Chapter Five

Demand side responses

5.1 Demand side responses to reduce oil dependence have two main strands:

- increasing the fuel-efficiency of vehicles;
- reducing the demand for fossil-fuelled transport (or at least, restraining its growth). Under this heading, the main ideas mentioned in submissions were encouraging more use of railways for long-distance freight; encouraging walking, cycling and public transport in cities; and promoting urban planning policies that reduce the need to travel long distances.

5.2 Demand side responses can also serve other goals, such as controlling urban congestion and pollution, and reducing greenhouse gas emissions.

Increasing the fuel efficiency of vehicles

5.3 Since 1979 the fuel efficiency of light vehicle engines has increased significantly - from about 5 to 4 litres per 100km per vehicle tonne. However the efficiency of the light vehicle fleet has improved more slowly, as consumers have moved to larger, more powerful cars. In the latest figures by the Bureau of Transport and Regional Economics, the National Average Fuel Consumption (NAFC) of new passenger cars in 2001 was 8.28 litres/100km.[1]

5.4 The Federated Chamber of Automotive Industries has a voluntary code of practice which calls for a NAFC target for new passengers cars of 6.8 litres/100km by 2010.[2] The Australian Automobile Association commented that 'achievement of this target will depend on a range of factors including the implementation of existing technology and the quality and availability of fuel to meet advanced engine and emission technologies.'[3] It will also depend on consumers' choices about the size of vehicles.

5.5 It is of course possible to allow the market to choose the fuel economy of vehicles having regard to the price of fuel. This has been the practice to date. There is evidence that the higher petrol prices of the last 18 months have turned consumers towards smaller cars.[4]

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1 BTRE information sheet 18, *Fuel consumption by new passenger vehicles in Australia*, 2001. Australian Automobile Association, *Submission 151,* p.10.

2 FCAI, *Voluntary Code of Practice - Reducing the Fuel Consumption of New Light Vehicles*, 15 April 2003.

3 Australian Automobile Association, *Submission 151*, p.10

4 Federated Chamber of Automotive Industries, *Small cars drive half yearly motor vehicle sales,* media release 5 July 2006.

5.6 As a matter of policy government should encourage more fuel efficiency than the market will provide, by mandating fuel efficiency standards; by incentives to favour smaller or more efficient cars (for example, by adjusting registration charges); or by raising the fuel excise as an environmental measure. This would have the added benefit of securing vehicle manufacturing jobs in Australia.[5]

5.7 Upgrading the national car fleet would be facilitated by government mandating the use of fuel efficient and hybrid vehicles in the government car fleet, which traditionally feeds into the taxi and second-hand car market.

5.8 Any proposal to increase fuel excise as an environmental measure would have to consider the distributional effects. People in the outer suburbs of cities and in rural and regional areas would be most affected. These people spend a relatively high proportion of their income on transport already, and for most purposes have no public transport alternatives. Positive measures to provide more alternatives to the use of cars would probably be more politically acceptable.

More use of rail for long distance freight

5.9 Many submissions argued for more use of railways for long distance freight. Trains use about one third the fuel of trucks per net tonne kilometre.[6]

5.10 At present road and rail have about equal shares of Australia's total freight transport task in tonne/kilometres (35% and 37% respectively, with 28% sea and 1% air). However the vast majority of the rail task (86%) is transporting bulk commodities such as coal and ore. Road performs about 75% of the non-bulk freight task. It is suggested that only about 15-20% of total freight is 'contestable' - realistically open to competition between road and rail.[7] This is primarily non-bulk freight over longer distances on the main intercity routes. The advantage of rail increases with distance, as the lower line haul cost begins to outweigh the cost of transhipping at the journey's

5 'In another blow for the troubled domestic car industry, one of Australia's largest car rental networks [Europcar] has opted to phase out most of the locally made six cylinder vehicles in its fleet in favour of more fuel-efficient imports.' Australian Financial Review, 1 September 2006, p.11

6 Rail 0.0085, road 0.0265 litres per net tonne kilometre: Bureau of Transport Economics, *Competitive Neutrality Between Road and Rail*, working paper 40, 1999, p59. Figures are for non-bulk freight on an 'average' interstate corridor, and allow for typical load factors. Fuel efficiency of both road and rail has probably increased since then.

7 A larger proportion of freight would be on routes where rail service could theoretically be provided, but would not be viable because of the overwhelming natural advantages of road service on those routes.

beginning and end. The rail share of land freight on these routes ranges from 10-15% (Sydney-Melbourne) to 70-80% (eastern states-Perth).[8]

5.11 The Bureau of Transport and Regional Economics (BTRE) expects that on present trends, assuming no significant change in infrastructure, the long term decline in rail's mode share will continue on most routes. However if there was significant improvement to rail infrastructure the result might be different.[9]

5.12 This situation has arisen partly because of the competitive advantage of road in speed and reliability (qualities which have become more important in the age of 'just in time' logistics); partly because of a history of poor rail management by former public authority owners; and partly because of past government policies to invest heavily in improving roads and comparatively little in improving railways.

5.13 Commonwealth policy recognises that the rail system has been underfunded in the past and has the potential to increase its share of the freight task if there are improvements to infrastructure and modernisation of operating practices.[10] The Commonwealth has committed $2.4 billion to rail improvements over the 5 years to 2008-9, mostly for the Melbourne-Sydney-Brisbane corridor.[11] In the longer term, Auslink 'corridor strategies' promise a balanced assessment of the road and rail infrastructure needs of key corridors for the sake of the most efficient overall outcome.

5.14 The Australian Trucking Association supports the need for investment in railways, but is concerned that the road freight industry should not 'have imposts put on our business simply to make rail more competitive.'[12]

Comment

5.15 Fuel efficiency or possible oil depletion do not figure particularly in the 2004 Auslink White Paper. The Auslink policies and first five year program are based on goals of general economic efficiency, considering the predicted strong growth of

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8 Department of Transport and Regional Services, *Auslink White Paper*, 2004, p.3. Australasian Railway Association, *Australian Rail Industry Report 2003,* p.9. Mr S. St Clair (Australian Trucking Association), *Proof Committee Hansard* 12 May 2006, p.85. Bureau of Transport and Regional Economics, *Freight between Australian Cities, 1972 to 2001*, information sheet 22. BTRE, *Freight Measurement and Modelling in Australia*, report 112, 2006, p.xxiii.

9 BTRE, *Freight Measurement and Modelling in Australia*, report 112, 2006, p.xxiii.

10 Department of Transport and Regional Services, *Auslink White Paper*, June 2004, p.62

11 This is a combination of grants under Auslink funding programs; direct grants to the Australian Rail Track Corporation, which controls the main interstate routes; and the ARTC's own investment (the ARTC is Commonwealth owned).

12 Mr S. St Clair (Australian Trucking Association), *Proof Committee Hansard* 12 May 2006, p.85.

freight transport over the next 20 years.[13] However it may be expected that if there is a long term rise in the price of fuel, this will favour rail because fuel is a greater proportion of costs for road transport. This may suggest a need to increase the pace of catchup investment in rail infrastructure.

Encouraging walking, cycling and public transport in cities

5.16 Many submissions argued for increased use of walking, cycling and public transport in cities, as a way of reducing transport fuel use, or at least restraining its growth.

5.17 In Australian cities typically 75-90% of all trips are by car, 5-10% by public transport, and the rest by cycling or walking.[14] In the last 20 years public transport use has increased slowly, broadly in line with population growth, but public transport use as a proportion of all trips has been flat or declining slightly as car use increases faster.[15] A major reason for this is that as cities have grown outwards a greater proportion of people live in fringe areas that require more travel and are poorly designed for public transport.

5.18 Some increase in public transport use in the last year has been reported, presumably as a result of petrol price rises. However such increases are mostly quite small in percentage terms. Another line of reporting stresses that most motorists have no alternative but to use their cars.

5.19 Ambitious goals for increasing the public transport mode share are commonly seen in official plans.[16] In some cities there has been significant investment in this: for example, Perth has electrified and extended its suburban rail network over the last 15 years, leading to a three-fold increase in use. The goals of these policies seem to be to control congestion and pollution, to give people more transport options, and to improve the mobility of people without cars. Reducing oil dependency would be an additional benefit.

5.20 Submissions regretted that the Commonwealth refuses to be involved in improving urban public transport infrastructure. They pointed out that in many other

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13 The 2004 Auslink White Paper in one line flags the possible issue of 'depletion of fossil fuel supplies before alternative energy sources are developed' (p115), but makes no further comment.

14 The public transport share is usually somewhat higher in peak hours, and for travel to Central Business Districts.

15 Australasian Railway Association, pers. comm. August 2006 based on research in progress.

16 For example, there are official goals to increase the public transport mode share from 7% to 10.5% in South East Queensland by 2011 *(Transport 2007);* from 9% to 20% of motorised trips (thus about 15% of all trips) in Melbourne by 2020 *(Melbourne 2030)*; to reduce car-as-driver trips in Perth by one third by 2029 (*Perth Metropolitan Transport Strategy 1995-2029*); to increase the proportion of peak hour commuting by public transport (*A New Direction for NSW - State Plan*, 2006).

countries federal governments do contribute to urban public transport infrastructure.[17] The recent House of Representatives report *Sustainable Cities* recommended that the Commonwealth should support provision of major urban public transport infrastructure.[18] The Commonwealth's current policy is that public transport is the responsibility of the States.[19]

Comment

5.21 Increasing walking, cycling and public transport use in cities is a worthwhile goal for a number of reasons, regardless of predictions about the oil future. If there is a long term rise in the price of oil, it will be all the more necessary.

5.22 However we should not underestimate the difficulties involved. Vast areas of post World War 2 suburbia have been designed on the assumption that most travel would be by car, and with the aim of making this easier. The effect has been to make travel in any other way more difficult, as activity centres disperse to sites distant from the public transport network, and the environment for pedestrians and cyclists is degraded by traffic. In these areas existing public transport routes do not serve many travel needs, and existing services mostly function as welfare for people without cars, with a very low proportion of total trips (less than 5%).

5.23 Turning around this situation requires better public transport services **and** supportive planning policies to shape urban development so that public transport networks can work efficiently and attract more 'choice' customers. This means, for example:

- encouraging commerce and employment to locate at strongly planned regional centres, so that public transport networks have somewhere to focus on;
- new subdivisions to be planned so that buses can be routed efficiently;
- transit-oriented development: medium density mixed-use development around public transport nodes (this will usually mean rail stations, since rail best provides the visibility and permanence needed to attract this sort of development);
- design principles to give high priority to a quality pedestrian environment.

5.24 Urban strategic planning is the responsibility of State and Territory governments. The needed initiatives involve State and local government. Most of them require regional scale planning going beyond the boundaries of any one local government area.

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17 Prof. P. Newman, *Proof Committee Hansard* 12 April 2006, p.43

18 House of Representatives Standing Committee on Environment and Heritage*, Sustainable Cities*, 2005, recommendations 6 & 7.

19 Department of Transport and Regional Services, *Auslink White Paper*, 2004, p.9

5.25 In all these matters, the aim of policy is to change people's travel behaviour at the margin. In the foreseeable future walking, cycling and public transport will continue to be unsuitable for many travel needs. The aim is to encourage them where they are suitable. A commonly stated goal is to increase the public transport mode share from 10% to 20% of trips. On the positive side, because the present public transport share is so low, only a small behavioural change by motorists would be needed to greatly increase public transport use.[20] This would make better services more viable.

Other matters: fringe benefits taxation of company cars

5.26 Many submissions argued that the concessionary tax treatment of cars as a fringe benefit should be abolished. They argued that the concession encourages the use of cars for commuting and is contrary to widely held government policy goals to promote public transport and restrain urban traffic congestion.

5.27 The concession was worth about $1.1 billion in 2004-5.[21] The tax forgone is about 43% of the tax that would be collected if the taxable fringe benefit was calculated accurately. The concession is worth, on average, about $2,300 per vehicle.[22]

5.28 The statutory formula method of calculating the tax liability, which creates the concessionary aspect, was adopted to minimise compliance costs and to support the Australian car industry, which at the time (1986) attracted significant government support and provided nearly 85% of car sales.

5.29 The Institute of Chartered Accountants in Australia (the ICAA) argues that the concessionary treatment should be ended, since:

- it undesirably distorts economic behaviour;
- as a way of assisting the Australian car industry it is poorly targeted, as now only 29% of new cars are Australian-made.

5.30 The ICAA points out that the question of minimising compliance costs is distinct from the question of whether the tax should be concessionary. A statutory formula method could be maintained for the sake of easy compliance, while the concessionary aspect could be removed by adjusting the rates.[23]

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20 For example, if car and public transport trips are now in the ratio 9 to 1, and 10% of car trips become public transport trips, this would almost double public transport use.

21 Treasury, *Tax Expenditures Statement 2005*, p.125

22 Based on about 463,000 affected vehicles in 1999-2000, the last year for which figures are available. The Institute of Chartered Accountants in Australia, *Fringe Benefits Tax - Decision Time,* 2006, p.19.

23 The Institute of Chartered Accountants in Australia, *Fringe Benefits Tax - Decision Time,* 2006, p.19.

Comment

5.31 The Committee notes that the Council of Australian Governments (COAG) in February 2006 resolved to investigate options for managing urban traffic congestion consistent with jurisdictional responsibilities.[24] The Committee suggests that this should include the Commonwealth reconsidering the policy behind the concessionary fringe benefits tax on cars.

5.32 The Committee suggests investigation of a concessionary scheme for provision of public transport access by employers, and investigation of other tax measures to discourage urban congestion.

Senator Rachel Siewert
Chair

24 COAG communique, 10 February 2006.