



Research Paper  
No. 6 2000–01

## Petrol and Diesel Excises

ISSN 1328-7478

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Published by the Department of the Parliamentary Library, 2000

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## Petrol and Diesel Excises

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3 October 2000

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## Major Issues

Excises are taxes the Commonwealth government imposes on goods made in Australia. Consumers bear petrol and diesel excises in the prices of goods and services they buy, and as end users in the form of private motoring costs.

Petrol and diesel excise rates are indexed twice a year to movements in the consumer price index to maintain their real value. But it is not clear why the rates are indexed when other taxes are not indexed. Personal income tax rates, for example, are not indexed to prevent movement into higher marginal tax brackets as a result of inflation. The rise in petrol prices relative to prices of other goods and services in the past year or so has led to calls to cut excise or stop indexation. But indexation does not increase, but merely maintains, excise rates at the same level in real terms. And to maintain the integrity of the Budget, the Government would have to raise other taxes to offset the revenue loss or reduce outlays.

Petrol and diesel excises are levied for a variety of reasons. The primary reason is to raise revenue; in 2000–01, they are projected to raise almost \$13 billion. By comparison, the goods and services tax is expected to raise around \$24 billion in 2000–01. Excises are levied on petrol and diesel because demand for these fuels does not change much when prices rise and because they are relatively easy to administer. On the other hand, as taxes on inputs used in producing goods and services, petrol and diesel excises can reduce living standards by moving resources from industries that use these fuels relatively intensively. The reductions in excise under A New Tax System will reduce these effects. Moreover, petrol and diesel excises are regressive in that people on low incomes pay a higher proportion of their incomes in the form of excise than people on high incomes, given the same level of fuel use.

A second reason for levying petrol and diesel excises is to recover from road users the costs they impose on society, such as wear and tear on pavements and air pollution. Petrol and diesel excises are a proxy cost recovery charge in that the total amount of excise a road user pays through fuel consumption is related to road use. But the excises are an inefficient mechanism for cost recovery because the amount of excise a user pays does not vary directly with the social costs of road use. In practice, cost recovery considerations seem to play little role in the determination of petrol and diesel excise rates.

Heavy trucks are responsible for most damage to roads, and charges are imposed on owners of heavy vehicles in an attempt to recover the cost of damage. The charges have two components. State governments impose a fixed annual registration charge. This

charge is deficient in that it does not vary with distance travelled and hence damage to road pavements. The second component of the charges is a notional amount of the diesel excise. The appropriateness of attributing part of the diesel fuel excise towards road use charges depends on whether the diesel fuel excise is seen as a general revenue tax or as a tax to raise revenue for a specific purpose, e.g. to fund spending on roads. If the excise is the former, it could be argued that a cost recovery charge additional to the diesel fuel excise should apply to road freight.

A feature of road transport is that no explicit levies are imposed on road users to reduce negative externalities, that is, the unpriced costs of road transport such as traffic congestion, road accidents, and noise and air pollution. Petrol and diesel excises could serve as proxy charges for externalities, although setting rates that reflect the cost of externalities would be difficult. In practice, the levels of the excises do not seem to be designed to take account of externalities. Indeed, two activities may use the same amount of diesel and so be equally polluting yet pay different amounts of excise because one activity is eligible for a rebate of excise paid under the Diesel Fuel Rebate Scheme but the other is not.

In the period 1926 to 1959 and again in 1982, all or part of the revenue raised by petrol and diesel excises was hypothecated (earmarked) to fund expenditure on roads. For example, when first introduced in 1957, revenue from diesel excise was hypothecated to road funding. Hypothecation arrangements have effectively been discontinued. But the impression remains that the level of Commonwealth spending on roads is linked to the revenue from petrol and diesel excises. In fact, Commonwealth spending on roads is considerably less than excise revenue. Moreover, successive Commonwealth governments have seen petrol and diesel excises as a source of general revenue available for spending for general government purposes and not just for roads. Arguments for reinstating hypothecation are questionable especially when viewed in an overall budgetary context.

The piecemeal nature of the taxation of petrol and diesel is perhaps most evident in the Diesel Fuel Rebate Scheme (DFRS), which offsets the cost of excise on diesel to some users. The Scheme's rationale is unclear. Its main purpose seems to be to subsidise selected industries, especially the agricultural and mining industries. As such, the DFRS is inconsistent with the concept of a 'level playing field' as it discriminates among Australian industries and even among activities within those industries.

The ANTS (A New Tax System) package has changed arrangements for petrol and diesel excises. The main changes are:

- reductions in the rates of excise from 1 July 2000 and the imposition of the goods and services tax on petrol and diesel
- extension of a full rebate under the DFRS to existing eligible activities (e.g. agriculture, fishing and forestry) which previously received only a partial rebate



- extension of a full rebate under the DFRS to additional activities, notably rail transport and marine use
- extension of the DFRS to include 'like fuels', and
- an end to the 'safety net' arrangements, whereby the Commonwealth returned to the States the revenue from the additional excise the Commonwealth levied on petrol and diesel in place of State business franchise fees, which the High Court ruled unconstitutional.

Petrol was not heavily taxed in Australia at the beginning of 2000 compared to other OECD countries; only three (Canada, New Zealand and the United States) of eight other OECD countries had a lower proportion of taxes in regular unleaded petrol prices.



## Introduction

The taxation of petrol and diesel, especially the excises on these fuels, has long attracted criticism and controversy. The rise in petrol prices over the past year or so has intensified debate over the role of the excises, and has led to calls on the Government to reduce the excises or abolish indexation of excise rates to movements in the consumer price index. Debate revolves around issues such as:

- why the excises are levied
- the rates
- the indexation of rates to inflation
- who should pay the excises and who should be exempt, and
- the purposes to which excise revenue should be allocated.

This paper seeks to cast light on these and related issues by reviewing how existing arrangements have evolved. It draws on and updates earlier published papers on fuel excises prepared by Mr Denis James for the Department of the Parliamentary Library.<sup>1</sup>

## What is Excise?

In Australia, an excise is a tax on the production of goods made domestically. Most excises have been specific, that is, levied at a particular amount per quantity, e.g. cents per litre.<sup>2</sup> Customs duty is levied on comparable imports so that imports and domestic goods are taxed at the same rates.

## Who Pays Excise?

Under Section 54 of *Excise Act 1901*, responsibility for paying excise falls on the manufacturer of excisable goods—the 'legal' incidence. The oil refining companies which incur the excises pass them on to buyers of refined products. Businesses use a considerable proportion of petrol and diesel fuels that are bought, so excise becomes built into the prices of goods and services that consumers buy—the 'economic' incidence. Consumers also bear the excises directly as end users of fuels in the form of private motoring costs.

## Why is Excise Levied?

Petrol and diesel excises are levied primarily to raise revenue. A second reason is to recover from road users the costs they impose on society. And, historically, revenue from excise was at times hypothecated to fund expenditure on roads. Hypothecation is the earmarking of the revenue from a particular tax for spending on a particular purpose.

## Revenue

The most obvious and main reason petrol and diesel excises are levied is to raise revenue. Before Federation, customs and excise duties were the main source of revenue for the colonies. On Federation, power to collect customs and excise duties was ceded to the Commonwealth under section 90 of the Constitution. Sections 99 and 51(ii) of the Constitution require that duties be levied uniformly, that is, rates of duty cannot differ among or within States. There have been customs duties on petrol since Federation, and excise on petrol since 1929 when the first oil refineries were established in Australia. Diesel excise was introduced for on-road use in 1957.

Petrol and diesel excises account for a considerable amount of Commonwealth revenue. In 2000–01, they are projected to raise around \$13 billion (Table 1).<sup>3</sup> By comparison, the Commonwealth expects to provide around \$24 billion GST revenue to the States and Territories in 2000–01.<sup>4</sup>

**Table 1: Petrol and Diesel Fuel Excise Revenue (\$ million)**

Year	Petrol	Diesel	Total
1991–92	na	na	7 110
1992–93	4 465	2 646	7 111
1993–94 est	5 245	3 199	8 444
1994–95	na	na	9 243
1995–96	6 155	3 921	10 076
1996–97	na	na	10 639
1997–98	na	na	*12 842
1998–99	na	na	*13 485
1999–00 est	na	na	*13 717
2000–01 est	na	na	*12 796

\* Includes revenue replacement payments. na: not available. est: estimated

Sources: *Taxation Statistics 1997–98*, p. 117. Budget Paper No. 1 (various) and Budget Paper No. 3, 1998–99 and 2000–01.

## **Indexation**

The Hawke Government introduced indexation of petrol and diesel excise rates in the 22 August 1983 Budget because inflation was eroding the 'real' value of the rates.<sup>5</sup> Rates are indexed to the consumer price index (CPI) at the beginning of each February and August. The amount of the indexation increase is determined by the percentage increase in the 'all groups' CPI over the previous six months. For example, the February 2000 indexation increase was calculated by dividing the December quarter 1999 CPI by the June quarter 1999 CPI. The percentage increase is rounded to one decimal place (e.g. 1.5 per cent) and then applied to the excise rate, which is expressed in dollar terms (per litre) to five decimal places.<sup>6</sup>

It is not clear why the rates are indexed when other taxes are not indexed. Personal income tax rates, for example, are not indexed to prevent movement into higher marginal tax brackets as a result of inflation.

With the exception of the changes in petrol and diesel excises that form part of ANTS (A New Tax System), all changes to petrol and diesel excises since August 1994 have reflected six monthly indexation only (Table 2).

The rise in petrol prices relative to prices of other goods and services has led to calls to cut excise or stop indexation. But it should be noted that indexation does not increase, but merely maintains, the same rate levels in real terms. And to maintain the integrity of the Budget, the Government would have to reduce outlays or raise other taxes to offset the revenue loss.

**Table 2: Rates of Excise on Petrol and Diesel (cents per litre)**

<b>Date implemented</b>	<b>Unleaded petrol</b>	<b>Leaded petrol</b>	<b>Diesel</b>
2 February 1994	30.750	31.750	30.750
1 August 1994	32.088	34.099	32.088
1 February 1995	32.537	34.576	32.537
1 August 1995	33.513	35.613	33.513
1 February 1996	34.183	36.325	34.183
1 August 1996	34.559	36.725	34.559
3 February 1997	34.697	36.872	34.697
6 August 1997*	42.797	44.972	42.797
1 February 1998	No change	No change	No change
1 August 1998	43.054	45.242	43.054
1 February 1999	43.355	45.559	43.355
2 August 1999	43.485	45.696	43.485
1 February 2000	44.137	46.381	44.137
1 July 2000**	37.481	39.725	37.481
1 August 2000	38.118	40.400	38.118

\* Includes 8.1 cents per litre added on behalf of the States under 'safety net' arrangements.

\*\*Rates reduced as part of ANTS.

### **Differentiation Between Leaded and Unleaded Petrol**

Differentiation between the rates of excise on unleaded and leaded petrol was implemented on 2 February 1994 when the rates for unleaded and leaded petrol were set at 30.75 cents and 31.75 cents respectively (Table 2). An additional cent was added to the excise on leaded petrol on 1 August 1994. Differentiation was implemented to discourage the use of leaded petrol.

### **Cost Recovery**

A second reason for levying petrol and diesel excises is to recover from road users the costs they impose on society when using roads.<sup>7</sup> Economic theory suggests that road users should bear the full cost to society of their journeys. Social cost includes private costs and 'external' costs (see discussion of 'externalities' below). Private costs are the resources an individual uses when engaging in an activity, such as a journey by car, and which the individual normally bears. Examples of private costs are petrol consumed and wear on tyres and mechanical components.

Economic theory also suggests that users should pay other costs associated with their use of roads such as wear and tear on pavements and environmental pollution. But, in practice, cost recovery considerations seem to play little role in the determination of petrol and diesel excise rates.<sup>8</sup>

### **Road Use Charges**

With the exceptions of road tolls and heavy vehicle road use charges,<sup>9</sup> road users do not pay *directly* for their use of roads. In the absence of direct road use charges, petrol and diesel excises are a proxy for the cost of road use, in that the total amount of excise a user pays through fuel consumption is related to distance travelled and vehicle weight.<sup>10</sup> But excises are an inefficient means of cost recovery in that the amount of excise a user pays does not vary directly with the social cost of using a specific road.

Heavy trucks are responsible for most damage to roads, and charges are imposed on owners of heavy vehicles in an attempt to recover the cost of damage. State governments impose a fixed annual registration charge. This charge is deficient in that it does not vary with distance travelled and hence damage to road pavements. Nor does the charge address the cost of externalities associated with road use.<sup>11</sup>

The second component of heavy vehicle road charges is a 'notional' part of the diesel excise; that is, this amount is not earmarked for road construction and maintenance. The charge has a legislative basis. Schedule 1 of the *National Road Transport Commission Act 1991* defines 'road use charge' as:

... a charge equal to the part of the diesel fuel tax levied by the Commonwealth for the use of a Vehicle on a road being the part fixed by the National [Road Transport] Commission from time to time, in accordance with this Agreement.

The appropriateness of attributing part of the diesel fuel excise towards road use charges depends on whether the excise is seen as a general revenue-raising tax or as a specific revenue-raising tax; that is, as a tax to raise revenue for a specific purpose such as spending on roads. If the former, it could be argued that a cost recovery charge additional to the diesel fuel excise should apply to road freight, that is, road freight is now undercharged. If, on the other hand, the excise is a specific tax, the rail industry should not have to pay excise since the industry is not a road user. As the Productivity Commission noted:

If the excise is considered to be a general-purpose tax, heavy vehicle charges will require adjustment. Alternatively, if it were considered to be a road usage charge (that is, a specific-purpose tax), the excise would apply only to road users and heavy vehicles would attract a rate of 18 cents a litre.<sup>12</sup>

The National Road Transport Commission (NRTC), which is responsible for recommending the level of the charges, has proposed that the notional charge rise from 18 to 20 cents.<sup>13</sup>

## Externalities

In principle, users should bear the external costs—or externalities—that result from their use of roads. Externalities arise when an individual engages in an activity that has spillover effects on other members of society. Examples of 'negative', non-financial externalities are traffic noise, air pollution and congestion. A feature of such externalities is that the individual does not compensate those adversely affected by the activity. The cost of transport externalities is considerable. The Bureau of Transport Economics estimates that traffic congestion in major Australian cities alone costs in the order of \$12.8 billion yearly.<sup>14</sup>

A feature of road transport is that no explicit levies are imposed on road users to reduce negative externalities. One way of reducing externalities is to levy taxes, such as petrol and diesel excises, to increase the cost of road use, and thus lower use and externalities. But setting rates to recover the cost of externalities is difficult. And excises are an inefficient means of reducing externalities because they are not directly related to the cost of externalities. Certainly, the levels of the excises do not seem to be designed to take account of externalities.<sup>15</sup>

## Road Funding and Hypothecation

Over the period 1926 to 1959, the revenue from petrol excise was formally hypothecated for Commonwealth roads grants to the States. It is often argued that all or more of the revenue that the Federal (and State) governments raise by way of taxes and charges on motorists should be returned to motorists as increased spending on roads. In particular, it is argued that some or all revenue from petrol and diesel excises should be hypothecated for spending on roads. For example, the Australian Automobile Association has noted that it:

... continues to express the serious concern of the motoring public over the 'decoupling' of motorists' taxes from government spending on roads and transport facilities. Increasingly, motorists are a general target for taxation—receiving little in return for what they pay.<sup>16</sup>

Such arguments usually have two separate but related elements. The first is the level of spending on roads. The House of Representatives Standing Committee on Communications, Transport and Microeconomic Reform in its 1997 report, *Planning not Patching*, addressed the level of Federal spending on roads.<sup>17</sup> This issue is not discussed here.



The second element is how road expenditure should be financed. As noted, during the period 1926 to 1959, the Commonwealth hypothecated petrol excise to fund road grants to the States. In 1957, the Commonwealth introduced excise for diesel used on-road to remedy the anomaly of taxing petrol but not diesel. Revenue from diesel excise was used to fund road construction and maintenance.<sup>18</sup> Hypothecation of petrol and diesel excises was discontinued in 1959 partly on the grounds that the practice of designating the proceeds of a tax to a particular purpose was deemed to be unsound from a public finance policy perspective. Rather, receipts should be paid into a common fund from which expenditures can be made for purposes deemed desirable.<sup>19</sup> During the period 1959 to 1982, petrol and diesel excises were seen as a general revenue measure with rates raised to meet budgetary needs.

In 1982, the Fraser Government imposed a surcharge on petrol and diesel excises to provide grants to the States for road construction under the *Australian Bicentennial Road Development Trust Fund Act 1982* (ABRD Act). The *Australian Land Transport (Financial Assistance) Act 1985* (ALT Act) continued hypothecation. But unlike the ABRD Act, the ALT Act hypothecated a proportion of existing excise rather than imposing additional excise. The *Australian Land Transport Development Act 1988* (ALTD Act)—which replaced the ABRD and ALT Acts—still contains provision for hypothecation. But the Department of Transport and Regional Development discontinued the practice of hypothecating a proportion of fuel excise to roads partly because hypothecation had no effect on funding levels.<sup>20</sup>

Even though hypothecation has been discontinued, the impression remains that the level of Commonwealth spending on roads is linked to revenue from petrol and diesel excises. In fact, Commonwealth spending on roads is considerably less than revenue (Table 3).

**Table 3: Excise Revenue and Commonwealth Road-Related Expenditure (\$ million)**

	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99 est
Petroleum products excise*	5 222	5 650	5 686	6 704	7 440	8 054	8 325	8 535	8 662
Road-related expenditure	1 596	1 720	2 177	1 552	1 536	1 602	1 623	1 636	1 712

\* Estimated excise attributable to motor vehicles using public roads.

Source: Bureau of Transport Economics, 'Public Road-related Expenditure and Revenue in Australia', Information Sheet 13, 1999.

Moreover, the Government sees petrol and diesel excises as sources of general revenue. The Minister for Transport and Regional Services, the Hon. J. Anderson, has stated:

While on the question of changes to petrol and diesel taxes, it is important to point out that the Federal Government does not consider diesel fuel excise to be a road user charge. Fuel taxes and the revenue they generate have no correlation to the amount of funds provided whether to the states or nationally for roads. Fuel excise today is a source of general revenue just like income and other taxes.<sup>21</sup>

Similarly the Department of Finance and Administration sees diesel excise as:

... principally a revenue raising measure and the tax receipts are paid into the Consolidated Revenue Fund.<sup>22</sup>

And Treasury has observed:

The excise that we collect on petrol is, in effect, a general revenue measure. It vastly exceeds the amount of money that the Commonwealth wants to fund on roads.<sup>23</sup>

While the view that petrol and diesel excises are general revenue taxes seems to cut across the legislative attribution of a notional part of the diesel fuel excise as a component of heavy vehicle road charges, it seems clear that petrol and diesel excises are a source of general revenue that can be spent on a range of purposes.

Arguments for reinstating hypothecation of excises are questionable. The level of Commonwealth spending on roads or for any other purpose is determined in the overall budgetary context, and roads have to compete with other funding priorities such as health and education. Moreover, spending decisions are generally not related to the question of how revenue is raised. Further, it would be rare if the amount of revenue raised by a particular tax were to equal the desired level of expenditure for which the revenue was earmarked. Finally, hypothecation is generally not a feature of road funding in other countries. For example, European OECD countries levy a range of vehicle taxes, road use fees, tolls and fuel taxes, but they are aimed largely at recovering the cost of road use and raising revenue.<sup>24</sup>

## **Diesel Fuel Rebate Scheme**

The Federal Government has three fuel consumption subsidy schemes: the Diesel Fuel Rebate Scheme (DFRS); the Diesel and Alternative Fuels Grants Scheme; and the Fuel Sales Grants Scheme. Only the DFRS specifically offsets the cost of excise on diesel.

## **Legislative Authority**

Legislative authority for the DFRS is contained in section 78A of the *Excise Act 1901*, section 164 of the *Customs Act 1901*, and the regulations under those Acts.

## Eligible Activities

From 1 July 2000, the use of diesel—and like fuels—in the following activities is eligible for rebate subject to certain exemptions:

- mining operations (use of any vehicle on a public road is not eligible)
- primary production, being forestry, agriculture and fishing (use of a road vehicle on a public road is not eligible)
- at residential premises to generate electricity in the provision of normal domestic services
- at hospitals, nursing homes, homes for the aged and any other institution providing medical or nursing care
- rail transport (otherwise than for the purpose of propelling a road vehicle on a public road) in the course of carrying on an enterprise, and
- marine transport (otherwise than for the purpose of propelling a road vehicle on a public road) in the course of carrying on an enterprise.<sup>25</sup>

## Rates of Rebate

Rebate rates are adjusted to take account of movements in the CPI. The amount of rebate paid is based on an average of the rates applying in the six months before the claim for rebate is lodged.<sup>26</sup> The rate of rebate depends on the applicant's activity. For example, the rates which applied in July 2000 for diesel—and like fuels paying the same excise rate as diesel fuel—were:

- \$0.35694 per litre for agricultural, fishing, forestry, rail and marine industries
- \$0.33306 per litre for mining operations, and
- \$0.27177 per litre for residential activities and other categories of eligibility.

There seems to be little logic to the rebate rates. They discriminate among activities and different industries, favouring some industries over others.

## Rebate Gap

Before the August 1983 Budget, claimants received a full rebate of excise paid. The 1983 Budget increased diesel excise but left the rebate amount unchanged at 7.155 cents per litre. Consequently, users who had received a full rebate began to pay the difference of

1.872 cents per litre between the excise and the rebate. The gap had risen to 2.388 cents per litre early in 1986. In response to pressure from farm industries, the Government agreed to remove the gap for primary production and to index the rebate from February 1986. The mining industry, however, continued to pay the 2.388 cents per litre gap. ANTS extends a full rebate to activities previously receiving only a part rebate.

## Cost of the Diesel Fuel Rebate Scheme

Expenditure under the DFRS is shown in Table 4.

**Table 4: Diesel Fuel Rebate Scheme Payments (\$ million)**

<b>Year</b>	<b>Agriculture</b>	<b>Mining</b>	<b>Other</b>	<b>Total</b>
1994–95	408.5	709.1	135.9	1 253.5
1995–96	420.9	754.5	139.5	1 314.9
1996–97	539.4	892.3	155.9	1 587.6
1997–98	496.9	772.6	138.4	1 407.9
1998–99	504.9	804.8	146.8	1 456.5
1999–00 est	na	na	na	1 560.0
2000–01 est	na	na	na	1 991.6

na: not available. est: estimated

Sources: *Taxation Statistics 1997–98* and Treasury Portfolio Budget Statement 2000–01, p. 170.

## Rationale

As noted, diesel fuel excise was introduced in 1957 and the revenue hypothecated for road construction and maintenance. Because the excise was directed at road users, the Exemption Certificate Scheme was introduced for diesel used off-road. However, the ending of hypothecation in 1959 undermined the Exemption Certificate Scheme's purpose.

The Exemption Certificate Scheme was widely abused. To halt the abuses, the Fraser Government, in the 1982 Budget, announced that the exemption would be abolished and a rebate paid in its place. The rebate would be paid in respect of off-road use by the agricultural, mining, fishing and forestry industries, nursing homes, hospitals and aged persons homes. Off-road domestic use was also made subject to rebate.

The Government did not state clearly what the rebate's purpose was. Moreover, the *Diesel Fuel Taxes Amendment Act 1982* that contained these decisions also brought a number of off-road activities—notably railways, coastal shipping, manufacturing and other activities—into the excise net. While the extension of excise to other transport modes may

have been justified on 'competitive neutrality' grounds,<sup>27</sup> the extension of the excise to include some off-road activities further confused the scheme's purpose. ANTS added another layer of confusion by reversing the former position of rail transport and marine use by including them as activities eligible for rebate.

The situation now is that as the Australian National Audit Office observed:

... expenditure on DFRS is approaching \$1 billion p.a., yet the policy objectives which it serves have never been clearly stated.<sup>28</sup>

In particular, the concept that off-road use is eligible for rebate and on-road use is not, is no longer applicable:

... that nexus was broken quite a long time ago. It [the DFRS] is an activity based scheme, and the legislation sets out those activities that are eligible and those that are ineligible.<sup>29</sup>

Aside from payments such as the use of diesel on residential premises and by hospitals, the DFRS has assumed the characteristics of an industry subsidy scheme. The agricultural and mining industries are the main beneficiaries (Table 4). In this respect, it is noteworthy that the Department of Finance and Administration, since February 2000, has treated reporting of the DFRS as a subsidy; previously, the Department netted DFRS payments against excise duty revenue.<sup>30</sup>

## **Changes to Excise under A New Tax System**

ANTS has changed arrangements for petrol and diesel excises. The main changes are:

- reductions in the rates of excise from 1 July 2000 (Table 2) and implementation of the goods and services tax (GST)
- extension of a full rebate under the DFRS to existing eligible activities (e.g. agriculture, fishing and forestry), which previously received only a partial rebate
- extension of a full rebate under the DFRS to additional activities, notably rail transport and marine use
- extension of the DFRS to include 'like fuels' (e.g. fuel oils which attract a lower rate of excise than diesel), and
- an end to the 'safety net' arrangements.

The Government also introduced the Diesel and Alternative Fuels Grants Scheme (DAFGS) and the Fuel Sales Grants Scheme (FSGS). The DAFGS subsidises the use of diesel and alternative fuels in certain on-road transport in regional areas.<sup>31</sup> The

Government has proposed replacing the DAFGS and the DFRS with a single energy credits scheme. The FSGS provides a petrol consumption subsidy of one or two cents a litre in regional areas depending on location.

To offset the effect of the GST on petrol prices, the Government announced on 22 June 2000 that it would reduce excise by around 6.7 cents per litre.<sup>32</sup> The Government also claimed that tax reform would result in estimated cost savings at refineries of 1.5 cents a litre, bringing the total fall in petrol prices to 8.2 cents before the addition of the GST. But the Australian Automobile Association claims that, at best, it will take five years for the refining industry to realise the savings, and that the savings will not be available to all petrol importers, and that by the end of 2000, cost savings from ANTS will be only 0.4 cents per litre.<sup>33</sup> This is evidence that, at the then prevailing prices, the reduction in excise was not enough to offset the GST.

The GST and the indexation of excises will interact. The GST will cause the price *level* to rise, and the rise in the CPI will reflect both inflation and the effect of the GST on the price level. The indexation of the excises to the CPI will in turn generate additional revenue.

#### Safety Net Arrangements and Revenue Replacement Payments

The States and Territories—except Queensland—used to levy business franchise fees on petrol. On 5 August 1997, the High Court ruling on tobacco franchise fees in New South Wales (*Ha and Lim v. New South Wales and Walter Hammond & Associates Pty Ltd v. New South Wales*) cast doubt on the constitutional validity of all State business franchise fees. On 6 August 1997, the Commonwealth announced 'safety net' arrangements whereby the Commonwealth would increase the rates of customs and excise duty on petroleum products (and tobacco and alcoholic beverages) and return the revenue (less administrative costs) to the States as 'revenue replacement payments'.

With all GST revenue going to the States under the terms of the *Intergovernmental Agreement on the Reform of Commonwealth-State Financial Relations*, revenue replacement payments ceased from 1 July 2000 (except for a small payment that will be made in 2000–01 due to a lag in collections).

### **Efficiency and Equity**

Efficiency, equity and administrative simplicity are the criteria by which taxes are usually judged. Petrol and diesel excises are relatively economically efficient. Efficiency in this context refers to the extent to which taxes are 'neutral' in their effects on decisions to work, save and invest. While all taxes are inefficient to some degree, taxes on fuel, alcohol and tobacco are relatively efficient because demand for these goods does not change much as

prices change.<sup>34</sup> Not surprisingly, taxes on such goods are seen mainly as revenue-raising taxes.

Petrol and diesel excises are taxes on business inputs as well as on final use. Economic theory suggests that taxes on intermediate inputs can reduce output and living standards. Industries that use petrol and diesel relatively intensively incur higher input costs, thus increasing their relative prices and causing resources to move out of those industries.<sup>35</sup> The reductions in excise in ANTS will reduce these distortions in that the economic incidence of the GST falls on consumption and is not a tax on inputs.

As noted, the DFRS has the characteristics of an industry subsidy scheme. Subsidising selected industries distorts resource use towards the favoured industries at the expense of other industries, resulting in a loss of aggregate economic output. Moreover, the DFRS even discriminates among activities within an industry. For example, in the forestry category, fuel used in milling timber is eligible but fuel used after that point in the production process is not. It is clear that the DFRS is far from consistent with the concept of a 'level playing field' among and even within Australian industries.

Petrol and diesel excises have been criticised on equity grounds. The excises are regressive in that people on low incomes pay a higher proportion of their incomes in the form of excise than people on high incomes, given the same fuel use.<sup>36</sup> Regarding ease of administration, the excises are relatively easy to administer because of the small number of crude oil refining companies operating in Australia.

## **International Comparisons of Taxation Levels**

Petrol is not heavily taxed in Australia compared to other OECD countries. At the beginning of 2000, only three of eight other OECD countries had a lower proportion of taxes in regular unleaded petrol prices (Table 5). In the case of diesel used for commercial purposes, of eleven other OECD countries, five had a higher and six had a lower percentage of taxes in diesel prices.<sup>37</sup>

**Table 5: Percentage of Taxes in Regular Unleaded Petrol Prices**

<b>Country</b>	<b>Percent</b>
Australia	53.4
Canada	43.0
Denmark	68.5
Germany	72.2
Hungary	63.1
Japan	56.9
Luxembourg	58.5
New Zealand	47.1
United States	27.3

Source: International Energy Agency, 'Energy Prices and Taxes', first quarter 2000, p. 302.

## **Conclusions**

The main reason excises are levied on petrol and diesel is to raise revenue. Excise is levied on these fuels partly because consumption of these fuels is relatively unresponsive to changes in excise rates.<sup>38</sup> Excises are also relatively easy to administer. It is also clear that excise revenue is available for general government purposes; arguments that excise revenue should be hypothecated for spending on roads are questionable from an economic efficiency and from budgetary perspectives.

The excises also have negative features. As taxes on inputs, petrol and diesel excises are likely to reduce output and living standards. The cuts to excise in ANTS will reduce these effects. And even the lower excise rates are likely to be regressive in their effect on income distribution.

The indexation of excises has come under attack as petrol prices have risen. But indexation does not increase, but merely maintains, excise at the same level in real terms. But it is not clear why indexation is applied selectively, as in the case of excise, across the taxation system. For example, to prevent taxpayers moving into higher tax brackets, a case can be made that personal income tax scales should also be adjusted for inflation. Failure to index these scales means that taxpayers are taxed on both the 'real' and inflation components of income increases.

Petrol and diesel excises could potentially be used more to serve purposes other than raising revenue. In particular, if implemented in conjunction with other measures directly aimed at improving the environment—for example, 'economic instruments' such as pollution taxes, tradeable permits, and subsidies to encourage desirable activities—petrol and diesel excises could contribute to reducing externalities. But as it is, two activities



may use the same amount of diesel and so be equally polluting, yet face different effective rates of excise when the rebates under the DFRS (and the grants under the DAFGS) are taken into account.

The piecemeal nature of the taxation of petrol and diesel is perhaps most evident in the DFRS, which seems to serve no clear purpose other than to subsidise selected industries. The scheme discriminates not only among industries but even within industries. The result is that activities, which are not eligible for rebate under the scheme, must bear its cost for no obvious economic reason.

## Endnotes

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1. Denis James, 'Revenue before Rhetoric: A Critique of Fuel Taxation in Australia', *Current Issues Brief* no. 50, Department of the Parliamentary Library, 1994–95, and "Beer and Cigs Up!": A Recent History of Excise in Australia', *Background Paper* no. 5, 1995–96.
2. Historically, some excises were *ad valorem*, that is, levied as a percentage of the value of production.
3. Includes \$217.4 million of revenue replacement payments, which will be paid in 2000–01 to the States and Territories.
4. Budget Paper No. 3, 2000–01, p. 21.
5. The Budget also contained discretionary increases in excise rates.
6. In the event of a negative movement in the CPI over the previous six months, the excise rates remain unchanged. The next indexation amount is then calculated not on the previous six-month movement in the CPI but on the previous 12-month movement, that is, from the time the last indexation increase was made. If that movement is also negative, the next indexation calculation would be made on the previous 18-month movement in the CPI etc.
7. From this perspective, petrol and diesel excises are better thought of as a charge and not as a tax. A charge is a fee for the provision of a service whereas in the case of a tax, no service is provided directly in return. Taxes are levied over and above charges.
8. D. James "Beer and Cigs Up!": A Recent history of Excise in Australia', *op. cit.*, pp. 4–6.
9. For a discussion of these charges, see R. Webb, 'Cost Recovery in Road and Rail Transport', *Research Paper* no. 28, Department of the Parliamentary Library, 1999–2000.
10. The Australian Automobile Association advocates that petrol excise be divided into a road user charge component and a general revenue component, with the former allocated to road investment. See Lauchlan McIntosh, 'Charging for Road Use', *CEDA Bulletin*, October 1998, pp. 61–2.
11. Productivity Commission, *Progress in Rail Reform*, Inquiry Report no. 6, 5 August 1999, p. 250.
12. Productivity Commission, *Progress in Rail Reform*, Draft Report, March 1999, p. 210.

13. National Road Transport Commission, *Updating Heavy Vehicle Charges Draft Policy Paper*, August 1998.
14. Bureau of Transport Economics, 'Urban Transport—Looking Ahead', Information Sheet 14, 1999.
15. Productivity Commission, *Progress in Rail Reform*, Draft Report, op. cit., p. 209.
16. Australian Automobile Association, *Motoring Directions*, Winter 1995, issue 3, volume 1, page 7.
17. House of Representatives, Standing Committee on Communications, Transport and Microeconomic Reform, *Planning not Patching*, October 1997.
18. D. James "Beer and Cigs Up!": A Recent history of Excise in Australia', op. cit., p. 5.
19. *ibid.*
20. The amount of Federal road funding has been less than the amount notionally hypothecated under the ALTD Act. As a result, the hypothecation provision is redundant. See House of Representatives, Standing Committee on Communications, Transport and Microeconomic Reform, *Planning not Patching*, op. cit., paragraph 4.98, p. 64.
21. Commonwealth Minister for Transport and Regional Services. Address to the Road Transport Forum Annual Convention, 'Transport Beyond 2000', 1 May 1999.
22. Quoted in Productivity Commission, *Progress in Rail Reform*, Draft Report, op. cit., p. 208.
23. Quoted in Bureau of Transport and Communications Economics, 'Taxes and Charges in Australian Transport: A Transmodal Overview', Working Paper 34, October 1997, p. 16.
24. OECD, *Liberalisation and Structural Reform in the Freight Transport Sector in Europe*, OECD, Paris, 1997.
25. See Australian Taxation Office:  
[http://www.ato.gov.au/content.asp?doc=/content/Individuals/rebate\\_dieselfuel.html](http://www.ato.gov.au/content.asp?doc=/content/Individuals/rebate_dieselfuel.html)
26. The averaging provisions smooth changes to the rebate rates and discourage claimants from delaying claims for lodgement with the intention of making windfall profits. See *ibid.*
27. Competitive neutrality exists when different transport modes operate under similar or consistent investment, taxation, charging and regulatory frameworks.
28. Auditor-General, 'Australian Customs Service—Diesel Fuel rebate Scheme', Audit Report no. 27, 1990–91, p. 23.
29. Senate Rural and Regional Affairs and Transport Legislation Committee, Report on the Consideration of a Bill Referred to the Committee, *Sun Fund Bill 1997*, December 1997, p. 3.
30. See Department of Finance and Administration, 'Monthly Financial Statement March 2000'  
[http://www.dofa.gov.au/pubs/Quarterly\\_fin\\_state/mfs\\_march\\_2000.pdf](http://www.dofa.gov.au/pubs/Quarterly_fin_state/mfs_march_2000.pdf)
31. For details, see Australian Taxation Office:  
[http://www.ato.gov.au/content.asp?doc=/content/Individuals/fuels.htm&page=5#What\\_diesel](http://www.ato.gov.au/content.asp?doc=/content/Individuals/fuels.htm&page=5#What_diesel)

32. 'Petrol and Diesel Excise Reduction and Fuel Sales Grants Scheme'. Joint press release by the Acting Treasurer and the Deputy Prime Minister, 22 June 2000.
33. Australian Automobile Association, 'Petrol Prices to Rise as Result of the GST', press release, 23 June 2000, and 'AAA Puts Plan to Government to Protect Motorists from GST rise', 29 June 2000.
34. In economists' jargon, demand for these goods is price inelastic.
35. For a fuller analysis of the effects of taxes on inputs, see D. James, 'Revenue before Rhetoric: A Critique of Fuel Taxation in Australia', *op. cit.*
36. D. James "Beer and Cigs Up!": A Recent history of Excise in Australia', *op. cit.*, p. 15.
37. International Energy Agency, 'Energy Prices and Taxes', quarterly statistics, first quarter, 2000, p. 299.
38. The absence of changes in consumption to increases in rates may reflect the fact that the increases, usually only indexation for inflation, do not change the 'real' level of the rates.