on road users and the total amount of revenue allocated by the Federal Government for expenditure on roads. Based on Bureau of Transport Economics (BTE) definitions (BTE 1985a:7-8), revenues are classified according to whether they are generally unique to road users and according to whether they are hypothecated to road expenditure. Revenue from imposts defined as charges comprised only \$171 million, this being from the ABRD levy. The balance of total revenue, from imposts defined as taxes, amounted to \$2358 million.

It is apparent from this table that in 1982-83 the amount allocated for expenditure on roads was exceeded not only by total revenue derived from Federal government imposts, but also by the revenues collected from imposts directly related to road use (which amounted to \$1236 million, approximately 49 per cent of total revenue collected from activities related to road use). With the introduction in June 1985 of the Australian Land Transport Program, the amount of revenue formally hypothecated under the ABRD and ALTP to road expenditure increased substantially; it was estimated by the BTE that it would amount to \$1213 million for the period 1985-86 (BTE 1985a:9).

The wide gap between Federal road expenditure and the revenue raised by the Federal Government from road users has been the source of much criticism by members of the road haulage industry. In the past the gap has given rise to confusion in many public discussions and studies directly concerned with road and rail cost recovery and investment issues. If a clear distinction is made between taxes and road user charges, under hypothecation revenue equals expenditure, thus eliminating this gap (assuming no use of loan funds for roads expenditure). The equality of total costs and total revenues, however, disguises differences between the costs imposed on the road system and revenues, for various vehicle classes.

TABLE 1 FEDERAL GOVERNMENT REVENUE FROM ROAD USE, BY RECOVERY DEFINITION AND EXPENDITURE ON ROADS, 1982-83

(\$ million)

Revenue/Expenditure	All revenue from activities related to road use	Revenue from charges 'unique' to road users	Revenue hypothecated to road expenditure	Expenditure
Federal imposts ^a				
Fuel excise	1065	1065	..	..
ABRD levy ^b	171	171	171	..
Motor vehicle sales tax	756	..	..	..
Sales tax on motor vehicles, and parts	308	..	..	..
Customs duties on vehicles and parts	229	..	..	..
Total revenue	2529	1236	171	..
Federal expenditure ^c				
Construction	..	..	..	749.2
Maintenance	..	..	..	113.0
Total expenditure	..	..	..	862.2

.. Not applicable.

a. Excludes taxes on petrol production.

b. Australian Land Transport Program (ALTP) not introduced until 1985-86.

c. Excludes expenditure on planning and research.

Source: Inter-State Commission (1986:187).

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Recent studies by the Bureau of Transport Economics (1985c) and the National Road Freight Industry Inquiry (1984), have indicated that the structure and levels of charges imposed by the Federal Government on road users have developed in an ad hoc manner, with variations depending on expenditure needs (for roadworks or general budgetary purposes) rather than on the costs incurred by government on behalf of the various categories of road user groups.

Further to those already noted, the NRFII report made a number of recommendations on cost recovery, hypothecation and methods of road user charging (NRFII 1984:250-253). The hypothecation of Federal road user charges to expenditure on road construction and maintenance, as under ABRD and AITP, suggests that the Federal Government has accepted the NRFII's proposal that a pay-as-you-go approach be adopted as the basis for measuring the annual costs of the road system. However, as noted by the Inter-State Commission (1986:192-3)

... acceptance of the principle of hypothecation ... and the pay-as-you-go approach to the treatment of capital expenditure on roadworks does not guarantee that significant efficiency benefits will accrue to the community from the allocation of resources to, and within, the road supply sector of the economy. Nor does it guarantee an efficient allocation of resources between the road and rail sectors. A great deal depends on the criteria used to determine the size of the road budget, the choice of road projects (including a choice between maintenance and capital expenditure), and the methods of charging adopted.

It is therefore important to emphasise that the achievement of an efficient and equitable cost recovery policy in the land transport sector will be a fairly long-term process, requiring a number of significant changes in road-charging and investment policies.

2.2 State and Territory Governments

The range of State and Territory imposts on road users needs to be examined in some detail because of the implications of present State (and Territory) policies for the adoption, in the medium and longer terms, of an efficient and equitable road cost recovery policy. The level of State charges and taxes effectively places an upper limit on the level of charges able to be set under the Federal Interstate Registration Scheme (as discussed in Section 3.5).

State government imposts on road users are subdivided into the six categories used in Table 2. This table provides a comparison for 1982-83 of the revenue from road users collected by the States, and State-funded road expenditure. As in Table 1, revenues are classified according to whether they are generally unique to road

TABLE 2 STATE GOVERNMENT REVENUE FROM ROAD USE, BY RECOVERY DEFINITION AND EXPENDITURE ON ROADS, 1982-83

(\$ million)

Revenue/Expenditure	All revenue from activities related to road use	Revenue from charges 'unique' to road users	Revenue hypothecated to road expenditure	Expenditure
State imposts				
Business fuel franchise fees	334	334	198	..
Motor vehicle registration fees and taxes	778	778	778	..
Drivers' licence fees	117	117	a	..
Road transport taxes	9	9	a	..
Stamp duties on registration	233	..	..	..
Other	a	a	a	..
Total revenue	1471	1238	976	..
State expenditure ^b				
Construction	..	..	..	598.7
Maintenance	..	..	..	376.2
Total expenditure	..	..	..	974.9

.. Not applicable.

a. Amount appropriate to the definition is not known.

b. Excludes expenditure on planning and research.

Source: Inter-State Commission (1986:195).

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users and according to whether they are hypothecated to road expenditure. State road expenditure amounted to 66 per cent of all revenue from road users, 79 per cent of revenue generally unique to road users and almost equalled revenue hypothecated to road expenditure. Again, it must be noted that such figures conceal, for various vehicle classes, differences in the extent to which revenues reflect costs imposed (as illustrated in Section 3).

The following discussions of the six categories of State government road user imposts is taken almost directly from the Inter-State Commission's report (1986:193-220).

Vehicle registration charges. These are levied in all States where the revenue thus raised is hypothecated to road-related expenditures, and in the Territories where the revenue is paid into consolidated revenue, and the amount allocated to the roads budget is determined each year by government appropriation.

Section 3 of this paper analyses variations in vehicle classification and registration criteria, the principles and policies used to determine registration charges, exemptions and changes in registration arrangements.

Business fuel franchise fees. Since 1979 all States except Queensland have derived revenue from the sale of petrol and diesel fuel. The enabling legislation provides for the imposition of licence fees on wholesalers (and, in particular cases, retailers) of petroleum products. The franchise fees comprise a nominal fixed component and a variable charge, with higher variable charges applying to automotive distillate than to motor spirit in most States (Tasmania being the exception). Major exemptions from payment of these fees apply to non-road users (such as primary producers and railways) as well as in Tasmania, to State government vehicles.

The fees levied as at 31 August 1985 under the various State fuel franchise schemes are shown in Table 3.

Petroleum franchise fees were initially introduced by Victoria, South Australia and Western Australia in 1979 as a response to the loss of revenue created by the abolition of the road maintenance tax. Initially the legislation in these States provided for hypothecation of the revenue raised to expenditure on roadworks. Tasmania enacted similar legislation in 1981 and New South Wales in 1982, although the New South Wales legislation did not provide for hypothecation to road expenditure. In 1982, Victoria repealed that section of its legislation relating to hypothecation and in 1983, South Australia reduced the degree of hypothecation.

The extent to which in 1982-83 the States relied on business fuel franchise fees as a source of general purpose revenue (that is, as taxes) can be determined from Table 2 to be \$136 million.

TABLE 3 STATE BUSINESS FUEL FRANCHISE FEES AS AT
31 AUGUST 1985

(cents per litre)

State	Motor spirit		Automotive distillate
	Leaded	Unleaded	
New South Wales	3.53	3.53	3.57
Victoria	4.23	4.19	6.07
Western Australia	2.17	2.17	3.95
South Australia	2.51	2.51	3.49
Tasmania	3.15	3.15	3.13

Note: Calculation of rates is based on capital city wholesale prices, except in Western Australia, which has fixed fees per litre. Queensland does not levy business fuel franchise fees.

Source: Inter-State Commission (1986:210).

Stamp duty. In each State, stamp duty charges are levied on each transfer of vehicle ownership with the duty generally being related to a vehicle's transfer price. Revenue obtained from such stamp duty is not hypothecated to the road budget. As with stamp duty on other transactions, the objective of such imposts is to raise general revenue. These are taxes rather than charges for expenditure on road programs.

Drivers' licence fees. Such fees are imposed in all States. According to the Bureau of Transport Economics, the revenue derived from such charges '... is not generally hypothecated to road pavement expenditure but seems largely intended to meet the costs of traffic administration such as policing costs, Department of Motor Transport costs, and so on' (BTE 1985b:80). Thus these are charges related to road administration costs, although, in some situations revenue from drivers' licence fees apparently is allocated to roadworks (BTE 1985a:9).

Road transport taxes. Prior to 1980, State governments levied a variety of charges on heavy vehicles, including charges for the purpose of regulating road and rail competition. Most of these charges have since been abandoned. The revenue shown in Table 2 for 1982-83 includes that derived from various licences and permits (for example, passenger licence fees and permits).

Other charges. Among the variety of other imposts applied to road users are parking charges, road and bridge tolls, and number plate fees.

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2.3 Local Government

For the sake of completeness, the involvement of local government may be noted. Local governments impose few charges directly on road users although small amounts of revenue are collected from parking fees and associated charges. Nonetheless, local governments are heavily involved in roadwork expenditure and construction, financed from general budget receipts which include land and property rates, and loans and grants from State and Federal governments.

3. REGISTRATION CHARGES

Table 2 shows that motor vehicle registration charges comprise 53 per cent of all State and Territory government revenue from activities related to road use, and up to 80 per cent of State and Territory government revenue hypothecated to road expenditure. Further analysis of these financially significant charges reveals that the principles and policies adopted in their determination vary between the States and Territories. Differences in vehicle characteristics affect the amounts paid, with heavier vehicles generally paying more. As discussed later in Section 3.4, there are also various users of vehicles who are exempt from paying the full registration fee. Further, until 1 January 1987 (when the new Federal Interstate Registration Scheme commenced) registration charges for vehicles engaged solely in interstate trade and commerce were minimal, ranging from a 'once only' charge of \$10 in Victoria to \$20 per annum in New South Wales. These charges resulted from the High Court decisions in Hughes and Vale Pty Ltd v New South Wales [No.2] (1955) 93 CLR 127 (commonly referred to as Hughes and Vale) and subsequent cases. The implications of these cases are discussed in Chapter 3 of the report of the Inter-State Commission (1986) which deals with the interstate road transport legislation (Interstate Road Transport Act 1985 (Cth) and Interstate Road Transport Charge Act 1985 (Cth)), under which new arrangements now exist for registration of motor vehicles engaged in interstate trade and commerce.

3.1 Vehicle Classification and Registration Criteria

Considerable differences exist in the methods and in the principles employed by the States and Territories in determining the level of registration charges imposed on various vehicle types. This is illustrated in Appendix XII of the report of the Inter-State Commission (1986) which gives details, provided by registration authorities, of annual registration charges applying at 1 February 1986 under each State and Territory registration scheme. The Appendix shows that for each State and Territory the principal determinant of the registration charge paid by a vehicle is either one or a combination of the following vehicle characteristics:

- . gross vehicle mass
- .. unladen mass
- .. power mass units
- .. engine capacity
- .. number of cylinders
- . cylinder diameter
- . the number of seats (for buses).

Table 4 shows which of these factors are relevant to the determination of registration charges in each of the States and Territories. The Table also shows which States and Territories treat prime movers and trailers separately or as a combined unit for charging purposes - a matter which complicates registration arrangements, as recently evidenced in Victoria during the introduction of the new Federal interstate registration scheme.

TABLE 4 FACTORS RELEVANT TO DETERMINATION OF STATE AND TERRITORY REGISTRATION CHARGES FOR HEAVY VEHICLES

Factors	NSW	Vic.	Qld	WA	SA	Tas.	NT	ACT
Tare of unit	Yes	Yes	-	-	Yes	-	-	-
Tare of prime mover	-	-	-	Yes	-	-	Yes	Yes
Tare of trailer	-	-	-	Yes	-	Yes	Yes	Yes
Gross vehicle mass	-	Yes	Yes	-	-	Yes	-	-
Engine capacity	-	-	-	-	-	-	Yes	-
No. of cylinders	-	Yes	-	Yes	-	-	Yes	-
Cylinder diameter	-	Yes	-	Yes	-	-	-	-
No. of seats (bus)	-	-	-	-	-	-	Yes	-
Fixed fee	Yes	Yes	Yes	Yes	Yes	Yes	-	-

Source: Inter-State Commission (1986:199).

In Table 5 the most typical forms of heavy vehicles are identified according to axle configuration, and estimates are provided of the charges imposed on the most common of such vehicles by each of the States and Territories as at 1 February 1986. The vehicle types and axle configurations are those identified in the Review of Road Vehicle Limits 'Mass and Dimensions Survey' (RoRVL 1985). It is apparent from the data in Table 5 that there are a number of significant differences in the registration charges levied by each of the States and Territories for the same vehicle type. The Inter-State Commission (1986:200) noted

The charge for the representative six-axle articulated vehicle, excluding exempt and special categories (for example, farmers' vehicles), ranges from \$2753 per annum in New South Wales to \$1280 per annum in Tasmania, and an

TABLE 5 ESTIMATES OF STATE AND TERRITORY REGISTRATION CHARGES FOR TYPICAL HEAVY VEHICLES, 1 FEBRUARY 1986

Vehicle type	Gross vehicle mass (tonnes)	Number of axles	Registration charge (\$)							
			NSW	Vic.	Qld	WA	SA	Tas.	NT	ACT
Rigid truck	13.9	2	870	600	739	361	366	477	143	606
	20.4	3	1566	1078	1138	1235	850	675	257	1101
	24.0	4	1992	1313	1309	1483	1147	801	226	1464
Articulated truck	22.4	3	1772	1035	886	1166	949	805	198	1347
	28.9	4	2155	1226	1114	1408	1147	1062	244	1667
	35.4	5	2582	1583	1380	1809	1444	1280	258	1997
	38.4	6	2753	1679	1456	1913	1543	1280	376	2157
Bus	13.9	2	912	379	568	342	267	135	144	556
	17.4	3	1330	541	720	486	432	135	180	860
	26.0	3	1367	557	1062	501	432	135	225	876

Note: Values of parameters used for estimating vehicle charges are detailed in Table 10.6 of Inter-State Commission (1986).

Source: Inter-State Commission (1986:201).

estimated \$376 per annum in the Northern Territory. Similarly, for a five-axle articulated vehicle the highest charge is imposed by New South Wales, \$2582 per annum; the lowest State charge is imposed by Tasmania, \$1280 per annum. The Northern Territory charge is \$258 per annum.

Using the then most recent available estimates of average annual distance travelled by each truck type, the Commission also estimated registration charges on the basis of cents per kilometre. Table 6 presents the results, which also show wide variations in charges by vehicle type. To quote the Inter-State Commission (1986:203), 'in Queensland a two-axle rigid vehicle with an estimated equivalent standard axle load (ESAL) of 0.334 pays a charge of 3.8 cents per kilometre, while a six-axle articulated vehicle with an estimated ESAL of 2.124 pays 1.6 cents per kilometre'.

3.2 Road Damage Costs

In Chapter 8 of its report, the Inter-State Commission (1986) accepted that the extent of road damage caused by a vehicle as it passes along part of the road network depends upon several factors, including the quality of the road, the load carried by the vehicle, and the vehicle axle configuration. It was also noted by the Commission that 'the best available engineering evidence suggests that charges designed to reflect pavement damage caused by a vehicle should be related to the vehicle's axle load, as expressed in terms of ESALs' (ISC 1986:203).

The Commission concluded

The differences in State and Territory vehicle registration formulae, and consequent variations in the level of charges imposed by the States and Territories for each vehicle type, and variations in relativities, all suggest that road damage costs caused by each vehicle type are not the basis upon which vehicle registration charges are determined. In its analysis of the charges depicted in [Table 5], the Commission was unable to find any relationship between registration charges and ESALs and ESAL-kilometres. [Table 6] also provides some evidence of the failure of registration charges, expressed in terms of cents per kilometre, to reflect in a systematic manner the differences in ESALs for each vehicle type (ISC 1986:203).

3.3 Reasons for Variation

To quote the Inter-State Commission (1986:203-4)

In broad terms, the rationale for the differences in the choice of formulae for determining registration charges, and for the money values assigned to the various components of the charge, is likely to be found in

TABLE 6 ESALS AND REGISTRATION CHARGES BY TRUCK TYPE

Truck type	Average ESALS per vehicle	Registration charge (cents per kilometre) ^a								
		NSW	Vic.	Qld	WA	SA	Tas.	NT	ACT	Australia ^b
Rigid										
2 axies	0.334	4.4	3.6	3.8	2.0	2.8	3.3	0.8	2.6	3.6
3 axies	1.228	5.8	3.8	4.1	4.1	3.3	2.0	1.3	2.0	4.2
4 axies	1.930	4.8	2.6	4.5	3.8	5.0	1.5	0.6	2.3	3.9
Articulated										
3 axies)		5.2	2.8	2.8	2.7	3.3	1.8	0.5	2.3	3.5
4 axies)	1.619	6.3	3.3	3.6	3.3	4.0	2.5	0.7	2.9	4.2
5 axies	2.362	4.7	3.1	2.9	3.2	2.3	1.7	0.7	2.5	3.3
6 axies	2.124	3.1	1.9	1.6	2.2	1.7	1.9	0.6	1.8	2.3

a. Calculated as follows: charge per vehicle divided by average annual vehicle kilometres travelled.

b. Weighted average.

Source: Inter-State Commission (1986:205).

history, politics, the funding received by the States from the Federal Government, State revenue requirements, concepts of equity and, for some States, administrative simplicity.

Section 10.4 of the Inter-State Commission's report (1986) presents relevant evidence. The Queensland Main Roads Department stated that the aim of a 1976 review of Queensland's registration fees included:

- .. To establish a simplified fee structure which was to be equitable and easy to administer.
- .. To simplify identification of vehicle class so that detailed vehicle specifications would not be required, and specialist officers would not be required for determination.
- .. To enable quick service to the public (whether at Head Office or country centres).
- .. To raise overall an annual revenue at least equivalent to that before the review.

The Northern Territory Government stated that

Our registration costs in the Northern Territory for heavy vehicles with Northern Territory registration really are set by government policy, and that government policy is directed towards, in its perception, the minimisation of transport costs, and one of those ways of doing that is to keep the fees payable on registration as low as possible. So it is a political decision in that sense.

The above discussion of State and Territory registration charges takes no account of the limitations of fixed charge arrangements for recovering road damage costs in an economically efficient manner. As discussed by the NRPII (1984:232-40) and the BTE (1985c:111) and noted by the Inter-State Commission (1986:206), a superior charging system would take into account both axle weight and distance travelled. The Commission also recognised that 'registration charges can, if related to elasticities of demand, perform a function in the efficient recovery of the non-attributable (or joint) costs of road supply' (ISC 1986:206).

3.4 Exemptions

In considering principles and policies adopted in the determination of vehicle registration charges it is important to note the range of exemptions (or concessions) offered to various classes of vehicle owners. These include farmers, prospectors, pensioners, government departments, crocodile hunters, charitable organisations, religious organisations, beekeepers, stock transporters, and numerous others.

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Only in the case of Queensland was the Inter-State Commission able to determine the value of all these exemptions. The Queensland Main Roads Department (1985:43) reported in its annual report for 1984-85 that

A total of 172 421 vehicles, or 9.1 per cent of the total vehicle population, have a reduced rate of registration and the motor vehicle fee written off, totalling \$28 189 661, represents 15.4 per cent of the total debit for collection of motor vehicle fees only.

The effect of concessional registration for heavy vehicles can be seen by reference to the exemptions granted to farmers. The extent of these exemptions which vary according to State and Territory Regulations is shown in Table 7, for each of the truck classes. The amount paid by farmers receiving concessions is shown, with the amounts in parentheses being the charges paid by owners of non-exempt vehicles (from Table 5).

In commenting on this, the Inter-State Commission (1986:216-7) stated

Such concessions are based on equity or political considerations, or both. Once again, this focusses attention on the complex nature of the problem of achieving reform in cost recovery policies. The amounts involved are small, but probably not an insignificant part of revenue collections from State vehicle registrations. In Queensland, for example, concessions granted to farmers amounted to \$13.142 million in 1984-85, representing approximately 7 per cent of State vehicle registration revenues. In that State, the owner of a typical four-axle rigid truck pays the annual registration charge of \$1309, but if a farmer owns the truck the charge is \$36. For a typical six-axle articulated vehicle, the charge is normally \$1456, but if the truck is owned by a farmer the charge is \$59.

Although no reference was made to concessional registration arrangements for farmers, the National Road Freight Industry Inquiry (1984:243) noted the existence of exemptions for other vehicles (such as those used by Telecom) and recommended that these should no longer apply.

3.5 Changes in Registration Arrangements

From the above description and analysis, it is apparent that vehicle registration charges for various heavy vehicle classes do not reflect, in even an approximate manner, the costs which a particular vehicle type imposes on the road system. It has also been noted in Section 3.3 that registration charges are an economically less efficient method for the recovery of road costs. The NRFII (1984:246) thus suggested that governments take a longer view and,

TABLE 7 ESTIMATES OF STATE AND TERRITORY REGISTRATION CHARGES FOR TYPICAL TRUCKS OWNED BY PRIMARY PRODUCERS, 1 FEBRUARY 1986

Truck type	Gross vehicle mass (tonnes)	Number of axles	Registration charge (\$)							
			NSW	Vic.	Qld	WA	SA	Tas.	NT	ACT
Rigid	13.9	2	507 (870)	124 (600)	36 (739)	188 (361)	185 (366)	294 (477)	71 (143)	303 (606)
	20.4	3	855 (1566)	124 (1078)	36 (1138)	625 (1235)	427 (850)	413 (675)	128 (257)	551 (1101)
	24.0	4	1068 (1992)	124 (1313)	36 (1309)	749 (1483)	575 (1147)	488 (801)	113 (226)	732 (1464)
Articulated	22.4	3	975 (1772)	124 (1035)	59 (886)	595 (1166)	476 (949)	515 (805)	99 (198)	674 (1347)
	28.9	4	1167 (2155)	124 (1226)	59 (1114)	1408 (1408)	575 (1147)	669 (1062)	122 (244)	834 (1667)
	35.4	5	1380 (2582)	124 (1583)	59 (1380)	1809 (1809)	724 (1444)	801 (1280)	129 (258)	999 (1997)
	38.4	6	1466 (2753)	124 (1679)	59 (1456)	1913 (1913)	773 (1543)	801 (1280)	188 (376)	1079 (2157)

Notes: Values of parameters used for estimating vehicle charges are detailed in Table 10.6 of Inter-State Commission (1986). Amounts in parentheses are charges paid by owners of non-exempt vehicles.

Source: Inter-State Commission (1986:218).

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as the final stage in the implementation of a vehicle charging system, recommended that

ATAC establish a revised method for the recovery of road costs, designed to make the charge for an individual truck match more closely the road costs incurred as a result of the actual distance travelled by that particular truck.

In the medium term, however, the NRFII (1984:244) recommended that governments make the following changes to improve the existing vehicle registration arrangements:

- .. adopt a uniform system of vehicle classification for the purpose of levying vehicle registration fees
- .. standardise vehicle registration fees across the States (in the interests of tax neutrality)
- .. adjust the vehicle registration fees for interstate-licensed trucks to the (uniform) levels then applying in all States
- .. abolish the permit fees presently levied by some States on out-of-state vehicles seeking interstate work.

No action has been taken on the first two of these recommendations, but the fourth has been implemented. The third has been partially achieved through the Federal Interstate Registration Scheme. As noted earlier, this scheme sets registration charges for vehicles engaged solely in interstate trade and commerce, with the level of charges being those recommended by the Inter-State Commission (1986:397). Under the scheme, registration charges for each vehicle class can be paid either on the basis of actual annual distance travelled, or as a flat annual charge (based on an assumed average annual distance travelled).

In determining the level of registration charges, the Inter-State Commission (1986:chapter 15) took account of various factors. One factor considered in detail was the implication of cost recovery levels for interstate rail services. Others included constitutional, administrative and practical concerns. Thus, for instance, because any interstate vehicle could be registered under appropriate State or Territory legislation, the upper limit to any interstate registration charge is the registration charges set by the States and Territories. This constraint was also noted by the NRFII (1984:244).

Also, for constitutional reasons, and as required by s. 5(3) of the Interstate Road Transport Charge Act 1985, the charge for vehicles engaged solely in interstate travel must be related to road 'maintenance and upkeep'. Thus, annual registration charges need to

be determined by relevant technical factors, load carried and distance travelled, as these affect road damage. Although considerable averaging is involved, the current structure and level of charges do take some account of this requirement.

Proposals for uniformity of registration charges between those for interstate registered vehicles and those applying under State and Territory schemes demand further comment. It must be stressed again, that from the standpoint of economic efficiency, uniform registration charges may not meet efficiency criteria. For instance, in the context of vehicles solely engaged in interstate trade and commerce and generally travelling longer distances (and causing greater road damage) on an annual basis (ISC 1986:338), economically efficient charge levels would, ceteris paribus, be higher than for the same vehicles operating over shorter distances within States and Territories.

In this context, the Inter-State Commission (1986:209) stated:

... in drawing attention to the arguments advanced in the [NRFII] report regarding uniform registration charges, it should be stressed that such charges, combined with hypothecated diesel and petrol imposts, would result in a less efficient allocation of resources than would result from a variable charge determined by those factors which reflect road damage (for example, axle loads, axle configuration, and distance travelled). The medium-term objective proposed in the [NRFII] report is justified largely on pragmatic grounds. This is in contrast with the long-term proposals set forth in that report.

Finally, it should be recalled that the existing structure and level of State and Territory registration charges vary greatly, and these differences are exacerbated by the various exemptions. Thus, as concluded by the Inter-State Commission, it is '... not possible to devise a set of charges which reflects road user costs and which at the same time is also consistent with the structures of the charges levied by the States and Territories' (ISC 1986:221). What is needed in the long-term is a charging structure which will be uniform across Australia, with non-uniform levels of charges which reflect road costs in a economically efficient manner.

4. SOME CURRENT ISSUES

4.1 The Federal Interstate Registration Scheme

This new Scheme addresses the long-standing anomaly between vehicles registered within States or Territories and those registered under interstate arrangements, by bringing the latter's financial contribution for the use of roads more in line with the former's. The extent to which the Scheme adequately addresses the issue given

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that the range of State and Territory charges is (generally) higher, is currently being reviewed by the Inter-State Commission.

Regardless of its limitations, the Scheme, however, has not been viewed within the industry as a cost recovery measure. Rather, because it comprises part of the Fast Track Package and has been promoted as such, the perception (especially of owner-drivers) has been that the Scheme is the 'cost' component of the Package to 'pay for' the 'benefits' of the package (higher speed limits, graduated driver licences, removal of out-of-state fees, insurance reforms and Trade Practice legislation amendments). The partial and slow progress in some areas to date of implementing the 'benefits' has only reinforced this image. This is despite the fact that moneys collected under the Scheme are used for roads expenditure, and should properly be viewed as road user charges.

This raises the matter of how moneys so collected are allocated to the States and Territories. The Interstate Road Transport Act 1985 requires the Federal Minister to ensure as far as possible that the allocation of funds reflects the distribution of damage to roads by motor vehicles and trailers registered under the Act. The statistical basis for the Minister's determination (of 2 April 1987) on these matters is data relating to tonne-kilometres performed by vehicles in interstate trade (obtained from the 1985 Survey of Motor Vehicle Usage). An associated issue is whether this takes into account variations between States and Territories in the new vehicle mass limits. Under the present simple vehicle classification and relatively low registration charges, this is probably insignificant. However, current developments in the States and Territories could have a bearing on the long-term development of a more complex charging scheme which more closely reflects differences in vehicle, load and travel characteristics.

4.2 The Role of the Inter-State Commission and Cost Recovery Arrangements in Land Transport

The Inter-State Commission's current review of registration charges is proceeding under almost identical Terms of Reference to those leading to its 1986 report on land transport cost recovery. The level of registration charges recommended by the Commission has attracted considerable comment. However, it needs to be stressed again, that the Commission did not derive its recommended level of charges by a strictly quantitative method; rather it made judgements influenced by the constraints referred to in Section 3.5.

Given that the Inter-State Commission is currently undertaking its Review, it is not appropriate to be too specific at this stage. However, as an indication of the complexity of cost recovery issues, two matters may be noted. First, it has been suggested that the rail cost recovery figures used by the Commission for comparison with road, are too high. However, it must be stressed that the Commission

compared intersystem rail cost recovery with road cost recovery for interstate road vehicles (ISC 1986:chapter 14). Thus the Commission calculated cost recovery for that part of the total government rail network which is, it may be argued, the most efficient area of rail operations.

Second, it has been argued that the registration charges for the vehicle classes are unrelated to the Commission's estimates of damage costs they impose on roads. In response to this, the constraints already mentioned may be raised again. It was because of these that the Inter-State Commission insisted that its recommended vehicle registration charges 'must be seen as a first step in the process towards full cost recovery for interstate road and rail modes' (ISC 1986:389).

The Commission stated that

It is important to distinguish between what can be achieved in the longer term and what needs to be done now in order to begin the task of eventually achieving full cost recovery in both road and rail transport modes, as currently reflected in Federal government policy. The ultimate goal is a set of charges which fully reflect road damage costs by vehicle class, regardless of whether such damage is caused in interstate or intrastate transport. A number of steps must be taken to enable this goal to be achieved (ISC 1986:388).

The Commission's review is obviously the next step in this process.

4.3 The Development of Cost Recovery Policies

Although it must be noted that, from an economic point of view, full cost recovery may not be efficient, it is still desirable to pursue economically efficient charging arrangements as part of the development of cost recovery policies in Australia. Such a charging structure would be uniform in the sense that it would apply to all vehicles whether or not solely engaged in interstate trade, and would include a fairly large vehicle charge component. The levels of charges paid would vary, however, depending on those factors which affect road damage and other costs. Thus vehicles with heavier loads and travelling longer distances would generally pay more than other vehicles of the same class with lighter loads or travelling shorter distances. Such a structure is likely to be associated with the final step in a staged development of cost recovery policies affecting all levels of government.

The significance of cost recovery policies is currently being highlighted in the aftermath of the December 1986 Australian Transport Advisory Council decision on vehicle mass limits. In causing road transport operators to seriously examine whether they really want (or need) the higher vehicle limits if they have to pay

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higher charges, the decision has increased debate on road user charge issues and on broader cost recovery matters. This has involved considerable lobbying by the road transport industry, with an unusually strong display of co-operation between industry organisations.

At the same time, calls for changes to charging arrangements continue to be made by private motorists' organisations. Although in this paper explicit attention has not been directed at road user charging for cars and station wagons (and utilities, panel vans and motorcycles), they would obviously be part of any efficient charging arrangements. A major problem at present is the very large taxation burden falling on private motorists through fuel excise payments which, if treated as revenue for cost recovery purposes (as tends to be perceived by motorists), results in cars and station wagons recovering much more than the costs they impose on the road system (ISC 1986:chapter 12). This highlights the need for clear identification of road charges and taxes.

Another matter relevant to the development of an efficient charging structure, and which has attracted little public discussion, is the existence of exemptions from, and concessions in, road user charges. In particular, there appears to be a need for a detailed assessment of exemptions and concessions to determine their extent and significance.

It is recognised that the range of issues raised in this paper covers only part of the debate on road cost recovery. Even so, these matters are becoming increasingly important in government and transport industry policy deliberations - as is evidenced by the conference theme of 'Transport - Who Pays?'. Continuing research, policy development and practical implementation of more economically efficient road user charging arrangements would provide valuable long-term benefits for the development of more efficient cost recovery arrangements in Australia.

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