REFOCUSING MICROECONOMIC REFORM

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in dealing with monopolies. Thus it is argued that just as the roads are open to all, so should the railways, the transmission grids and the telecommunications network be open. There is much merit in this approach but there are cautions to be sounded. At a technical level, engineers may have different views to economists as to the technical feasibility of common usage and separation may not be as easy as it may appear.[175]

Another point is that the introduction of competition may not be stable where the investments connected to the network are large and lumpy. For example, if an electricity grid is thrown open to all comers, and there are existing generators with large spare capacity, they may undercut new entrants and competition may be short-lived.[176] An existing generator may find it quite rational to price below the replacement cost of his infrastructure: it already exists and he may as well get some revenue from it rather than none. Although this may have the same effect on would-be entrants as predatory pricing, it may not be open to legal attack as such, the motivation being commercially defensible. The net effect may be the introduction of competition is followed by a period of rationalisation. In other words, competition may destroy competition as the industry rationalises spare capacity. One preventative measure is to ensure that new users of a network can make direct bilateral contracts with customers to deliver long term supplies over the network. If that is possible new entrants can build capacity on the basis of assured sales revenues over the life of their plant rather than being exposed to the threat of predatory pricing by established players in a spot pool market.

Some Industry Case-notes on Microeconomic Reform

Because the playing field has been changing and statements about particular industries are likely to become rapidly outdated, no attempt is made here to undertake a detailed round-up of where microeconomic reform has progressed in various industries. Rather the opportunity has been taken to note how some of the themes raised earlier in this paper are echoed in various specific industries.

Water and Sewerage

The case of water and sewerage reform neatly illustrates the competing interests hidden behind the official microeconomic reform agenda. On the one hand, to the extent that public utilities are made more efficient, overmanning is reduced and excessive maintenance or investment expenditure cut back there is a real gain to the community. On the other hand, to the extent that governments no longer see the provision of essential public services as part of their budgetary function and seek to withdraw tax or rating funding in favour of user charges designed to raise

revenue, the cost burdens on Australian business and consumers may increase, with consequent adverse flow-on effects for competitiveness and wage demands.

The general thrust of the Industry Commission Report into water and sewerage provision was that these services are underpriced. The Commission recommended a shift away from land rates for the funding of these services towards user charges based on a two part tariff - a fixed availability charge and a per litre charge for consumption. There have been moves in this area, notably starting with the Hunter District Water Board in the 1980s.

The justification for this policy is that, by making more efficient use of existing infrastructure, the need for further public investment in dams and reticulation systems will be reduced. Thus EPAC has argued "In many cases, more efficient pricing or better use of capital might mitigate the need for additional investment. For example, the introduction of pricing for water in the Hunter Valley has cut demand by 30 per cent, reducing the need for extra dam facilities. It is also important that, once in place, capital is used as efficiently as possible, and that viable projects are not adversely affected by short term funding constraints."[177]

This approach ought to raise some queries. How does it improve Australia's international competitiveness to move from lump sum charges which are infra-marginal to a system of charging per litre which adds to marginal costs of production? How does Australia expand its productive capacity if infrastructure expansion is limited or deferred many years into the future and diminishing supply relative to demand leads to rising scarcity charges for an essential input to production? [178]

One feature of the water and sewerage industry is that fixed costs are large relative to variable costs. "Recurrent costs are less than 40% of total costs [in the water industry], with a significant proportion attributable to depreciation . . . this means that the scope for cost cutting to increase rates of return to levels which more accurately reflect the opportunity cost of capital is limited, particularly in the short-term. .... Increasing the level of user charges would directly impact on rates of return ... Such increases would reduce the reliance of water authorities on borrowings, and would provide greater incentives for the efficient use of scarce public sector capital."[179]

If the "economic costs" of the official reports are based on full cost recovery and replacement cost of assets then they are being overstated. **If costs are being overstated and charges are higher than marginal costs, then Australian business and agriculture may be getting the opposite of what microeconomic reform is supposed to deliver - higher not lower input costs for industry and reduced supplies of production inputs, not expanded supplies.**

From an economic point of view it is nonsense to talk about the opportunity cost of sunk capital. Once a dam has been built, the capital sunk into it cannot be taken away and redeployed elsewhere. If, for example, the dam was built with borrowed money all that is required is that sufficient revenue be raised to amortise that historic cost and pay interest charges over the life of the dam - which may be indefinite.[180] There is no *a priori* reason why a long-lived infrastructure asset which enjoys a steady demand for its services should not be financed with borrowings. There is no economic case for basing water charges on the replacement cost of the dam. Hence the urging of higher user charges may be questioned.[181]

An example frequently advanced to justify "user charges" is the celebrated case of the Hunter District Water Board which introduced user charges in 1982 which it is claimed had the benefit of deferring the Board's next major dam for 30 years (BIE, Issues in Infrastructure Pricing, 1995, p11). But what were the costs of imposing this new tax on water on the Hunter Valley in terms of employment and investment foregone, higher business costs, loss of consumer welfare etc? The overall costs to the Hunter Region of increased water charges may well exceed the "benefits" of a deferred future investment. Indeed, taken to its extreme the Hunter Region could, no doubt, increase water charges to infinity thus deferring new investment permanently. But the consequential economic collapse of the Hunter Region would hardly justify the cost!

In some cases, the price increases required to satisfy what the Industry Commission regards as efficient pricing would be considerable and impose a major cost impact on large water using industries.

What has not been closely examined is the concept of "efficient pricing". The Industry Commission appears to believe, along with the Trade Practices Commission and the Prices Surveillance Authority, that efficient pricing consists of charging so as to recover a current market rate of return on the replacement cost of all fixed assets. This needs to be questioned. Literally interpreted, it would mean that, if Australia had been settled by the Romans and aqueducts were still in use, pricing should have regard to the replacement cost of Roman aqueducts.

Infrastructure no more "owes" governments a rate of return than a stock market investment "owes" a profit to a speculator - what matters is not what something cost historically, or would cost to replace now, but how it can be made most productive now. In the case of a speculator, it may mean selling an investment at a loss and not crying over spilt milk; in the case of infrastructure, it may mean government recognising that "full cost recovery pricing" may so limit the use of the infrastructure that not only will costs not be recouped but industry and population would be driven away by a high cost of doing business or living in a region. Governments, unlike speculators, have to look at the indirect as well as the direct returns from infrastructure.

The pricing approach recommended by the Industry Commission for water and other public utilities ignores the importance of setting price equal to marginal cost in order to gain the greatest social and economic benefit from a given level of infrastructure. So long as the dams are full enough and there is no need to ration supply, then efficient pricing, in the economic sense, will have nothing to do with replacement cost of the infrastructure. **Efficient pricing, as is well known, involves setting price equal to marginal cost which, as in the case of water supply, would often be very low. Such low prices would often mean that insufficient revenue would be collected in order to turn a profit on the infrastructure. This is why such infrastructure has traditionally been provided on a loss making basis with the losses made up by rating systems designed to recapture the benefit the infrastructure adds to the land serviced by it.**[182] Such a regime for funding public works may in fact be more efficient than the average cost pricing policy apparently favoured by the Industry Commission, the Trade Practices Commission and the Prices Surveillance Authority.

A shift away from land value rating systems may, in some cases, amount to windfall gains for land holders, through the capitalisation of abolished rates, financed by the imposition of higher costs on both domestic and business users, for water and sewerage services. For example, the Industry Commission argued for imposing user charges for water supply instead of land rates. It then conceded that "Of course, commercial land prices would tend to rise if this tax on business users were eliminated."[183] In other words, the actual production of goods and services, as opposed to landholding, would gain nothing. Business and consumers would not gain: they would be subjected to new user charges and no reduction in rents.

Looked at from this point of view, questions are raised about the direction of microeconomic reform in this area. Future producers and consumers could end up not benefiting from rating abolition (the value of which would be charged as higher rents) while paying more to use infrastructure already built and, often, already paid for. Water costs could rise while supply shrinks relative to demand. Meanwhile governments charge more for supplying less.

Road and Rail

Given Australia's size, the distances between its major markets and the distances from its farms and mines to their export markets it is not surprising that "Reform of land transport infrastructure has been highlighted by business and other sectors of the community as requiring particular attention. Efficient land transport is particularly important for resource based industries, which may be located long distances from their raw materials, but affects the efficiency of all economic activities."[184]

APPENDIX

OFFICIAL RESPONSES TO QUESTIONS ON COMPETITION POLICY REFORM

(Senate Hansard 27 June 1995, p 1871-1874)

Economics Legislation Committee
Competition Policy Reform Bill 1995

Questions to be put to Treasury

1. What, if any, criteria are set out in the Bill to establish pricing guidelines for access to declared essential infrastructure where a determination is made (see s44R)?

Part IIIA, Division 3 of the Trade Practices Act, as established by the Competition Policy Reform Bill, contains provisions relating to access to declared services. Section 44R provides that determinations on access made by the Commission may deal with any matter relating to access by the third party to the service. Accordingly, a declaration may specify the terms and conditions of the third party's access to the service. Section 44S deals with restrictions on access determinations, while section 44T lists matters the Committee must take into account when making determinations including the legitimate business interests of service providers, the costs of providing access, the public interest and the interests of all persons who have rights to use the service. The Commission may also take into account any other matters that it thinks are relevant.

Division 3 does not set out specific pricing guidelines for the Commission to follow when making determinations on access. This approach reflects the fact that there is no single economic pricing model which is applicable to any infrastructure facility in all circumstances. Accordingly, a negotiated outcome agreed between the provider and the third party is seen as being desirable—such that determinations can only be made if negotiations have failed. When making a determination the Commission will take the matters specified in section 44T into account on a case by case basis being guided by the appropriate pricing model in the circumstances. An appeal against Commission determinations will be to the Australian Competition Tribunal to guard against demonstrably inappropriate pricing decisions.

2. Is it intended that access to essential infrastructure will be guided by marginal cost pricing principles or by full cost recovery through user charges?

See answer to question 1.

3. If it is intended that access to essential infrastructure be governed by full cost recovery through user charges how does that improve the efficiency of the economy given that the Industry Commission has conceded at p180 of its 1992-93 Annual Report that public utility monopoly pricing above marginal cost "is simply another form of indirect taxation"?

See answer to question 1.

The access regime contained in Part IIIA of the *Trade Practices Act* is relevant to certain services provided by both public and private facilities. The regime establishes two mechanisms for the provision of third party access:

- a process for declaration of services which provides a basis for negotiation of access on a commercial basis. This is backed up by provisions providing for compulsory arbitration if agreement cannot be reached by negotiation; and
- a procedure whereby service providers can offer undertakings which set out terms on which a provider will grant access to third parties.

In both circumstances, the intention is to achieve an outcome consistent with normal commercial practices, which seeks a return on fixed assets. The access regime will promote economic efficiency by encouraging competition in markets upstream or downstream from infrastructure facilities. Efficiency will also be encouraged through increased utilisation of infrastructure. Furthermore, these outcomes are not necessarily dependent upon short run marginal cost pricing of infrastructure. The quote from the Industry Commission 1992-93 Annual Report relates specifically to Government Business Enterprises operating in uncompetitive markets. In such markets there are limited pressures to operate efficiently and in some cases capital investments have not always been undertaken on a commercial basis.

4. Given the view expressed by the Industry Commission at p185 of its 1992-93 Annual Report that public utility dividend payments to government are too low, is the Competition Commission under any statutory duty to consider the impact of higher charges for water and other necessities of life on households?

See answer to question 1 and 3.

The Australian Competition and Consumer Commission will administer the *Prices Surveillance Act*. The *Prices Surveillance Act* (as amended by the Competition Policy Reform Bill) provides that the Commission, in exercising its powers and performing its functions under the Prices Surveillance Act, shall have particular regard to the need to discourage a person who is in a position substantially to influence a market for goods or services from taking advantage of that power in setting prices.

The Competition Principles Agreement provides that prices oversight of State and Territory Government business enterprises is primarily the

responsibility of the State or Territory that owns the enterprise. In accordance with the principles, States and Territories will consider establishing independent sources of prices oversight advice where these do not exist. The principles, among other things, provide that the prime objective of independent prices oversight advice should be one of efficient resource allocation but with regard to any explicitly identified and defined community service obligations imposed on a business enterprise by the Government or legislature of the jurisdiction that owns the enterprise.

5. What examination has Treasury undertaken of the income redistribution effects of higher charges for public utility services, for example the impact on families?

Analysis undertaken by the Industry Commission and other bodies suggests that, with the possible exception of water, utility prices will fall as a result of these reforms. These falls are unlikely to be uniform, however, across time, jurisdictions or users because of the local factors. Treasury has not undertaken an examination of the income redistribution effects of changes in charges for public utility services resulting from these reforms.

6. If as the Industry Commission has acknowledged user charges in excess of marginal costs are taxes can these taxes be rebated for Australia's export industries such as mining and agriculture without breaching the GATT subsidy code? If they cannot be so rebated on a selective basis to exporters how does imposing such taxes improve Australia's current account deficit? Will the Competition Commission be charged with the duty of preventing such indirect taxation? If not why not?

See answers to questions 1, 3 and 4.

The authority for the Commission and the State Governments to raise revenue through taxation is provided under a number of sections of the Australian Constitution. As a matter of law, the definition of whether revenue raised by governments in Australia is, or is not taxation is therefore a matter for interpretation by the High Court. The High Court has previously defined taxation as, '. . . a compulsory exaction of money by a public authority for public purposes . . . and is not a payment for services rendered.' (*Matthews v Chicory Marketing Board* (Vic) (1938) 60 CLR 263, 176 and 190). Section 53 of the Constitution also distinguishes between taxation and '. . . imposition of fines or other pecuniary penalties or fees for services'. Because access charges will be set by reference to the service provided, it seems unlikely that they could be construed as a tax.

The ACCC will not have a role in oversighting indirect taxation. However, prices charged by certain public utilities may be subject to declaration under the *Prices Surveillance Act*, as is currently the case with Australia Post.

7. If infrastructure is charged to users on a full cost recovery basis does that not amount to selectively heavier taxation of rural and regional Australia? Will the Competition Commission be charged with the duty of preventing such indirect taxation? If not why not? Is it rational to impose higher costs of living and producing in rural and regional areas of Australia at a time when concerns are being expressed about excessive metropolitan urbanisation?

See answer to questions 1, 4 and 6.

The issue of the identification and best means of funding community service obligations, including where these subsidise the cost of delivery of services in rural areas, is logically separate from access charging issues. Governments are seeking to achieve efficient delivery of both utility services and social policies expressed through community service obligations.

8. What economic theory supports a process of full cost recovery of infrastructure from users when there are external benefits for non-users, such as land holders, from infrastructure investment?

Economic theory suggests that, from a societal perspective, investment decisions can be distorted when external costs and benefits are not considered in an investment appraisal process. As such, the need for full cost recovery from infrastructure facilities needs to be considered on a case by case basis. External benefits, if any, can be taken account of by the Commission in making an access determination.

9. What advice has been received in regard to the Constitutional validity of the imposition of an open access regime on private or State owners of infrastructure (see Clause 44ZZJ)? If infrastructure is required to be made available at economically efficient marginal costs, are losses imposed on infrastructure owners which may entitle them to seek compensation from the Commonwealth? If on the other hand, the need for compensation is avoided by allowing access to infrastructure only on a full cost recovery basis, is not economic efficiency damaged by charging more than marginal cost?

The access regime in the Competition Policy Reform Bill has been developed and drafted in accordance with legal advice provided by the Attorney-General's Department, and the Government is satisfied that it is valid under the Australian Constitution.

Subsection 51(xxxi) of the Constitution provides that where the Commonwealth Parliament makes laws with respect to acquisition, it must provide for 'just terms' compensation. Accordingly, new section 44ZZJ was included in order to deal with any finding that an access determination results in an acquisition of property. It ensures that access legislation is valid by creating a liability to pay compensation. Provisions similar to section 44ZZJ appear in a number of Commonwealth Acts, and

170. While it is perfectly true that any monopoly, public or private, can charge two part tariffs, the difficulty faced by a *private* utility is that it cannot spread the fixed costs of its infrastructure over *non user beneficiaries*. For example, if residents in a street were asked whether they wished a gas main to be laid almost everyone would say yes, since whether or not they were to connect to the system, their land values would be thereby increased. Yet, the cost of putting in such a main can only be charged against those who actually connect. In this sense, a semi-government body, such a water board which can levy non user beneficiaries by way of rates, may be in a better position to avoid the free rider problem. Where a supplier faces free riders who benefit without paying, he may defer or not create infrastructure even though it would yield overall economic benefits in excess of infrastructure costs.

171. It may be objected that the existence of substantial sunk costs is no reason for subsidising any investment. That is perfectly correct. In the case of infrastructure, there are often very large sunk costs associated with the initial investment followed by low operating costs which may represent marginal costs of use. However, unlike much private investment, the provision of infrastructure, whether publicly or privately owned, generates very substantial external benefits to non users, e.g.. adjacent land holders and government revenues via increased economic activity.

The argument, therefore, is really not one of *subsidisation*, but of *recapturing the value created by the infrastructure* so that the financial return associated with its provision reflects the social benefits it is generating via increased productivity of land, labour and other capital. In some cases, of course, private providers of infrastructure may be able to recapture some of the external benefits they confer. For example, a mining company may be able to internalise all the costs and benefits associated with very substantial infrastructure e.g. a railway to the coast associated with an isolated company town. There may be other examples of value recapture e.g. where a coal mine has helped build up a community and the mining company later recaptures some of that value by selling off surplus land for home sites, as in the facts of the *Scottish Australian Mining Case.*

It is thus external benefits, not sunk costs, which are crucial to the question of whether infrastructure should be publicly funded via some kind of rating or tax revenue. There are very large sunk costs in the Ord River Dam, but it is doubtful that any levy on agricultural beneficiaries of the project would go far towards repaying those costs. However, the existence of infrastructure "white elephants" is no excuse for governments to pretend that *no* infrastructure yields broader social benefits and that they therefore should expect *all* infrastructure to pay its way on user charges *alone*. On that sort of reasoning the British Government would never have sent Captain Cook to look for Australia until he could establish someone else would pay for the voyage.

172. Economic Planning Advisory Council (1991), *Competitiveness: The Policy Environment*, EPAC Council Paper No. 47 Canberra April 1991 page 51.

173. Feldstein (1976) p 96 acknowledges a tax on unimproved land values "involves no distortion" and is clearly efficient. He suggests the reason for non-adoption is that such taxation may seem inequitable because it discriminates against individuals holding land. See also Musgrave (1959) p 158. This is an equity rather than an efficiency argument and is not relevant where the tax revenue is used to finance infrastructure which adds value to land.

174. The reason such a two-part tariff is not more widely discussed probably has to do with the fact that American writers, who dominate the literature, naturally base their writings on the institutional structure with which they are most familiar, namely the private regulated utility company without rating powers. That is, however, no reason not to explore other options.

175. Engineers may argue that trading electricity over long distances increases the instability of a system or involves excessive wastage of power. They may argue that unless there is a central generator capable of immediately plugging any outage the system is more exposed than it ought to be. The question then becomes who is to supply this public service of emergency capacity? Similarly, trains on a single track need more control than cars on a multi-lane road. To raise these issues is not to reject the approach, merely to note that it may not always be easy.

176. Thus, the *Australian Financial Review* editorial of 27 June 1995 noted the concerns that with the introduction of the national grid Pacific Power may undercut the new Victorian generating companies.

177. Economic Planning Advisory Council (1990), *The Size and Efficiency of the Public Sector*, EPAC Council Paper No 44, October 1990, page 29. Similarly, in Economic Planning Advisory Council (1992), *Managing Australia's Natural Resources*, EPAC Council Paper No. 49, Canberra, April 1992, page 30, it is stated "Some water authorities, such as the Hunter District Water Board, have moved from reliance on fixed charges, such as rates based on property values, to greater reliance on charges related to the volume of water used . . . The adoption of 'user pays' water pricing policies could delay the need for further dams and treatment works for a considerable time, or indefinitely."

178. It is not argued here that more infrastructure is desirable per se regardless of whether it yields benefits. What is being criticised is the idea that indefinite deferral and the raising of revenue through scarcity rationing is a rational economic policy, *in the absence of periodic cost benefit analysis of the desirability of expansion of the infrastructure.*

For example, there could be few better ways to drive away industry, trade and commerce from the Hunter Valley than to let water prices steadily

approach infinity. Long before that stage, augmentation of water supply should be undertaken.

Infrastructure *should* be created when the social benefits including not only user charges but the benefits of increased economic activity (increased wages, profits, rents and government revenue) outweigh the costs. In particular, as governments are major beneficiaries of the economic activity generated by infrastructure investment, it is *not* unreasonable to expect that they should help pay for it.

To defer infrastructure investment indefinitely and let the prices of essential services rise above competitive facilities in other jurisdictions is a guaranteed way of facilitating the de-industrialisation of a nation.

179. Economic Planning Advisory Council (1992), *Managing Australia's Natural Resources*, EPAC Council Paper No. 49 Canberra, April 1992, page 32.

180. Again, if the provision of infrastructure such as dams and reticulation systems adds value to the territory serviced there is a case for applying a "beneficiary pays" principle and servicing the interest and capital costs by recouping some of the increased land values by way of rates rather than solely imposing volume based user charges which affect marginal costs of production.

181. It is often implied that water charges are too low - e.g. Economic Planning Advisory Council (1992), *Managing Australia's Natural Resources*, EPAC Council Paper No. 49 Canberra, April 1992 page 34, 37 "Removal of existing cross subsidies flowing from commercial users to households would require significant tariff realignments. These would be politically and institutionally difficult to achieve.... Higher irrigation water charges that take into account the full economic and environmental costs of such supplies have the potential to increase economic efficiency and environmental amenity." Such comments beg the question of how cross subsidies are measured. If cross subsidies are being calculated on average cost pricing then the calculations may be essentially illegitimate from the point of view of economic efficiency - business, consumers and agriculture may all be being over-charged relative to marginal cost pricing.

182. It might be argued that the marginal cost of water supply may be increasing as the best sites are used first for dams, and the costs of additional dams will be greater. This argument overlooks the point that dams are irregular investments and, once created, the actual marginal cost of letting the water flow where it will is minimal. The relevant concept of marginal cost is simply the cost of supply given the existing facility.

183. Industry Commission (1992), *Water Resources and Waste Water Disposal*, Report No. 26, 17 July 1992, AGPS, Canberra, p 93, note 2.

184. Economic Planning Advisory Council (1991), *Competitiveness: The Policy Environment*, EPAC Council Paper No. 47, Canberra, April 1991, page 53 "Rail and Road Transport".